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As filed with the Securities and Exchange Commission on September 17, 2004

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

(Mark One)

☒ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☐ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED**

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM TO**

COMMISSION FILE NUMBER:

ADHEREX TECHNOLOGIES INC.

(Exact name of Registrant as specified in its charter)

Not Applicable
(Translation of Registrant's name into English)

Canada
(Jurisdiction of incorporation or organization)

2300 Englert Drive, Suite G
Research Triangle Park
Durham, North Carolina 27713
(Address of principal executive offices)

Securities registered or to be registered to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
Common Shares	**The American Stock Exchange**

Securities registered or to be registered to Section 12(g) of the Act. None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act. None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report. Not applicable

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such short period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☐ Yes ☒ No

Indicate by check mark which financial statement item the registrant has elected to follow. ☐ Item 17 ☒ Item 18

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. ☐ Yes ☐ No

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BASIS OF PRESENTATION

Unless otherwise indicated, all references in this registration statement to the "Company," "Adherex," "we," "us," "our" or similar terms refer to Adherex Technologies Inc. together with its subsidiaries.

We prepare our consolidated financial statements in accordance with generally accepted accounting principles ("GAAP") in Canada and in Canadian dollars. When we refer to "dollars," "$," "Canadian dollars," and "CAD$" in this document, we are referring to Canadian dollars, the legal currency of Canada. When we refer to "U.S. dollars" and "US$" in this document, we are referring to United States dollars, the legal currency of the United States.

When we refer to our common stock or common shares in this document, we are referring to the Common Shares of the Company.

The following words and logos are trademarks of the Company and may be registered in Canada, the United States and certain other jurisdictions: ADHEREX™; EXHERIN™. All other product names referred to in this document are the property of their respective owners.

TECHNICAL GLOSSARY

In this registration statement, unless the context otherwise requires, the following words and phrases have the meanings set forth below:

Angiolytic	Any drug or agent that is capable of disrupting or breaking up established blood vessels.
Anti-angiogenic	Any drug or agent that is capable of inhibiting the growth of new blood vessels.
Cadherins	A family of proteins located at the surface of cells that bind identical molecules on neighboring cells resulting in the process known as cell adhesion.
Cadherin Antagonist	A substance that inhibits the binding or other functions of cadherin molecules.
Cancer	A heterogeneous group of diseases characterized by the uncontrolled or aberrant growth of cells. In addition to the uncontrolled growth of tumor cells, these cells are able to invade and colonize other sites in the body; and thus by definition, these tumors are malignant.
Cell Adhesion	The physiological process whereby cells adhere to one another to form tissues, also called cell-to-cell adhesion.
Chemoenhancers	Agents that enhance the effectiveness and tumor killing properties of chemotherapeutic agents.
Chemoprotectants	Agents that protect against the side effects of chemotherapies.
Chemotherapy	Treatment of cancer with certain chemical agents.
Clinical Trial Application (CTA)	A regulatory application required by Health Canada before a clinical trial in humans can proceed.
Exherin™	A small peptide molecule that selectively targets blood vessels in cancers. This compound is an angiolytic agent.
Food and Drug Administration (FDA)	The U.S. agency responsible for regulation of pharmaceutical, biotechnology and food products.

Good Clinical Practices (GCP)	A standard for the design, conduct, performance, monitoring, auditing, recording, analyses and reporting of clinical trials that provides assurance that the data and reported results are credible and accurate, and that the rights, integrity and confidentiality of trial subjects are protected.
Good Laboratory Practices (GLP)	A set of principles that provide a framework within which laboratory studies are planned, performed, monitored, recorded, reported and archived. GLP help assure regulatory authorities that data submitted are a true reflection of the results obtained during a particular study and can, therefore, be relied upon when making risk/safety assessments.
Good Manufacturing Practices (GMP)	That part of quality assurance designed to ensure that medicinal products are consistently produced and controlled to the quality standards appropriate to their intended use and as required by their marketing authorization or product specification. GMP relates to both production and quality control.
Health Canada's Therapeutic Products Directorate (TPD)	The Government of Canada agency charged with overseeing the development and marketing of drugs in Canada.
Ifosfamide or Cyclophosphamide Induced Hemorrhagic Cystitis	Bleeding and inflammation of the urinary bladder as a consequence of treatment with ifosfamide or cyclophosphamide, two chemotherapeutic agents.
Investigational New Drug Submission (IND)	Documentation filed with U.S. government agencies responsible for evaluating and licensing pharmaceutical drugs. This documentation is necessary for the initiation of clinical trials.
Mesna	2-mercaptoethanesulfonic acid sodium salt administered with ifosfamide and cyclophosphamide. Mesna, a chemoenhancer, is a compound that has displayed anti-cancer activity by reducing the resistance of cancer cells to certain chemotherapeutic agents.
NAC	N-Acteylcysteine, an agent currently used to break up, destroy or dissolve mucin or mucus and to treat acetaminophen poisoning. NAC is being developed by Adherex as a chemoprotectant.
New Drug Application (NDA)	A submission made to the FDA for marketing authorization.
New Drug Submission (NDS)	A submission made to the TPD for marketing authorization.
Oncology	The study and treatment of cancer and tumors.
Orphan Drug Status/Designation	A category created by the FDA for medications used to treat diseases that occur rarely (less than 200,000 cases annually) or where there is no hope for recovery of development costs. Orphan Drug Status gives the recipient specific financial incentives. Orphan Drug Status and Orphan Drug Designation are controlled by the FDA's Office of Orphan Products Development.
Ototoxicity	Toxicity to the auditory systems that results in hearing loss or other vestibular damage.

Patent Cooperation Treaty (PCT)	An international patent treaty, of which Canada and the United States are signatories, whereby a single international patent application can be filed in the applicant's or inventor's home country for possible protection of intellectual property in over 100 PCT member countries.
Pharmacodynamics	The effect a drug has on its target.
Pharmacokinetics	The way a drug is distributed, metabolized and excreted from the body after dosing.
Phase I Clinical Trials	Clinical trials to evaluate a drug's safety, tolerability and pharmacokinetics that typically take approximately one year to complete and are usually conducted on a small number of healthy human subjects.
Phase Ib/II Clinical Trials	Clinical trials which combine aspects of both Phase I and Phase II clinical trials and which are designed to estimate the effectiveness of a new treatment in a select subgroup of patients, which display a specific tumor phenotype, with particular attention to safety and efficacy at differing dosage levels. As used in this document, it refers to clinical trials conducted in patients with a specific tumor molecular phenotype in which the relative effectiveness of the drug at several dosage levels will be evaluated. The trial design combines aspects of classical Phase I trials in that several dosages and schedules will be evaluated and aspects of classical Phase II trials in which larger numbers of a particular patient and tumor phenotype are studied to provide an estimate of the magnitude of effectiveness of a treatment.
Phase II Clinical Trials	Clinical trials that are conducted to provide an estimate of the magnitude of effectiveness of a treatment, and typically take one to two years to complete and are carried out on a relatively small number of patients (generally between 14 and 50 patients) in a specific setting of targeted disease or medical condition.
Phase III Clinical Trials	Randomized clinical trials that compare two or more treatment programs that typically take two to four, or even more years to complete and involve tests on a large population of patients suffering from the targeted condition or disease. These studies are generally required to establish the drug's clinical safety and effectiveness.
Platinum-based	Containing platinum, which is important for the pharmacological action of the drug.
Redox Clamping	Maintaining oxygen levels (reduction-oxidation potential) within a certain range.
Redox State	The state of oxygen levels of cells (the oxygen reduction potential).
STS	Sodium thiosulfate, an antidote agent currently used in cyanide poisoning in conjunction with sodium nitrite. STS is being developed by Adherex as a chemoprotectant.
Thrombocytopenia	A reduction of the important blood cells called platelets that can be caused by various anti-cancer therapies. Platelets are important in maintaining normal blood clotting potential.
Toxicology	The scientific determination of the relationship between the quantity of a substance and adverse side effects.
Tumor	An abnormal growth of tissue whether benign or malignant.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

A. Directors and senior management

The following table sets forth the names, position and business address of each of the directors and senior management of the Company. Each director and officer may be reached by contacting our offices at 2300 Englert Drive, Suite G, Research Triangle Park ("RTP"), Durham, North Carolina 27713.

Name	Position
William P. Peters, MD, PhD, MBA	Chief Executive Officer and Chairman of the Board of Directors
Raymond Hession	Lead Independent Director of the Board of Directors
Peter Karmanos, Jr.	Director
Donald W. Kufe, MD	Director
Fred H. Mermelstein, PhD	Director
Peter Morand, PhD	Director
Robin J. Norris, MB BS	President, Chief Operating Officer and Director
Arthur T. Porter, MD, MBA	Director
James A. Klein, Jr., CPA	Chief Financial Officer
Rajesh K. Malik, MB ChB	Chief Medical Officer
D. Scott Murray, BScPharm, LLB, MBA	Vice President, General Counsel and Corporate Secretary

B. Advisers

Our legal counsel in the United States is Palmer & Dodge LLP, 111 Huntington Avenue, Boston, Massachusetts, 02199-7613. Our legal counsel in Canada is LaBarge Weinstein LLP, 515 Legget Drive, Suite 800, Kanata, Ontario, Canada, K2K 3G4. Our principal banker is the Royal Bank of Canada, 90 Sparks Street, Ottawa, Ontario, Canada, K1P 5T6.

C. Auditor

Our auditor is PricewaterhouseCoopers LLP, Chartered Accountants, 700 – 99 Bank Street, Ottawa, Ontario, K1P 1K6. PricewaterhouseCoopers LLP has been our independent auditor for the preceding three years.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected consolidated financial data

The following tables set forth the selected consolidated financial data of the Company for the fiscal years ended June 30, 2003, 2002, 2001, 2000 and 1999 and the unaudited nine-month interim period ended March 31, 2004. We derived the data from our annual consolidated financial statements, which were audited by our independent auditor. You should read this data in conjunction with Item 5, "Operating and Financial Review and Prospects" and our consolidated financial statements and related notes thereto included in this Form 20-F.

Our consolidated financial statements included in this registration statement under Item 18, "Financial Statements" have been prepared in accordance with generally accepted accounting principles ("GAAP") in Canada. A reconciliation to U.S. GAAP is included in Note 19 to our audited consolidated financial statements. All amounts are expressed in Canadian dollars.

Selected Canadian GAAP Consolidated Statements of Operations
Canadian dollars
(In thousands, except per share data)

	Nine Months Ended March 31, 2004	Years Ended June 30,				
		2003	2002	2001	2000	1999
	(Unaudited)					
Revenue	$ —	$ —	$ —	$ —	$ —	$ —
Research and development	3,512	4,776	4,752	2,891	1,848	1,208
General and administration	2,695	2,383	1,376	1,118	528	243
Amortization of acquired intellectual property rights	2,340	1,910	—	—	—	
Total operating expenses	(8,547)	(9,069)	(6,128)	(4,009)	(2,376)	(1,451)
Other income	—	—	154	—	—	—
Interest income	132	107	333	294	12	4
Interest expense	(444)	(16)	—	—	—	—
Loss before income taxes	(8,859)	(8,978)	(5,641)	(3,715)	(2,364)	(1,447)
Recovery of future income taxes	855	698	—	—	—	—
Net loss	$ (8,004)	$ (8,280)	$ (5,641)	$ (3,715)	$ (2,364)	$ (1,447)
Net loss per share of common stock, basic and diluted	$ (0.07)	$ (0.13)	$ (0.14)	$ (0.15)	$ (0.11)	$ (0.09)
Weighted average number of shares of common stock outstanding, basic and diluted	109,621	64,601	40,164	25,458	22,392	16,003

Selected U.S. GAAP Consolidated Statements of Operations
Canadian dollars
(In thousands, except per share data)

	Nine Months Ended March 31, 2004	Years Ended June 30,		
		2003	2002	2001
	(Unaudited)			
Revenue	$ —	$ —	$ —	$ —
Research and development	3,117	4,518	4,562	2,896
In-process research and development	—	19,772	—	—
General and administration	3,173	3,054	2,009	1,616
Total operating expenses	(6,290)	(27,344)	(6,571)	(4,512)
Other income	—	—	154	—
Interest income	132	107	333	294
Interest expense	(141)	(7)	—	—
Loss before income taxes	(6,299)	(27,244)	(6,084)	(4,218)
Recovery of current income taxes	76	373	230	409
Net loss in accordance with U.S. GAAP	$ (6,223)	$ (26,871)	$ (5,854)	$ (3,809)
Net loss per share of common stock, basic and diluted	$ (0.06)	$ (0.42)	$ (0.15)	$ (0.15)
Weighted average number of shares of common stock outstanding, basic and diluted	109,621	64,601	40,164	25,458

Selected Canadian GAAP Consolidated Balance Sheet Data
Canadian dollars
(In thousands, except per share data)

	March 31, 2004	June 30, 2003	2002	2001	2000	1999
	(Unaudited)					
Cash, cash equivalents and short-term investments	$ 18,901	$ 3,198	$ 8,755	$ 14,153	$ 165	$ 129
Working capital	18,328	3,024	8,325	14,242	(65)	450
Acquired intellectual property rights	26,912	29,252	—	—	—	—
Total assets	47,277	34,563	10,338	15,824	952	1,117
Future income taxes	9,837	10,692	—	—	—	—
Liability component of convertible notes	—	1,591	—	—	—	—
Common stock	38,729	25,550	23,028	23,028	4,520	2,443
Non-redeemable preferred stock of subsidiary	1,400	—	—	—	—	—
Contributed surplus	26,240	17,410	—	—	—	—
Accumulated deficit	(30,341)	(22,337)	(13,807)	(8,166)	(4,451)	(2,087)
Shareholders' equity	$ 36,028	$ 20,623	$ 9,221	$ 14,862	$ 69	$ 356
Number of shares of common stock outstanding	152,106	80,346	40,164	40,164	23,774	21,557

Selected U.S. GAAP Consolidated Balance Sheet Data
Canadian dollars
(In thousands, except per share data)

The following consolidated balance sheet items, as presented under U.S. GAAP:

	March 31, 2004	June 30, 2003	2002	2001
	(Unaudited)			
Cash, cash equivalents and short-term investments	$ 18,901	$ 3,198	$ 8,755	$ 14,153
Working capital	18,328	3,024	8,325	14,242
Total assets	20,365	5,311	10,338	15,824
Convertible notes	—	2,707	—	—
Common stock	38,476	25,609	23,087	23,087
Non-redeemable preferred stock of subsidiary	1,400	—	—	—
Contributed surplus	26,594	16,632	307	94
Accumulated deficit	(47,517)	(41,294)	(14,173)	(8,319)
Shareholders' equity	$ 18,953	$ 947	$ 9,221	$ 14,682
Number of shares of common stock outstanding	152,106	80,346	40,164	40,164

Exchange Rates

We publish our consolidated financial statements in Canadian dollars. For convenience, this registration statement contains translations of certain Canadian dollar amounts into U.S. dollars. Unless specified otherwise, U.S. dollar amounts have been translated from Canadian dollars at the stated noon buying rate in New York City for cable transfers in Canadian dollars. The "noon buying rate" is the stated noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York. This does not mean that we have actually converted these amounts into U.S. dollars, nor that those

Canadian dollar or U.S. dollar amounts could have been, or could be, converted into U.S. dollars or Canadian dollars, as the case may be, at any particular rate, the stated rate, or at all. On August 13, 2004, the noon buying rate of the Federal Reserve Bank of New York was CAD$1.00 = US$0.7638.

The following table sets forth, for the periods indicated, information concerning these exchange rates. The table illustrates how many U.S. dollars it would take to buy one Canadian dollar at the respective rates.

Annual Exchange Rates

Years Ended June 30	Period-end rate	Average rate (1)	High	Low
		(US$ per $1.00)		
2000	0.6758	0.6790	0.6969	0.6607
2001	0.6532	0.6577	0.6831	0.6333
2002	0.6583	0.6379	0.6622	0.6200
2003	0.7376	0.6655	0.7492	0.6264
2004	0.7459	0.7365	0.7459	0.7261

(1) The yearly averages of the noon buying rates for Canadian dollars were calculated using the average noon buying rate on the last business day of each month during the relevant period.

Monthly Exchange Rates

	High	Low
	(US$ per $1.00)	
March 2004	$ 0.7645	$ 0.7418
April 2004	0.7637	0.7293
May 2004	0.7364	0.7158
June 2004	0.7459	0.7261
July 2004	0.7545	0.7505
August 2004	0.7595	0.7591

B. Capitalization and indebtedness

Canadian dollars
(Amounts in thousands, except per share data)

The following table shows our capitalization and indebtedness (i) as of June 30, 2003 on an actual basis and (ii) as of March 31, 2004 (unaudited) on an actual basis and on an as adjusted basis to reflect transactions through August 13, 2004, including:

- the completion of equity financings on May 20, 2004, in which we sold 23,347 units at a purchase price of $0.53 per unit with gross proceeds totaling $12,374 less $762 in estimated issuance costs. Each unit consists of one share of common stock and one-half of a common stock purchase warrant. Each whole warrant entitles the holder to acquire one additional share of common stock at $0.70 per share for a period of three years. The $2,902 fair value of the warrants has been allocated to contributed surplus and the balance of $8,710 has been credited to common stock; and
- the exchange on June 14, 2004 by New Generation Biotech (Equity) Fund Inc. (“New Generation”) of its interest in 2037357 Ontario Inc. for 4,000 shares of the Company’s common stock and warrants to purchase 2,000 shares of the Company’s common stock at an exercise price of $0.43 per share. See Item 4.A., “History and development of the Company.”

You should read this table in conjunction with the audited consolidated financial statements and accompanying notes, included in this registration statement.

Canadian GAAP

		Unaudited	
	June 30, 2003	March 31, 2004	March 31, 2004 (as adjusted)
Demand credit facility (1)	$ —	$ —	$ —
Liability component of convertible notes	1,591	—	—
Shareholders' equity			
Common stock (2)(3)(4)(5)	25,550	38,729	48,343
Unlimited number authorized; 80,346 issued and outstanding at June 30, 2003; 152,106 issued and outstanding at March 31, 2004 (actual); and 179,457 issued and outstanding at March 31, 2004 (as adjusted)			
Non-redeemable preferred stock of subsidiary (2)	—	1,400	—
Contributed surplus	17,410	26,240	29,639
Accumulated deficit	(22,337)	(30,341)	(30,341)
Total	$ 22,214	$ 36,028	$ 47,641

(1) The demand credit facility of $300 was available and was unused at June 30, 2003 and at March 31, 2004 (unaudited) but was subsequently closed by the Company. This credit facility is collateralized as described in note 7 of the consolidated financial statements of the Company.

(2) On December 19, 2003, we completed an equity financing totaling $21,563, consisting of (i) $20,163 for 57,609 shares of common stock and warrants to acquire 28,805 shares of common stock of the Company and (ii) $1,400 for 4,000 shares of preferred stock and warrants to purchase 2,000 shares of preferred stock of 2037357 Ontario Inc. See Item 4.A., "History and development of the Company."

(3) The amounts as of March 31, 2004 (as adjusted) do not include 62,850 shares of common stock reserved for issuance upon exercise of warrants issued to investors and brokers with a weighted average exercise price of $0.491 and an exercise price range of $0.410 to $0.717.

(4) The amounts as of March 31, 2004 (as adjusted) do not include 16,380 shares of common stock reserved for issuance upon exercise of stock options granted under our stock option plan with a weighted average exercise price of $0.493 and an exercise price range of $0.3275 to $1.50 as of August 13, 2004.

(5) Under the guidelines of the Toronto Stock Exchange, no person may hold options representing more than 5% of a company's equity on an issued and outstanding basis. From time to time, as such guidelines permit, the Company intends to grant to Dr. Peters, our Chief Executive Officer and Chairman of the Board of Directors, options to purchase 2,368 shares provided for in his employment agreement and options to purchase 1,175 shares of common stock approved for future grant by the Board of Directors on May 21, 2004. Such prospective grants are not included in the table.

C. Reasons for the offer and use of proceeds

Not applicable

D. Risk factors

An investment in our common stock should be considered highly speculative. In addition to other information in this registration statement, you should carefully consider the following factors when evaluating the Company and our business.

Risks Related to Our Business

We have a history of significant losses and have no revenues to date. If we do not generate significant revenues, we will not achieve profitability.

To date, we have been engaged primarily in research and development activities. We have no revenues to date, and we do not expect to have significant revenues until we either are able to sell our product candidates after obtaining applicable regulatory approvals or we establish collaborations that provide us with funding, such as licensing fees, milestone payments, royalties, upfront payments or otherwise. We have incurred significant operating losses every year since our inception. We experienced net losses of approximately $8.3 million for the fiscal year ended June 30, 2003, approximately $5.6 million for the fiscal year ended June 30, 2002, and approximately $3.7 million for the fiscal year ended June 30, 2001. As of March 31, 2004, we had an accumulated deficit of approximately $30.3 million. We anticipate incurring substantial additional losses over the next several years due to the need to expend substantial amounts on our continuing clinical trials and anticipated research and development activities and general and administrative expenses in support of the Company, among other factors. We have not commercially introduced any product and our product candidates are in varying early stages of development and testing. Our ability to attain profitability will depend upon our ability to develop products that are safe, effective and commercially viable, to obtain regulatory approval for the manufacture and sale of our product candidates and to license or otherwise market our product candidates successfully. We may never achieve or sustain profitability on an ongoing basis.

Our product candidates are at an early stage of development. Due to the long, expensive and unpredictable drug development process, we may never successfully develop and commercialize our product candidates.

In order to achieve profitable operations, we, alone or in collaboration with others, must successfully develop, manufacture, introduce and market our product candidates. The time necessary to achieve market success for any individual product is long and uncertain. Our product candidates and research programs are in the early stage of clinical development and require significant, time-consuming and costly research and development, testing and regulatory clearances. In developing our product candidates, we are subject to risks of failure that are inherent in the development of products and therapeutic procedures based on innovative technologies. For example, it is possible that any or all of these product candidates will be ineffective or toxic, or otherwise will fail to receive necessary regulatory clearances. There is a risk that our product candidates will be uneconomical to manufacture or market or will not achieve market acceptance. There is also a risk that third parties may hold proprietary rights that preclude us from marketing our product candidates or that others will market a superior or equivalent product.

We must conduct human clinical trials to assess our product candidates. If these trials are delayed or are unsuccessful, our development costs will significantly increase and our business prospects will suffer.

Before obtaining regulatory approvals for the commercial sale of our product candidates, we must demonstrate, through preclinical studies with animals and clinical trials with humans, that our product candidates are safe and effective for use in each target indication. To date, we have performed only limited testing on human patients, and we have only done so with some of our product candidates. Most of our testing has been conducted on animals or on human cells in a laboratory dish, and the benefits of treatment seen in animals may not ultimately be obtained in human clinical trials. As a result, we will need to perform significant additional research and development and extensive preclinical and clinical testing prior to any application for commercial use. We may suffer significant setbacks in clinical trials, and the trials may demonstrate our product candidates to be unsafe or ineffective. We may also encounter problems in our clinical trials that will cause us to delay, suspend or terminate those clinical trials, which would increase our development costs and harm our financial results and commercial prospects.

We will need additional capital to fund our operations, which may not be available at all or on acceptable terms. If we do not have or cannot raise additional funding when needed, we will not be able to develop and commercialize our product candidates successfully and we may not be able to continue operations.

We will need substantial additional funding to develop and potentially commercialize our product candidates. Since inception and through March 31, 2004, we have utilized approximately $28.0 million in cash, cash equivalents and short-term investments to fund our activities. We have not generated any revenues to date, and we expect to incur substantial expenses in connection with preclinical studies, clinical trials, regulatory review, manufacturing and potentially sales and marketing. Under our current operating plan and forecast, we believe that our existing cash, cash equivalents and capital are sufficient to fund our anticipated operations for at least the next 18 months. However, any one of the following factors, among others, could cause us to require additional funds sooner or otherwise cause our cash requirements in the future to materially increase:

- results of research and development activities;
- progress or lack of progress of our preclinical studies or clinical trials;
- our drug substance requirements to support clinical programs;
- our ability to establish corporate collaborations and licensing arrangements;
- changes in the focus, direction, or costs of our research and development programs;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims;
- competitive and technological advances;
- the potential need to develop, acquire or license new technologies and products;
- establishment of marketing and sales capabilities;
- our business development activities;
- new regulatory requirements implemented by regulatory authorities;
- the timing and outcome of the regulatory review process; or
- commercialization activities, if any.

Accordingly, we cannot guarantee that our current cash, cash equivalents and capital will be sufficient to fund operations for the period described above. In any event, after that period, we will require substantial additional funds to develop our product candidates and to otherwise meet our business objectives. Additional financing may not be available on acceptable terms when needed, if at all. If adequate funds are not available on acceptable terms when needed, we would be required to delay, scale back or eliminate one or more of our product development programs or to seek to obtain funds through arrangements with collaborative partners (or others), which arrangements may include a requirement that we relinquish rights to certain of our technologies or products or related rights that we would not otherwise relinquish. Any failure to obtain funding when and in the amounts needed would have a material adverse effect on our financial position and results of operations.

We anticipate that our near-term operations will include, among other things:

- continuing our Phase I Exherin trial in Canada at the Ottawa Cancer Center that we commenced in December 2002; initiating a further Phase I clinical trial site at the University of Texas M.D. Anderson Cancer Center in Houston, Texas by the end of October 2004; and initiating three Phase Ib/II clinical trials (see definition in Technical Glossary) in late 2004 or early 2005 in both the United States and Europe, in which we intend to assess the effects of three different dosing schedules of Exherin on tumor reduction, toxicity, pharmacodynamics and pharmocokinetics in the context of a limited intra-patient dose escalation in an aggregate of approximately 100-120 patients whose tumors are N-cadherin positive;

- initiating a prospective, randomized Phase III clinical trial on STS evaluating its effectiveness in the prevention of platinum-induced ototoxicity in pediatric patients in late 2004 or 2005;
- continuing to evaluate the commercial potential of NAC, with decisions anticipated in 2005 depending upon the results of planned revised investigator-initiated studies at OHSU;
- continuing to evaluate the commercial potential of Mesna;
- continuing to develop our preclinical pipeline of peptides and small chemical molecules;
- adding approximately ten employees by the end of 2004 and approximately ten more employees in 2005; and
- purchasing laboratory and office equipment as we continue to build our corporate presence in the United States to support the advancement of our clinical development activities.

The clinical development of Exherin will require the completion of our Phase I clinical trial and the Phase Ib/II clinical trials that we expect to initiate in late 2004 or early 2005 in both the United States and Europe, in which we intend to assess the effect of three different dosage schedules of Exherin on tumor reduction, toxicity, pharmacodynamics and pharmocokinetics in the context of a limited intra-patient dose escalation in an aggregate of approximately 100-120 patients whose tumors are N-cadherin positive. We anticipate that these studies will provide the safety information and estimates of the expected range of therapeutic effectiveness that are a pre-requisite to the design and conduct of prospective, randomized pivotal Phase III trials, which are required for submission of a New Drug Application (“NDA”) to the FDA in the United States or a New Drug Submission (“NDS”) in Canada. While we expect that our current cash reserves are adequate for the conduct of our Phase I trial and our planned Phase Ib/II trials, the costs of these trials may greatly exceed our expectations. Also, substantial additional funding will be required to conduct pivotal Phase III trials, which we would likely seek from a partnership with a large pharmaceutical or biotechnology company. Further, if the results from the Phase Ib/II trials or preclinical studies underway indicate the need to modify the development program, such as by testing in combination with chemotherapy or radiation therapy, or require modification of the development approach for reasons of efficacy or toxicity, we will incur additional costs and we may need to conduct additional Phase I or Phase Ib/II clinical trials. In general, the conduct of prospective, randomized Phase III trials require hundreds of patients to be enrolled at multiple centers. The costs of such trials are dependent upon many factors which cannot be accurately estimated at this time, including the number of patients, number of centers, duration of treatment, dose of the drug, requirements for testing and follow-up, requirements for screening to identify appropriate and eligible patients, requisite additional medical therapies or support, and other factors. Also, the costs of Phase III clinical trials will be impacted by the effectiveness of the drug in patients with different cancer types and the choice of cancer type for Phase III investigation. According to industry sources, it takes an average of 12 to 15 years to develop and obtain regulatory approval for a new drug and costs an average of approximately US$800 million, depending on the source and methodology used, to do so. At this time, we cannot estimate whether the costs for developing Exherin will be lower, the same, or greater than this. The Company will require additional funding to conduct these studies and will seek to obtain these funds via issuance of equity, through debt instruments, or through partnership with other public or private entities, or a combination of these.

An industry source estimated that it takes an average of approximately US$8 million to develop a drug with orphan drug designation. We anticipate that the costs for Adherex in developing STS may be less than this if we are able to obtain support from the U.S. federally funded cooperative group mechanism, including significant funding of clinical care costs and data management costs. If we receive anticipated levels of federal funding, we estimate that the Phase III trial for STS in the pediatric population suffering from platinum-based chemotherapy induced hearing loss will require approximately US$3 million of Adherex funding, primarily for costs associated with drug production and distribution, quality control, laboratory testing, data management, analysis and reporting. We may not receive the federal funding and support that we anticipate, and the cost of developing STS may greatly exceed our expectations and averages.

If we do not enter into new collaborations with other companies, we may not successfully develop our product candidates or generate sufficient revenues to expand our business.

We currently have scientific and research collaboration arrangements with academic institutions, including McGill University ("McGill"), Rutgers, The State University of New Jersey ("Rutgers") and Oregon Health & Science University ("OHSU") as follows:

- We have a 27-year, exclusive worldwide license from McGill to develop, use and market certain cell adhesion technology and compounds, including Exherin. We are obligated to fund certain mutually agreed upon research at McGill over a period of ten years totaling $3.3 million and to make payments of up to $0.3 million to McGill if we fail to meet certain milestones. We must also pay royalties of up to 2% of any gross revenue from the sale of licensed compounds.
- Through our acquisition of Oxiquant, we acquired an exclusive worldwide license with Rutgers to develop, use and market cancer products using the licensed patent rights relating to Mesna. We are required to pay Rutgers up to US$675,000 upon the achievement of certain clinical development and regulatory milestones; an annual license fee of US$15,000 in 2004, increasing by US$5,000 in each of 2005 and 2006 and to US$50,000 thereafter; running royalties of 4% of any net sales of any licensed products; and a 20% non-running royalty on any sublicense of the licensed technology.
- Though our acquisition of Oxiquant, we acquired an exclusive worldwide license with OHSU to develop, use and market cancer products using the licensed intellectual property relating to thiol-based compounds. Under the license agreement with OHSU, we are required to pay OHSU up to US$1.0 million upon the achievement of certain clinical development and sales milestones; a 2.5% royalty on net sales of any licensed products; and a 15% royalty on any sublicense of the licensed technology.

The agreements with McGill, Rutgers and OHSU are terminable by either party in the event of an uncured breach by the other party. We may also terminate our agreement with McGill after September 2006 and our agreements with Rutgers and OHSU at any time upon prior written notice of specified durations to the licensor. To date, we and our collaborators have performed our respective obligations under the terms of the agreements. However, our collaborators may not perform as agreed in the future or may terminate our agreement if we fail to carry out our obligations.

The success of our business strategy will be dependent on our ability to enter into collaborations with other industry participants that advance the development and clinical testing of, regulatory approval for and commercialization of our product candidates, as well as collaborations that provide us with funding, such as licensing fees, milestone payments, royalties, upfront payments or otherwise. We may not be successful in establishing any further collaborations, and any collaborations we do establish may not lead to the successful development of our product candidates.

Since we conduct a significant portion of our early stage research and development through collaborations, our success may depend significantly on the performance of such collaborators, as well as any future collaborators. Any future collaborators may not commit sufficient resources to the research and development or commercialization of our product candidates. Economic or technological advantages of products being developed by others may lead our collaborators to pursue other product candidates or technologies in preference to those being developed in collaboration with us. The commercial potential of, development stage of and projected resources required to develop our drug candidates will also affect our ability to partner with or obtain new collaborators. There is a risk of dispute with respect to ownership of technology developed under any collaboration. Our management of any collaboration will require significant time and effort as well as an effective allocation of resources. We may not be able to simultaneously manage a large number of collaborations.

In addition to our collaborations, we also have entered into a standard form screening agreement with the U.S. National Cancer Institute ("NCI"), under which the NCI screens and tests compounds supplied by us from our preclinical pipeline for anti-cancer qualities useful to cancer chemotherapy at no cost to us. NCI has no obligations to continue to perform this screening work for us and may terminate this agreement at any time, as

may we. In the event that we or the NCI terminate the screening agreement, we may fund the screening of some or all of the compounds currently being tested by the NCI or seek a corporate partner to conduct the screening work for us, which would result in increased costs for us.

If we do not expand our corporate management infrastructure and staffing, we may not have the resources to accomplish our business goals.

It is unlikely that our current corporate management infrastructure and staffing will be adequate to support our current business goals and objectives. Future growth, including the development of our facilities in RTP, will impose significant additional responsibilities on members of our senior management. There is intense competition for qualified personnel in our industry, and our success will depend on our ability to identify, attract and retain qualified individuals. To the extent that we are unable to manage our growth effectively or are unable to attract and retain additional qualified individuals, we may not be able to successfully accomplish our business objectives.

If we lose our key personnel or are unable to attract and retain additional personnel, we may be unable to effectively manage our business and successfully develop our product candidates.

Our success depends upon certain key personnel, in particular William P. Peters, MD, PhD, MBA, our Chief Executive Officer and Chairman of the Board of Directors, the loss of whose services might significantly delay or prevent the achievement of our scientific or business objectives. We have entered into an employment agreement with Dr. Peters that has an initial term that ends on March 12, 2008. If we terminate Dr. Peters without “cause,” or if Dr. Peters terminates his employment for Good Reason or a Change of Control (as such terms are defined in the agreement), we are obligated to pay Dr. Peters severance compensation equal to 24 months salary and certain other benefits. Although we have entered into employment agreements with each of our key personnel, we cannot be certain that any individual will continue in such capacity for any particular period of time. The loss of key personnel, or the inability to hire and retain qualified employees, could negatively affect our ability to manage our business. We do not currently carry key person life insurance.

If our licenses to proprietary technology owned by others are terminated or expire, we may suffer increased development costs and delays, and we may not be able to successfully develop our product candidates.

The development of our drug candidates and the manufacture and sale of any products that we develop will involve the use of processes, products and information, some of the rights to which are owned by others. A number of our product candidates are licensed under agreements with McGill, Rutgers or OHSU. Although we have obtained licenses or rights with regard to the use of certain processes, products and information, the licenses or rights could be terminated or expire during critical periods and we may not be able to obtain, on favorable terms or at all, licenses or other rights that are required. Some of these licenses provide for limited periods of exclusivity that may be extended only with the consent of the licensor, which may not be granted.

If we are unable to adequately protect our patents and licenses related to our product candidates, or we infringe upon the intellectual property rights of others, we may not be able to successfully develop and commercialize our product candidates.

The value of our technology will depend in part upon our ability, and that of our collaborators, to obtain patent protection or licenses to patents, maintain trade secret protection and operate without infringing on the rights of third parties. We have filed numerous applications for patents in the United States and other jurisdictions. Although we have successfully pursued patent applications in the past, it is possible that:

- some or all of our pending patent applications, or those we have licensed, may not be allowed;
- proprietary products or processes that we develop in the future may not be patentable;
- any issued patents (that we own or license) may not provide us with any competitive advantages or may be successfully challenged by third parties; or

- the patents of others may have an adverse effect on our ability to do business.

It is not possible for us to be certain that we are the original and first creator of inventions encompassed by our pending patent applications (or those we have licensed) or that we were the first to file patent applications for any such inventions. Further, any of our patents (or those we license), once issued, may be declared by a court to be invalid or unenforceable.

In order to obtain further patent protection, we may file additional patent applications relating to novel processes for manufacturing, delivery, use, new formulations or other aspects of our product candidates. While we intend to file, when appropriate, patent applications with respect to inventions, patents may not ultimately be issued or, if issued, they may be of little or no commercial value. In addition, it is impossible to anticipate the breadth or degree of protection that patents will afford products developed by us or the underlying technology. We also cannot guarantee that any patents issued covering such products or any patents licensed to us will not be successfully challenged or that our product candidates will not infringe the patents of third parties.

Patent applications relating to or affecting our business have been filed by a number of pharmaceutical and biopharmaceutical companies and academic institutions. The scope and validity of patents that may be obtained by third parties are unknown. A number of these patent applications, or the related technologies, may conflict with our technologies or patent applications, which could reduce the scope of patent protection that could otherwise be obtained or even lead to refusal of our patent applications.

We may be required to obtain licenses under patents or other proprietary rights of third parties but the extent to which we may wish or need to do so is unknown. Any such licenses may not be available on terms acceptable to us or at all. If such licenses are obtained, it is likely they would be royalty bearing, which would reduce our income. If licenses cannot be obtained on an economical basis, we could suffer delays in market introduction of planned products or their introduction could be prevented, in some cases after the expenditure of substantial funds. If we do not obtain such licenses, we may have to design around patents of third parties, potentially causing increased costs and delays in product development and introduction or precluding us from developing, manufacturing, or selling our planned products. Alternatively, we could find that the development, manufacture or sale of products requiring such licenses could be foreclosed.

Litigation may also be necessary to enforce or defend patents issued or licensed to us or our collaborators or to determine the scope and validity of a third party's proprietary rights. We could incur substantial costs if litigation is required to defend ourselves in patent suits brought by third parties, if we participate in patent suits brought against or initiated by our collaborators, or if we initiate such suits. We may not prevail in any such action. An adverse outcome in litigation or an interference to determine priority or other proceeding in a court or patent office could subject us to significant liabilities, require disputed rights to be licensed from other parties or require us or our collaborators to cease using certain technology or products. Any of these events would likely have a material adverse effect on our business, financial condition and results of operations.

In February 2004, we filed a claim in the Ontario Superior Court of Justice against Cadherin Biomedical Inc. ("CBI") in the amount of $124,000 on account of unpaid goods and services rendered. In July 2004, CBI filed a statement of defence and counterclaim in response to such claim. CBI's counterclaim seeks $5.0 million in damages in relation to the license agreement between the parties. We believe that the counterclaim is without merit. Later in July 2004, we entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex to be incorporated under the CBCA for this purpose. Completion of the transaction is subject to CBI shareholder approval, agreement by the parties on definitive amalgamation documentation and other customary closing conditions. We expect the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. If the transaction is completed, it will provide Adherex with the rights to the non-cancer applications relating to the cadherin technology and serve as a settlement of the claim commenced by us against CBI in February 2004 and the counterclaim filed by CBI against us in July 2004. Pending completion of the transaction, the parties have agreed to hold in abeyance all

matters in relation to the claim and counterclaim between the parties. If the transaction is not completed as anticipated, we intend to pursue our claim against CBI and take all appropriate action to defend CBI's counterclaim. The lawsuit with CBI relates to its September 2002 license agreement with us, pursuant to which we licensed non-cancer applications based on or derived from our platform cadherin technology owned or licensed under our collaboration with McGill. See Item 4.B., "Information on the Company—Business overview—Corporate Relationships." If the amalgamation transaction is not completed as anticipated, we could potentially face future product development concerns, depending upon any future development activities by CBI, if both we and CBI were to develop the same or closely-related compounds for different indications. For example, CBI could potentially encounter tolerability or toxicology issues, or utilize different manufacturing standards, while developing a compound that could potentially impact our development of the same or a similar compound for a different indication. Other than the litigation with CBI, to date, we have not been the subject of any threatened litigation, court challenge, legal action or negotiation related to such actions with respect to patent issues. See Item 4.A., "Information on the Company—History and development of the Company."

Much of our technological know-how that is not patentable may constitute trade secrets. Therefore, we require our employees, consultants, advisors and collaborators to enter into confidentiality agreements. However, such agreements may not provide for meaningful protection of our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure of information. To date, we have not experienced significant problems safeguarding our confidential and proprietary information. In addition, others may independently develop or obtain similar technology and may be able to market competing products and obtain regulatory approval through a showing of equivalency to our product that has obtained regulatory approvals, without being required to undertake the same lengthy and expensive clinical studies that we would have already completed.

The vulnerability to off-label use or sale of our product candidates that are covered only by "method of use" patents may cause downward pricing pressure on these product candidates if they are ever commercialized and may make it more difficult for us to enter into collaboration or partnering arrangements for the development of these product candidates.

Some of our product candidates, including STS, NAC and Mesna, are currently only covered by "method of use" patents, which cover the use of certain compounds to treat specific conditions, and not by "composition of matter" patents, which would cover the chemical composition of the compound. Method of use patents provide less protection than composition of matter patents because of the possibility of off-label uses if other companies develop or market the compound for other uses. If another company markets a drug that we expect to market under the protection of a method of use patent, physicians may prescribe the other company's drug for use in the indication for which we may obtain approval, even if the other company's drug is not approved for such an indication. Off-label use and sales could exert pricing pressure on any products we develop covered only by method of use patents. Also, it may be more difficult to find a collaborator to license or support the development of our product candidates that are only covered by method of use patents.

If our third party manufacturers breach or terminate their agreements with us, or if we are unable to secure arrangements with third party manufacturers on acceptable terms as needed in the future, we may suffer significant delays and additional costs.

We have no experience manufacturing products and do not currently have the resources to manufacture any products that we may develop. We currently have agreements with three contract manufacturers for Exherin, including two drug substance providers and one drug product supplier for our clinical trials. We currently have an agreement with a third party to manufacture STS for our clinical trials. To date, our contract manufacturers have performed their obligations under the terms of our agreements with them, but they may not perform as agreed in the future or may terminate our agreement with them before the end of the required term. While we anticipate being able to replace our current third-party manufacturers, significant additional time and costs would be required to effect a transition to a new manufacturer.

We will continue to rely on contract manufacturers for the foreseeable future to produce quantities of products and substances necessary for research and development, preclinical trials, human clinical trials and product commercialization, and to perform their obligations in a timely manner and in accordance with applicable government regulations. If we develop any products with commercial potential, we will need to develop the facilities to independently manufacture such products or secure arrangements with third parties to manufacture them. We may not be able to independently develop manufacturing capabilities or even obtain favorable terms for the manufacture of our products. While we intend to contract for the commercial manufacture of our product candidates, we may not be able to identify and qualify contractors or obtain favorable contracting terms. We or our contract manufacturers may also fail to meet required manufacturing standards, which could result in delays or failures in product delivery, increased costs, injury or death to patients, product recalls or withdrawals and other problems that could significantly hurt our business. We intend to maintain a second source for back-up commercial manufacturing, wherever feasible. However, if a replacement to our future internal or contract manufacturers were required, the ability to establish second-sourcing or find a replacement manufacturer may be difficult due to the lead times generally required to manufacture drugs and the need for FDA compliance inspections and approvals of any replacement manufacturer, all of which factors could result in production delays and additional commercialization costs. Such lead times would vary based on the situation, but might be 12 months or longer.

We lack the resources necessary to effectively market our product candidates, and we may need to rely on third parties over whom we have little or no control and who may not perform as expected.

To date, we do not have the necessary resources to market our product candidates. If we develop any products with commercial potential, we will either have to develop a marketing capability, including a sales force, or attempt to enter into a collaboration, merger, joint venture, license or other arrangement with third parties to provide a substantial portion of the financial and other resources needed to market such products. We may not be able to do so on acceptable terms, if at all. If we rely extensively on third parties to market our products, the commercial success of such products may be largely outside of our control.

We will likely face foreign currency exchange risks which may expose us to increased costs and decreased revenue.

Historically, our functional currency has been the Canadian dollar. However, we have moved our executive officers and are in the process of moving our development activities to the United States. We may face exposure to adverse movements in foreign currency exchange rates when our product candidates are commercialized, if at all. We expect that any products we may develop would generate international revenues and expenses, denominated in U.S., Canadian and other currencies. In such an event, we will likely face differing tax structures, foreign regulations and restrictions, and general foreign exchange rate volatility. To date, we have not instituted a hedging program against the risks associated with foreign exchange exposure. We may implement hedging techniques in the future, which may not be successful. To date, we have experienced no significant negative consequences resulting from fluctuations in foreign currency exchange rates.

As we expand the size of our organization, we may experience difficulties in effectively managing our growth, which could adversely impact our business.

Our future growth, including the ongoing relocation of our development activities to RTP, will strain our management, human, operational, financial and other resources. Currently, we have 21 full-time employees. We intend to add approximately ten employees by the end of 2004, and we expect 75% of them to be involved in research and development activities and 25% to be engaged in administration. In order to manage our future growth effectively, we will have to implement and improve operational, financial, manufacturing and management information systems and to expand, train, manage and motivate our employees. These demands may require the addition of new management personnel.

Risks Related to Our Industry

If we are unable to obtain applicable U.S. and/or foreign regulatory approvals, we will be unable to develop and commercialize our drug candidates.

The preclinical studies and clinical trials of our product candidates, as well as the manufacturing, labeling, sale and distribution, export or import, marketing, advertising and promotion of our product candidates are subject to various regulatory frameworks in the United States, Canada and other countries. In the United States, our product candidates are regulated by federal, state and local governmental authorities, including the FDA. In Canada, our product candidates are regulated by federal, provincial and local governmental authorities, including the Health Products and Food Branch of Health Canada. Any products that we develop must receive all relevant regulatory approvals and clearances before any marketing, sale or distribution. The regulatory process, which includes extensive preclinical studies and clinical testing to establish product safety and efficacy, can take many years and cost substantial amounts of money. According to industry sources, it takes an average of 12 to 15 years to develop and obtain regulatory approval for a new drug and costs an average of approximately US$800 million, depending on the source and methodology used, to do so. An industry source estimated that it takes an average of approximately US$8 million to develop a drug with Orphan Drug Designation. As a result of the length of time, many challenges and costs associated with the drug development process, the historical rate of failures for drug candidates is extremely high. According to one industry source, one-thousandth of drug candidates entering preclinical studies reach human testing, and one-fifth of candidates tested on humans are approved. Varying interpretations of the data obtained from studies and tests could delay, limit or prevent regulatory approval or clearance. Changes in regulatory policy could also cause delays or affect regulatory approval. Any regulatory delays may increase our development costs and negatively impact our competitiveness and prospects. It is possible that we may not be able to obtain regulatory approval of any of our drug candidates and any approvals may take longer and cost more to obtain than expected.

We are currently conducting Phase I clinical trials on Exherin in Canada at the Ottawa Cancer Center, and we intend to initiate a further Phase I clinical trial site at the University of Texas M.D. Anderson Cancer Center in Houston, Texas by the end of October 2004. We intend to initiate three Phase Ib/II clinical trials on Exherin in late 2004 or early 2005 in both the United States and Europe, in which we intend to assess the effects of three different dosing schedules of Exherin on tumor reduction, toxicity, pharmacodynamics and pharmocokinetics in the context of a limited intra-patient dose escalation in an aggregate of approximately 100-120 patients whose tumors are N-cadherin positive. Investigators at OHSU have conducted Phase I and Phase II clinical studies with STS that have shown that STS substantially reduces the hearing loss associated with platinum-based chemotherapy. We intend to continue the development of STS and plan to conduct a Phase III trial to assess the prevention of platinum induced ototoxicity in pediatric patients, for which we have received Orphan Drug Designation in the United States from the FDA. We have licensed certain intellectual property rights from OHSU that support the use of NAC for various indications, including preventative therapy against chemotherapeutic-induced platelet loss. OHSU is planning to initiate a revised Phase I clinical trial in the United States on the use of NAC as a bone marrow protectant in the context of platinum-based chemotherapy under an investigator IND. Upon the completion of this planned study, we will re-evaluate the market potential of NAC. We have licensed worldwide intellectual property rights from Rutgers for certain methods of using Mesna as a chemoenhancer by preventing changes in the redox state of cancer cells, and investigators in Argentina, independently from the Company, have completed a Phase I trial for this indication in Mesna. We are evaluating Mesna, but believe it is necessary to repeat the findings of the Argentinean clinical trial prior to further developing this product candidate.

Regulatory approvals, if granted, may entail limitations on the uses for which any products we develop may be marketed, limiting the potential sales for any such products. The granting of product approvals can be withdrawn at any time, and manufacturers of approved products are subject to regular reviews, including for compliance with GMP. Failure to comply with any applicable regulatory requirement, which may change from time to time, can result in warning letters, fines, sanctions, penalties, recalling or seizing products, suspension of production, or even criminal prosecution.

Future sales of our product candidates may suffer if they fail to achieve market acceptance.

Even if our product candidates are successfully developed and achieve appropriate regulatory approval, they may not enjoy commercial acceptance or success. Product candidates may compete with a number of new and traditional drugs and therapies developed by major pharmaceutical and biotechnology companies. Market acceptance is dependent on product candidates demonstrating clinical efficacy and safety, as well as demonstrating advantages over alternative treatment methods. In addition, market acceptance is influenced by government reimbursement policies and the ability of third parties to pay for such products. Physicians, patients, the medical community or patients may not accept or utilize any products we may develop.

We face a strong competitive environment. Other companies may develop or commercialize more effective or cheaper products before we do, which may reduce or eliminate the demand for our product candidates.

The biotechnology and pharmaceutical industry, and in particular the field of cancer therapeutics, is very competitive. Many companies and research organizations are engaged in the research, development and testing of new cancer therapies or means of increasing the effectiveness of existing therapies, including, among many others, OXiGENE, Inc., Aventis, Bristol-Myers Squibb Company, Pfizer, Inc., AstraZeneca PLC, Amgen, Inc., Genentech, Inc., NeoPharm, Inc., Bayer AG, EntreMed Inc., Johnson & Johnson, Peregrine Pharmaceuticals, Inc. and Novartis AG.

We are aware of at least three companies, AstraZeneca, Aventis and OXiGENE, that are clinically developing cancer angiolytics, which we view as our primary competitors. Their product candidates are tubulin depolymerizing agents. When administered they destroy the scaffold-like structure that supports the lining cells (endothelial cells) of blood vessels, causing the endothelial cells to round, cutting off blood flow through the blood vessel. They thus cut off a tumor's blood supply and lead to tumor cell death. Some other angiolytic agents are in preclinical development, including antibodies to tumor blood vessel wall components and agents linked with liposomal cytotoxic agents, but little information about these agents is publicly available at this time. These competing angiolytics work in a very different way than Exherin and, to our knowledge, we are the only company approaching tumor angiolysis from the perspective of peptide inhibitor-based cadherin antagonism, or the disruption of tumor blood vessels by inhibiting the proteins that hold the blood vessels together. Tumor angiolysis is an emerging field, and our competitors' tubulin depolymerizing agents, like our drug candidates, are in early stages of clinical development. To our knowledge, no angiolytic products have completed Phase II and entered Phase III development to date. Accordingly, it is premature to speculate on the potential advantages and disadvantages of different angioloytic agents because the efficacy and tolerability profiles of these agents are not yet available in the public domain. However, our competitors may achieve regulatory approval for their drug candidates sooner than we do, and their drugs may be more competitive than ours.

Anti-angiogenic compounds, which aim to prevent the growth of new tumor vessels, may compete with angiolytic compounds like Exherin, but they may also be complementary. It may be useful to consider the use of anti-angiogenic agents in sequential therapy with angiolytic agents as a way to initially destroy existing tumor vessels and subsequently prevent new tumor blood vessel growth.

We are not aware of any commercially available agents that prevent or treat the hearing loss associated with the use of platinum-based anti-cancer agents, for which purpose we are attempting to develop STS. We are aware of one company, Sound Pharmaceuticals, Inc., that is developing agents for noise and age related hearing loss. We are also aware of research relating to the use of high dose amifostine for the protection of hearing in connection with platinum-based chemotherapy. Cochlear implants are utilized to offer some relief, and other companies may seek to develop such agents in the future.

We are developing NAC for the prevention of platelet loss during chemotherapy. There are drugs approved or in clinical development for the prevention or treatment of thrombocytopenia, including Wyeth's Neumega® and Amgen Inc.'s AMG 531. Also, platelet transfusions are a common practice, and other companies may attempt to develop platelet protectants in the future to decrease the need for platelet transfusions.

Many chemotherapeutic agents are currently available and numerous others are being developed. Any chemotherapeutic products that we are able to develop with Mesna may not be able to compete effectively with existing or future chemotherapeutic agents. Cancer therapy often involves combination of therapeutic agents including chemotherapy, radiation therapy, antibodies or other immunotherapy, and biologics. It is too early to determine whether any of these agents may, in combination, enhance or inhibit the effectiveness of any drugs that we develop. The use of these agents in combination may alter the therapeutic, pharmacologic or toxicity profile and significantly alter the ultimate commercial value of our drug candidates.

Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market products. In addition, many of these competitors have extensive experience with preclinical testing and human clinical trials and in obtaining regulatory approvals. Also, some of the smaller companies that compete with us have formed collaborative relationships with large, established companies to support the research, development, clinical trials and commercialization of any products that they may develop. To date, we have not entered into any such commercialization collaborations. Academic institutions, government agencies and other public and private research organizations may also conduct research, seek patent protection and establish collaborative arrangements for research, clinical development and marketing of products similar to those we seek to develop. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring technologies complementary to our projects.

We are likely to face competition in the areas of product efficacy and safety, ease of use and adaptability, as well as pricing, product acceptance, regulatory approvals and intellectual property. Competitors could develop more effective, safer and more affordable products than we do, and they may obtain patent protection or product commercialization before we do or even render our product candidates obsolete.

We may face product liability claims that could require us to defend costly lawsuits or incur substantial liabilities that could adversely impact our receipt of regulatory approvals for our product candidates.

The use of our product candidates in clinical trials and for commercial applications, if any, may expose us to liability claims in the event that such product candidates cause injury or disease or result in other adverse effects. These claims could be made by health care institutions, contract laboratories, patients or others using our product candidates. We carry clinical trial insurance with a policy limit of US$3.0 million, but the coverage may not be sufficient to protect us from liabilities we might incur. In addition, our existing coverage will not be adequate if we further develop products, and future coverage may not be available in sufficient amounts or at reasonable cost. Adverse liability claims may also harm our ability to obtain or maintain regulatory approvals.

We use hazardous material and chemicals in our research and development, and our failure to comply with laws related to hazardous materials could materially harm us.

Our research and development processes involve the controlled use of hazardous materials, such as flammable organic solvents, corrosive acids, and corrosive bases. Accordingly, we are subject to federal, state, local and foreign laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. While we believe that safety procedures for handling and disposing of such materials will comply with the standards prescribed by federal, state, local and/or foreign regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources and may not be covered by our general liability insurance, which carries a policy limit of US$2.0 million. In addition, we have a US$4.0 million umbrella policy. We currently do not carry insurance specifically for hazardous materials claims. We may be required to incur significant costs to comply with environmental laws and regulations, which may change from time to time. To date, we have not been the subject of any environmental investigation by governmental authorities.

Efforts to reduce product pricing and health care reimbursement and changes to government policies could negatively affect the commercialization of our product candidates.

If any of our product candidates achieves regulatory approval, we may be materially adversely affected by the continuing efforts of governmental and third party payors to contain or reduce health care costs. For example, if we succeed in bringing one or more products to market, such products may not be considered cost effective and the availability of consumer reimbursement may not exist or be sufficient to allow the sale of such products on a competitive basis. The constraints on pricing and availability of competitive products may further limit our pricing and reimbursement policies as well as adversely effect market acceptance and commercialization for the products.

In certain foreign markets the pricing or profitability of healthcare products is subject to government control. In recent years, federal, state, provincial and local officials and legislators have proposed or are proposing a variety of price-based reforms to the healthcare systems in the United States and Canada. Some proposals include measures that would limit or eliminate payments from third party payors to the consumer for certain medical procedures and treatments or allow government control of pharmaceutical pricing. The adoption of any such proposals or reforms could adversely affect the commercial viability of our product candidates.

Any significant changes in the healthcare system in the United States and Canada and abroad would likely have a substantial impact on the manner in which we conduct business and could have a material adverse effect on our ability to raise capital and the viability of product commercialization.

Risks Related to Our Common Stock

We are a passive foreign investment company under U.S. tax law, which has adverse tax consequences for our U.S. Shareholders.

We have determined that we are currently a passive foreign investment company, or PFIC, under U.S. tax law and likely will continue to be a PFIC at least until we develop a source of significant operating revenues. As a result, there are adverse tax consequences to U.S. holders of shares of our common stock. A number of mitigating elections may be available to U.S. holders. Absent one of these elections, a U.S. holder whose holding period for our shares includes a period during which we are classified as a PFIC generally will be required to treat certain excess distributions with respect to our shares and gains realized on the disposition of our shares as ordinary income earned ratably over the holder’s holding period and will be subject to a special tax and interest charge on amounts treated as earned in the periods in which we are a PFIC. In addition, the holder’s shares will not receive a “stepped-up” basis upon a transfer at death. These PFIC tax rules will not apply if a U.S. holder makes an election for the first taxable year of the holder’s holding period to be taxed currently on the holder’s pro rata share of our ordinary earnings and net capital gain for any year we are a PFIC. Alternatively, a U.S. holder may avoid the special tax and interest charge on excess distributions and gains by making an election to mark the shares to market annually during any period in which we are a PFIC and our shares are treated as marketable shares. If a mark-to-market election is made, amounts included in or deducted from income pursuant to the election and actual gains and losses realized upon disposition generally will be treated as ordinary gains or losses. Whether or not an applicable election is made, if we are classified as a PFIC for the taxable year in which a dividend is paid, or for the preceding taxable year, a dividend paid to a non-corporate U.S. holder will not qualify for the reduced long-term capital gains rates. See Item 10.E., “Taxation—Passive Foreign Investment Company Rules.”

The market price of our common stock is highly volatile and could cause the value of your investment to significantly decline.

Historically, the market price of our common stock has been highly volatile and the market for our common stock has from time to time experienced significant price and volume fluctuations, some of which are unrelated to our operating performance. From July 1, 2002 to August 31, 2004, the trading price of our stock has fluctuated

from a high closing price of $0.79 per share to a low closing price of $0.30 per share, as reported by the Toronto Stock Exchange. Historically, our common stock has had a low trading volume, and likely will continue to have a low trading volume in the future. This low volume may contribute to the volatility of the market price of our common stock. It is likely that the market price of our common stock will continue to fluctuate significantly in the future.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Registration Statement on Form 20-F contains forward-looking statements that involve substantial risks and uncertainties. Words such as “may,” “except,” “believe,” “anticipate,” “intend,” “could,” “estimate,” “continue,” “project,” “plan,” or other similar words are intended to identify forward-looking statements. Forward-looking statements in this Registration Statement include, but are not limited to, statements with respect to (i) our anticipated commencement dates, completion dates and results of clinical trials; (ii) goals and anticipated progress in and costs of our clinical trials and research and development and preclinical programs; (iii) our strategies and goals; (iv) our expected results of operations; (v) our anticipated levels of expenditures; (vi) our ability to protect our intellectual property; (vii) our efforts to obtain Orphan Drug, Fast Track and Priority Review Designations for certain product candidates; (viii) the anticipated applications of our drug candidates; (ix) our efforts to pursue collaborations with other companies; (x) the nature and scope of potential markets; (xi) our liquidity; our anticipated sources and uses of liquidity; (xii) our relationship with, litigation with and anticipated amalgamation of CBI; and (xiii) our possible efforts to seek additional financings. We include forward-looking statements because we believe that it is important to communicate our expectations to our investors. However, all forward-looking statements are based on management’s present expectations of future events and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. There are many factors including those discussed above in Item 3.D., “Risk Factors,” that could cause actual results to differ materially from those described in the forward-looking statements. Although we believe the expectations reflected in the forward-looking statements are based upon reasonable assumptions, we can give no assurance that our expectations will be attained and we caution you not to place undue reliance on such statements. All forward-looking statements speak only of the date of this registration statement and we undertake no duty to update or alter any such statements, whether as a result of new information, future events or otherwise.

ITEM 4. INFORMATION ON THE COMPANY

A. History and development of the Company

Our legal and commercial name is Adherex Technologies Inc. On September 3, 1996, our predecessor, Adherex Inc., was incorporated under the *Canada Business Corporations Act* (“CBCA”) to develop and commercialize cell adhesion work that was initiated at McGill. On August 14, 1998, Adherex Technologies Inc. was incorporated under the CBCA and on September 11, 1998, it acquired all of the shares of Adherex Inc. On April 30, 2001, Adherex Technologies Inc. amalgamated with its wholly owned subsidiary, Adherex Inc., to form the Company. We have two wholly-owned subsidiaries, Oxiquant, Inc. and Adherex, Inc., both incorporated under the laws of Delaware. Our registered office address is: Adherex Technologies Inc., c/o LaBarge Weinstein LLP, 515 Legget Drive, Suite 800, Kanata, Ontario K2K 3G4; Telephone: (613) 599-9600; Facsimile: (613) 599-0018. Our U.S. offices are at 2300 Englert Drive, Suite G, Research Triangle Park, Durham, North Carolina 27713; Telephone: (919) 484-8484; Facsimile: (919) 484-8001.

Important corporate events in the development of our business include the following (all amounts are in Canadian dollars):

- On June 5, 2001, we completed an initial public offering, issuing 6,667,000 shares of common stock at a price of $1.50 per share, and listing on the Toronto Stock Exchange under the symbol AHX. Net proceeds of the offering credited to common stock amounted to $8,720,000.

- On September 27, 2002, CBI was incorporated as a wholly-owned subsidiary of Adherex. We granted CBI an exclusive worldwide, royalty-free license to develop, market and distribute pharmaceuticals and therapeutics for non-cancer applications based on or derived from our platform cadherin technology owned or licensed under our collaboration agreement with McGill and paid to CBI $250,000 in cash, in exchange for 40,163,985 Class A Preferred Shares of CBI, which constituted all of the equity of CBI. We distributed the Class A Preferred Shares of CBI pro rata to our shareholders of record at the time, after which our shareholders held all of the issued and outstanding Class A Preferred Shares of CBI. The divestiture of our non-cancer assets was a condition precedent to our acquisition in November 2002 of Oxiquant, a U.S.-based development-stage biopharmaceutical company with a focus in chemoprotection and chemoenhancement. CBI was not granted any rights to, and was contractually prohibited from, developing any applications relating to the treatment of cancer. The term of the license agreement coincides with the life of our patents that are the subject of the license. The license agreement is terminable by either us or CBI in the event of an uncured material breach or default of the agreement by either party after 30 days prior written notice. We have the right to terminate the agreement in the event that CBI files for bankruptcy or becomes insolvent and upon 30 days prior written notice to CBI if any act or omission by CBI causes us to be in material uncured breach of our license agreement with McGill.

  In December 2003, we signed a memorandum of agreement with CBI to purchase the license agreement and reacquire the non-cancer related cadherin-based intellectual property for Adherex common shares then having a market value of $1 million and the payment to CBI of certain royalties. The completion of the transactions contemplated by the memorandum of agreement was conditional upon CBI obtaining the approval of its shareholders, but such shareholder approval was neither sought nor obtained by CBI.

  In February 2004, we filed a claim in the Ontario Superior Court of Justice against CBI in the amount of $124,000 on account of unpaid goods and services rendered. In July 2004, CBI filed a statement of defence and counterclaim in response to such claim. CBI's counterclaim seeks $5.0 million in damages in relation to the license agreement between the parties. We believe that the counterclaim is without merit. Later in July 2004, we entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex to be incorporated under the CBCA for this purpose. This letter of intent effectively replaced the memorandum of agreement entered into with CBI in December 2003 and completion of the transaction is subject to CBI shareholder approval, agreement by the parties on definitive amalgamation documentation and other customary closing conditions. We expect the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. Under the terms of the letter of intent, Adherex will issue to CBI shareholders a total of 3,220,266 Adherex common shares, representing a value of $1.5 million, based on a 20-day weighted average trading price for such shares as of July 20, 2004. Of such shares, 500,000 Adherex common shares will be deposited in escrow as security against any misrepresentation by CBI in connection with the transaction. In addition, we have agreed to loan CBI up to $75,000 to be used by CBI to pay legitimate expenses related to the transaction. This loan is to be repaid by CBI only if the transaction does not close on or before March 31, 2005 due to the fault of CBI.

  If the transaction is completed, it will provide Adherex with the rights to the non-cancer applications relating to the cadherin technology and serve as a settlement of the claim commenced by us against CBI in February 2004 and the counterclaim filed by CBI against us in July 2004. Pending completion of the transaction, the parties have agreed to hold in abeyance all matters in relation to the claim and counterclaim between the parties. If the transaction is not completed as anticipated, we intend to pursue our claim against CBI and take all appropriate action to defend CBI's counterclaim.

- On November 20, 2002, we acquired the intellectual property of Oxiquant through a reverse triangular merger involving a wholly-owned U.S. subsidiary, pursuant to which we issued to Oxiquant's shareholders 40,163,985 shares of common stock and warrants to purchase 2.3 million shares of common stock with an exercise price of $0.717 per share that expire on May 20, 2007.

- In September 2003, we opened an office in RTP. All of our executive officers currently work from this location and we have relocated our development activities to RTP.
- In June and December 2003, we completed bridge financings of convertible notes for a total of approximately $4.9 million. In accordance with their terms, upon the closing of the private placement described below on December 19, 2003, these notes converted at $0.35 per unit into 14,065,820 units having the same terms as those issued in the private placement (with the exception of notes held by insiders of the Company, which converted at $0.46 per unit). Investors in or purchasers of the June convertible notes also received warrants to purchase an aggregate of 1,723,820 shares of common stock at a price of $0.55 per share (of which warrants to purchase 1,432,601 shares of common stock held by non-insiders were repriced to $0.43 per share on December 3, 2003) that expire in June 2007, while investors in the December convertible notes received warrants to purchase an aggregate of 1,353,570 shares of common stock at a price of $0.43 per share that expire in December 2008.
- On December 19, 2003, we completed a private placement of 57,609,262 units, for $0.35 per unit, for gross proceeds totaling approximately $20.2 million. Each unit was comprised of one share of common stock and one-half of a common stock purchase warrant. The warrants are exercisable until December 19, 2008 at an exercise price of $0.43 per share. Including 14,065,820 units issued upon the conversion of convertible notes of the Company as described above, we issued a total of 71,675,082 units.
- In connection with the December 19, 2003 private placement, 2037357 Ontario Inc. was incorporated to carry out specific research and development activities. We entered into a subscription and exchange rights agreement with New Generation and 2037357 Ontario Inc., which was 50% owned by us and 50% owned by New Generation. Pursuant to the subscription agreement, 2037357 Ontario Inc. issued 4,000,000 Series 1 Preferred Shares and warrants to purchase 2,000,000 Series 1 Preferred Shares to New Generation for a purchase price of $1.4 million. Pursuant to the exchange rights agreement, New Generation had the right to exchange all or part of its Series 1 Preferred Shares of 2037357 Ontario Inc. for an equal number of shares of Adherex common stock at any time. The exchange rights agreement also provided that upon the exercise by New Generation of its exchange right, all of the then outstanding warrants to purchase shares of Series 1 Preferred Shares of 2037357 Ontario Inc. would be exchanged for an equal number of warrants to purchase Adherex common stock, which would have an exercise price of $0.43 per share and an expiration date of December 19, 2008. On June 14, 2004, New Generation exchanged its interest in 2037357 Ontario Inc. for 4,000,000 shares of Adherex common stock and warrants to purchase 2,000,000 shares of Adherex common stock. Subsequent to the exchange, 2037357 Ontario Inc. continued its existence, as a wholly owned subsidiary of the Company, under the CBCA as Adherex Research Corp. On June 29, 2004, Adherex Research Corp. amalgamated with the Company pursuant to a short-form amalgamation under the CBCA.
- On May 20, 2004, we completed an $8.4 million “bought deal” in Canada, issuing 15,800,000 units at a price of $0.53 per unit. A bought deal is a Canadian term for an offering by an issuer that is similar to a firm commitment underwriting. It involves the dissemination of a short form prospectus that meets the requirements of, and has been filed with, the Ontario Securities Commission and the Toronto Stock Exchange. We paid Dlouhy Merchant Group Inc. an underwriting fee of $0.5 million in connection with the bought deal. Concurrently with the bought deal, we completed a $4.0 million private placement outside of Canada to existing shareholders of the Company, issuing 7,547,170 units at a price of $0.53 per unit. Each unit consists of one share of common stock and one-half of a common stock purchase warrant. Each whole warrant is exercisable until May 20, 2007 at an exercise price of $0.70 per share. We paid agent commissions of $0.1 million in connection with the private placement. In conjunction with these May 2004 financings, the Company incurred approximately $0.1 million of other expenses.

We have not been involved in any bankruptcy, receivership or similar proceedings. We may consider from time to time potential acquisitions, dispositions, joint ventures, collaborations and other strategic transactions.

For information concerning our capital expenditures and divestitures and further information concerning our methods of financing, see Item 5, “Operating and Financial Review and Prospects.”

B. Business overview

Company Overview

We are a biopharmaceutical company with a focus on cancer therapeutics and a cadherin-based tumor vascular targeting platform. We have four product candidates in the clinical stage of development:

- Exherin, a compound that selectively targets cancer blood vessels and that, in some animal models, has caused leakage and a reduction in the supply of blood to a tumor within 30 minutes of administration, with subsequent death of cancer cells. We are currently conducting Phase I clinical trials on the compound.
- Sodium Thiosulfate ("STS"), a chemoprotectant which has been shown in Phase I and Phase II clinical studies conducted by an investigator at OHSU to reduce the disabling loss of hearing in patients, particularly children, treated with platinum-based anticancer agents.
- N-Acetylcysteine ("NAC"), a chemoprotectant that will be the subject of a planned revised Phase I clinical trial by investigators at OHSU to study the safety profile of NAC in the prevention of bone marrow toxicity resulting from chemotherapy regimens.
- Mesna, a chemoenhancer, a compound that has displayed anticancer activity in laboratory studies conducted by investigators at Rutgers and in a Phase I clinical study in Argentina by reducing the resistance of cancer cells to certain chemotherapeutic agents.

We also have several preclinical product candidates targeted to enter clinical development over the next several years. Our drug discovery and development efforts are supported by 36 issued U.S. patents and over 80 pending patents worldwide that we own or have licensed.

Our Clinical Product Candidates

Exherin

Exherin is a small peptide molecule that was developed by rational drug design and which selectively targets blood vessels in cancers. Pursuant to a general collaboration agreement, McGill has granted us an exclusive worldwide license to certain intellectual property rights relating to Exherin and certain uses thereof. Our preclinical studies on animal models have demonstrated that within 30 minutes after Exherin administration there is a leakage of blood from tumor vessels into the substance of the tumor and a reduction in tumor blood supply, which leads in some cases to the death of cancer cells. In preclinical studies we have conducted to date, healthy blood vessels in the rest of the body outside of a tumor have not been demonstrably affected by the administration of Exherin. Exherin appears to disrupt cancer blood vessels by competitively inhibiting the binding of proteins called N-cadherins that are important for the structural integrity of blood vessels. In this regard, it differs significantly from anti-angiogenic compounds, which are compounds that inhibit very early blood vessel growth into tumors. Exherin, in contrast, attacks the established tumor blood vessels of a cancer.

In our preclinical studies, Exherin has demonstrated activity in tumor-bearing animals, with a single intravenous administration of the drug producing widespread hemorrhage within the tumor. Our goal for Exherin is to turn this angiolytic activity (or disruption of established cancer blood vessels) into a new therapeutic approach for the treatment of cancer. We commenced a Phase I clinical trial on Exherin in Canada at the Ottawa Cancer Center in late 2002, and we intend to initiate a further Phase I clinical trial site at the University of Texas M.D. Anderson Cancer Center in Houston, Texas by the end of October 2004. We intend to initiate three Phase Ib/II clinical trials in late 2004 or early 2005 in both the United States and Europe, in which we intend to assess the effects of three different dosing schedules of Exherin on tumor reduction, toxicity, pharmacodynamics and pharmocokinetics in the context of a limited intra-patient dose escalation in an aggregate of approximately 100-120 patients whose tumors are N-cadherin positive. We anticipate that these Phase Ib/II trials will provide the safety information and estimates of the expected range of therapeutic effectiveness that are a pre-requisite to the

design and conduct of prospective randomized pivotal Phase III trials, which are required for submission of an NDA to the FDA in the United States or an NDS in Canada. Based on positive data from the Phase Ib/II clinical program, we could potentially initiate Phase III clinical trials as early as 2006. We can provide no assurance that we will commence or complete these planned clinical trials on schedule, or at all, or that the results and data will be positive or consistent, provide the necessary results to design and conduct pivotal Phase III clinical trials, or support the filing of an NDA or NDS. Failure is common and can occur at any stage of development.

STS

STS is currently approved by the FDA for use in humans as part of a treatment for cyanide poisoning. We have licensed from OHSU certain intellectual property rights directed to the use of STS as a chemoprotectant, and we intend to develop STS as a protectant against hearing loss and more specifically, the hearing loss caused by platinum-based anti-cancer agents. To support its development, we are also pursuing novel formulations, branding strategies and Orphan Drug Status for STS. Preclinical studies conducted by OHSU and others on a number of agents indicated that STS effectively prevented platinum-induced hearing loss.

Hearing loss among children receiving platinum-based chemotherapy is frequent, often permanent and severely disabling. The incidence of hearing loss in these children depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. There is currently no established preventive agent for this hearing loss and only expensive, technically difficult and sub-optimal cochlear (inner ear) implants have been shown to provide some relief. In addition, adults undergoing chemotherapy for several common malignancies, including ovarian cancer, testicular cancer, and particularly head and neck cancer and brain cancer, receive intensive platinum-based therapy and also may experience severe, irreversible hearing loss, particularly in the high frequencies.

Investigators at OHSU and elsewhere have conducted Phase I and Phase II studies with STS that have shown that STS substantially reduces the hearing loss associated with platinum-based chemotherapy. In one study at OHSU, the need for hearing aids to correct high frequency hearing loss was reduced from about 50% to less than 5%. We intend to continue the development of STS as a hearing loss protectant for children undergoing platinum-based chemotherapy by initiating a prospective, randomized Phase III clinical trial in late 2004 or 2005. We have received Orphan Drug Designation in the United States for the use of STS in the prevention of platinum-induced ototoxicity (hearing loss) in pediatric patients, and we intend to pursue Fast Track and Priority Review Designations in the United States. We may also seek Orphan Drug Designation in the United States for the use of STS in the prevention of platinum-based ototoxicity in adult patients with head and neck cancer, and we are planning a randomized Phase III clinical trial that we plan to commence only if we obtain Orphan Drug Designation for adults. We may also seek further Orphan Drug Designations for prevention of platinum-induced ototoxicity in pediatric and adult cancer patients in Europe. Our product development efforts will potentially involve novel formulations as well as novel timing approaches of STS in relationship to the administration of platinum-based chemotherapy agents. We can provide no assurance that we will commence or complete these planned clinical trials on schedule, or at all, or that the results and data will be consistent or support the filing of an NDA. Failure is common and can occur at any stage of development.

NAC

We are developing NAC as a bone marrow protectant to be used to prevent the loss of important blood cells, called platelets, caused by certain cancer drugs. This side effect can limit the use of these agents for the treatment of cancer. A severe decrease in platelet count has been reported in some studies to occur in approximately 20% of patients undergoing chemotherapy for certain types of cancer. Platelets are critical in the maintenance of normal blood clotting function and their loss can have a range of consequences from minor manifestations such as bruising to life-threatening hemorrhages. Currently, the most commonly used therapeutic approach to platelet loss is the use of platelet transfusions, which are expensive and have complications and risks associated with blood transfusions. There are, however, other drugs approved or in clinical development for the prevention or treatment of thrombocytopenia (low platelet count), including Wyeth's Neumega® and Amgen Inc.'s AMG 531.

We have licensed certain intellectual property rights from OHSU that support the use of NAC for various indications, including preventative therapy against chemotherapeutic-induced platelet loss. OHSU is preparing to initiate a revised Phase I clinical trial in the United States on the use of NAC as a bone marrow protectant in the context of platinum-based chemotherapy under an investigator IND. Upon the completion of this study, we will re-evaluate the market potential of NAC for this and other indications.

Mesna

Preclinical research conducted at Rutgers has identified Mesna as a potential method to alter a cancer's resistance to chemotherapy. In addition to intolerable side effects that limit the administration of effective treatments, the development of resistance to anticancer therapy is one of the most common causes for the failure to cure most cancers. Investigators at Rutgers have found that rapid changes in the "redox" status of cancer cells through exposure to chemotherapy and radiation therapy cause the cancer cells to develop resistance to further therapy. The research has shown that certain agents, including Mesna, which stabilize the redox status of the cells, can reduce the development of cancer cell resistance by reducing the anticancer therapy-induced changes in the redox state, or oxygen reduction level, and thus enhance chemotherapeutic effectiveness. We have licensed worldwide intellectual property rights from Rutgers for certain methods of using Mesna and other agents as chemoenhancers by preventing changes in the redox state of cancer cells. Investigators in Argentina, independently from the Company, have completed a Phase I trial for this indication on Mesna. We continue to evaluate Mesna but believe it is necessary to repeat the findings of the Argentina clinical trial prior to further developing this product candidate.

Preclinical Pipeline

Our product candidates are in the early stages of clinical development, so we strive to maintain a robust preclinical program to hedge against unavoidable development risks. In considering our product candidates, it is important to remember we are subject to the risks of failure that are inherent in the development of products and therapeutic procedures based on innovative technologies as described in Item 3.D., "Risk Factors."

We have a strong preclinical pipeline that includes backup peptides and small chemical successors to Exherin, peptides that combine both angiolytic and antiangiogenic properties and molecules targeted to inhibiting the metastatic spread of some cancers. We have identified a series of small chemical molecules that, in our preliminary studies, have displayed potent angiolytic activity. Unlike Exherin, these molecules are not peptides but are smaller and simpler in structure. We and our collaborators are conducting preclinical studies on several of these molecules in order to select the best candidate to move into clinical trials. We have developed a wide range of peptide antagonists for an array of different cadherin molecules, and a selection of these drug candidates are the subject of preclinical investigations by the NCI. The results of these studies, together with studies that we are directly conducting, will be used to select other drug candidates to move into clinical development, particularly in the following two areas:

VE-cadherin. Like N-cadherin, VE-cadherin is important in the structural integrity of certain tumor blood vessels. We have designed peptide VE-cadherin antagonists that are under investigation as vascular targeting agents in cancer. We believe that the development of VE-cadherin antagonists may be synergistic with the N-cadherin antagonist, Exherin, and therefore expand the Company's development opportunities. Some tumors may express N-cadherin, for example, and be responsive to Exherin; while other cancers may express VE-cadherin and be responsive to VE-cadherin antagonists. The use of VE-cadherin antagonists, either alone or in combination with Exherin, may be more effective than Exherin alone. Few, if any, cancer therapies are universally useful in cancer patients, and the same will likely be true for cadherin-based drugs. We expect that there may be specific cancer situations in which either Exherin or a VE-cadherin antagonist candidate used alone would make a very positive medical contribution; and in other cancer situations, the two agents used together may be therapeutically complementary or synergistic. We intend to initiate clinical testing on VE-cadherin antagonists by late 2005.

OB-cadherins. Another family of cadherins, OB-cadherins, is reported to be involved through several mechanisms in the metastatic spread of certain cancers to body sites distant from the original tumor. Metastatic disease is a major determinant of a patient's survival and quality-of-life. We are developing OB-cadherin antagonists designed to reduce or slow down the metastatic spread of tumors, such as breast and prostate cancers, and such agents are now in preclinical testing.

Small molecule cadherin antagonists. Small chemical molecules are often more stable and have different potency and toxicity profiles than peptides. We are developing small molecule pepidomimetics of N-cadherin as an approach to modifying the effectiveness, specificity and toxicity profile of N-cadherin antagonism.

These agents are currently only at the preclinical stage of development. In addition to our own development efforts, we intend to pursue collaborations with pharmaceutical partners in the next few years with respect to the most promising agents.

In addition to our collaborations, we also have entered into a standard form screening agreement with the NCI, under which NCI screens and tests compounds supplied by us from our preclinical pipeline for anti-cancer qualities useful to cancer chemotherapy at no cost to us. The NCI is currently examining a selection of over 30 Adherex compounds in preclinical anti-cancer assays and tumor models. Adherex has designed and synthesized a wide range of antagonists to a number of different cadherin molecules and a representative array of these antagonists have been included for testing at NCI. NCI has no obligations to continue to perform screening work for us and may terminate this agreement at any time, as may we. In the event that we or NCI terminate the screening agreement, we may fund the screening of some or all of the compounds currently being tested by the NCI or seek a corporate partner to conduct the screening work for us, which would result in increased costs for us.

Intellectual Property

Our policy is to seek patent protection in the United States, major European countries, Japan, Canada and other jurisdictions as appropriate for our compounds and methods. Our cadherin-based patent portfolio currently includes patents with respect to our unique composition of matter, broad claims with respect to cell adhesion, specific claims for use of these compounds in various diseases and the pharmaceutical formulation of these compounds. We have also sought patent protection with respect to alternate "sites" of cell adhesion activity as well as related compounds, screening methods and antibodies. With respect to the intellectual property licensed from OHSU and Rutgers, we also work closely with the institutions involved to further strengthen and expand our worldwide patent protection for those products.

Currently, we own or have licensed 33 issued U.S. patents and over 50 pending U.S. and international patent applications relating to cell adhesion. We have licensed seven pending U.S. and international patent applications from Rutgers relating to Novel Redox Clamping Agents, and we have licensed three issued U.S. patents and over 20 pending U.S. and international patent applications from OHSU relating to thiol-based compounds and their use in oncology. In aggregate, we own or have licensed 36 issued and over 80 pending patents worldwide.

Our success is significantly dependent on our ability to obtain patent protection for our product candidates, both in the United States and abroad. The patent position of biotechnology and pharmaceutical companies, in general, is highly uncertain and involves complex legal and factual questions, which often results in apparent inconsistency regarding the breadth of claims allowed and general uncertainty as to their legal interpretation and enforceability. Further, some of our principal candidates to date, including STS, NAC and Mesna, have been based on previously known compounds, and we anticipate that any candidates or products we develop in the future may include or be based on the same or other compounds owned or produced by other parties, and some or all may not be subject to effective patent protection. Also, the regimens that we may develop for the administration of pharmaceuticals, such as specifications for the frequency, timing and amount of dosages, may not be patentable. Accordingly, our patent applications may not result in patents being issued and issued patents

may not afford competitive protection. Also, products or processes that we develop may turn out to be covered by third party patents, in which case we may need a license under such patents if we intend to continue the development of those products or processes. Any legal actions against us on the basis of a third party patent could turn out to be costly.

Corporate Relationships

General Collaboration Agreement with McGill University

In February 2001, we entered into a general collaboration agreement with McGill. Pursuant to the terms of the agreement, McGill granted us a 27-year exclusive worldwide license to develop, use and market certain cell adhesion technology and compounds. In particular, McGill granted us an exclusive worldwide license to U.S. Patent 6,031,072 covering specific compounds including Exherin (composition of matter), U.S. Patent 6,551,994 covering alpha-catenin and beta-catenin inhibiting compounds, international filings under the Patent Cooperation Treaty ("PCT"), continuations and certain other patents and patent applications.

In consideration, we issued 2,542,084 shares of our common stock to McGill. We also agreed to pay to McGill future royalties of 2% of any gross revenues from the use of the compounds. In addition, should we fail to meet certain development milestones, we are required to make the following payments in order to maintain the license: (i) $100,000, if we had not filed an IND application, or a similar application with Canadian, U.S., European or other recognized agency relating to a licensed product prior to September 23, 2002; (ii) $100,000, if we have not commenced Phase II clinical trials in a recognized jurisdiction on any licensed product prior to September 23, 2004; and (iii) $200,000 if we have not commenced Phase III clinical trials in a recognized jurisdiction on any licensed product prior to September 23, 2006. On August 1, 2002, McGill acknowledged that work completed on the clinical development of Exherin was sufficient to meet the requirements of the September 23, 2002 milestone.

In addition, we agreed to fund certain mutually agreed upon research at McGill over a period of 10 years totaling $3.3 million. Annual funding commenced in 2001, the first year of the agreement, with a total of $200,000, and increases annually by 10% through 2010, when the required annual funding reaches $500,000. This research commitment can be deferred in any year if it would exceed 5% of our cash and cash equivalents. To date, there have been no deferrals and we have paid out approximately $500,000 in research funding to McGill pursuant to this agreement and other research related payments. Pursuant to the terms of the agreement, we are entitled to certain intellectual property rights that result from this research.

The term of the collaboration agreement expires on September 23, 2028, unless earlier terminated by operation of law or as provided in the agreement. The agreement is terminable by either Adherex or McGill in the event of an uncured breach by either party after 60 days prior written notice. We also have the right to terminate the agreement at any time after September 2006 upon 60 days prior written notice to McGill.

Exclusive License Agreement with Rutgers, The State University of New Jersey

In November 2002, we acquired an exclusive license agreement with Rutgers through our acquisition of Oxiquant, which had entered into the license agreement with Rutgers in April 2001. Pursuant to the license agreement, Rutgers granted us worldwide license rights to "Novel Redox Clamping Agents and Uses Thereof" (U.S. Provisional Patent Application Number 60/120,128, U.S. Patent Application Number 10/228,644, international filings under the PCT, continuations and certain other patent applications).

In consideration, Rutgers was issued 500,000 shares of common stock of Oxiquant, which were subsequently converted upon our acquisition of Oxiquant into 3,821,320 shares of our common stock and warrants to purchase 219,495 shares of our common stock at $0.717 per share until May 20, 2007. In addition, we are required to make the following payments upon the achievement of certain milestones achieved in connection with the subject matter of the agreement: (i) US$25,000 upon completion of the first clinical trial

performed in compliance with FDA or corresponding foreign health authority requirements, in a small number of patients to determine the metabolism and pharmacological actions of doses, (ii) US$50,000 upon commencement of the first Phase III clinical trial or equivalent, (iii) US$100,000 upon receipt of market approval in the first major market country, (iv) US$200,000 upon receipt of market approval in the second major market country, and (v) US$300,000 on receipt of market approval in the third major market country. We agreed to pay an annual license maintenance fee on each anniversary of the agreement, starting at US$5,000 in 2002 and increasing by US$5,000 on each subsequent anniversary through the fifth anniversary. After completion of the fifth anniversary, and on each subsequent anniversary, the annual license maintenance fee shall be US$50,000, but is creditable against royalties (with some restrictions). Pursuant to the terms of the agreement, we also agreed to pay to Rutgers a 4% running royalty on net sales for any licensed products semiannually, and a 20% non-running royalty on any consideration received from sublicensing or transferring of the licensed technology. Through August 13, 2004, we have paid license maintenance fees totaling US$25,000 under this agreement.

The term of our license agreement expires on the last date of expiration of claims covered in the patents licensed to us in each country in the world in which Rutgers has intellectual property rights covered by the license, unless earlier terminated by operation of law or as provided in the agreement. The agreement is terminable by either Adherex or Rutgers in the event of an uncured breach by either party after 60 days prior written notice. We also have the right to terminate the agreement at any time upon 90 days prior written notice to Rutgers.

License Agreement with Oregon Health & Science University

In November 2002, we acquired an exclusive license agreement with OHSU through our acquisition of Oxiquant, which had entered into the license agreement with OHSU in September 2002. Pursuant to the license agreement, OHSU granted us exclusive worldwide license rights to intellectual property surrounding work done by Dr. Edward Neuwelt with respect to thiol-based compounds and their use in oncology. In consideration, OHSU was issued 250,250 shares of common stock of Oxiquant which were subsequently converted upon the acquisition of Oxiquant into 1,912,571 shares of our common stock and warrants to purchase 109,857 shares of our common stock at $0.717 per share until May 20, 2007. We are required to make the following payments upon the achievement of certain milestones achieved in connection with the subject matter of the agreement: (i) US$50,000 upon completion of Phase I clinical trials, (ii) US$200,000 upon completion of Phase II clinical trials, (iii) US$500,000 upon completion of Phase III clinical trials and (iv) US$250,000 upon first commercial sale for any licensed product. We also agreed to pay OHSU a 2.5% royalty on net sales of any licensed products and a 15% royalty on any sublicensing of the licensed technology.

The term of our license agreement expires on the last date of expiration of claims covered in the patents licensed to us, unless earlier terminated as provided in the agreement. The agreement is terminable by OHSU in the event of a material breach of the agreement by us or our sublicensees after 60 days prior written notice from OHSU. We have the right to terminate the agreement at any time upon 60 days prior written notice and paying all fees due to OHSU under the agreement.

License Agreement with Cadherin Biomedical Inc.

In September 2002, CBI was incorporated as a wholly owned subsidiary of Adherex. We granted CBI an exclusive worldwide, royalty-free license to develop, market and distribute pharmaceuticals and therapeutics for non-cancer applications based on or derived from our platform cadherin technology owned or licensed under our collaboration agreement with McGill and paid to CBI $250,000 in cash, in exchange for 40,163,985 Class A Preferred Shares of CBI. We distributed the Class A Preferred Shares of CBI to our shareholders, after which our shareholders held all of the issued and outstanding shares of CBI. The divestiture of our non-cancer assets was a condition precedent to our acquisition of Oxiquant. CBI was not granted any rights to, and was contractually prohibited from, developing any applications relating to the treatment of cancer. The term of the license agreement coincides with the life of our patents that are the subject of the license. The license agreement is

terminable by either Adherex or CBI in the event of an uncured material breach or default of the agreement by either party after 30 days prior written notice. We have the right to terminate the agreement in the event that CBI files for bankruptcy or becomes insolvent and upon 30 days prior written notice to CBI if any act or omission by CBI causes us to be in material uncured breach of our license agreement with McGill.

In July 2004, we entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex formed for this purpose. The amalgamation will provide Adherex with the rights to the non-cancer applications relating to the cadherin technology and serve to settle outstanding litigation between Adherex and CBI. We expect the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. See Item 4.A., "Information on the Company—History and development of the Company."

Competition

Competition in the biotechnology and pharmaceutical industries is intense and characterized by the rapid advance of technology. We expect that if any of our product candidates gain regulatory approval for sale, they will compete on the basis of drug efficacy, safety, patient convenience, reliability, ease of manufacture, price, marketing, distribution and patent protection. Our competitors may develop technologies and drugs that are more effective, safer or more affordable than any we may develop.

There are a number of different approaches to the development of therapeutics for the treatment of cancer that are currently being used and studied in medicine. These approaches include: (i) surgery to excise the cancerous tissue; (ii) radiation therapy, which attacks cancerous cells but does not easily distinguish between healthy and diseased cells; (iii) chemotherapy, which works by preventing a cancerous cell from dividing or by killing cells that divide; (iv) immunotherapy which stimulates the body's immune system to respond to the disease; and (v) hormone therapy, which may slow the growth of cancer cells or even kill them.

We are aware of a number of companies engaged in the research, development and testing of new cancer therapies or means of increasing the effectiveness of existing therapies, including, among many others, OXiGENE, Inc., Aventis, Bristol-Myers Squibb Company, Pfizer, Inc., AstraZeneca PLC, Amgen, Inc., Genentech, Inc., NeoPharm, Inc., Bayer AG, EntreMed Inc., Johnson & Johnson, Peregrine Pharmaceuticals, Inc. and Novartis AG. Some of these companies have products that have already received, or are in the process of receiving, regulatory approval or are in later stages of clinical trials. Many of them have greater financial resources than we do.

We are aware of at least three companies, AstraZeneca, Aventis and OXiGENE, that are clinically developing cancer angiolytics, which we view as our primary competitors with respect to Exherin. Their product candidates are tubulin depolymerizing agents. When administered they destroy the scaffold-like structure that supports the lining cells (endothelial cells) of blood vessels, causing the endothelial cells to round, cutting off blood flow through the blood vessel. They thus cut off a tumor's blood supply and lead to tumor cell death. Some other angiolytic agents are in preclinical development, including antibodies to tumor blood vessel wall components and agents linked with liposomal cytotoxic agents, but little information about these agents is publicly available at this time. These competing angiolytics work in a very different way than Exherin and, to our knowledge, we are the only company approaching tumor angiolysis from the perspective of peptide inhibitor-based cadherin antagonism, or the disruption of tumor blood vessels by inhibiting the proteins that hold the blood vessels together. Tumor angiolysis is an emerging field, and our competitors' tubulin depolymerizing agents, like our drug candidates, are in early stages of clinical development. To our knowledge, no angiolytic products have completed Phase II and entered Phase III development to date. Accordingly, it is premature to speculate on the potential advantages and disadvantages of different angioloytic agents because the efficacy and tolerability profiles of these agents are not yet available in the public domain. However, our competitors may achieve regulatory approval for their drug candidates sooner than we do, and their drugs may be more competitive than ours.

We are not aware of any commercially available agents that prevent or treat the hearing loss associated with the use of platinum-based anti-cancer agents, for which purpose we are attempting to develop STS. We are aware of one company, Sound Pharmaceuticals, Inc., that is developing agents for noise and age related hearing loss. We are also aware of research relating to the use of high dose amifostine for the protection of hearing in connection with platinum-based chemotherapy. Cochlear implants are utilized to offer some relief, and other companies may seek to develop such agents in the future.

We are developing NAC for the prevention of platelet loss during chemotherapy. There are drugs approved or in clinical development for the prevention or treatment of thrombocytopenia, including Wyeth's Neumega® and Amgen Inc.'s AMG 531. Also, platelet transfusions are a common practice, and other companies may attempt to develop platelet protectants in the future to decrease the need for platelet transfusions.

Many chemotherapeutic agents are currently available and numerous others are being developed. Any chemotherapeutic products that we are able to develop with Mesna may not be able to compete effectively with existing or future chemotherapeutic agents. However, cancer as a disease is not controlled by any one anti-cancer agent, and there is typically a need for several agents at any one time and over time different regimens and cocktails of agents are used.

Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market products. In addition, many of these competitors have extensive experience with preclinical testing and human clinical trials and in obtaining regulatory approvals. Also, many of the smaller companies that compete with us have formed collaborative relationships with large, established companies to support the research, development, clinical trials and commercialization of any products that they may develop. To date, we have not entered into any such commercialization collaborations. We may rely on third parties to commercialize any products we develop, and our success will depend in large part on the efforts and competitive merit of these collaborative partners. Academic institutions, government agencies and other public and private research organizations may also conduct research, seek patent protection and establish collaborative arrangements for research, clinical development and marketing of products similar to those we seek to develop. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring technologies complementary to our projects. The existence of competitive products, including products or treatments of which we are not aware, or products or treatments that may be developed in the future, may adversely affect the marketability of any products that we may develop.

Government Regulation

The production and manufacture of our product candidates and research and development activities are subject to regulation for safety, efficacy and quality by various governmental authorities around the world.

In Canada, these activities are subject to regulation by Health Canada's Therapeutic Products Directorate, or TPD, and the rules and regulations promulgated under the Food and Drug Act. In the United States, drugs and biological products are subject to regulation by the FDA. The FDA requires licensing of manufacturing and contract research facilities, carefully controlled research and testing of products, governmental review and/or approval of results prior to marketing therapeutic products. Additionally, the FDA requires adherence to "GLP" as well as "GCP" during clinical testing and "GMP" and adherence to labeling and supply controls. The systems of new drug approvals in Canada and the United States are substantially similar, and are generally considered to be among the most rigorous in the world.

Generally, the steps required for drug approval in Canada and the United States, specifically in cancer related therapies, include:

Preclinical Studies: Preclinical studies, also known as nonclinical studies, primarily involve evaluations of pharmacology, toxic effects and pharmacokinetics and metabolism of a drug in animals to provide evidence of the relative safety and bioavailability of the drug prior to its administration to humans

in clinical studies. A typical program of preclinical studies takes 18 to 24 months to complete. The results of the preclinical studies as well as information related to the chemistry and comprehensive descriptions of proposed human clinical studies are then submitted as part of the IND application to the FDA, the CTA to the TPD, or similar submission to other foreign regulatory bodies. This is necessary (in Canada, the United States and most other countries) prior to undertaking clinical studies. Additional preclinical studies are conducted during clinical development to further characterize the toxic effects of a drug prior to submitting a marketing application.

Phase I Clinical Trials: Most Phase I clinical trials take approximately one year to complete and are usually conducted on a small number of healthy human subjects to evaluate the drug's safety, tolerability and pharmacokinetics. In some cases, such as cancer indications, Phase I clinical trials are conducted in patients rather than healthy volunteers.

Phase II Clinical Trials: Phase II clinical trials typically take one to two years to complete and are generally carried out on a relatively small number of patients (generally between 14 and 50 patients) in a specific setting of targeted disease or medical condition, in order to provide an estimate of the drug's effectiveness in that specific setting. This phase also provides additional safety data and serves to identify possible common short-term side effects and risks in a somewhat larger group of patients. Phase II testing frequently relates to a specific disease, such as breast or lung cancer. Some contemporary methods of developing drugs, particularly molecularly targeted therapies, do not require broad testing in specific diseases, and instead permit testing in subsets of patients expressing the particular marker. In some cases, such as cancer indications, the company sponsoring the new drug may submit a marketing application to seek accelerated approval of the drug based on evidence of the drug's effect on a "surrogate endpoint" from Phase II clinical trials. A surrogate endpoint is a laboratory finding or physical sign that may not be a direct measurement of how a patient feels, functions or survives, but is still considered likely to predict therapeutic benefit for the patient. If accelerated approval is received, the company sponsoring the new drug must continue testing to demonstrate that the drug indeed provides therapeutic benefit to the patient.

Phase III Clinical Trials: Phase III clinical trials typically take two to four, or even more years to complete and involve tests on a much larger population of patients suffering from the targeted condition or disease. These studies involve conducting controlled testing and/or uncontrolled testing in an expanded patient population (several hundred to several thousand patients) at separate test sites (multi-center trials) to establish clinical safety and effectiveness. These trials also generate information from which the overall benefit-risk relationship relating to the drug can be determined and provide a basis for drug labeling. Phase III trials are generally the most time consuming and expensive part of a clinical trial program. In some instances, governmental authorities (such as the FDA) will allow a single Phase III clinical trial to serve as a pivotal efficacy trial to support a Marketing Application.

Marketing Application: Upon completion of Phase III clinical trials, the pharmaceutical company sponsoring the new drug assembles all the chemistry, preclinical and clinical data and submits it to the TPD or the FDA as part of a New Drug Submission in Canada or a New Drug Application in the United States. The marketing application is then reviewed by the regulatory body for approval to market the product. The review process generally takes 12 to 18 months.

Any clinical trials that we conduct may not be successfully completed, either in a satisfactory time period or at all. The typical time periods described above may vary substantially and may be materially longer. Also, the FDA and its counterparts in other countries have considerable discretion to discontinue trials if they become aware of any significant safety issues or convincing evidence that a therapy is not effective for the indication being tested. Further, the FDA and its counterparts in other countries may not allow clinical trials to proceed at any time after receiving an IND, allow further clinical development phases after authorizing a previous phase or approve marketing of a drug after the completion of clinical trials.

While both European and U.S. regulatory systems require that medical products be safe, effective, and manufactured according to high quality standards, the drug approval process in Europe differs from that in the United States in certain ways and may require us to perform additional preclinical or clinical testing regardless of

whether FDA approval has been obtained. The amount of time required to obtain necessary approvals may be longer or shorter than that required for FDA approval. European Union Regulations and Directives generally classify health care products either as medicinal products, medical devices or in vitro diagnostics. For medicinal products, marketing approval may be sought using either the centralized procedure of the European Agency for the Evaluation of Medicinal Products ("EMEA") or the decentralized, mutual recognition process. The centralized procedure, which is mandatory for some biotechnology derived products, results in an approval recommendation from the EMEA to all member states, while the European Union mutual recognition process involves country by country approval.

Plan of Operation

We have financed our operations since our inception on September 3, 1996 through the sale of equity and debt securities and have raised gross proceeds totaling $61.8 million through August 13, 2004. At August 13, 2004, our cash and cash equivalents totaled approximately $25.9 million. We believe that our cash and cash equivalents will be sufficient to satisfy our anticipated capital requirements for at least the next 18 months. Accordingly, we do not believe it will be necessary in the next six months to raise additional funds to meet the expenditures required for operating our business. Any projections of further cash needs are subject to substantial uncertainty. Our primary expenditures in the fiscal year ended June 30, 2005 will be (i) research and development expenses, which include expenses associated with clinical development activities, employee compensation, research contracts, toxicology studies and laboratory activities and (ii) general and administrative expenses, which include expenses associated with headcount and facilities, recruitment of staff, insurance and other administrative matters. See Item 5, "Operating and Financial Review and Prospects."

During the fiscal year ending June 30, 2005, we intend to conduct further clinical trials on Exherin, initiate clinical trials on STS, evaluate the market potential of NAC and Mesna and continue work on our preclinical pipeline. See "—Company Overview,—Our Clinical Product Candidates," and "—Preclinical Pipeline."

During the fiscal year ending June 30, 2005, we intend to continue to purchase laboratory and office equipment as we continue to build our corporate presence in the United States to support the advancement of our clinical development activities.

We intend to add approximately ten employees by the end of 2004, and we expect 75% of them to be engaged in research and development activities and 25% to be engaged in administration. We intend to add approximately ten more employees in 2005, the majority of which we expect to be engaged in research and development activities.

C. Organizational structure

We carry on operations in Canada and, through two wholly-owned Delaware subsidiaries, Oxiquant, Inc. and Adherex, Inc., in the United States.

D. Property, plant and equipment

We occupy approximately 5,700 square feet of laboratory and office space in RTP, North Carolina. The RTP lease requires minimum monthly lease payments of $1,008 from September 2004 until February 2005, and thereafter, the monthly lease payments are approximately $5,000. The lease expires in March 2010.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion and analysis should be read in conjunction with our March 31, 2004 interim unaudited and June 30, 2003, 2002 and 2001 audited consolidated financial statements and the related notes, which are prepared in accordance with Canadian generally accepted accounting principles. A reconciliation from Canadian GAAP to United States GAAP ("U.S. GAAP") can be found in Item 18, "Financial Statements," footnote 19. Unless otherwise indicated, the amounts shown are in Canadian dollars.

The following discussion contains forward-looking statements regarding our financial condition and the results of operations that are based upon our consolidated financial statements. We operate in a highly competitive environment that involves significant risks and uncertainties, some of which are outside of our control. We are subject to risks associated with the biopharmaceutical industry, including risks inherent in research, preclinical testing, manufacture of drug substance to support clinical studies, toxicology studies, clinical studies of our compounds, uncertainty of regulatory agencies, enforcement and protection of our patent portfolio, the need for future capital, potential competitors, the ability to attract collaborative partners, dependence on key personnel, and the ability to successfully market our drug compounds. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed below and elsewhere in this registration statement, particularly under Item 3.D., “Risk Factors.”

Overview

We have not received any revenues to date and do not expect to have significant revenues until we either are able to sell our product candidates after obtaining applicable regulatory approvals or we establish collaborations that provide us with funding, such as licensing fees, milestone payments, royalties, upfront payments or otherwise. As of March 31, 2004, our accumulated deficit was $30.3 million.

Our operating expenses will depend on many factors, including the progress of our drug development efforts and the potential commercialization of our product candidates. Research and development (“R&D”) expenses, which include expenses associated with clinical development activities, employee compensation, research contracts, toxicology studies and laboratory activities, will be dependent on the results of our drug development efforts. General and administrative (“G&A”) expenses, which include expenses associated with headcount and facilities, recruitment of staff, insurance and other administrative matters, will be dependent on the development of our facilities in RTP in support of our drug development programs. The amortization of acquired intellectual property rights relates to the intellectual property acquired in November 2002.

We intend to add approximately ten employees by the end of 2004, and we expect 75% of them to be engaged in research and development activities and 25% to be engaged in administration. We intend to add approximately ten more employees in 2005, the majority of which we expect to be engaged in research and development activities. We have adequate financial resources to cover these headcount additions.

Management may in some cases be able to control the timing of expenses by accelerating or decelerating preclinical and clinical activities. Accordingly, we believe that period to period comparisons are not necessarily meaningful and should not be relied upon as a measure of future financial performance. Our actual results may differ materially from the expectations of investors and market analysts. In such an event, the prevailing market price of our common stock may be materially adversely affected.

Critical Accounting Estimates

The preparation of financial statements in conformity with Canadian and U.S. GAAP requires management to make estimates that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. These estimates are based on assumptions and judgments that may be affected by commercial, economic and other factors. Actual results could differ from those estimates.

An accounting policy is considered to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact the financial statements. We believe that the assumptions, judgments and estimates involved in our accounting for Acquired Intellectual Property Rights could potentially have a material

impact on our consolidated financial statements. The following description of critical accounting policies, judgments and estimates should be read in conjunction with our consolidated financial statements and other disclosures included in this registration statement.

Acquired Intellectual Property Rights

At March 31, 2004 our acquired intellectual property rights totaled $26.9 million and related to the intellectual property acquired in the acquisition of Oxiquant in November 2002. The intellectual property is currently being developed for therapies in the oncology field including, but not limited to, otoprotectant (hearing protectant) for children undergoing platinum-based chemotherapy (STS), bone marrow protectant for patients undergoing chemotherapy (NAC) and methods to alter a cancer's resistance to chemotherapy (Mesna).

The intellectual property was recorded as an asset as required under Canadian GAAP and is being amortized over its estimated useful life of ten years, which represents management's estimate of the intellectual property's useful life at the time of acquisition. The Company is deploying a strategy of utilizing the Food and Drug Administration's Orphan Drug program, which provides for seven-years of market exclusivity to treat patients with rare diseases and disorders. The Company assumes the intellectual property has several years of useful life beyond the patent life and the exclusivity period granted by the Orphan Drug program, as we have done with STS. We perform an annual review, or more often if indicators of potential impairment exist, to determine if the recorded asset is impaired. The asset is considered to be impaired if the carrying value is greater than the undiscounted cash flows, based upon the best information available and as such the asset would be reduced and the amortization expense adjusted accordingly. If the amount of the undiscounted future cash flows is lower than the carrying value of the assets, the assets will be written down to fair value, determined by using the discounted expected cash flows of the assets. Determining the amount of impairment, if any, requires significant judgments and estimates to be made by management. In particular, the size and timing of expected future cash flows has a direct impact on the results of the impairment test. Also, in the case of the second phase of the impairment test, determining the appropriate discount rate is very subjective. Changes in any of these management assumptions could have a material impact on the impairment of the assets.

Under U.S. GAAP, management has determined that the intellectual property is in-process research and development ("IPRD"), which is not a concept under Canadian GAAP. The IPRD is not capitalized under U.S. GAAP, but rather expensed at the time of acquisition. Consequently, the entire cost of the IPRD of $31.2 million associated with the Oxiquant acquisition is reflected as a reconciling item in Item 18, "Financial Statements," Note 19, United States accounting principles, in the June 30, 2003 consolidated financial statements, which reconciles Canadian GAAP to U.S. GAAP, net of the future income taxes of $10.7 million.

Results of Operations

(In Canadian dollars)

Nine Months Ended March 31, 2004

Interest Income

Interest income for the nine month period ended March 31, 2004 was $0.1 million, which represented a slight increase from the same period in the prior year. This increase is due to the interest earned on proceeds from the $21.6 million December 2003 private placement. We anticipate interest income over the next several quarters will increase as compared to prior reported quarters due to interest from proceeds from that private placement and our May 2004 bought deal in Canada and concurrent private placement outside of Canada with aggregate gross proceeds totaling $12.4 million.

We have not generated any revenues to date. We do not expect to have significant revenues or income other than interest income until we either are able to sell our product candidates after obtaining applicable regulatory approvals or we establish collaborations that provide us with funding, such as licensing fees, royalties, milestone payments, upfront payments or otherwise.

Research and Development Expenses

R&D expenses for the nine month period ended March 31, 2004 totaled $3.5 million as compared to $3.6 million in the same period of the prior year. The minor decrease from the prior period was due to a reduction in basic R&D activity as a result of limited cash resources available prior to our December 2003 private placement. R&D expenses for the nine months ended March 31, 2004 are net of $0.1 million related to provincial investment tax credits recoverable, compared to $0.3 million provincial investment tax credits recoverable in the first nine months of 2003. We expect our R&D expenses to increase in future quarters due to the expansion and advancement of our clinical and preclinical programs. The expansion of R&D will involve increased outsourcing and the addition of approximately ten internal R&D staff by the end of calendar year 2004.

General and Administrative Expenses

G&A expenses of $2.7 million for the nine month period ended March 31, 2004 represented an increase of $1.0 million over the same period of the prior year. The increase was primarily a result of expenses associated with the establishment of our offices in RTP, costs associated with relocating our management from Canada which totaled $0.4 million and increased employee recruitment expenses of $0.3 million. We expect G&A expenses to increase as we continue to build our corporate presence in the United States to support the advancement of our clinical development activities.

Amortization of Acquired Intellectual Property Rights

The expense associated with the amortization of intellectual property rights was $2.3 million for the nine month period ended March 31, 2004, as compared to $1.1 million for the same period in the prior year. The expense relates to the value of intellectual property we acquired in November 2002 that is being amortized over a 10-year period. The increase is due to the fact that we owned the intellectual property rights being amortized for the entire nine month period ended March 31, 2004, but for only five months of the same period in the prior year.

Interest Expense

Interest expense for the nine month period ended March 31, 2004 totaled $0.4 million, as compared to none for the same period in the prior year. The increase reflects the accretion of a portion of the face value of the notes ascribed to the equity-like features of the convertible notes. The notes were converted into equity in December 2003 and therefore will not accrue future interest.

Recovery of Future Income Taxes

Future taxes recovered totaled $0.9 million for the nine month period ended March 31, 2004, as compared to $0.4 million in the prior year. The recovery of future taxes relates directly to the intellectual property acquired in November 2002 because it has no tax basis and gives rise to a future tax liability. At this time, Oxiquant, the entity that holds the acquired intellectual property, has no other activity and the future tax assets of other corporate entities cannot be used to offset this future tax liability. The future tax recovery will continue in direct proportion to the amortization of the intellectual property unless the Company changes its tax strategy with respect to Oxiquant.

In addition, as of June 30, 2003, we had $8.7 million in unrecorded net tax assets arising primarily from tax loss-carry forwards and scientific research and experimental development expenses which cannot be recognized until it is more likely than not that these assets will be realized.

Year Ended June 30, 2003 Compared with Year Ended June 30, 2002

Interest Income

Interest income for the fiscal year ended June 30, 2003 totaled $0.1 million, as compared to $0.3 million for the prior year. The $0.2 million decrease was the result of interest earned on higher balances of cash, cash

equivalents and short-term investments during the year ended June 30, 2002, as a result of the proceeds from the Company's initial public offering, which was completed in June 2001 with net proceeds of $8.7 million.

Other Income

In the fiscal year ended June 30, 2002, we received an investigation fee of $0.2 million from a potential licensor. We had no other income in the fiscal year ended June 30, 2003, and we received no revenues in either year.

Research and Development Expenses

R&D expenses totaled $4.8 million for the fiscal year ended June 30, 2003, which remained consistent with the prior fiscal year. However, the composition of R&D expenses changed to reflect the evolution of the development of our lead compound, Exherin, from a research to a clinical orientation. The manufacture of clinical material and other required studies to support our IND application for Exherin resulted in expenses of $1.4 million in fiscal 2003 compared to $0.9 million in fiscal 2002, an increase of $0.5 million. R&D-related compensation expense totaled $1.0 million in fiscal 2003, as compared to $1.5 million in fiscal 2002, which represented a decrease of $0.5 million. This decrease reflected the shift from research activities, which had been performed in-house, to development activities such as toxicology and manufacturing of compound for clinical trials, which were performed by third parties. Patent related expenses related to our expanding intellectual property portfolio increased by $0.2 million to $0.6 million for fiscal 2003, as compared to $0.4 million for fiscal 2002. Refundable federal and provincial investment tax credits and government grants, which reduce R&D expense, totaled $0.5 million in fiscal 2003 compared to $0.4 million in fiscal 2002.

General and Administrative Expenses

G&A expenses increased to $2.4 million for fiscal year 2003 from $1.4 million for fiscal year 2002. This increase of $1.0 million was a result of $0.5 million in expenses related to the termination of our former Chief Executive Officer, as well as higher legal, audit and consulting fees to facilitate the acquisition of the intellectual property of Oxiquant, and an expansion in the overall level of administrative activity to support our development programs.

Amortization of Acquired Intellectual Property Rights

The expense associated with the amortization of intellectual property rights was $1.9 million during fiscal year 2003, compared to none for fiscal year 2002. The increase was due to the fact that we acquired the intellectual property rights relating to the Oxiquant transaction in fiscal year 2003.

Year Ended June 30, 2002 Compared with Year Ended June 30, 2001

Interest Income

Interest income was $0.3 million for each of the fiscal years ended June 30, 2002 and June 30, 2001, which was attributable to similar cash balances for both years.

Other Income

In the fiscal year ended June 30, 2002, we received an investigation fee of $0.2 million from a potential licensor. We had no other income in the fiscal year ended June 30, 2001, and we received no revenues in either year.

Research and Development Expenses

R&D expenses for the fiscal year ended June 30, 2002 were $4.8 million as compared to $2.9 million in the fiscal year ended June 30, 2001. The increase in R&D is attributed to additional costs associated with the

ongoing development of Exherin. The manufacture of clinical material and studies required for our pending IND application for Exherin resulted in expenses of $1.0 million in fiscal 2002 compared to $0.3 million in fiscal 2001, an increase of $0.7 million. R&D-related compensation expense increased by $0.7 million to $1.5 million in fiscal year ended June 30, 2002 from $0.8 million in the fiscal year ended June 30, 2001. This increase reflected increased staffing of in-house research activity designed to accelerate and complete preclinical work required for the IND application. Refundable federal and provincial investment tax credits and government grants, which reduce R&D expense, totaled $0.4 million for both the fiscal years ended June 30, 2002 and 2001.

General and Administrative Expenses

G&A expenses for the year ended June 30, 2002 were $1.4 million as compared to $1.1 million for the year ended June 30, 2001. This increase of $0.3 million was the result of increased administrative activity after becoming a publicly-traded company in Canada.

Liquidity and Capital Resources

We have financed our operations since our inception on September 3, 1996 through the sale of equity and debt securities and have raised gross proceeds totaling $61.8 million through August 13, 2004. We have incurred net losses and negative cash flow from operations each year, and we had an accumulated deficit of $30.3 million as of March 31, 2004. We have not received any revenues to date and do not expect to have revenues until we either are able to sell our product candidates after obtaining applicable regulatory approvals or we establish collaborations that provide us with funding, such as licensing fees, royalties, milestone payments, upfront payments or otherwise.

At August 13, 2004 our cash and cash equivalents totaled approximately $25.9 million. We believe that our cash and cash equivalents will be sufficient to satisfy our anticipated capital requirements for at least the next 18 months. However, any projections of further cash needs are subject to substantial uncertainty. Our working capital requirements may fluctuate in future periods depending upon numerous factors, including: results of research and development activities; progress or lack of progress of our preclinical studies or clinical trials; our drug substance requirements to support clinical programs; our ability to establish corporate collaborations and licensing arrangements; changes in the focus, direction, or costs of our research and development programs; the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; competitive and technological advances; the potential need to develop, acquire or license new technologies and products; establishment of marketing and sales capabilities; our business development activities; new regulatory requirements implemented by regulatory authorities, the timing and outcome of the regulatory review process; or commercialization activities, if any.

We will need to raise substantial additional funds through equity, debt financings, and collaborative arrangements with corporate partners or from other sources. There can be no assurance we will be able to raise the necessary capital or that such funding will be available on favorable terms.

We are a biopharmaceutical company with a focus on cancer therapeutics and a cadherin-based tumor vascular targeting platform. We have four product candidates in the clinical stage of development, as well as several preclinical product candidates. We will need to invest substantial amounts of cash to develop and potentially commercialize our product candidates. In addition to our in-house development efforts, we will outsource many aspects of our drug development program, which will involve payments to clinical investigators, contract research organizations, academic institutions and drug substance manufacturers. We will also continue to incur expenses in connection with the continued development of our facilities in RTP.

We have a revolving line of credit with the Royal Bank of Canada, a Canadian chartered bank, in an amount not to exceed $0.3 million that bears interest at a prime rate. At March 31, 2004, the line of credit was unused. In addition, through March 31, 2004, we have received $2.1 million of research tax credits and have a potential research tax credit receivable of $0.3 million and have received $0.3 million in other government grants.

Since our inception, we have not had any material off-balance sheet arrangements, and inflation has not had a material effect on our operations. We had no material commitments for capital expenses as of March 31, 2004.

As of June 30, 2003 (except as described in Note (1) and (2) below), our contractual obligations and commitments are as follows:

(In Thousands of Canadian Dollars)

	Less than 1 year	1-3 years	4-5 years	More than 5 years	Total
Operating Leases (1)	$ 166	$ —	$ —	$ —	$ 166
Office Lease, U.S. (2)	3	276	217	104	600
McGill License (3)	259	953	818	726	2,756
OHSU License (4)	—	—	—	—	—
Rutgers License (5)	21	63	—	—	84
Total	$ 449	$ 1,292	$ 1,035	$ 830	$ 3,606

(1) In December 2003, we renegotiated the terms of a real estate lease that reduced the amount of space rented and the remaining term of the lease. The amounts shown reflect this subsequent event.

(2) In April 2004, we entered into a lease for our facilities in RTP. Our obligations under the lease are payable in U.S. dollars, and are presented in Canadian dollars in the table, translated at an assumed rate of CAD$1.40. Amounts shown assume the maximum amounts due under the lease.

(3) Research obligation shown. Royalty payments, which are contingent on sales, are not included. Penalties for failure to achieve clinical trial progress goals are not included. We expect that clinical trials will progress more rapidly than required by the agreement.

(4) Royalty and milestone payments that we may be required to pay, which are contingent on sales or progress of clinical trials, are not included.

(5) U.S. dollar obligation translated at an assumed rate of CAD$1.40. Royalty payments, which are contingent on sales, and other contingent payments that we may be required to pay are not included. Minimum maintenance payments through 2006 are shown. In 2007, the maintenance fee increases to $65.

In connection with the Oregon Health Sciences University (“OHSU”) License Agreement and the Rutgers License Agreement, we are required to pay specified milestone payments in the event that we complete certain Adherex-initiated clinical trial progress goals. These payment obligations are described in Item 4.B., “Information on the Company—Business Overview—Corporate Relationships.” One such payment we may have to make in the near future is a US$500,000 milestone payment to OHSU when and if we complete a planned Phase III clinical trial with STS in children. However, there can be no assurance that we will commence and complete that clinical trial when anticipated, if at all.

Research and Development

Our research and development efforts have been focused on the development of cancer therapeutics and our cadherin-based tumor vascular targeting program. We have established relationships with universities, research organizations and other institutions, which we utilize to perform the day-to-day activities associated with drug development. Where possible we have sought to include leading scientific investigators and advisors to enhance our internal capabilities. Research and development issues are reviewed internally by our chief scientist, other members of our senior management and our scientific staff. Major development issues are presented to members of our Scientific and Clinical Advisory Board for discussion and review. We develop clinical protocol designs in concert with the Chairman and other members of the Scientific and Clinical Advisory Board, and the clinical membership of the Scientific and Clinical Advisory Board performs a final review of protocols before they are acted on by management. During the nine month period ended March 31, 2004 our research and development

expenses totaled $3.5 million, as compared to $3.6 million for the comparable period in 2003. During fiscal years 2003, 2002 and 2001, our research and development expenses were $4.8 million, $4.8 million and $2.9 million, respectively.

Our research and development programs include Exherin, STS, NAC, Mesna and preclinical activities. Exherin is a vascular targeting compound that selectively targets cancer blood vessels, and in some animal models causes leakage and a reduction in the supply of blood to a tumor. Exherin is currently in Phase I trials in Canada and a Phase I site is scheduled to commence in the United States by the end of October 2004. During the nine month period ended March 31, 2004 we spent $3.0 million on Exherin and other vascular targeting programs. STS is a chemoprotectant, which has been shown to reduce hearing loss in patients, particularly children, treated with platinum-based agents. Investigator-sponsored Phase I and Phase II studies have been conducted on STS. NAC is being developed as a bone marrow protectant to be used to prevent the blood platelet loss caused by certain cancer drugs. Upon the completion of a planned revised Phase I clinical trial by investigators at OHSU, we will evaluate the market potential of NAC. Mesna is under development as a potential method to alter a cancer's resistance to chemotherapy. During the nine month period ended March 31, 2004 we spent $0.5 million on our chemoprotectant and chemotherapy enhancer programs.

Letter of Intent With Respect to Acquisition of CBI

In February 2004, we filed a claim in the Ontario Superior Court of Justice against Cadherin Biomedical Inc. ("CBI") in the amount of $0.1 million on account of unpaid goods and services rendered. In July 2004, CBI filed a statement of defence and counterclaim in response to such claim. CBI's counterclaim seeks $5.0 million in damages in relation to the license agreement between the parties. We believe that the counterclaim is without merit. Later in July 2004, we entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex to be incorporated under the CBCA for this purpose. Completion of the transaction is subject to CBI shareholder approval, agreement by the parties on definitive amalgamation documentation and other customary closing conditions.. We expect the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. If the transaction is completed, it will provide Adherex with the rights to the non-cancer applications relating to the cadherin technology and serve as a settlement of the claim commenced by us against CBI in February 2004 and the counterclaim filed by CBI against us in July 2004. Pending completion of the transaction, the parties have agreed to hold in abeyance all matters in relation to the claim and counterclaim between the parties. If the transaction is not completed as anticipated, we intend to pursue our claim against CBI and take all appropriate action to defend CBI's counterclaim.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and senior management

The following table lists the directors and senior management of the Company and the positions they hold with the Company:

Name	Age	Position
William P. Peters, MD, PhD, MBA	53	Chief Executive Officer and Chairman of the Board of Directors
Raymond Hession (1)(2)(4)	64	Lead Independent Director of the Board of Directors
Peter Karmanos, Jr.(3)(4)	61	Director
Donald W. Kufe, MD (2)(3)	59	Director
Fred H. Mermelstein, PhD (4)	45	Director
Peter Morand, PhD (1)(4)	69	Director
Robin J. Norris, MB BS	57	President, Chief Operating Officer and Director
Arthur T. Porter, MD, MBA (1)(2)(3)	47	Director
James A. Klein, Jr., CPA	42	Chief Financial Officer
Rajesh K. Malik, MB ChB	45	Chief Medical Officer
D. Scott Murray, BScPharm, LLB, MBA	35	Vice President, General Counsel and Corporate Secretary

(1) Member of the Audit Committee
(2) Member of the Compensation Committee
(3) Member of the Nominating Committee
(4) Member of the Governance Committee

Board of Directors

Other than Dr. Porter (who was appointed to the Board in February 2004) and Mr. Karmanos (who was appointed to the Board in May 2004), the current Board of Directors was elected at our annual meeting of shareholders on December 16, 2003. We have granted a shareholder, HBM BioVentures (Cayman) Ltd., the right to appoint a nominee for election to the Board and the right to have an observer attend, but not vote at, our Board meetings. To date, HBM BioVentures has never sent an observer to any of our Board meetings, and has informed us that it does not intend to send any observers in the future. Currently, Dr. Porter is the director nominated by HBM BioVentures. He has no affiliation with HBM BioVentures.

The Board is currently composed of eight members. The Board has determined that each member other than Dr. Peters and Dr. Norris qualifies as “independent” under the current rules of the American Stock Exchange and “unrelated” for purposes of the Toronto Stock Exchange Guidelines. We are of the view that the composition of the Board of Directors reflects a diversity of background and experience that is important for effective corporate governance.

Under our By-laws, as amended, the term in office of our directors expires at each annual general meeting of shareholders. If there is a vacancy in the Board, the remaining directors may exercise all the powers of the Board so long as a quorum remains in office. Under the CBCA, at least 25% of the Board must be residents of Canada.

Biographical information about each director and officer follows. Information about the Board’s functions and its committees is set forth below under “—Broad practices—Report on Corporate Governance.”

William P. Peters, MD, PhD, MBA

Dr. Peters has been the Chief Executive Officer of Adherex since March 2003, the Chairman of the Board of Directors since February 2004, and a member of the Board of Directors since November 2002. From March 2003

to February 2004, Dr. Peters served as the Vice Chairman of the Board. Dr. Peters has served on the faculty at Harvard University, Duke University and Wayne State University. He originated the solid tumor high-dose chemotherapy and bone marrow transplant program at the Dana-Farber Cancer Institute, and was Director of Bone Marrow Transplantation, Professor of Medicine at Duke University from 1984 to 1995 and was an Associate Director of the Cancer Center. He then became President, Director and CEO of the Karmanos Cancer Institute from 1995 – 2001 and is currently President Emeritus. Simultaneously, he served as Associate Dean for Cancer at Wayne State University and Senior Vice President for Cancer Services at the Detroit Medical Center. In 2001, he organized the Institute for Strategic Analysis and Innovation at the Detroit Medical Center of which he served as President. Dr. Peters has three Bachelor's degrees (Biochemistry, Biophysics and Philosophy) from the Pennsylvania State University, received his MPhil, MD and PhD degrees from the Columbia University College of Physicians & Surgeons in New York and trained clinically at Harvard University Medical School's Brigham and Women's Hospital and Dana-Farber Cancer Institute in Boston, MA. He is board certified in internal medicine and medical oncology. He earned his MBA at the Duke University Fuqua School of Business.

Raymond Hession

Mr. Hession has been on the Board of Directors of Adherex since December 1998. Mr. Hession is Chairman of the Board of HLB Decision Economics Inc., a management consulting firm with expertise in risk analysis, investment and finance, and economics and policy. Mr. Hession is also Chairman of The Ottawa Hospital. Mr. Hession has previously served as President of Canada Mortgage and Housing Corporation, Deputy Minister of Industry for the Canadian Government and President of Kinburn Technologies Corporation.

Peter Karmanos, Jr.

Mr. Karmanos has been a director of Adherex since May 2004. Mr. Karmanos is Chairman of the Board of Directors, Chief Executive Officer and co-founder of Compuware Corporation, a global provider of software solutions and professional services. Mr. Karmanos is a director for the Barbara Ann Karmanos Cancer Institute, the North American Hockey League, USA Hockey, Worthington Industries, Taubman Centers, Inc., Automation Alley and Detroit Renaissance. He is also a member of the National Hockey League Board of Governors.

Donald W. Kufe, MD

Dr. Kufe has been on the Board of Directors of Adherex since December 2003. Dr. Kufe is the chair of the Scientific and Clinical Advisory Board of Adherex. Dr. Kufe received his MD in 1970 from the University of Rochester School of Medicine and postgraduate training at Harvard's Beth Israel Hospital. Subsequently, he undertook extensive laboratory-based research in molecular virology at the Institute of Cancer Research of Columbia University. In 1979, he joined the faculty of Harvard's Dana-Farber Cancer Institute where he is now Professor of Medicine. He has served as Chief of the Division of Cancer Pharmacology, Deputy Director of the Dana-Farber Cancer Center, Director of the Harvard Phase I Oncology Group and Leader of the Experimental Therapeutics Program. He has served as the senior editor of Cancer Medicine, one of the major text books in oncology, and on the editorial board of multiple international cancer research journals.

Fred H. Mermelstein, PhD

Dr. Mermelstein has been a director of Adherex since November 2002. Dr. Mermelstein is a founder, CEO and President of Innovative Drug Delivery Systems Inc. and served as Director of Venture Capital at Paramount Capital Investments, LLC, a merchant banking and venture capital firm specializing in biotechnology, from 1998 to 2003. He has served as director and Chief Science Officer of PolaRx Biopharmaceuticals, and is a director of both Cardiome Pharma and the Jordan Heart Foundation. Dr. Mermelstein holds a dual Ph.D. in Pharmacology and Toxicology from Rutgers University and University of Medicine and Dentistry of New Jersey (UMDNJ) Robert Wood Johnson Medical School. He completed his post-doctoral training supported by two grant awards, a National Institutes of Health fellowship and a Howard Hughes Medical Institute fellowship in the department of biochemistry at UMDNJ Robert Wood Johnson Medical School.

Peter Morand, PhD

Dr. Morand has been a director of Adherex since December 1998. Dr. Morand is the President and Chief Executive Officer, and director of the Canadian Science and Technology Growth Fund Inc. since 1996, which invests in the commercialization of the results of early stage research in Canada's science and engineering sectors. Dr. Morand is also past chair of the Ottawa Life Sciences Council and past president of the Natural Sciences and Engineering Research Council of Canada (NSERC), an agency which invests over $450.0 million annually in support of research. Prior to his NSERC appointment he served at the University of Ottawa as a professor of chemistry and occupied the positions of Dean of Science and Engineering and Vice Rector. Dr. Morand started his career in the pharmaceutical industry at Ayerst Laboratories.

Robin J. Norris, MB BS

Dr. Norris has been the Chief Operating Officer of Adherex since January 2002, President of Adherex since June 2002 and a member of the Board of Directors since November 2002. Prior to joining Adherex, Dr. Norris was Chief Operating Officer and Chairman of the Scientific Advisors Committee of PowderJect plc from March 1998 to December 2001 and Chief Operating Officer of Noven Inc. from March 1995 to March 1998. Dr. Norris received his medical education and degree in the United Kingdom with postgraduate qualifications in obstetrics, general medicine and pharmaceutical medicine. Following eight years of clinical practice Dr. Norris has spent over 20 years in the pharmaceutical industry, predominantly based in the United States, but with global drug development responsibilities. During his career, Dr. Norris has been responsible for the successful development of a wide range of pharmaceutical products and devices moving and transitioning them from fundamental "bench-level" research and development through the regulatory process and into the global marketplace.

Arthur T. Porter, MD, MBA

Dr. Porter, who has served as a director of Adherex since February 2004, was nominated pursuant to an arrangement with HBM BioVentures (Cayman) Ltd. (See "—Board practices"). Dr. Porter has served as the Executive Director of the McGill University Health Center since January 2004. Dr. Porter was the President and Chief Executive Officer of the Detroit Medical Center from 1999 to 2003. From 1991 to 1998, Dr. Porter served as the Chief of the Gershenson Radiation Oncology Center at Harper Hospital, Radiation Oncologist-in-Chief at the Detroit Medical Center. He has also served as Senior Radiation Oncologist at the Cross Cancer Institute in Edmonton, Alberta and Associate Professor in the Faculty of Medicine at the University of Alberta., Chief of the Department of Radiation Oncology at the London Regional Cancer Centre and Chairman of the Department of Oncology at Victoria Hospital Corporation. Dr. Porter has served as a director of Munder Funds since 2002 and Universal Healthcare Management Systems since 2003.

Senior Management

In addition to Drs. Peters and Norris, the members of our senior management include:

James A. Klein, Jr., CPA

Mr. Klein joined Adherex as Chief Financial Officer in April 2004. From 1999 to April 2004, Mr. Klein founded and served as Chief Executive Officer and Chairman of DataScout Software Inc., a company that develops and commercializes software for the pharmaceutical industry. From 1995 to 1999, Mr. Klein served as Chief Financial Officer and Treasurer of Triangle Pharmaceuticals Inc., a publicly traded pharmaceutical company. Prior to that, Mr. Klein was the International Research and Development Financial Controller for Burroughs Wellcome Co., an international pharmaceutical group. Mr. Klein is a Certified Public Accountant.

Rajesh K. Malik, MB ChB

Dr. Malik joined Adherex as the Chief Medical Officer in September 2004. Prior to joining Adherex, Dr. Malik was Executive Director at EMD Pharmaceuticals, where he directed the global clinical development

strategy for three EMD/Merck KGaA oncology product candidates. From January 2000 to March 2002, he served as Associate Director at Bristol-Myers Squibb, where he was responsible for the global clinical development strategy for an oral Taxane™ and for the company's pediatric initiatives. He served fellowships at the Children's Hospital of Philadelphia and Duke University Medical Center. From 1993 to 2000, he was Assistant Professor in the Department of Pediatrics at the University of Virginia in Charlottesville, VA. Dr. Malik completed his medical training in England, earning his M.B., Ch.B. degree from the University of Sheffield Medical School, with post-graduate training in the United Kingdom and in the United States.

D. Scott Murray, BScPharm, LLB, MBA

Mr. Murray has been General Counsel and Corporate Secretary of Adherex since February 2003 and a Vice President since September 2003. Prior to joining Adherex, Mr. Murray was an Associate at Osler, Hoskin & Harcourt LLP in Toronto specializing in private and public corporate finance, mergers and acquisitions as well as securities compliance and pharmaceutical regulatory matters. At Osler, Mr. Murray worked with a number of international pharmaceutical corporations, some of the largest securities dealers in North America, various early-stage biotechnology clients and also spent a secondment in the legal department of General Motors of Canada. Prior to joining Osler, Mr. Murray practiced as a pharmacist for over seven years, including several retail pharmacy management positions. Mr. Murray holds a Bachelor of Science in Pharmacy degree from Dalhousie University and LLB and MBA degrees from the University of Ottawa.

B. Scientific and Clinical Advisory Board

Our Scientific and Clinical Advisory Board consists of individuals with demonstrated expertise in various fields who advise us concerning long-term scientific planning, research and development. The Scientific and Clinical Advisory Board also evaluates our research programs and advises us on technological matters. The members of the Scientific and Clinical Advisory Board, which is chaired by Donald W. Kufe, MD, are:

Donald W. Kufe, MD	Professor of Medicine, Harvard's Dana-Farber Cancer Institute; Director, Adherex Technologies Inc.
Stephen Byers, PhD	Director of the MD/PhD Program and Professor of Oncology and Cell Biology at the Lombardi Cancer Center; Member of Interdisciplinary Program of Tumor Biology, Georgetown University Medical Center
Harold F. Dvorak, MD	Chief of the Department of Pathology, Beth Israel Deaconess Medical Center; Mallinckrodt Professor of Pathology, Harvard Medical School
Emil Frei, III, MD	Director and Physician-in-Chief Emeritus and Richard and Susan Smith Distinguished Professor of Medicine at Harvard Medical School
Robert Herfkens, MD	Professor of Radiology and Director of Magnetic Resonance Imaging at Stanford University
Mark Hughes, MD, PhD	President, Genesis Genetics Institute
Daniel D. Von Hoff, MD	Professor of Pathology, Molecular and Cellular Biology and Director of the Arizona Health Science Center's Cancer Therapeutic Programs at the University of Arizona; Chief Scientific Officer, US Oncology

Joseph Loscalzo, MD, PhD	Wade Professor and Chairman, Department of Medicine and Director of the Whitaker Cardiovascular Institute at the Boston University School of Medicine; Physician-in-Chief, Boston Medical Center
Ann Thor, MD	Lloyd E. Rader Professor and Chair, Department of Pathology, Adjunct Professor of Surgery, Associate Director for Translational Research and Program Director for Breast Cancer Program at the University of Oklahoma
Bruce Chabner, MD	Chief of Hematology/Oncology at Massachusetts General Hospital and Professor of Medicine at Harvard Medical School

C. Compensation

Statement of Executive Compensation

The following table sets forth the compensation earned during the fiscal year ended June 30, 2004 by our current Chief Executive Officer and our three other most highly compensated executive officers (together, the "Named Executive Officers") in that year. Unless otherwise indicated in the footnotes to this table, all compensation information is in U.S. dollars.

		Annual Compensation			Long-Term Compensation Awards	
Name and Principal Position	Fiscal Year	Salary ($)	Bonus ($)	Other Annual Compensation ($)	Securities Under Options Granted	All Other Compensation ($)
Dr. William Peters (1) Chief Executive Officer and Chairman of the Board	2004	356,250	335,000	—	5,021,089	—
Dr. Robin Norris (2) President and Chief Operating Officer	2004	225,000	52,500	—	560,000	—
D. Scott Murray (3) Vice President, General Counsel and Corporate Secretary	2004	176,663*	10,000*	—	149,850	—
James A. Klein, Jr.(4) Chief Financial Officer	2004	29,697	15,000	—	1,075,000	—

* Canadian Dollars

(1) Effective March 1, 2004, Dr. Peters' annual salary was increased to US$425,000.

(2) Effective July 1, 2003, Dr. Norris' salary was increased from CAD$225,000 to US$225,000.

(3) Pursuant to an agreement dated January 27, 2003, Mr. Murray received an annual salary of CAD$150,000. Effective December 19, 2003 Mr. Murray's salary increased from CAD$150,000 to US$150,000. Mr. Murray was paid a salary of CAD$142,719 from July 2003 through April 2004 and US$25,000 from May 2004 through June 2004.

(4) Mr. Klein joined the Company as Chief Financial Officer on April 26, 2004. His employment agreement provides that he receive an annual salary of US$160,000 and a signing bonus of US$15,000.

Option Grants During the Fiscal Year Ended June 30, 2004

The following table sets forth stock options granted during the fiscal year ended June 30, 2004 to our Named Executive Officers under our Stock Option Plan, or otherwise, to whom any such stock options were granted during the most recently completed financial year:

Name and Position	Securities Under Options Granted (#)	Exercise Price ($/Security)	Expiration Date
Dr. William Peters	351,089	$ 0.45	2010
Chief Executive Officer and Chairman of the Board	1,170,000	$ 0.58	2011
Dr. Robin Norris	378,000	$ 0.45	2010
President and Chief Operating Officer	182,000	$ 0.58	2011
D. Scott Murray	59,850	$ 0.45	2010
Vice President, General Counsel & Corporate Secretary	50,000	$ 0.49	2010
	40,000	$ 0.58	2011
James A. Klein, Jr.	1,000,000	$ 0.53	2011
Chief Financial Officer	75,000	$ 0.58	2011

D. Board practices

Compensation of Directors

During the year ended June 30, 2004, our non-executive directors, as a group, were granted options to purchase an aggregate of 864,864 shares of common stock and were paid an aggregate of $34,500 in cash fees. In particular, each non-executive director was granted options to purchase 93,108 shares of common stock on March 1, 2004 at an exercise price of $0.65 per share, the market price of our common stock on the Toronto Stock Exchange on the date of grant, with a term of seven years from the date of grant and vesting as to 31,036 shares of common stock on each of the first, second and third anniversary of the date of grant. On March 1, 2004, members of the Scientific and Clinical Advisory Board, including its Chair and member of the Board of Directors Dr. Kufe, were also granted options to purchase 5,000 shares of common stock at an exercise price of $0.65 per share, the market price of our common stock on the Toronto Stock Exchange on the date of grant, with a term of seven years from the date of grant and vesting as to the entire 5,000 shares of common stock as of March 31, 2004. Each non-executive director was granted fully vested options to purchase 20,000 shares of common stock on May 21, 2004 at an exercise price of $0.58 per share, the market price of our common stock on the Toronto Stock Exchange on the date of grant, with a term of seven years from the date of grant. Upon joining the Board on May 21, 2004, Mr. Karmanos was granted options to purchase 93,108 shares of common stock at an exercise price of $0.58 per share, the market price of our common stock on the Toronto Stock Exchange on the date of grant, with a term of seven years from the date of grant and vesting as to 31,036 shares of common stock on each of the first, second and third anniversary of the date of grant. Director cash fees ranged from $1,500 to $5,000 per director. During the year ended June 30, 2004, directors who were also employees received no compensation for serving on the Board of Directors.

Each non-executive director is paid US$2,000 for each board meeting attended in person, US$500 for each board meeting attended by telephone and an additional US$500 for each committee meeting attended in person or by telephone. Directors who are also employees will receive no compensation for serving on the Board of Directors for the year ending June 30, 2005.

Employment Agreements and Termination Provisions

We have entered into employment agreements with our senior management. The compensation in each case includes a combination of base salary, cash bonus, stock options and other benefits.

Pursuant to an employment agreement dated February 19, 2003 between Dr. William P. Peters and the Company, Dr. Peters became employed as Chief Executive Officer and Vice Chairman of the Company effective March 12, 2003 for a five-year term, and was appointed Chairman of the Board of Directors on February 28, 2004. Pursuant to this agreement, Dr. Peters (a) receives an annual salary in the amount of US$350,000 (increased to US$425,000 effective March 1, 2004), (b) received a signing bonus totaling US$200,000, of which US$40,000 was paid at the time of signing and US$80,000 was paid on each of July 1, 2003 and December 15, 2003, and (c) was granted an option to purchase up to 3,750,000 shares of common stock at an exercise price of $0.33 per share. The employment agreement also provided that on one occasion, upon the closing of an equity financing or strategic partner contract of at least US$3.75 million, Dr. Peters would be granted additional options sufficient for his aggregate option holdings to be 5% of the common stock of the Company, calculated on a fully diluted basis, immediately following the closing of such a transaction, subject to and conditional upon applicable regulatory and shareholder approvals (the "Financing Grant Provision"). Accordingly, upon the occurrence of such a transaction in December 2003, the Financing Grant Provision provided for Dr. Peters to receive options to purchase 7,389,098 shares of common stock, which would have brought his option holdings to 5% on a fully diluted basis, subject to applicable regulations and approvals. The Company obtained shareholder approval on December 16, 2003 for 3,500,000 of such shares that were granted to Dr. Peters outside of our Stock Option Plan. However, the Toronto Stock Exchange requires that no person may hold options representing more than 5% of the Company's equity at any given time on an issued and outstanding basis (the "TSX Limit"). Accordingly, on December 30, 2003, Dr. Peters was granted options to purchase 3,851,089 shares of common stock, which together with shares of common stock issuable under his other option holdings represented 5% of the issued and outstanding shares of common stock at such time. These options have an exercise price of $0.45 per share and vest as to 1,517,756 shares of common stock on the date of grant, 1,166,667 on the first anniversary of the date of grant and 1,166,666 shares of common stock on the second anniversary of the date of grant. In May 2004, the Company made a further grant to Dr. Peters under the Financing Grant Provision of options to purchase 1,170,000 shares of common stock when the Company increased its issued and outstanding shares by virtue of its two equity financings in that month. These options have an exercise price of $0.58 per share and are fully vested. From time to time, as the TSX Limit permits, the Company intends to grant the 2,368,009 options remaining of the originally targeted 7,389,098 options under the Financing Grant Provision, subject to applicable approvals and regulations. The agreement also provides that annual bonuses, if any, will be awarded to Dr. Peters at the sole discretion of the Board. In the event of termination without "cause," or in the event Dr. Peters terminates his employment for Good Reason or a Change of Control (as such terms are defined in the agreement), the Company is obligated to pay Dr. Peters severance compensation equal to 24 months of salary.

Pursuant to an employment agreement dated December 12, 2001 between Dr. Robin Norris and the Company, Dr. Norris is employed as our Chief Operating Officer. Pursuant to this agreement, Dr. Norris (a) receives an annual salary in the amount of $225,000 (increased to US$225,000 effective July 1, 2003), (b) was granted options to purchase up to 600,000 shares of common stock at a price per share of $0.33 under our Stock Option Plan that vested as to 200,000 shares of common stock on each of January 1, 2003, 2004 and 2005 and expire seven years following the date of grant, (c) was reimbursed for certain expenses related to his relocation from Colorado to Ottawa, and (d) is entitled to participate in all employee benefit programs offered by the Company. Also pursuant to this agreement, if Dr. Norris is dismissed from employment by the Company for any reason other than "cause," we are obligated to pay Dr. Norris severance compensation equal to 12 months of salary. Dr. Norris was appointed President of the Company in addition to Chief Operating Officer on June 14, 2002.

Pursuant to an employment agreement dated April 21, 2004 between James A. Klein, Jr. and the Company, Mr. Klein is employed as our Chief Financial Officer. Pursuant to this agreement, Mr. Klein (a) receives an annual salary in the amount of US$160,000, (b) was granted options to purchase up to 1,000,000 shares of common stock at a price per share of $0.53 under our Stock Option Plan that vested as to 250,000 shares of common stock on July 24, 2004, with the remainder to vest in three equal installments on each of April 26, 2005, 2006 and 2007, (c) received a signing bonus of US$15,000, and (d) may receive an annual discretionary bonus of up to US$50,000. If Mr. Klein's employment terminates due to a change in control of the Company, any then-

remaining unvested shares shall immediately vest and be fully exercisable. Also pursuant to this agreement, if Mr. Klein is dismissed from employment by the Company for any reason other than "cause," we are obligated to pay Mr. Klein severance compensation equal to six months of salary.

Pursuant to an employment agreement dated August 9, 2004 between Dr. Rajesh K. Malik and the Company, Dr. Malik is employed as our Chief Medical Officer. Pursuant to this agreement, Dr. Malik (a) receives an annual salary in the amount of US$185,000 (to be adjusted to US$220,000 in January 2005 and US$250,000 on or about July 1, 2005, in each case in the event of acceptable performance as determined by the Company), (b) will be, subject to Board approval, granted options to purchase up to 750,000 shares of common stock, at a price per share equal to the stock price on the date of grant, under our Stock Option Plan, that will vest as to 187,500 shares of common stock on December 5, 2004 and will vest as to the remainder in three equal installments on each of August 9, 2005, 2006 and 2007, (c) received a signing bonus of US$35,000 (to be repaid if Dr. Malik does not complete one year of employment), and (d) may receive an annual discretionary bonus of up to 25% of annual base salary (determined to be $40,000 for 2004 in the event of satisfactory performance as determined by the Company). If Dr. Malik's employment terminates due to a change in control of the Company, any then-remaining unvested shares shall immediately vest and be fully exercisable. Also pursuant to this agreement, if Dr. Malik is dismissed from employment by the Company without "cause," we are obligated to pay Dr. Malik severance compensation consisting of health insurance benefits and his then current base salary for the lesser of six months or until he has accepted alternative employment.

Pursuant to an employment agreement dated January 27, 2003 between D. Scott Murray and the Company, Mr. Murray is employed as our General Counsel and Corporate Secretary, and became a Vice President on September 19, 2003. Pursuant to this agreement, Mr. Murray (a) receives an annual salary in the amount of $150,000 (increased to US$150,000 effective December 19, 2003), (b) was granted options to purchase up to 150,000 shares of common stock at a price per share of $0.35 under our Stock Option Plan that vest as to 50,000 shares of common stock on each of February 3, 2004, 2005 and 2006, (c) was reimbursed for certain expenses related to his relocation from Toronto to Ottawa, and (d) is entitled to participate in all employee benefit programs offered by the Company. Also pursuant to this agreement, if Mr. Murray is dismissed from employment by the Company for any reason other than "cause," we are obligated to pay Mr. Murray severance compensation equal to three months working notice and three months of salary.

In addition to such employment agreements, each of Drs. Peters, Norris and Malik, as well as Messrs. Klein and Murray are party to a confidentiality and intellectual property agreement with the Company.

On May 21, 2004, the Company amended the option agreements with current employees, executive officers and members of the Board of Directors, relating to options granted prior to and on that date, to provide that (i) in the event of a Change of Control, all granted but unvested options would vest immediately for each member of the Board, for executive officers and direct employees, and (ii) executive officers and members of the Board would be allowed for three years after concluding their employment or engagement with the Company to exercise their options that have vested on or prior to such conclusion of employment or engagement, provided that no options shall vest following such cessation of employment or engagement. "Change of Control" is defined as the acquisition (at one time or over a period of time) of shares of the Company or of securities ("Convertible Securities") convertible into, exchangeable for or representing the right to acquire shares of the Company as a result of which a person, group of persons or persons acting jointly or in a concert, or persons associated or affiliated within the meaning of the *Canada Business Corporation Act* with any such person, group of persons or persons acting jointly or in concert (collectively, "Acquirors"), beneficially own shares of the Company and/or Convertible Securities that would entitle the holders thereof to cast more than 50% of the votes attaching to all shares in the capital of the Company that may cast to elect directors of the Company (assuming the conversion, exchange or exercise of Convertible Securities beneficially owned by the Acquirors). Change of Control does not include a reverse takeover or other reorganization whereby the holders of shares and Convertible Securities of the Company immediately prior to such transaction beneficially own, following the

completion of the transaction, shares of the parent or surviving corporation that would entitle the holders thereof to cast more than 50% of the votes attaching to all shares in the capital of such parent or surviving corporation that may be cast to elect directors of such parent or surviving corporation.

Indebtedness of Directors and Officers

No individual, who is or, at any time during our most recently completed financial year, was a director, executive officer or senior officer of Adherex, nor any proposed nominee for election as a director of Adherex, nor any associate of any one of them:

(a) is or, at any time since the beginning of our most recent completed financial year, has been indebted to Adherex or any of its subsidiaries; or

(b) was indebted to another entity, which indebtedness is, or was at any time during our most recent completed financial year, the subject of a guarantee, support agreement, letter of credit or other similar arrangement or understanding provided by Adherex or any of its subsidiaries.

Report on Corporate Governance

We believe that good corporate governance is important to ensure that the Company is managed for the long term benefit of its shareholders. In connection with our proposed listing on the American Stock Exchange, and our commitment to complying with the standards of the Toronto Stock Exchange, we have continued to review our corporate governance practices and policies and compared them to developing practices and regulation in Canada and the United States. In particular, we have considered the developing rules and guidelines for corporate governance practices and policies, and related disclosures, promulgated by the Toronto Stock Exchange, the U.S. Securities and Exchange Commission and the American Stock Exchange, as well as the Sarbanes-Oxley Act of 2002.

Based on this review, in February 2004 (revised in August 2004), our Board of Directors adopted a Mandate of the Board of Directors, Corporate Governance Guidelines and a Code of Business Conduct and Ethics applicable to all officers, directors and employees of the Company. The Board of Directors also (i) restated the charter of the Audit Committee and appointed its members, (ii) established a separate Governance Committee, adopted a written charter for the committee, and appointed its members, (iii) restated the charter of the Compensation Committee and appointed its members, (iv) established a Nominating Committee, adopted a written charter for the committee, and appointed its members and (v) appointed a Lead Independent Director, currently Raymond Hession. You can access our current committee charters, Mandate of the Board of Directors, Corporate Governance Guidelines and Code of Business Conduct and Ethics in the corporate governance section of our website at http://www.adherex.com/CorpGov.htm.

Mandate of the Board of Directors

The Board has the overall responsibility for the strategic planning and general management of our business and affairs. In fulfilling its responsibilities, the Board is responsible for, among other things:

- adoption of a strategic plan for the Company;
- approval of the annual operating and capital expenditure budgets;
- identification of the principal risks of the Company’s business and ensuring the implementation of the appropriate systems to manage these risks;
- succession planning for the Company, including appointing and monitoring senior management;
- adoption of a communications policy for the Company;
- approval of acquisitions, dispositions, investments and financings, which exceed certain prescribed limits; and
- integrity of the Company’s internal control and management information systems.

The Board discharges its responsibilities directly and through committees that have specific areas of responsibility. During the financial year ended June 30, 2004, the Board held eight meetings. The frequency of Board meetings and the nature of items discussed during the meetings depend on the opportunities or risks that Adherex faces. The Board, through its committees, has adopted a process whereby it assesses the risk factors that must be identified and managed to ensure Adherex's long-term viability. Such matters include succession planning and the monitoring of senior management. In addition, the Board has adopted a formal communications policy for communications with shareholders and other interested parties.

Lead Independent Director

Our Corporate Governance Guidelines require that the Board designate an independent director to act in a lead capacity to perform certain functions, or Lead Independent Director. The Lead Independent Director shall be elected annually by the independent directors. In May 2004, Mr. Hession was elected as the Lead Independent Director. The Lead Independent Director's authority and responsibilities include:

- consulting with the Chairman of the Board on an appropriate schedule for Board meetings, seeking to ensure that the independent directors can perform their duties responsibly;
- providing the Chairman of the Board with input into agendas for Board meetings, with the understanding that agenda items requested by the Lead Independent Director shall be included on the agenda;
- advising the Chairman of the Board as to the quality, quantity and timeliness of the flow of information from management that is necessary for the independent directors to perform their duties responsibly, with the understanding that the independent directors will receive any information requested on their behalf by the Lead Independent Director;
- calling, and acting as the presiding director at, meetings of the independent directors, and developing the agenda for such meetings;
- acting as principal liaison between the independent directors, the Chairman of the Board and the Chief Executive Officer on sensitive issues;
- providing input to the Compensation Committee regarding the Chief Executive Officer's performance and meeting, along with the Compensation Committee, with the Chief Executive Officer to discuss the Board's evaluation of his or her performance; and
- any other responsibilities as may be determined from time to time by the Board.

Composition of Our Standing Committees

The Board has created audit, compensation, nominating, and governance committees to ensure that the Board functions independently of management. It is also customary practice for directors (i) to receive detailed information describing our performance prior to each Board meeting, and (ii) when necessary, to speak directly with management regarding additional information required on particular matters of interest. Moreover, directors have access to information independent of management through our external auditor.

Audit Committee

On behalf of the Board, the Audit Committee of the Board retains, oversees and evaluates our independent auditor, reviews the financial reports and other financial information provided by the Company, including audited financial statements, and discusses the adequacy of disclosure with management and the auditor. The committee also reviews the performance of the independent auditor in the annual audit and in assignments unrelated to the audit, assesses the independence of the auditor, and reviews its fees. The committee is responsible for reviewing our internal controls over financial reporting and disclosure and our response to the Toronto Stock Exchange's governance guidelines published in 1994.

The Audit Committee operates under a written charter adopted by the Board. The committee met seven times during fiscal year 2004. The current members of the Audit Committee are Mr. Hession (Chair), Dr. Morand and Dr. Porter. The Board has determined that each is "unrelated" for purposes of the Toronto Stock Exchange Guidelines and "independent" as defined by the current rules of the American Stock Exchange. The Board has determined that each member of the committee is financially literate for purposes of the American Stock Exchange and that Arthur Porter, MD, MBA has the requisite attributes of an "audit committee financial expert" as defined by regulations promulgated by the Securities and Exchange Commission.

Compensation Committee

The Compensation Committee of the Board determines the compensation to be paid to our executive officers and periodically reviews our compensation structure to ensure that we continue to attract and retain qualified and experienced individuals to our management team and motivate these individuals to perform to the best of their ability and in the Company's best interests. Among other things, the committee considers compensation levels of comparable positions in similarly sized organizations in the biotechnology industry. The committee also administers our Stock Option Plan and reviews recommendations from management for new stock option grants.

The Compensation Committee operates under a written charter adopted by the Board. The current members of the Compensation Committee are Dr. Porter (Chair), Mr. Hession and Dr. Kufe. The Board has determined that each is "unrelated" for purposes of the Toronto Stock Exchange Guidelines and "independent" as defined by the current rules of the American Stock Exchange. The committee held four meetings in fiscal year 2004.

Nominating Committee

The Nominating Committee of the Board of Directors is charged with nominating activities, including determining desired Board skills and attributes for directors; conducting appropriate and necessary evaluations of the backgrounds and qualifications of possible director candidates; and recommending director nominees for approval by the Board or the shareholders. The Nominating Committee is authorized to retain advisors and consultants and compensate them for their services.

The Nominating Committee will not rely on a fixed set of qualifications for director nominees. The Committee's primary mandate with respect to director nominees is to create a Board with a broad range of skills and attributes that will be aligned with the Company's strategic needs. The current members of the Nominating Committee are Dr. Kufe (Chair), Mr. Karmanos and Dr. Porter. The Board has determined that each is "unrelated" for purposes of the Toronto Stock Exchange Guidelines and "independent" as defined by the current rules of the American Stock Exchange.

Governance Committee

The Governance Committee of the Board of Directors develops, recommends and oversees the effectiveness of the Company's corporate governance guidelines. In addition, the committee oversees the orientation and education of directors and the process of evaluating the Board and its committees.

The current members of the Governance Committee are Mr. Hession (Chair), Dr. Mermelstein, Dr. Morand and Mr. Karmanos. The Board has determined that each is "unrelated" for purposes of the Toronto Stock Exchange Guidelines and "independent" as defined by the current rules of the American Stock Exchange.

E. Employees

We currently employ 21 full-time employees, 18 of whom are located at our office in RTP and three of whom are located in Ottawa, Ontario, Canada. We intend to add approximately ten employees by the end of 2004 and approximately ten more employees in 2005. We also have four contract employees.

F. Share ownership

The following table shows the number of shares of common stock, options and warrants to purchase common stock beneficially owned by each director and Named Executive Officer as of August 13, 2004. We have included all securities of the Company owned by each individual, irregardless of when those securities vest.

Name	Common Shares Held Directly	Options and Warrants Outstanding	% of Outstanding Common Stock as of August 13, 2004(1)	Exercise Price	Expiration Date
William P. Peters, MD, PhD, MBA	305,912	3,750,000	4.94%	$ 0.33	2/19/2010
		77,829		0.55	6/23/2007
		152,956		0.46	12/19/2008
		3,500,000		0.45	12/30/2010
		351,089		0.45	12/30/2010
		1,170,000		0.58	5/21/2011
Raymond Hession	467,641	48,000	0.44%	0.3275	2/23/2006
		42,945		0.55	6/23/2007
		84,721		0.46	12/19/2008
		39,000		0.34	5/3/2010
		93,108		0.65	3/1/2011
		20,000		0.58	5/21/2011
Peter Karmanos, Jr.	—	93,108	0.05%	0.58	5/21/2011
Donald W. Kufe, MD	—	93,108	0.07%	0.65	3/1/2011
		5,000		0.65	3/1/2011
		20,000		0.58	5/21/2011
Fred H. Mermelstein, PhD	6,792,053	381,921	4.00%	0.717	5/20/2007
		38,914		0.55	6/23/2007
		76,478		0.46	12/19/2008
		39,000		0.34	5/3/2010
		93,108		0.65	3/1/2011
		20,000		0.58	5/21/2011
Peter Morand, PhD	200,000	200,000	0.53%	0.3275	2/25/2007
		400,000		0.75	2/25/2007
		39,000		0.34	5/3/2010
		93,108		0.65	3/1/2011
		20,000		0.58	5/21/2011
Robin Norris, MB BS	18,000	600,000	0.77%	0.33	12/12/2008
		200,000		0.34	5/3/2010
		378,000		0.45	12/30/2010
		182,000		0.58	5/21/2011
Arthur T. Porter, MD, MBA	—	93,108	0.06%	0.65	3/1/2011
		20,000		0.58	5/21/2011
James A. Klein, Jr., CPA	—	1,000,000	0.60%	0.53	4/26/2011
		75,000		0.58	5/21/2011
D. Scott Murray, BScPharm, LLB, MBA	—	150,000	0.17%	0.35	2/12/2010
		50,000		0.49	12/19/2010
		59,850		0.45	12/30/2010
		40,000		0.58	5/21/2011
All executive officers and directors as a group (ten persons)	7,783,606	13,790,351	11.52%		

(1) In computing the percentage of outstanding common stock owned by a person, we have deemed common stock subject to options or warrants held by that person (vested and unvested) to be outstanding, but we have not deemed those shares to be outstanding for purposes of computing the percentage ownership of any other person. Ownership percentage is based on 179,457,222 shares of our common stock outstanding as of August 13, 2004.

Pursuant to his employment agreement, Dr. Rajesh K. Malik will be, subject to Board approval, granted options to purchase up to 750,000 shares of common stock, at a price per share equal to the stock price on the date of grant, under our Stock Option Plan.

Adherex Stock Option Plan

Our Adherex Stock Option Plan is intended to encourage the ownership of common stock by our employees, directors and key consultants and to provide additional incentive for such persons to promote our success in a highly competitive business environment. As of August 13, 2004, 20,000,000 shares of common stock have been reserved for issuance upon exercise of options issuable under our Stock Option Plan, of which options to purchase 12,879,803 shares of common stock have been granted to employees, directors, and key consultants and are outstanding, and 107,000 shares of common stock have been issued pursuant to stock option exercises.

Options to purchase common stock are granted in accordance with the terms of our Stock Option Plan. Pursuant to this Plan and the charter of the Compensation Committee, the Compensation Committee has the authority to recommend to the Board of Directors those individuals of the Company to whom options will be granted and the number of options to be granted. The exercise price for purchasing common stock under our Stock Option Plan is fixed based upon the closing price of our common stock on the Toronto Stock Exchange on the day immediately preceding the date of grant.

In addition to the options to purchase common stock pursuant to our Stock Option Plan, on December 16, 2003, our shareholders approved the grant to Dr. William Peters of options to purchase 3,500,000 shares of common stock, having an exercise price equal to the market price of the our common stock on the Toronto Stock Exchange on the date of the grant and a term of seven years from the date of grant. For further information concerning Dr. Peters' option grants, see "—Employee Agreements and Termination Provisions."

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major shareholders

As used in this section, a "beneficial owner" is any person who, even if not the record owner of securities, has or shares the underlying benefits of ownership. These benefits include the power to direct the voting or the disposition of the securities or to receive the economic benefit of ownership of the securities. A person also is considered to be the beneficial owner of securities that he or she has the right to acquire within 60 days by option or other agreement. Beneficial owners include person who hold their securities through one or more trustees, brokers, agents, legal representatives or other intermediaries, or through companies in which they have a "controlling interest," which means the direct or indirect power to direct the management and policies of the entity. In this section, ownership percentage is based on 179,457,222 shares of our common stock outstanding as of August 13, 2004.

To our knowledge, as at the date of this registration statement, the only persons who beneficially own, directly or indirectly, or exercise control or direction over voting securities of the Company carrying more than 5% of the voting rights of the total issued and outstanding shares of the Company are as follows:

	Number of Voting Securities Owned	
Name	**Common Stock**	**Percentage of Class**
HBM BioVentures (Cayman) Ltd.	34,445,380 (1)	18.0%
The VenGrowth Advanced Life Sciences Fund Inc.	29,919,136 (2)	15.8%
OrbiMed Advisors LLC	22,835,378 (3)	12.2%

(1) Includes a warrant to purchase 535,714 shares of common stock at an exercise price of $0.43, expiring December 3, 2007, a warrant to purchase 9,416,430 shares of common stock at an exercise price of $0.43, expiring December 19, 2008 and a warrant to purchase 1,886,793 shares of common stock at an exercise price of $0.70, expiring May 20, 2007.

(2) Includes a warrant to purchase 7,142,857 shares of common stock at an exercise price of $0.43, expiring December 19, 2008 and a warrant to purchase 2,830,188 shares of common stock at an exercise price of $0.70, expiring May 20, 2007.

(3) Includes a warrant to purchase 5,725,000 shares of common stock at an exercise price of $0.43, expiring December 19, 2008 and a warrant to purchase 1,866,793 shares of common stock at an exercise price of $0.70, expiring May 20, 2007.

The above shareholders do not have different voting rights from any other shareholder of the Company. HBM BioVentures (Cayman) Ltd. does, however, have the right to appoint a nominee for election to the Board by our shareholders and the right to have an observer to attend, but not vote at, our Board meetings. To date, HBM BioVentures (Cayman) Ltd. has never sent an observer to any of our Board meetings, and has informed us that it does not intend to send any observers in the future. Currently, Dr. Porter is the director nominated by HBM Bioventures (Cayman) Ltd. He has no affiliation with HBM Bioventures (Cayman) Ltd.

During the past three years, the following significant changes occurred in the percentage ownership of the major shareholders listed in the table above. On December 19, 2003, HBM BioVentures (Cayman) Ltd. beneficially owned 17.8% of our common stock, The VenGrowth Advanced Life Sciences Fund Inc. beneficially owned 13.5% of our common stock, and OrbiMed Advisors LLC beneficially owned 10.9% of our common stock, in each case as the result of acquisitions of common stock and warrants in financings we completed in December 2003. On May 20, 2004, HBM BioVentures (Cayman) Ltd. beneficially owned 18.0% of our common stock, The VenGrowth Advanced Life Sciences Fund Inc. beneficially owned 15.8% of our common stock, and OrbiMed Advisors LLC beneficially owned 12.2% of our common stock, in each case as a result of acquiring common stock and warrants in the financing we completed in May 2004.

As of August 2004, (i) 95 of the record holders of our common stock were citizens or residents of the United States, or corporations created or organized in or under the laws of the United States and (ii) 38% of our total outstanding common stock was directly or indirectly held of record by U.S. residents, in each case calculated in accordance with Rule 3b-4(c) promulgated under the Securities Exchange Act of 1934, as amended.

We are not controlled directly or indirectly by any other corporation or any other foreign government or by any other natural or legal person, severally or jointly.

There are no arrangements the operation of which at a subsequent date may result in a change in our control.

B. Related party transactions

In accordance with the CBCA, directors who have a material interest in any person who is a party to a material contract or a proposed material contract with us are required, subject to certain exceptions, to disclose that interest and abstain from voting on any resolution to approve that contract. Paramount Capital, Inc.

("Paramount") was engaged as an introducing agent by Oxiquant and received $500,000 and warrants to purchase 848,000 shares of common stock of the Company for their services pursuant to the acquisition of Oxiquant by Adherex. Paramount also served as introduction agent for a private placement in June 2003 of convertible notes in the United States and received, in addition to cash commissions, warrants to purchase an aggregate of 504,330 shares of common stock of the Company. Fred H. Mermelstein is sole shareholder and former Director of Venture Capital at Paramount Capital Investments LLC and a former employee of Paramount. Dr. Mermelstein received compensation from Paramount from the proceeds it received as a result of the transactions noted above.

Robin Norris, an officer and director of Adherex, and Raymond Hession and Peter Morand, directors of Adherex, are each former directors of CBI. CBI was originally incorporated as a wholly owned subsidiary of Adherex, and in exchange for rights to Adherex's non-cancer assets and $250,000 in cash, Adherex received preferred shares of CBI. As of the date hereof, Dr. Hession owns 277,500 preferred shares of CBI, Dr. Morand owns 200,000 preferred shares of CBI, Dr. Norris owns 18,000 preferred shares of CBI, and Dr. Peters owns 100 preferred shares of CBI.

In February 2004, we filed a claim in the Ontario Superior Court of Justice against CBI in the amount CAD$124,000 on account of unpaid goods and services rendered. In July 2004, CBI filed a statement of defence and counterclaim in response to such claim. CBI's counterclaim seeks CAD$5 million in damages in relation to the license agreement between the parties. In July 2004, in an effort to reacquire rights to the non-cancer applications relating to the cadherin technology and settle our litigation with CBI, we entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex formed for this purpose. We expect the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. See Item 4.A., "Information on the Company—History and development of the Company."

C. Interests of experts and counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated statements and other financial information

Please see Item 18, "Financial Statements" for a list of the financial statements filed as part of this registration statement.

In fiscal year 2003, we did not receive revenue from exports.

We have not been involved in any material legal or arbitration proceedings, including bankruptcy, receivership or similar proceedings, other than our litigation with CBI described in Item 4.A., "Information on the Company—History and development of the Company." To our knowledge, there has been no proceedings with third parties which may have, or have had in the recent past, significant effects on our financial positions or profitability.

Other than the Class A Preferred Shares of CBI which were distributed as a dividend in November 2002, we have neither declared nor paid dividends on any of our outstanding common stock, and do not intend to do so in the foreseeable future. We intend to retain any future earnings to finance the expansion of our business. Any future determination to pay dividends will be at the discretion of the Board of Directors and will depend upon our financial condition, results of operations, capital requirements, as well as any other factors deemed relevant by our Board.

B. Significant changes

Please see Note 20 to the attached consolidated financial statements.

ITEM 9. THE OFFER AND LISTING

A. Offer and listing details

We intend to apply to the American Stock Exchange to have our issued and outstanding common stock without par value. The issued and outstanding shares of our common stock are listed and posted for trading on the Toronto Stock Exchange under the trading symbol “AHX.” Our shares of common stock are registered shares on the books of its transfer agent.

Computershare Investor Services Inc., 100 University Avenue, 9th Floor, Toronto, Ontario, M5J 2Y1 is the transfer agent and registrar for the Company’s common stock in Canada and the United States (through a U.S. affiliate). There are no transfer restrictions apart the requirement that any transfers comply with applicable securities laws and the rules of applicable securities exchanges.

The following table sets forth information regarding the price history of our common stock on the Toronto Stock Exchange for the periods indicated:

(1) the annual high and low market closing prices, and average daily trading volume on the Toronto Stock Exchange, for the five most recent full financial years:

	Jun-04	Jun-03	Jun-02	Jun-01	Jun-00
High ($)	0.79	0.59	1.08	N/A	N/A
Low ($)	0.38	0.30	0.30	N/A	N/A
Trading Volume	95,454	40,829	68,286	N/A	N/A

(2) the quarterly high and low market closing prices, and average daily trading volume on the Toronto Stock Exchange, for the two most recent full financial years and any subsequent period:

	Q4/04 Apr-Jun	Q3/04 Jan-Mar	Q2/04 Oct-Dec	Q1/04 Jul-Sept	Q4/03 Apr-Jun	Q3/03 Jan-Mar	Q2/03 Oct-Dec	Q1/03 Jul-Sept
High ($)	0.63	0.79	0.50	0.54	0.54	0.42	0.49	0.59
Low ($)	0.41	0.50	0.38	0.46	0.32	0.32	0.33	0.30
Trading Volume	107,775	191,653	43,257	37,603	55,316	16,759	24,440	66,802

(3) the high and low market closing prices, and average daily trading volume on the Toronto Stock Exchange, for the most recent six months:

	Aug-04	July-04	Jun-04	May-04	Apr-04	Mar-04
High ($)	0.44	0.50	0.58	0.60	0.63	0.65
Low ($)	0.36	0.41	0.41	0.51	0.53	0.57
Trading Volume	90,018	85,910	91,782	109,165	123,206	282,219

B. Plan of distribution

Not applicable.

C. Markets

The Company’s common stock is traded on the Toronto Stock Exchange under the symbol “AHX”.

We intend to apply to have our common stock listed on the American Stock Exchange upon the effectiveness of this registration statement. We have reserved the symbol “ADH.”

There can be no guarantee that the Company’s application to list on the American Stock Exchange will be accepted.

D. Selling shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share capital

Our authorized share capital consists of an unlimited number of shares of common stock, without nominal or par value. As of August 13, 2004, there were 179.5 million shares of common stock outstanding, which are fully paid and non-assessable. At August 13, 2004 we had 16.4 million options to purchase common shares outstanding with a weighted average price of $0.49 and warrants outstanding of 62.9 million with a weighted average price of $0.49. As of March 31, 2004, there were 152.1 million shares of common stock outstanding which were fully paid and non-assessable. We do not hold any shares of our capital stock as Treasury stock.

On June 14, 2004 New Generation Biotech (Equity) Fund Inc. (“New Generation”) exchanged its interest in 2037357 Ontario Inc. for 4.0 million shares of the Company’s common stock and warrants to purchase 2.0 million shares of the Company’s common stock at an exercise price of $0.43 per share. See Item 4.A., “History and development of the Company.”

On May 20, 2004, we completed an $8.4 million bought deal in Canada, issuing 15.8 million units at a price of $0.53 per unit. A bought deal is a Canadian term for an offering by an issuer that is similar to a firm commitment underwriting. It involves the dissemination of a short form prospectus that meets the requirements of, and has been filed with, the Ontario Securities Commission and the Toronto Stock Exchange. We paid Dlouhy Merchant Group Inc. an underwriting fee of $0.5 million in connection with the bought deal. Concurrently with the bought deal, we completed a $4.0 million private placement outside of Canada to existing shareholders of the Company, issuing 7.5 million units at a price of $0.53 per unit. Each unit consists of one share of common stock and one-half of a common stock purchase warrant. Each whole warrant is exercisable until May 20, 2007 at an exercise price of $0.70 per share. We paid agent commissions of $0.1 million in connection with the private placement. In conjunction with the May 2004 financings, the Company incurred approximately $0.1 million of other expenses.

In connection with the December 19, 2003 private placement, we incorporated 2037357 Ontario Inc. to carry out specific research and development activities. We entered into a subscription and exchange rights agreement with New Generation and 2037357 Ontario Inc., which was 50% owned by us and 50% owned by New Generation. Pursuant to the subscription agreement, 2037357 Ontario Inc. issued 4.0 million Series 1 Preferred Shares and warrants to purchase 2.0 million Series 1 Preferred Shares to New Generation for a purchase price of $1.4 million. Pursuant to the exchange rights agreement, New Generation had the right to exchange all or part of its Series 1 Preferred Shares of 2037357 Ontario Inc. for an equal number of shares of Adherex common stock at any time. The exchange rights agreement also provided that upon the exercise by New Generation of its exchange right, all of the then outstanding warrants to purchase shares of Series 1 Preferred Shares of 2037357 Ontario Inc. would be exchanged for an equal number of warrants to purchase Adherex common stock, which would have an exercise price of $0.43 per share and an expiration date of December 19, 2008. On June 14, 2004, New Generation exchanged its interest in 2037357 Ontario Inc. for 4.0 million shares of Adherex common stock and warrants to purchase 2.0 million shares of Adherex common stock. Subsequent to

the exchange, 2037357 Ontario Inc., a wholly owned subsidiary of the Company, continued its existence under the CBCA as Adherex Research Corp. On June 29, 2004, Adherex Research Corp., a wholly owned subsidiary of the Company, amalgamated with the Company pursuant to a short-form amalgamation under the CBCA.

On December 19, 2003, we completed a private placement of 57.6 million units, for $0.35 per unit, for gross proceeds totaling approximately $20.2 million. Each unit was comprised of one share of common stock and one-half of a common stock purchase warrant. The warrants are exercisable until December 19, 2008 at an exercise price of $0.43 per share. Including 14.1 million units issued upon the conversion of convertible notes of the Company as described below, we issued a total of 71.7 million units.

In June and December 2003, we completed bridge financings of convertible notes for a total of approximately $4.9 million. In accordance with their terms, upon the closing of the private placement described above on December 19, 2003, these notes converted at $0.35 per unit into 14.1 million units having the same terms as those issued in the private placement (with the exception of notes held by insiders of the Company, which converted at $0.46 per unit). Investors in or purchasers of the June convertible notes also received warrants to purchase an aggregate of 1.7 million shares of common stock at a price of $0.55 per share (of which warrants to purchase 1.4 million shares of common stock held by non-insiders were repriced to $0.43 per share on December 3, 2003), while investors of the December convertible notes received warrants to purchase an aggregate of 1.4 million shares of common stock at a price of $0.43 per share.

Fiscal Year 2003

On November 5, 2002, our shareholders approved a resolution to reduce our stated capital by approximately $15 million. This resolution was required by the CBCA to ensure that the value of our assets was not less than the aggregate of our liabilities and stated capital of all classes, thereby permitting the distribution to our shareholders of the CBI Class A Preferred Shares.

On November 20, 2002, we acquired the intellectual property of Oxiquant through a reverse triangular merger involving a wholly-owned U.S. subsidiary, pursuant to which we issued to Oxiquant’s shareholders 40.2 million shares of common stock and warrants to purchase 2,306,994 shares of common stock with an exercise price of $0.717 per share that expire on May 20, 2007.

On September 27, 2002, CBI was incorporated as a wholly-owned subsidiary of Adherex. Adherex granted CBI an exclusive, royalty-free license agreement to develop, market and distribute pharmaceuticals and therapeutics for non-cancer applications based on cadherin technology. Subsequently, Adherex distributed all of the equity of CBI to the shareholders of record of Adherex. This divestiture of our non-cancer assets was a condition precedent to our acquisition of Oxiquant, a U.S.-based development-stage biopharmaceutical company with a focus in chemoprotection and chemoenhancement.

At June 30, 2003 we had 8.2 million options to purchase common shares outstanding with a weighted average of price of $0.48 per share of which 5.6 million options were issued with a weighted average price of $0.48 per share during the fiscal year ended June 30, 2003 under our stock option plan.

Fiscal Year 2002

There was no common stock activity for the year.

At June 30, 2002 we had 3.7 million options to purchase common shares outstanding with a weighted average price of $0.74 per share of which 5.1 million options were issue with a weighted average price of $0.33 per share during the fiscal year ended June 30, 2002 under our stock option plan.

Fiscal Year 2001

On June 5, 2001, we completed an initial public offering, issuing 6.7 million shares of common stock at a price of $1.50 per share, and listing on the Toronto Stock Exchange under the symbol AHX. Net proceeds of the offering credited to common stock amounted to $8.7 million.

At June 30, 2001 we had 4.1 million options to purchase common shares outstanding with a weighted average price of $0.56 per share of which 0.9 million options were issue at a price of $1.25 per share during the fiscal year ended June 30, 2001 under our stock option plan.

For more details on the history of our share capital, you should read Item 4.A., "Information on the Company—History and development of the Company," as well as our financial statements and related notes thereto included in this Form 20-F.

Warrants and Options

The warrants and options that are currently outstanding, as at August 13, 2004 are:

Name of Warrant or Option	Number of Shares of Common Stock Issuable upon Exercise of Warrants/Options	Exercise Price	Expiry Date
Employee Stock Options	16,379,803	0.3275-1.50	2005-2011
Introduction Warrants (1)	848,000	0.41	2007
Merger Warrants (1)	2,306,994	0.7170	2007
Private Placement Investor Warrants (2)	1,723,820	0.43-0.55	2007
Private Placement Agent Warrants (2)	504,330	0.47	2005
Private Placement Investor Warrants (3)	1,353,570	0.43	2007
Private Placement Agent Warrants (3)	470,000	0.43	2005
Private Placement Investor Warrants issued upon conversion of Convertible Notes (4)	7,032,915	0.43	2008
Private Placement Investor Warrants (4)	30,804,636	0.43	2008
Private Placement Agent Warrants (4)	6,132,437	0.43	2005
Bought Deal and Private Placement Investor Warrants (5)	11,673,586	0.70	2007

(1) In connection with the Oxiquant acquisition in November 2002, we issued 2,306,994 warrants to Oxiquant's shareholders with an exercise price of $0.717 that will expire on May 20, 2007 and 848,000 introduction warrants to Paramount Capital, Inc. with an exercise price of $0.41 that will expire on November 20, 2007.

(2) On June 23, 2003, we completed a private placement of convertible notes totaling approximately $3.0 million. On December 19, 2003, the convertible notes were converted into shares of common stock and warrants as described in Note (4) below. Investors also received warrants to purchase an aggregate of 1,723,820 shares of common stock of the Company at a price of $0.55 per share that expire in June 2007. Paramount Capital, Inc. of New York served as introduction agent for the offering in the United States and received warrants to purchase an aggregate of 504,330 shares of common stock of the Company at a price of $0.47 per share that will expire on June 23, 2005. Pursuant to the December 3, 2003 financing, investor warrants to purchase 1,432,601 shares of common stock were repriced to $0.43 per share (this did not include any insiders).

(3) Pursuant to a December 2003 private placement of convertible notes totaling $1.9 million, investors received warrants to purchase an aggregate of 1,353,570 shares of common stock at a price of $0.43 per share. On December 19, 2003, the convertible notes were converted into shares of common stock and warrants as described in Note (4) below. Introduction agents received, in addition to cash commissions, warrants to purchase an aggregate of 470,000 shares of common stock at an exercise price of $0.43 per share, which expire in December 2005.

(4) On December 19, 2003, we completed a private placement of units, each unit consisting of one share of common stock and one-half of a common stock purchase warrant, totaling approximately $21.0 million of equity. Each warrant is exercisable for a period of five years at an exercise price of $0.43 per share. Overall, a total of approximately 75.6 million units were issued at $0.35 per unit, consisting of (i) 14,000,000 units for the conversion of convertible notes of the Company issued in the June 23, 2003 and December 19, 2003 private placements described in Notes (2) and (3) above, (ii) approximately 57.6 million units issued directly in the December 19, 2003 private placement, and (iii) 4.0 million units that were acquired in exchange for Series 1 Preferred Shares and warrants to purchase Series 1 Preferred Shares of 2037357 Ontario Inc. issued in connection with the December 19, 2003 private placement (as described in Item 4.A., “Information on the Company—History and development of the Company.” Agents for the private placements, in addition to cash commissions, received warrants to purchase an aggregate of approximately 6.1 million shares of common stock of the Company at a price of $0.43 per share exercisable for a period of two years that expire in December 2005.

(5) On May 20, 2004, we completed an $8.4 million bought deal in Canada, issuing 15,800,000 units at a price of $0.53 per unit. We paid Dlouhy Merchant Group Inc. an underwriting fee of $0.5 million in connection with the bought deal. A bought deal is a Canadian term for an offering by an issuer that is similar to a firm commitment underwriting. It involves the dissemination of a short form prospectus that meets the requirements of, and has been filed with, the Ontario Securities Commission and the Toronto Stock Exchange. Concurrently with the bought deal, we completed a $4.0 million private placement outside of Canada to existing shareholders of the Company, issuing 7,547,170 units at a price of $0.53 per unit. Each unit consists of one share of common stock and one-half of a common stock purchase warrant. Each whole warrant is exercisable until May 20, 2007 at an exercise price of $0.70 per share. We paid agent commissions of $0.1 million in connection with the private placement. In conjunction with these May 2004 financings, the Company incurred approximately $0.1 million of other expenses.

Our shares of common stock rank equally, are not subject to call or assessment, and contain no pre-emptive or conversion rights. The holders of common stock are entitled to dividends as and when declared by the Board of Directors of the Company, to one vote per share at meetings of holders of common stock and, upon liquidation, to receive such assets of the Company as are distributable to the holders of common stock. All of the common stock outstanding on completion of the offering will be fully paid and non-assessable.

Adherex Stock Option Plan

For Information concerning our Stock Option Plan and other options, see Item 6.E., “Share Ownership.”

B. Memorandum and articles of association

Our articles of amalgamation (the “Articles”) and By-laws are attached as an exhibit hereto as noted in Item 19. The Company is an amalgamated corporation pursuant to the CBCA. Our Articles do not contain any limitations on the Company’s objects or purposes.

The following is a summary of certain provisions of the Act and our Articles and By-laws:

Directors’ Responsibilities in Matters in Which the Director is Materially Interested

The CBCA requires any of our directors who are directly or indirectly interested in a material contract or transaction or proposed material contract or transaction with it to disclose the nature and extent of their interest. Pursuant to the CBCA, in the case of a proposed contract or transaction, the declaration must be made at the meeting of our Board of Directors at which the question of entering into the contract is first taken into consideration, or if the director was not then interested, at the first meeting after he becomes so interested. In the case where any of our directors becomes interested in a contract or transaction after it is made, the declaration must be made at the first meeting of the Company’s directors held after they have become interested. In the case

where a proposed contract or transaction is one that would not require approval by the directors or shareholders, the director shall disclose in writing to the Company or request to have entered in the minutes of the meeting of the directors his interest, promptly, after the director becomes aware of the proposed contract or transaction or becomes aware of the contract or transaction.

Directors' Power to Vote on Compensation to Themselves

The CBCA provides that the directors may fix the compensation of the directors of the Company.

Borrowing Powers

The Board may from time to time delegate to a director, a committee of the Board, or an officer of the Company any or all of the powers conferred on the Board by the CBCA in respect of the borrowing powers of the Company to such extent and in such manner as the Board may determine at the time of such delegation. The Board of Directors, pursuant to the By-laws delegated such borrowing powers to the Chief Executive Officer.

Retirement of Directors Under an Age Limit Requirement

Our Articles and By-laws do not require directors to retire pursuant to an age requirement.

Number of Shares Required for a Director's Qualification

Our Articles and By-laws do not provide for a requirement of ownership of shares for a director's qualification.

Fiduciary Duties of Directors and Officers

Directors and officers of a corporation governed by the CBCA have fiduciary obligations to their corporation. Under the CBCA, directors and officers must act honestly and in good faith with a view to the best interests of the corporation and must exercise the care, diligence and skill that a reasonably prudent person would exercise in a comparable circumstance. Subject to the terms of any unanimous shareholders agreement relieving the directors and officers of their ability to manage the affairs of a corporation (the Company is not a party to any such agreement), the CBCA further provides that a director or officer cannot contract out of liability for a breach of such obligations.

Liability of Directors

The CBCA imposes joint and several personal liability upon directors who vote for or consent to a resolution authorizing actions that are in violation of provisions of the CBCA relating to the issuance of shares, the purchase, redemption or other acquisition of shares, the commissions paid on the sale of shares, the payment of dividends, the payment of a director's indemnity or payments made to a shareholder.

Rights and Preferences of Common Stock

Our Articles permit but do not require the Board of Directors to declare and pay dividends with respect to the common stock. Each holder of common stock is entitled to one vote per share on all matters coming for a vote before the shareholders. There is no cumulative voting. All holders of common stock are entitled to share equally in any surplus in the event of a liquidation, dissolution or winding-up of the Company. There are no provisions calling for the redemption of common stock, establishing any sinking fund, or establishing any obligation to participate in further capital calls by the Company. There is no provision discriminating against existing or prospective holders of common stock as a result of such shareholder owning a substantial number of shares.

Creation of New Securities

The CBCA provides a holder of shares of any class or series the right to vote on any proposal to create a new class or series and the rights, privileges, restrictions and conditions attached thereto upon amendments to the Company's Articles.

General Meetings

Subject to the CBCA, we must hold an ordinary general meeting not later than 15 months after the most recent annual meeting but no later than six months after the end of our preceding financial year.

Subject to the provisions of the CBCA, a special meeting of shareholders may be called at any time and may be held in conjunction with the annual meeting of shareholders.

The CBCA and our By-laws provide that at least 21 days' notice and not more than 50 days' notice of every general meeting specifying the day, hour and place of the meeting, and, when special business is to be considered, the general nature of such business and the text of any special resolution to be submitted to the meeting must be given to the Company's shareholders entitled to be present at the meeting by notice given as permitted by our Articles or By-laws. In addition, in accordance with Section 703 of the American Stock Exchange Company Guide, the Company will not close its transfer books if and so long as the common stock is listed for trading on the American Stock Exchange.

No business will be transacted at any general meeting unless the requisite quorum is present at the commencement of business. A quorum for the transaction of business at a general meeting, pursuant to our By-laws, shall be two persons present in person or by proxy and holding or representing by proxy, not less than 33 1/3% of the shares entitled to vote at the general meeting. However, if and so long as the common stock is listed on the American Stock Exchange, we intend to comply with the requirement of Section 123 of the American Stock Exchange Company Guide that a quorum be comprised of not less than 33 1/3% of the issued common stock.

Limitations on the Right to Own Securities

Our Articles do not provide for any limitations on the rights to own securities.

Change in Control Provisions

Our Articles do not contain any change in control limitations with respect to a merger, acquisition, or corporate restructuring.

Shareholder Ownership Disclosure

Our By-laws do not contain any provisions governing the ownership threshold above which shareholder ownership must be disclosed. However, certain Canadian securities commissions require that persons that are the registered owners of, and/or have voting control over 10% or more of our common stock must file insider reports disclosing securities holdings. Also, certain rules and regulations promulgated by the U.S. Securities and Exchange Commission, or SEC, require that beneficial owners of 5% or more of our common stock must file reports disclosing their ownership.

Changes in the Company's Capital

Our Articles do not contain any provisions governing changes in stated capital.

Right of Shareholders to Inspect Records

Shareholders of the Company and their personal representatives are entitled under the CBCA to examine our Articles and By-laws and minutes of shareholders' meetings and resolutions of shareholders during our usual business hours and to take extracts of those documents free of charge. Upon payment of a reasonable fee, shareholders and their personal representatives may also obtain from our transfer agent a list of the Company's registered shareholders, including the number of shares held and the address of each shareholder.

Shareholder Actions by Written Consent

Under the CBCA, in lieu of approving matters by vote at a meeting of shareholders, the shareholders may approve matters by unanimous written resolution of the shareholders entitled to vote on the particular matter.

Shareholders' Ability to Requisition a Meeting

Under the CBCA, holders of not less than 5% of the issued shares of the Company that carry the right to vote at a meeting may requisition the directors of the Company to call a meeting of the shareholders for the purposes stated in the requisition. Upon meeting the technical requirements set out in the CBCA for making such a requisition, and unless the meeting is being requisitioned for certain improper purposes outlined in the CBCA, the directors of the Company must call a shareholders meeting. If the directors do not call a meeting of the shareholders within 21 days after receiving the requisition, any shareholder who signed the requisition may call the meeting. Unless the shareholders otherwise resolve, we shall reimburse the shareholders for the reasonable expenses incurred by them in requisitioning, calling and holding the meeting.

Adoption of Shareholder Rights Plans

Neither our Articles nor By-laws preclude the adoption of a shareholder rights plan (also known as a "poison pill") that could potentially prevent or delay a take-over bid of the Company. The adoption of such a plan, however, does not lessen the fiduciary duty of the directors of the Company to act honestly and in good faith with a view to the best interests of the Company. The Company does not currently have a shareholder rights plan.

Under the rules and policies of the Toronto Stock Exchange, shareholders of the Company are required to ratify a shareholder rights plan within six months of its adoption. Further, in certain circumstances, Canadian securities regulators may impose a cease trade order with respect to a shareholder rights plan if it determines that such a plan will deprive shareholders of the ability to make a decision regarding a take-over bid or will frustrate an open take-over bid process.

Derivative Actions

The CBCA provides that a shareholder of the Company may apply to court for permission to commence an action in the name and on behalf of the Company or any of its subsidiaries, or to intervene in an action to which any such entity is a party, for the purpose of prosecuting, defending or discontinuing the action on behalf of the Company or its subsidiary. No action will be brought and no intervention in an action may be made unless the court is satisfied that the shareholder has given notice to the directors of the Company or its subsidiary of the shareholder's intention to apply to the court if the directors of the Company or its subsidiary do not bring, diligently prosecute or defend or discontinue the action; the shareholder is acting in good faith; and it appears to be in the interests of the Company or its subsidiary that the action be brought, prosecuted, defended or discontinued. The CBCA provides that the court in a derivative action may make any order that it thinks fit.

C. Material contracts

The Company has entered into the following material contracts, other than contracts entered into in the ordinary course of business, in the last two calendar years:

- Merger Agreement with Oxiquant;
- License Agreement with Cadherin Biomedical Inc.;
- General Collaboration Agreement with McGill University;
- Exclusive License Agreement with Rutgers, The State University of New Jersey;
- License Agreement with Oregon Health & Science University; and
- Registration Rights Agreement with HBM Bioventures (Cayman) Ltd.

Merger Agreement with Oxiquant

Pursuant to the Merger Agreement dated October 2, 2002 among the Company, Adherex, Inc., a wholly-owned Delaware subsidiary of the Company formed for the purposes of the transaction ("Adherex US"), and Oxiquant, we agreed to acquire all of the outstanding common stock of Oxiquant by way of a merger of Adherex US with Oxiquant in accordance with the General Corporation Law of the State of Delaware. At the time of the merger, the separate corporate existence of Adherex US ceased and Oxiquant continued as the surviving corporation and as our wholly-owned subsidiary. All of the issued and outstanding Oxiquant common stock were exchanged for 40,163,985 shares of common stock and 2,306,994 warrants of the Company. These warrants had an exercise price of $0.717 and an expiration date of May 20, 2007. In addition, Paramount Capital, Inc., as introducing agent, received $500,000 in cash and 848,000 introduction warrants at an exercise price of $0.41 expiring on November 20, 2007.

License Agreement with Cadherin Biomedical Inc.

In September 2002, CBI was incorporated as a wholly owned subsidiary of Adherex. We granted CBI an exclusive worldwide, royalty-free license to develop, market and distribute pharmaceuticals and therapeutics for non-cancer applications based on or derived from our platform cadherin technology owned or licensed under our collaboration agreement with McGill and paid to CBI $250,000 in cash, in exchange for 40,163,985 Class A Preferred Shares of CBI. We distributed the Class A Preferred Shares of CBI to our shareholders, after which our shareholders held all of the issued and outstanding shares of CBI. The divestiture of our non-cancer assets was a condition precedent to our acquisition of Oxiquant. CBI was not granted any rights to, and was contractually prohibited from, developing any applications relating to the treatment of cancer. The term of the license agreement coincides with the life of our patents that are the subject of the license. The license agreement is terminable by either Adherex or CBI in the event of an uncured material breach or default of the agreement by either party after 30 days prior written notice. We have the right to terminate the agreement in the event that CBI files for bankruptcy or becomes insolvent and upon 30 days prior written notice to CBI if any act or omission by CBI causes us to be in material uncured breach of our license agreement with McGill.

In July 2004, we entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex formed for this purpose. The amalgamation will provide Adherex with the rights to the non-cancer applications relating to the cadherin technology and serve to settle outstanding litigation between Adherex and CBI. We expect the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. See Item 4.A., "Information on the Company—History and development of the Company."

General Collaboration Agreement with McGill University

In February 2001, we entered into a general collaboration agreement with McGill. Pursuant to the terms of the agreement, McGill granted us a 27-year exclusive worldwide license to develop, use and market certain cell

adhesion technology and compounds. In particular, McGill granted us an exclusive worldwide license to U.S. Patent 6,031,072 covering specific compounds including Exherin (composition of matter), U.S. Patent 6,551,994 covering alpha-catenin and beta-catenin inhibiting compounds, international filings under the Patent Cooperation Treaty ("PCT"), continuations and certain other patents and patent applications.

In consideration, we issued 2,542,084 shares of our common stock to McGill. We also agreed to pay to McGill future royalties of 2% of any gross revenues from the use of the compounds. In addition, should we fail to meet certain development milestones, we are required to make the following payments in order to maintain the license: (i) $100,000, if we had not filed an IND application, or a similar application with Canadian, U.S., European or other recognized agency relating to a licensed product prior to September 23, 2002; (ii) $100,000, if we have not commenced Phase II clinical trials in a recognized jurisdiction on any licensed product prior to September 23, 2004; and (iii) $200,000 if we have not commenced Phase III clinical trials in a recognized jurisdiction on any licensed product prior to September 23, 2006. On August 1, 2002, McGill acknowledged that work completed on the clinical development of Exherin was sufficient to meet the requirements of the September 23, 2002 milestone.

In addition, we agreed to fund certain mutually agreed upon research at McGill over a period of ten years totaling $3.3 million. Annual funding commenced in 2001, the first year of the agreement, with a total of $200,000, and increases annually by 10% through 2010, when the required annual funding reaches $500,000. This research commitment can be deferred in any year if it would exceed 5% of our cash and cash equivalents. To date, there have been no deferrals and we have paid out approximately $500,000 in research funding to McGill pursuant to this agreement and other research related payments. Pursuant to the terms of the agreement, we are entitled to certain intellectual property rights that result from this research.

The term of the collaboration agreement expires on September 23, 2028, unless earlier terminated by operation of law or as provided in the agreement. The agreement is terminable by either Adherex or McGill in the event of an uncured breach by either party after 60 days prior written notice. We also have the right to terminate the agreement at any time after September 2006 upon 60 days prior written notice to McGill.

Exclusive License Agreement with Rutgers, The State University of New Jersey

In November 2002, we acquired an exclusive license agreement with Rutgers through our acquisition of Oxiquant, which had entered into the license agreement with Rutgers in April 2001. Pursuant to the license agreement, Rutgers granted us worldwide license rights to "Novel Redox Clamping Agents and Uses Thereof" (U.S. Provisional Patent Application Number 60/120,128, U.S. Patent Application Number 10/228,644, international filings under the PCT, continuations and certain other patent applications).

In consideration, Rutgers was issued 500,000 shares of common stock of Oxiquant, which were subsequently converted upon our acquisition of Oxiquant into 3,821,320 shares of our common stock and warrants to purchase 219,495 shares of our common stock at $0.717 per share until May 20, 2007. In addition, we are required to make the following payments upon the achievement of certain milestones achieved in connection with the subject matter of the agreement: (i) US$25,000 upon completion of the first clinical trial performed in compliance with FDA or corresponding foreign health authority requirements, in a small number of patients to determine the metabolism and pharmacological actions of doses, (ii) US$50,000 upon commencement of the first Phase III clinical trial or equivalent, (iii) US$100,000 upon receipt of market approval in the first major market country, (iv) US$200,000 upon receipt of market approval in the second major market country, and (v) US$300,000 on receipt of market approval in the third major market country. We agreed to pay an annual license maintenance fee on each anniversary of the agreement, starting at US$5,000 in 2002 and increasing by US$5,000 on each subsequent anniversary through the fifth anniversary. After completion of the fifth anniversary, and on each subsequent anniversary, the annual license maintenance fee shall be US$50,000, but is creditable against royalties (with some restrictions). Pursuant to the terms of the agreement, we also agreed to

pay to Rutgers a 4% running royalty on net sales for any licensed products semiannually, and a 20% non-running royalty on any consideration received from sublicensing or transferring of the licensed technology. Through August 13, 2004, we have paid license maintenance fees totaling US$25,000 under this agreement.

The term of our license agreement expires on the last date of expiration of claims covered in the patents licensed to us in each country in the world in which Rutgers has intellectual property rights covered by the license, unless earlier terminated by operation of law or as provided in the agreement. The agreement is terminable by either Adherex or Rutgers in the event of an uncured breach by either party after 60 days prior written notice. We also have the right to terminate the agreement at any time upon 90 days prior written notice to Rutgers.

License Agreement with Oregon Health & Science University

In November 2002, we acquired an exclusive license agreement with OHSU through our acquisition of Oxiquant, which had entered into the license agreement with OHSU in September 2002. Pursuant to the license agreement, OHSU granted us exclusive worldwide license rights to intellectual property surrounding work done by Dr. Edward Neuwelt with respect to thiol-based compounds and their use in oncology. In consideration, OHSU was issued 250,250 shares of common stock of Oxiquant which were subsequently converted upon the acquisition of Oxiquant into 1,912,571 shares of our common stock and warrants to purchase 109,857 shares of our common stock at $0.717 per share until May 20, 2007. We are required to make the following payments upon the achievement of certain milestones achieved in connection with the subject matter of the agreement: (i) US$50,000 upon completion of Phase I clinical trials, (ii) US$200,000 upon completion of Phase II clinical trials, (iii) US$500,000 upon completion of Phase III clinical trials and (iv) US$250,000 upon first commercial sale for any licensed product. We also agreed to pay OHSU a 2.5% royalty on net sales of any licensed products and a 15% royalty on any sublicensing of the licensed technology.

The term of our license agreement expires on the last date of expiration of claims covered in the patents licensed to us, unless earlier terminated as provided in the agreement. The agreement is terminable by OHSU in the event of a material breach of the agreement by us or our sublicensees after 60 days prior written notice from OHSU. We have the right to terminate the agreement at any time upon 60 days prior written notice and paying all fees due to OHSU under the agreement.

Registration Rights Agreement with HBM Bioventures (Cayman) Ltd.

In connection with our private placement on December 19, 2003, HBM Bioventures (Cayman) Ltd. (“HBM”) was issued 18,832,858 shares of common stock and 9,952,143 shares of common stock issuable upon the exercise of outstanding warrants. These shares are subject to certain registration rights in both the United States and Canada, pursuant to a Registration Rights Agreement entered into between HBM and Adherex. The Registration Rights Agreement provides for a limited number of Canadian demand rights, subject to certain limitations. The Registration Rights Agreement provides that the holders may have other registrable shares included in any U.S. initial public offering carried out by the Company, subject to certain limitations, as well as piggy-back rights after the Company has completed a U.S. initial public offering. The Registration Rights Agreement provides a limited number of U.S. demand rights beginning 180 days after the closing of a U.S. initial public offering. In addition, if Adherex files a preliminary prospectus under any Canadian securities laws in connection with a Canadian public offering, HBM may cause Adherex to register its shares in a secondary offering. HBM will also have the right to cause Adherex to register its shares on a Form S-3 or Form F-10, depending upon eligibility, subject to certain limitations. Adherex is not required to effect such registration unless the aggregate offering price of the shares to be registered is at least US$1.0 million and no such registration has occurred during a nine-month period.

D. Exchange controls

There are currently no limitations imposed by Canadian federal or provincial laws on the rights of non-resident or foreign owners of Canadian securities to hold or vote the securities held by such persons in the

Company, other than are provided in the Investment Canada Act, as described below. There are also no such limitations imposed by the Company's Articles and By-laws with respect to the common stock.

Investment Canada Act

Under the Investment Canada Act, the acquisition of control by a "non-Canadian" of a Canadian business that carries on most types of business activities (including the business activity carried on by the Company) is subject to review in certain circumstances by the Investment Review Division of Industry Canada ("Industry Canada"), a Canadian federal government department, and will not be allowed unless the investment is found by the Minister responsible for Industry Canada likely to be of "net benefit" to Canada. On the other hand, the acquisition of control of a Canadian business which carries on a specific type of business activity, as prescribed, that is related to Canada's cultural heritage or national identity by a non-Canadian is subject to review in certain circumstances by the Department of Canadian Heritage.

Subject to the provisions relating to so-called WTO transactions as described below, an acquisition of control will be reviewable by Industry Canada if the "value of the assets" of the Canadian business for which control is being acquired is: (a) $5.0 million or more in the case of a "direct" acquisition; (b) $50.0 million or more in the case of an "indirect" acquisition, which is a transaction involving the acquisition of the shares of a corporation incorporated outside Canada which owns subsidiaries in Canada; or (c) $5.0 million or more but less than $50.0 million where the Canadian assets acquired constitute more than 50% of the value of the assets of all entities acquired, if the acquisition is effected through the acquisition of control of a foreign corporation.

These thresholds have been increased respecting the acquisition of control of a Canadian business (1) by investors which are ultimately controlled by nationals of countries which are members of the World Trade Organization ("WTO"), including Americans; or (2) which is a WTO member-controlled (other than Canadian controlled) Canadian business (either, a "WTO transaction"). A direct acquisition in WTO transactions is reviewable only if it involves the direct acquisition of a Canadian business where the value of the assets is $223.0 million or more for transactions closing in 2003 (this figure is adjusted annually to reflect the increase in the Canadian nominal gross domestic product at market prices). Indirect acquisitions in WTO transactions are not reviewable unless the value of the Canadian assets acquired constitutes more than 50% of the value of the assets of all entities acquired, in which case the $223.0 million threshold applies.

These increased thresholds applicable in WTO transactions do not apply to the acquisition of control of a Canadian business that is engaged in certain sensitive areas such as uranium production, financial services, transportation services or culture businesses.

Even if such acquisition of control is not so reviewable, a non-Canadian must still give notice to Industry Canada of the acquisition of control of a Canadian business within 30 days after its completion.

Competition Act (Canada)

Under the Competition Act, certain transactions are subject to the pre-notification requirements of the Competition Act whereby notification of the transaction and specific information in connection therewith must be provided to the Commissioner of Competition. A transaction may not be completed until the applicable statutory waiting periods have expired, namely 14 days for a short-form filing or 42 days for a long-form filing. Where the parties elect to file a short-form notification, the Commissioner may convert the filing to a long-form, thereby restarting the clock once the parties submit their filing.

A proposed transaction is subject to pre-notification if two thresholds are exceeded. First, the parties and their affiliates must have assets in Canada or gross revenues from sales in, from or into Canada that exceed $400.0 million in aggregate value. Second, the parties to a transaction involving a corporation which carries on an "operating business" in Canada must then notify the Commissioner of Competition in cases where: (a) in

respect of a proposed acquisition of assets of an operating business (defined in the Competition Act (Canada) as a business undertaking in Canada to which employees employed in connection with the undertaking ordinarily report for work), the value of the assets or the annual gross revenues from sales in or from Canada generated from those assets would exceed $35.0 million; (b) in respect of a proposed acquisition of voting shares of a corporation carrying on an operating business, the value of the assets of the acquired corporation or the annual gross revenues from sales in or from Canada generated from those assets would exceed $35.0 million, and the persons acquiring the shares would acquire an interest in the corporation exceeding either 20% in the case of a public corporation or 35% in the case of a private corporation. If the parties already surpass the 20% or the 35% threshold, and make a subsequent share purchase which results in their owning more than a 50% interest, then the subsequent transaction also requires notification; (c) in the case of a corporate amalgamation, where one or more of the corporations carries on an operating business, the value of the assets of the continuing corporation or the annual gross revenues sales in or from Canada generated from those assets would exceed $70.0 million; or (d) in the case of a proposed combination, the value of the assets of the continuing business or the annual gross revenues from sales in or from Canada generated from those assets would exceed $35.0 million.

Finally, all merger transactions, regardless of whether they are subject to pre-notification, are subject to the substantive provisions of the Competition Act, namely whether the proposed merger prevents or lessens, or is likely to prevent or lessen, competition substantially in a relevant market in Canada.

E. Taxation

This section summarizes the material U.S. federal and Canadian federal income tax consequences of the ownership and disposition of the common stock. Nothing contained herein shall be construed as tax advice; you must rely only on the advice of your own tax advisor. The Company makes no assurances as to the applicability of any tax laws with respect to any individual investment. This summary relating to the common stock applies to the beneficial owners who are individuals, corporations, trusts and estates which:

- at all relevant times are: (i) U.S. persons for purposes of the U.S. Internal Revenue Code of 1986, as amended, through the date hereof (the “Code”), (ii) non-residents of Canada for purposes of the Income Tax Act (Canada)(the “Income Tax Act”) and (iii) residents of the United States for purposes of, and entitled to all the benefits under, the Canada-United States Income Tax Convention (1980), as amended through the date hereof (the “Tax Treaty”);
- hold common stock as capital assets for purposes of the Code and capital property for the purposes of the Income Tax Act;
- deal at arm’s length with, and are not affiliated with, the Company for purposes of the Income Tax Act; and
- do not and will not use or hold the common stock in carrying on a business in Canada.

Persons who satisfy the above conditions are referred to as “U.S. Shareholders.”

The tax consequences of an investment in common stock by persons who are not U.S. Shareholders may differ materially from the tax consequences discussed in this section. The Income Tax Act contains rules relating to securities held by some financial institutions. This registration statement does not discuss these rules, and holders that are financial institutions should consult their own tax advisors.

This discussion is based upon the following, all as currently in effect:

- the Income Tax Act and regulations under the Income Tax Act;
- the Code and Treasury regulations under the Code;
- the Canada-United States Income Tax Convention (1980);

- the administrative policies and practices published by the Canada Customs and Revenue Agency, formerly Revenue Canada;
- all specific proposals to amend the Income Tax Act and the regulations under the Income Tax Act that have been publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date of this report;
- the administrative policies published by the U.S. Internal Revenue Service; and
- judicial decisions.

All of the foregoing is subject to change either prospectively or retroactively. This summary does not take into account estate or gift tax laws, the tax laws of the various provinces or territories of Canada or the tax laws of the various state and local jurisdictions of the United States or foreign jurisdictions.

This discussion summarizes the material U.S. federal and Canadian federal income tax considerations of the ownership and disposition of common stock. This discussion does not address all possible tax consequences relating to an investment in common stock. No account has been taken of your particular circumstances and this summary does not address consequences peculiar to you if you are subject to special provisions of U.S. or Canadian income tax law (including, without limitation, dealers in securities or foreign currency, tax-exempt entities, banks, insurance companies or other financial institutions, persons that hold common stock as part of a “straddle,” “hedge” or “conversion transaction,” and U.S. Shareholders that have a “functional currency” other than the U.S. dollar or that own common stock through a partnership or other pass through entity). Therefore, you should consult your own tax advisor regarding the tax consequences of purchasing common stock.

Material U.S. Federal Income Tax Considerations

Subject to the discussion below regarding Foreign Personal Holding Company Rules, Passive Foreign Investment Company Rules and Controlled Foreign Corporation Rules, this section summarizes U.S. federal income tax consequences of ownership and disposition of the common stock.

As a U.S. Shareholder, you generally will be required to include in income dividend distributions, if any, paid by the Company to the extent of the Company’s current or accumulated earnings and profits attributable to the distribution as computed based on U.S. income tax principles. The amount of any cash distribution paid in Canadian dollars will be equal to the U.S. dollar value of the Canadian dollars on the date of distribution based on the exchange rate on such date, regardless of whether the payment is in fact converted to U.S. dollars and without reduction for Canadian withholding tax. For a discussion of Canadian withholding taxes applicable to dividends paid by the Company, see “Material Canadian Federal Income Tax Considerations.” You will generally be entitled to a foreign tax credit or deduction in an amount equal to the Canadian tax withheld. To the extent distributions paid by the Company on the common stock exceed the Company’s current or accumulated earnings and profits, they will be treated first as a return of capital up to your adjusted tax basis in the shares and then as capital gain from the sale or exchange of the shares.

On May 28, 2003, the Jobs and Growth Tax Relief Reconciliation Act of 2003 (the “2003 Act”) was signed into law. In general, the 2003 Act reduces the maximum rate of U.S. federal income tax on dividends paid to non-corporate U.S. holders to 15% for tax years from 2003 to 2008. In order to qualify for the reduced tax rates on dividends, a non-corporate shareholder must satisfy certain holding period requirements and must not be under an obligation (whether pursuant to a short sale or otherwise) to make related payments with respect to positions in substantially similar or related property. In some circumstances, this holding period may be increased. Additionally, the new tax rates do not apply to dividends, which a non-corporate shareholder elects to treat as investment income for purposes of Section 163(d)(4) of the Code.

Dividends received from a “qualified foreign corporation” are eligible for the reduced dividends tax rates under the 2003 Act. In general, a Canadian corporation entitled to all the benefits of the Tax Treaty will be treated as a qualified foreign corporation. In addition, a foreign corporation will be treated as a qualified foreign

corporation with respect to any dividend paid by that corporation if the stock with respect to which the dividend is paid is readily tradable on an established securities market in the United States. Regardless of the above rules, however, a foreign corporation will not be treated as a qualified foreign corporation if, for the taxable year of the corporation in which the dividend was paid, or the preceding taxable year, the corporation is classified for U.S. tax purposes as a foreign personal holding company ("FPHC") or a passive foreign investment company ("PFIC"). Accordingly, any dividends paid by us in a year that we are a FPHC or a PFIC or in the next taxable year would not qualify for the reduced tax rates on dividends paid to non-corporate U.S. holders under the 2003 Act. As discussed below under "Foreign Personal Holding Company Rules" and "Passive Foreign Investment Company Rules," we have determined that we are a PFIC for U.S. federal income tax purposes and likely will continue to be a PFIC at least until we develop a source of significant operating revenues.

Dividends paid by the Company generally will constitute foreign source dividend income and "passive income" for purposes of the foreign tax credit, which could reduce the amount of foreign tax credits available to you. The Code applies various limitations on the amount of foreign tax credits that may be available to a U.S. tax payer.

Because of the complexity of those limitations, you should consult your own tax advisor with respect to the availability of foreign tax credits.

Dividends paid by the Company on the common stock generally will not be eligible for the "dividend received" deduction.

If you sell the common stock, you generally will recognize gain or loss in an amount equal to the difference between the amount realized on the sale and your adjusted tax basis in the shares. Any such gain or loss will be long-term or short-term capital gain or loss, depending on whether the shares have been held by you for more than one year, and will generally be U.S. source gain or loss.

Dividends paid by the Company on the common stock generally will be subject to U.S. information reporting, and a backup withholding tax may apply unless you furnish the paying agent or middleman with a duly completed and signed Form W-9. You will be allowed a refund or a credit equal to any amount withheld under the U.S. backup withholding tax rules against your U.S. federal income tax liability, provided you furnish the required information to the Internal Revenue Service.

Foreign Personal Holding Company Rules

Special U.S. tax rules apply to a shareholder of a foreign personal holding company or FPHC. Furthermore, as discussed above, dividends from a FPHC do not qualify for the reduced tax rates on dividends paid to non-corporate U.S. holders under the 2003 Act. The Company would be classified as a FPHC in any taxable year if both of the following tests are satisfied:

- five or fewer individuals who are U.S. citizens or residents own or are deemed to own more than 50% of the total voting power of all classes of the Company's stock entitled to vote or the total value of the Company's stock; and
- at least 50% (60% in the first year that the Company is classified as a FPHC) of the Company's gross income consists of "foreign personal holding company income," which generally includes passive income such as dividends, interest, gains from the sale or exchange of stock or securities, rents and royalties.

The Company believes that it is not a FPHC. However, the Company cannot assure you that the Company will not be classified as a FPHC in the future.

Personal Holding Company Rules

The Company will not be classified as a personal holding company (a "PHC") for U.S. federal income tax purposes unless at any time during the last half of the Company's taxable year, five or fewer individuals (without regard to their citizenship or residency) own or are deemed to own (pursuant to certain attribution rules) more than 50% of the Company's stock by value, and at least 60% of the Company's ordinary gross income for the taxable year is "personal holding company income" (generally passive income such as dividends and interest). If the Company is classified as a PHC, the corporation may be liable for the U.S. PHC tax on the Company's U.S. source undistributed PHC income. The Company should not meet the PHC tests, and even if the Company were to become a PHC, it does not expect to have material undistributed PHC income. However, the Company cannot assure you that it will not become a PHC because of uncertainties regarding the application of the constructive ownership rules and the possibility of changes in its shareholder base and income or other circumstances that could change the application of the PHC rules to the Company. In addition, if the Company should become a PHC, the Company cannot assure you that the amount of its PHC income will be immaterial.

Passive Foreign Investment Company Rules

The passive foreign investment company or PFIC provisions of the Code can have significant tax effects on U.S. Shareholders. The Company will be classified as a PFIC for any taxable year, if, after the application of certain "look through" rules, either:

- 75% or more of the Company's gross income is "passive income," which includes interest, dividends and certain rents and royalties; or
- the average quarterly percentage, by fair market value of the Company's assets that produce or are held for the production of "passive income," is 50% or more of the fair market value of all the Company's assets.

Based upon our review of our financial data for the current and prior fiscal years, we have determined that we are currently a PFIC and likely will continue to be a PFIC at least until we develop a source of significant operating revenues.

Our classification as a PFIC for any period during a U.S. Shareholder's holding period for our shares, absent the holder validly making one of the elections described below, would generally require the U.S. Shareholder to treat all "excess distributions" received during such holding period with respect to those shares as if those amounts were ordinary income earned ratably over such holding period. Excess distributions for this purpose would include all gain realized on the disposition of the shares as well as certain distributions made by us. Amounts treated under this analysis as earned in the year of the disposition or in any year before the first year in which we are a PFIC would be included in the holder's ordinary income for the year of the disposition. Additionally, amounts treated as earned in a year of distribution would be included in the holder's ordinary income for the year of the distribution. All remaining amounts would be subject to tax at the highest ordinary income tax rate that would have been applicable in the year in which such amounts were treated as earned, and interest would be charged on the tax payable with respect to such amounts. In addition, if we are classified as a PFIC, shares acquired from a decedent generally would not receive a "stepped-up" basis but would, instead, have a tax basis equal to the lower of the decedent's basis or the fair market value of those shares or ADSs on the date of the decedent's death.

The special PFIC tax rules described above will not apply to a U.S. Shareholder if the holder makes a QEF election to have us treated as a qualified electing fund for the first taxable year of the holder's holding period in which we are a PFIC and we provide certain information to the U.S. Shareholder. A U.S. Shareholder that makes a QEF election with respect to us will be currently taxable on its pro rata share of our ordinary earnings and net capital gain during any years we are a PFIC (at ordinary income and capital gains rates, respectively), regardless of whether or not distributions were received. An electing U.S. Shareholder's basis in the shares would be increased by the amounts included in income, and subsequent distributions by us of previously included earnings

and profits generally would not be treated as a taxable dividend and would result in a corresponding reduction in basis. A U.S. Shareholder making such a timely election will not be taxed on our undistributed earnings and profits for any year that we are not a PFIC. Upon request by a U.S. shareholder, we will provide the information necessary for such holder to make the QEF election.

Alternatively, subject to specific limitations, U.S. Shareholders who actually or constructively own marketable shares in a PFIC may make an election under Section 1296 of the Code to mark those shares to market annually, rather than being subject to the above-described rules. Amounts included in or deducted from income under this mark-to-market election and actual gains and losses realized upon disposition, subject to specific limitations, will be treated as ordinary gains or losses. For this purpose, the Company believes that the Company's shares will be treated as "marketable securities" within the meaning of Section 1296(e)(1) of the Code.

As discussed above, dividends from a PFIC do not qualify for the reduced tax rates on dividends paid to non-corporate U.S. Shareholders under the 2003 Act.

You should consult your tax advisor with respect to how the PFIC rules affect your tax situation.

Controlled Foreign Corporation Rules

If more than 50% of the voting power or total value of all classes of the Company's shares is owned, directly or indirectly, by U.S. shareholders, each of which owns 10% or more of the total combined voting power of all classes of the Company's shares, the Company could be treated as a controlled foreign corporation ("CFC") under Subpart F of the Code. This classification would require such 10% or greater shareholders to include in income their pro rata shares of the Company's "Subpart F Income," as defined in the Code. In addition, under Section 1248 of the Code, gain from the sale or exchange of shares by a U.S. Shareholder who is or was a 10% or greater shareholder while the Company was a CFC at any time during the five year period ending with the sale or exchange will be ordinary dividend income to the extent of the Company's earnings and profits attributable to the shares sold or exchanged and not previously taxed under Subpart F.

The Company believes that it is not a CFC. However, the Company cannot assure you that the Company will not become a CFC in the future.

Material Canadian Federal Income Tax Considerations

This section summarizes the material anticipated Canadian federal income tax considerations relevant to the ownership and disposition of the common stock.

Under the Income Tax Act, assuming you are a U.S. Shareholder, and provided the common stock is listed on a prescribed stock exchange, which includes the Toronto Stock Exchange and the American Stock Exchange, you will generally not be subject to Canadian tax on a capital gain realized on an actual or deemed disposition of the common stock unless you alone or together with persons with whom you did not deal at arm's length owned or had rights to acquire 25% or more of the Company's issued shares of any class at any time during the sixty (60) month period before the actual or deemed disposition.

Dividends paid, credited or deemed to have been paid or credited on the common stock to U.S. Shareholders will be subject to a Canadian withholding tax under the Income Tax Act at a rate of 25% of the gross amount of the dividends. Under the Canada-United States Income Tax Convention (1980), the rate of withholding tax on dividends generally applicable to U.S. Shareholders who beneficially own the dividends is reduced to 15%. In the case of U.S. Shareholders that are corporations that beneficially own at least 10% of the Company's voting shares, the rate of withholding tax on dividends generally is reduced to 5%. United States limited liability companies ("LLCs") will not be entitled to these reduced rates. Shareholders that are partnerships will be subject to the 25% rate.

Canada does not currently impose any federal estate taxes or succession duties. However, if you die, there is a deemed disposition of the common stock held at that time for proceeds of disposition generally equal to the fair market value of the common stock immediately before your death. Capital gains realized on the deemed disposition, if any, will have the income tax consequences described above.

F. Dividends and paying agents

No cash dividends have been declared or paid on the common stock since incorporation and it is not anticipated that any dividends will be declared or paid on the common stock in the immediate or foreseeable future. Any decision to pay dividends on the common stock will be made by the Board of Directors on the basis of the earnings, financial requirements and other conditions existing at such future time.

G. Statement by experts

The financial statements of Adherex Technologies Inc. as of June 30, 2003 and 2002 and for each of the three years in the period ended June 30, 2003 included in this Registration Statement have been so included in reliance on the audit report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

H. Documents on display

Upon the effectiveness of this filing, the Company will be subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and the Company will thereafter file reports and other information with the SEC. You may read and copy any of the Company's reports and other information at, and obtain copies upon payment of prescribed fees from, the Public Reference Room maintained by the SEC at 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549 and at the SEC's regional offices at Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, IL 60661. In addition, the SEC maintains a Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC at http://www.sec.gov. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

The Company is required to file reports and other information with the securities commissions in each of the Canadian provinces. You are invited to read and copy any reports, statements or other information, other than confidential filings, that the Company files with such provincial securities commissions. These filings are also electronically available from the Canadian System for Electronic Document Analysis and Retrieval (SEDAR) (http://www.sedar.com), the Canadian equivalent of the SEC's electronic document gathering and retrieval system.

As a foreign private issuer, the Company is exempt from the rules under the Securities Exchange Act of 1934, as amended, prescribing the furnishing and content of proxy statements to shareholders. The Company has included in this report certain information disclosed in the Company's Proxy Statement prepared under Canadian securities rules.

The Company will provide without charge to each person, including any beneficial owner, on the written or oral request of such person, a copy of any or all documents referred to above which have been or may be incorporated by reference in this report (not including exhibits to such incorporated information that are not specifically incorporated by reference into such information). Requests for such copies should be directed to the Company at the following address: 2300 Englert Drive, Suite G, Research Triangle Park, Durham, North Carolina 27713, Attention: Corporate Secretary.

I. Subsidiary information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Exchange Risk

Historically, the functional currency of the Company has been the Canadian dollar. At March 31, 2004, the Company had approximately $18.6 million in cash and cash equivalents, virtually all of which was held in Canadian dollars. To date, derivative financial instruments have not been needed or used because funds raised by the Company have been spent primarily in Canadian dollars. Security of principal versus income historically governed investment decisions, with excess funds invested in short term, government backed securities or bankers acceptances.

The composition of the Company's activities is expected to change with the relocation of the Company's development activities to RTP. This will result in a higher percentage of the Company's spending being done in the United States. As these amounts are determined, the Company intends to purchase U.S. dollars at least a few months in advance of any of its commitments. Depending on the financial markets, derivative financial instruments may be used from time to time. However, security of principal versus income will continue to govern investment decisions.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Not applicable.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES

Not applicable.

ITEM 16. RESERVED

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

Our financial statements follow the signature page of this registration statement.

ITEM 19. EXHIBITS

The following exhibits are to be filed as part of this registration statement:

Exhibit No.	Description
1.1	Articles of Incorporation of 3292835 Canada Inc. dated September 3, 1996
1.2	Articles of Incorporation of 3521443 Canada Inc. dated August 14, 1998
1.3	Articles of Amendment dated September 18, 1998
1.4	Articles of Amendment dated August 18, 2000
1.5	Articles of Amendment dated October 18, 2000
1.6	Articles of Amalgamation dated April 30, 2001
1.7	Articles of Amalgamation dated June 29, 2004
1.8	By-laws of the Company, as amended
2.1	Loan Facility Agreement, dated as of August 17, 2001, by and between Adherex Technologies Inc. and Royal Bank of Canada
4.1*	Adherex Stock Option Plan
4.2	General Collaboration Agreement, dated as of February 26, 2001, by and between Adherex Technologies Inc. and McGill University
4.3	Exclusive License Agreement, dated as of April 13, 2001, by and between Rutgers, the State University of New Jersey, and Oxiquant, Inc.
4.4	Amendment No. 1, dated as of November 19, 2002, by and between Rutgers, the State University of New Jersey, and Oxiquant, Inc.
4.5	Exclusive License Agreement, dated as of September 26, 2002, by and between Oregon Health & Science University and Oxiquant, Inc.
4.6	Merger Agreement, dated as of October 2, 2002, by and between Adherex Technologies Inc., Adherex, Inc. and Oxiquant, Inc.
4.7	Exclusive License Agreement, dated as of November 14, 2002, by and between Adherex Technologies Inc. and Cadherin Biomedical Inc.
4.8	Lease Agreement, dated as of March 8, 2004, by and between Realmark-Commercial, LLC and Adherex, Inc.
4.9	Registration Rights Agreement, dated as of December 19, 2003, by and between Adherex Technologies Inc. and HBM BioVentures (Cayman) Ltd.
4.10*	Executive Employment Agreement, dated as of December 12, 2001, by and between Adherex Technologies Inc. and Robin J. Norris, MB BS

Exhibit No.	Description
4.11*	Executive Employment Agreement, dated as of January 27, 2003, by and between Adherex Technologies Inc. and D. Scott Murray
4.12*	Executive Employment Agreement, dated as of February 19, 2003, by and between Adherex Technologies Inc. and William P. Peters, MD, PhD, MBA
4.13*	Executive Employment Agreement, dated April 21, 2004, by and between Adherex, Inc. and James A. Klein, Jr.
4.14*	Employment Agreement, dated as of August 9, 2004, by and between Adherex, Inc. and Rajesh K. Malik, MB, ChB.
4.15	Placement Agent Warrant issued to Paramount Capital, Inc., dated November 20, 2002
4.16	Form of Common Stock Warrant, dated November 20, 2002
4.17	Form of Placement Agent Common Stock Warrant, dated June 23, 2003
4.18	Form of Insider Common Stock Warrant, dated June 23, 2003
4.19	Form of Non-Insider Common Stock Warrant, dated June 23, 2003
4.20	Form of Placement Agent Common Stock Warrant, dated December 3, 2003
4.21	Form of Common Stock Warrant, dated December 3, 2003
4.22	Common Stock Warrant issued to HBM BioVentures (Cayman) Ltd., dated December 3, 2003
4.23	Form of Placement Agent Common Stock Warrant, dated December 19, 2003
4.24	Form of Common Stock Warrant, dated December 19, 2003
4.25	Common Stock Warrant issued to The Vengrowth Advanced Life Sciences Fund Inc., dated December 19, 2003
4.26	Common Stock Warrant issued to HBM BioVentures (Cayman) Ltd., dated December 19, 2003
4.27	Form of Common Stock Warrant, dated May 20, 2004
8	Subsidiaries
14	Consent of PricewaterhouseCoopers LLP

* Indicates a management contract or compensatory plan.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this registration statement on its behalf.

ADHEREX TECHNOLOGIES INC.

/s/ JAMES A. KLEIN, JR.

By: **James A. Klein, Jr.**
Its: **Chief Financial Officer**

Date: September 17, 2004

To the Shareholders of Adherex Technologies, Inc.

We have audited the consolidated balance sheets of Adherex Technologies Inc. as at June 30, 2003 and 2002 and the consolidated statements of operations, shareholders' equity and cash flows for the years ended June 30, 2003, 2002 and 2001 and for the period from September 3, 1996 to June 30, 2003. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards in Canada and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at June 30, 2003 and 2002 and the results of its operations and its cash flows for the years ended June 30, 2003, 2002 and 2001 and for the period from September 3, 1996 to June 30, 2003 in accordance with Canadian generally accepted accounting principles.

Our previous report dated August 14, 2003, except for Note 20 which was as of October 24, 2003, has been withdrawn and the financial statements have been amended and restated as described in Note 19.

/s/ PricewaterhouseCoopers LLP

Chartered Accountants
Ottawa, Ontario
August 14, 2003, except for notes 8, and 9, which are as of December 19, 2003, and note 19 which is as of September 9, 2004

Adherex Technologies Inc.
(a development stage company)

Consolidated Balance Sheets
Canadian dollars and shares in thousands, except per share information

	March 31, 2004	June 30, 2003	June 30, 2002
	(unaudited)		
Assets			
Current assets			
Cash and cash equivalents	$ 18,601	$ 2,898	$ 314
Cash pledged as collateral	300	300	300
Short-term investments	—	—	8,141
Amounts receivable	71	30	210
Investment tax credits recoverable	275	539	331
Prepaid expense	250	143	82
Other assets	98	579	—
Total current assets	19,595	4,489	9,378
Other assets	295	167	—
Capital assets	475	655	960
Acquired intellectual property rights	26,912	29,252	—
Total assets	$ 47,277	$ 34,563	$ 10,338
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable and accrued liabilities	$ 1,267	$ 1,401	$ 963
Current portion of deferred lease inducements	—	64	90
Total current liabilities	1,267	1,465	1,053
Other long-term liabilities	145	192	—
Deferred lease inducements	—	—	64
Liability component of convertible notes	—	1,591	—
Future income taxes	9,837	10,692	—
Total liabilities	11,249	13,940	1,117
Shareholders' equity			
Common stock, no par; unlimited shares authorized; 152,106 shares, 80,346 shares and 40,164 shares issued and outstanding, respectively	38,729	25,550	23,028
Non-redeemable preferred stock of subsidiary	1,400	—	—
Contributed surplus	26,240	17,410	—
Accumulated deficit	(30,341)	(22,337)	(13,807)
Total shareholders' equity	36,028	20,623	9,221
Total liabilities and shareholders' equity	$ 47,277	$ 34,563	$ 10,338

(The accompanying notes are an integral part of these consolidated financial statements)

Adherex Technologies Inc.
(a development stage company)

Consolidated Statements of Operations
Canadian dollars and shares in thousands, except per share information

	Nine Months Ended March 31		Years Ended June 30,			Cumulative From September 3, 1996 to June 30, 2003
	2004	2003	2003	2002	2001	
	(unaudited)					
Revenue	$ —	$ —	$ —	$ —	$ —	$ —
Operating expenses						
Research and development	3,512	3,624	4,776	4,752	2,891	15,966
General and administration	2,695	1,707	2,383	1,376	1,118	5,798
Amortization of acquired intellectual property rights	2,340	1,130	1,910	—	—	1,910
Loss from operations	(8,547)	(6,461)	(9,069)	(6,128)	(4,009)	(23,674)
Other income	—	—	—	154	—	154
Interest income	132	100	107	333	294	751
Interest expense	(444)	—	(16)	—	—	(16)
	(312)	100	91	487	294	889
Loss before income taxes	(8,859)	(6,361)	(8,978)	(5,641)	(3,715)	(22,785)
Recovery of future income taxes	855	413	698	—	—	698
Net loss	$ (8,004)	$ (5,948)	$ (8,280)	$ (5,641)	$ (3,715)	$ (22,087)
Net loss per share of common stock, basic and diluted	$ (0.07)	$ (0.10)	$ (0.13)	$ (0.14)	$ (0.15)	
Weighted-average number of shares of common stock outstanding, basic and diluted	109,621	59,295	64,601	40,164	25,458	

(The accompanying notes are an integral part of these consolidated financial statements)

Adherex Technologies Inc.
(a development stage company)

Consolidated Statements of Shareholders' Equity
Canadian dollars and shares in thousands, except per share information

	Common Stock		Non-Redeemable Preferred Stock of Subsidiary	Contributed Surplus	Accumulated Deficit	Total Shareholders' Equity
	Number	Amount				
Balance at June 30, 1996	—	$ —	$ —	$ —	$ —	$ —
Issuance of common stock	8,000	—	—	—	—	—
Net loss	—	—	—	—	(53)	(53)
Balance at June 30, 1997	8,000	—	—	—	(53)	(53)
Net loss	—	—	—	—	(587)	(587)
Balance at June 30, 1998	8,000	—	—	—	(640)	(640)
Exchange of Adherex Inc. shares for Adherex Technologies Inc. shares	(8,000)	—	—	—	—	—
Issuance of common stock	21,557	2,443	—	—	—	2,443
Net loss	—	—	—	—	(1,447)	(1,447)
Balance at June 30, 1999	21,557	2,443	—	—	(2,087)	356
Issuance of common stock	1,417	1,178	—	—	—	1,178
Issuance of equity rights	—	—	—	250	—	250
Issuance of special warrants	—	—	—	391	—	391
Settlement of advances:						
Issuance of common stock	1,400	258	—	—	—	258
Cancellation of common stock	(600)	—	—	—	—	—
Net loss	—	—	—	—	(2,364)	(2,364)
Balance at June 30, 2000	23,774	3,879	—	641	(4,451)	69
Issuance of common stock:						
Initial public offering	6,667	8,720	—	—	—	8,720
Other	441	503	—	—	—	503
Issuance of special warrants	—	—	—	2,640	—	2,640
Conversion of special warrants	2,734	3,031	—	(3,031)	—	—
Issuance of Series A special warrants	—	—	—	6,645	—	6,645
Conversion of Series A special warrants	6,240	6,645	—	(6,645)	—	—
Conversion of equity rights	308	250	—	(250)	—	—
Net loss	—	—	—	—	(3,715)	(3,715)
Balance at June 30, 2001	40,164	23,028	—	—	(8,166)	14,862
Net loss	—	—	—	—	(5,641)	(5,641)
Balance at June 30, 2002	40,164	23,028	—	—	(13,807)	9,221
Stated capital reduction	—	(15,029)	—	15,029	—	—
Common stock issued for Oxiquant acquisition	40,164	17,545	—	860	—	18,405
Exercise of stock options	18	6	—	—	—	6
Distribution to shareholders	—	—	—	—	(250)	(250)
Stock options issued to non-employees	—	—	—	6	—	6
Financing warrants	—	—	—	80	—	80
Equity component of June convertible notes	—	—	—	1,435	—	1,435
Net loss	—	—	—	—	(8,280)	(8,280)
Balance at June 30, 2003	80,346	25,550	—	17,410	(22,337)	20,623
Stock options issued to consultants	—	—	—	195	—	195
Repricing of warrants related to financing	—	—	—	23	—	23
Equity component of December convertible notes	—	—	—	1,461	—	1,461
Conversion of convertible notes	8,641	1,629	—	(125)	—	1,504
Conversion of convertible notes	5,425	762	—	(463)	—	299
Private placement	57,609	10,759	—	7,739	—	18,498
Exercise of stock options	85	29	—	—	—	29
Non-redeemable preferred stock	—	—	1,400	—	—	1,400
Net loss	—	—	—	—	(8,004)	(8,004)
Balance at March 31, 2004 (unaudited)	152,106	$ 38,729	$ 1,400	$ 26,240	$ (30,341)	$ 36,028

(The accompanying notes are an integral part of these consolidated financial statements)

Adherex Technologies Inc.
(a development stage company)

Consolidated Statements of Cash Flows
Canadian dollars and shares in thousands, except per share information

	Nine Months Ended March 31,		Years Ended June 30,			Cumulative From September 3, 1996 to June 30, 2003
	2004	2003	2003	2002	2001	
	(unaudited)					
Cash flows from (used in) Operating activities						
Net income (loss)	$ (8,004)	$ (5,948)	$ (8,280)	$ (5,641)	$ (3,715)	$ (22,087)
Adjustments for non-cash items:						
Amortization of capital assets	259	212	343	278	151	878
Unrealized foreign exchange loss	—	—	—	—	—	13
Amortization of acquired intellectual property rights	2,340	1,130	1,910	—	—	1,910
Recovery of future income taxes on acquired intellectual property rights	(855)	(413)	(698)	—	—	(698)
Amortization of leasehold inducements	(64)	(67)	(90)	(90)	(67)	(303)
Non-cash severance expense	—	207	254	—	—	254
Stock options issued to consultants	195	—	6	—	—	6
Accrued interest on convertible notes	444	—	16	—	—	16
Changes in non-cash working capital items	(168)	(905)	(779)	556	(438)	(507)
	(5,853)	(5,784)	(7,318)	(4,897)	(4,069)	(20,518)
Investing activities						
Purchase of capital assets	(79)	(35)	(94)	(453)	(502)	(1,177)
Disposal of capital assets	—	—	56	3	13	16
Cash (pledged) released as collateral	—	—	—	100	(100)	—
Cash (pledged) as collateral	—	—	—	(300)	—	(300)
Purchase of short-term investments	—		—	(8,141)	—	(8,141)
Redemption of short-term investments	—	8,141	8,141	—	—	8,141
Investment in Cadherin Biomedical Inc.	—	(250)	(250)	—	—	(250)
Acquired intellectual property rights	—	(966)	(967)	—	—	(967)
	(79)	6,890	6,886	(8,791)	(589)	(2,678)
Financing activities						
Other advances	—	—	—	—	—	245
Proceeds of long-term debt	—	—	—	—	—	100
Other liability repayments	(47)	—	—	(44)	(33)	(100)
Capital lease repayments	—	—	—	(6)	(4)	(12)
Issuance of common stock	20,163	—	—	—	18,583	22,845
Financing expenses—cash	(1,805)	—	—	—	—	—
Proceeds from issuance of preferred stock of subsidiary	1,400	—	—	—	—	—
Proceeds from convertible note	1,895	—	3,010	—	—	3,010
Proceeds from exercise of stock options	29	5	6	—	—	6
	21,635	5	3,016	(50)	18,546	26,094
Net change in cash and cash equivalents	15,703	1,111	2,584	(13,738)	13,888	2,898
Cash and cash equivalents—Beginning of period	2,898	314	314	14,052	164	—
Cash and cash equivalents—End of period	$ 18,601	$ 1,425	$ 2,898	$ 314	$ 14,052	$ 2,898
Supplementary non-cash information:						
Acquisition of Oxiquant intellectual property	$ —	$ —	$ 19,371	$ —	$ —	$ 19,371
Leasehold improvements financed by leasehold inducements	—	—	—	—	142	366
Distribution to shareholders	—	250	250	—	—	250

(The accompanying notes are an integral part of these consolidated financial statements)

Adherex Technologies Inc.
(a development stage company)

Notes to the Consolidated Financial Statements
Canadian dollars and shares in thousands, except per share information

1. Nature of operations

Adherex Technologies Inc. (“Adherex”), together with its wholly owned subsidiaries Oxiquant, Inc. (“Oxiquant”) and Adherex, Inc., Delaware corporations, and its 50 percent investment in 2037357 Ontario Inc., an Ontario corporation, collectively referred to herein as the “Company,” is a development stage biopharmaceutical company with a portfolio of product candidates under development for use in the treatment of cancer.

2. Significant accounting policies

Basis of presentation

These consolidated financial statements have been prepared by management in accordance with accounting principles generally accepted in Canada and include the accounts of Adherex and its subsidiaries. Investments over which the Company has control are fully consolidated. All material inter-company balances and transactions have eliminated upon consolidation.

In the opinion of management, the unaudited interim statements for the nine month period ended March 31, 2004, reflect all normal and recurring adjustments considered necessary to state fairly the results for the periods presented.

The Company began as Adherex Inc. and was incorporated under the Canada Business Corporation Act (“CBCA”) on September 3, 1996. On August 14, 1998, Adherex Technologies Inc. was incorporated under the CBCA and on September 11, 1998, it acquired all of the outstanding shares of Adherex Inc. On April 30, 2001, Adherex Technologies Inc. amalgamated with Adherex Inc. to continue as Adherex Technologies Inc. These financial statements reflect the combined historical carrying values of the assets, liabilities and shareholders’ equity and the historical operating results of the predecessor companies since their inception. On November 20, 2002, Adherex acquired the intellectual property and all of the outstanding shares of Oxiquant, Inc. Oxiquant was an intellectual property holding company with a focus in chemoprotection and chemoenhancement. In December 2003, the Company formed Adherex, Inc., a wholly owned, Delaware corporation that is its operating company for its U.S. operations. Also in December 2003, the Company acquired 50 percent of 2037357 Ontario Inc., an Ontario corporation, which has agreed to perform research and development activity for the Company.

Use of estimates

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. Actual results could differ from those estimates.

Investment tax credits

Investment tax credits, which are earned as a result of qualifying research and development expenditures, are recognized when the expenditures are made and their realization is reasonably assured. They are applied to reduce related capital costs and research and development expenses in the year recognized.

Adherex Technologies Inc.
(a development stage company)
Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

Capital assets

Capital assets are initially recorded at cost and are then amortized using the declining balance method at the following annual rates:

Furniture, fixtures and office equipment	20%
Computer equipment	30%
Computer software	100%
Laboratory equipment	20%

Leasehold improvements are amortized on a straight-line basis over the lease term. During the year the Company changed the amortization period for leasehold improvements. This change in estimate is being accounted for on a prospective basis.

Acquired intellectual property rights

Acquired intellectual property rights are recorded at cost and are being amortized over their estimated useful lives on a straight-line basis over 10 years.

Impairment of long-lived assets (unaudited)

The Company adopted the provisions of CICA 3063 “Impairment of Long-Lived Assets” in the first quarter of 2004. The Company now monitors the recoverability of long-lived assets, including capital assets and acquired intellectual property rights, based on factors such as current market value, future asset utilization, business climate and future undiscounted cash flows expected to result from the use of the related assets. The Company’s policy is to record an impairment loss in the period when it is determined that the carrying amount of the asset may not be recoverable. The impairment loss is calculated as the amount by which the carrying amount of the assets exceeds the discounted cash flows from the asset.

Lease inducements

The Company received lease inducements in the form of leasehold improvements and rent-free periods. These inducements have been deferred and are applied against the rent expense of future periods on a straight-line basis over the term of the lease.

Capital stock

Capital stock, which has no par value, is recorded as the net proceeds received on issuance after deducting all share issue costs.

Cash equivalents and short term investments

Cash equivalents are defined as highly liquid instruments that are readily convertible into cash with maturities at acquisition of three months or less.

Short-term investments are those with terms to maturity in excess of three months, but less than one year. All cash equivalents and short-term investments are classified as available for sale.

Adherex Technologies Inc.
(a development stage company)
Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

Revenue recognition

Revenue will be recognized when persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed and determinable and collection is reasonably assured. No revenue has been recognized to date.

Research and development costs

Research costs, including research performed under contract by third parties, are expensed as incurred. Development costs, including direct legal and other costs related to patents, are also generally expensed as incurred unless such costs meet the criteria under generally accepted accounting principles in Canada for deferral and amortization. To qualify for deferral, the costs must relate to a technically feasible, identifiable product that the Company intends to produce and market, there must be a clearly defined market for the product and the Company must have the resources, or access to resources, necessary to complete the development. To date, no development costs have been deferred.

The Company enters into arrangements with third parties to fund research and development activities of the Company where the investment of third parties is involved. The Company assesses the substance of the financing and may consider that funding to be an investment in the Company.

Income taxes

The Company accounts for income taxes under the asset and liability method that requires the recognition of future tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and tax basis of assets and liabilities. The Company provides a valuation allowance on net future tax assets when it is more likely than not that such assets will not be realized.

Convertible notes

The Company splits convertible notes into their respective liability and equity components based on the relative fair value of each component.

Foreign currency translation

Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at exchange rates prevailing at the balance sheet date. Expenses denominated in foreign currencies are translated at the relevant exchange rates prevailing during the year. Exchange gains and losses are included in net loss for the year.

Stock-based compensation plan

The Company has a stock-based compensation plan that is described in note 9. No compensation expense is recognized when stock options are issued to employees under this plan. Any consideration paid by employees on exercise of stock options or purchase of stock is credited to share capital.

Earnings per share

Basic earnings per share are computed using the treasury stock method including weighted-average number of shares of common stock outstanding during the year including contingently issuable shares where the contingency has been resolved. Diluted earnings per share are computed using the weighted-average number shares of common stock and includes the effects of dilutive convertible securities including convertible debentures, options and warrants.

Adherex Technologies Inc.
(a development stage company)
Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

Deferred financing costs

Costs incurred in obtaining debt financing are deferred and amortized over the term of the instrument.

Comparative figures

Certain comparative figures have been reclassified to conform to the current year's presentation.

Current accounting pronouncements

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity". SFAS 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability, or an asset in some circumstances. The standard became effective for us for financial instruments entered into or modified after May 31, 2003, and otherwise is effective at the beginning of the first interim period beginning after June 15, 2003 except for mandatorily redeemable financial instruments of nonpublic entities which are subject to the provisions of the SFAS 150 for the first fiscal period beginning after December 15, 2003. The adoption of SFAS 150 had no impact on our results of operations or financial position.

In September 2003, the CICA revised CICA 3870, "Stock-Based Compensation and Other Stock-Based Payments" ("CICA 3870"). This section now requires fair value based method of accounting for stock-based compensation and other stock-based payments. The Company intends to apply the provisions in this Section retroactively, commencing in the fiscal year beginning July 1, 2004 for the Company. (unaudited)

In December 2003, the FASB issued FIN 46R, Consolidation of Variable Interest Entities, which explains how to consolidate entities that have been referred to as special-purpose entities as well as other entities that are structured in such a way that (a) the equity investment at risk is not sufficient to permit the entity to finance itself with subordinated financial support in other forms or (b) the equity investors as a group lack decision-making powers, do not absorb losses, or do not receive residual returns. Since the Company does not believe it has any arrangements that would be considered to be Variable Interest Entities, the Company believes adoption of the statement will not impact the Company's financial position or results of operations. (unaudited)

3. Acquired intellectual property

On November 20, 2002 Adherex acquired certain intellectual property for chemotherapeutics with a focus in chemoprotection and chemoenhancement. The intellectual property resided in Oxiquant, a holding company with no active business. The Company consummated the acquisition by merger, pursuant to which a subsidiary of the Company acquired all of the outstanding securities of Oxiquant. The assets consisted of an exclusive worldwide license to intellectual property from Rutgers, The State University of New Jersey ("Rutgers"), on "Novel Redox Clamping Agents and Uses Thereof" and certain intellectual property from Oregon Health & Science University relating to the use of Sodium Thiosulfate ("STS") and N-Acetylcysteine ("NAC").

The intellectual property was valued at $31,162 reflecting net liabilities assumed of $401 and provision for future income tax liability of $11,390, resulting in a total consideration of $19,371. The consideration took the form of 40,164 shares of common stock of Adherex with a fair value of $17,545, as well as 2,307 warrants valued at $640, and 848 introduction warrants valued at $220. In addition, there were other transaction costs of $967.

Adherex Technologies Inc.
(a development stage company)
Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

The acquired intellectual property rights will be amortized over their estimated useful lives of 10 years. The cost and accumulated amortization of the acquired intellectual property rights are as follows:

	March 31, 2004 (unaudited)	June 30, 2003
Cost	$ 31,162	$ 31,162
Accumulated amortization	(4,250)	(1,910)
Net book value	$ 26,912	$ 29,252

4. Cadherin Biomedical Inc.

On September 27, 2002, Cadherin Biomedical Inc. (“CBI”) was incorporated as a wholly owned subsidiary of Adherex. Adherex granted CBI an exclusive, worldwide royalty-free license to develop, market and distribute pharmaceuticals and therapeutics for non-cancer applications based on cadherin technology. As consideration for this license and $250 in cash, CBI issued 40,164 Class A Preferred Shares of CBI to Adherex.

The CBI Class A Preferred Shares were subsequently distributed to Adherex shareholders of record prior to the acquisition of Oxiquant. This transaction has been recorded in the accounts as a distribution to shareholders at the carrying amount of the assets distributed.

5. Short-term Investments

Short-term investments at June 30, 2002 consisted of Bankers Notes and a Government Investment Certificate with maturities at acquisition from 137 to 365 days and interest rates from 1.75 percent to 2.2 percent.

6. Capital assets

	March 31, 2004 (unaudited)		June 30, 2003		June 30, 2002	
	Cost	Accumulated Amortization	Cost	Accumulated Amortization	Cost	Accumulated Amortization
Furniture, fixtures and office equipment	$ 73	$ 73	$ 71	$ 31	$ 74	$ 23
Computer equipment	204	166	158	89	147	61
Computer software	93	76	67	60	52	39
Laboratory equipment	810	390	804	318	798	198
Leasehold improvements	430	430	430	377	424	214
	1,610	$ 1,135	1,530	$ 875	1,495	$ 535
Accumulated amortization	(1,135)		(875)		(535)	
Net book value	$ 475		$ 655		$ 960	

Adherex Technologies Inc.
(a development stage company)

Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

Amortization of capital assets for the nine months ended March 31, 2004 was $259 (2003 $212) (unaudited) and for the year ended June 30, 2003 was $343 (2002 - $278, 2001 - $151).

7. Credit facility

The Company has a revolving line of credit with a Canadian chartered bank in an amount not to exceed $300 that bears interest at bank prime. An interest-bearing term deposit in the amount of $300 has been provided as collateral for the credit facility. As at March 31, 2004 (unaudited) and at June 30, 2003 and 2002, the line of credit was unused.

8. Convertible notes

On June 23, 2003, the Company issued senior secured convertible notes with a face value totaling $3,010. These notes were convertible into common stock and warrants to acquire common stock of the Company upon completion of an equity fund raising round. Investors also received warrants to purchase an aggregate of 1,724 shares of common stock of the Company at a price of $0.55 per share. The notes accrued interest at an annual rate of 8 percent compounded semi-annually, and matured in one year from issue but were renewable for one year at the option of the Company. In connection with this issuance, the Company issued broker warrants to purchase 504 shares of common stock exercisable at a price of $0.47 per share.

On December 3, 2003, the Company issued additional senior secured convertible notes with a face value totaling $1,895. These notes were convertible into common stock and warrants to acquire common stock of the Company upon completion of an equity fund raising round. Also, investors received warrants for 1,354 shares of common stock exercisable at a price of $0.43 per share. The notes accrued interest at an annual rate of 8 percent compounded semi-annually, and matured in one year from issue but were renewable for one year at the option of the Company. The Company also issued broker warrants to purchase 470 shares of common stock exercisable at a price of $0.43 per share.

As an inducement to consent to the December financing, 1,433 warrants granted in the June financing were repriced from $0.55 to $0.43 per share on December 3, 2003, making the terms of both debt financings substantially the same. The reduction of exercise price resulted in an increase in the fair value of the warrants on the date of the change of $23. The increase was recorded as interest expense during the quarter ending December 31, 2003.

In December 2003, the Company completed an equity round described in Note 9, “Private Placement”. This caused the June and the December notes to convert into 14,066 shares of common stock and 7,033 warrants to purchase common stock. The warrants are exercisable at $0.43 per share and expire December 2008.

The carrying values of the debt and the conversion option associated with the notes, net of expenses of the offerings, were transferred to equity and split between common stock and contributed surplus ($2,391 to common stock, $1,610 to contributed surplus). Investor warrants issued with the convertible notes were recorded as contributed surplus and valued at $628.

The debt portion and accrued interest and amortization of the June 23, 2003 notes at June 30, 2003 was $1,591.

Adherex Technologies Inc.
(a development stage company)

Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

At the time the notes were issued, values were ascribed to the investor warrants and to the conversion feature (with the remainder being ascribed to the debt portion of the note). These values were being amortized over the life of the notes. As a result, the notes accrued interest at an implied rate in excess of 50 percent, although cash interest was only 8 percent.

9. Shareholders' equity

Authorized capital stock

The Company's authorized capital stock consists of an unlimited number of no par common stock.

Stock split

Effective October 18, 2000, the Company's shareholders approved a split of the Company's common stock and stock options on a 4 for 1 basis. All per share amounts, and numbers of common stock, warrants and options in these financial statements have been restated to give retroactive effect to these splits for all years presented.

Special warrants

From May 2000 through November 2000, the Company issued special warrants. Each special warrant was sold for $5.00 and entitled the holder thereof to acquire, for no additional consideration, four shares of common stock of the Company. The special warrants also included a price protection adjustment determined by dividing $6.50 by the IPO price of $1.50.

During the year ended June 30, 2000, 78 of 631 special warrants were issued, with the balance of 553 issued in the period ended June 30, 2001. Upon completion of the initial public offering, on June 5, 2001, these special warrants were converted to 2,734 shares of common stock, which included 210 shares of common stock issued under the price protection adjustment.

Series A special warrants

During October 2000, the Company issued Series A special warrants. Each Series A special warrant was sold at $1.25 and entitled the holder to acquire, for no additional consideration, one share of common stock of the Company. The Series A special warrants also included a price protection adjustment determined by dividing $1.625 by the IPO price.

Upon completion of the initial public offering on June 5, 2001 these Series A special warrants were converted to 6,240 shares of common stock, which included 480 shares of common stock issued under the price protection adjustment.

In addition, each Series A special warrant includes a share purchase warrant entitling the holder to purchase an additional share of common stock at the IPO price, which is also subject to the price protection adjustment, so that 6,240 additional common stock can be sold at the IPO price. These share purchase warrants expired unexercised on September 3, 2001.

Equity rights

On September 28, 1999, University Medical Discoveries Inc. (UMDI) invested $250 for equity of the Company. The form of this equity was to be the same as the first class of securities to raise greater than $1,000

subsequent to the date of the investment. The date of conversion was dependent on certain milestones being met under a specific research project. On August 24, 2000, the Company and UMDI agreed to convert UMDI's $250 investment into 308 shares of common stock of the Company.

Triathlon settlement

During fiscal 2000, other advances totaling $258 were settled by the issuance to Triathlon Limited of 1,400 shares of common stock of the Company. The number of shares issued was determined with reference to fair value at the time the advances were made.

Shire BioChem Inc. agreement

On August 17, 2000, the Company entered into a subscription agreement and a license agreement with Shire BioChem Inc. ("BioChem"). Under the subscription agreement, BioChem purchased 400 shares of common stock of the Company for $500. Pursuant to a price protection clause in the agreement, an additional 33 shares of common stock were issued on completion of the Company's initial public offering on June 5, 2001.

Initial public offering

On June 5, 2001, the Company completed an initial public offering issuing 6,667 shares of common stock at a price of $1.50 per share. Net proceeds of this offering credited to capital stock amounted to $8,720, after deducting the underwriting fee of $750 and expenses of $530. As additional compensation in connection with the offering, the Company granted the underwriters non-assignable support options representing 10 percent of the offered shares. Each support option entitles the holder to purchase one share of common stock on or before June 5, 2003 at $1.50. The Company also granted the underwriters an option ("Over-allotment Option") to purchase up to 1,000 shares of common stock at the offering price for a period ending 30 days from the close of the offering. On July 5, 2001, the Over-allotment Option expired unexercised.

Private placement

On December 19, 2003, the Company completed a private placement of equity securities totaling $21,563, comprised of (a) $20,163 for 57,609 units, at a price of $0.35 per unit, comprised of an aggregate of 57,609 shares of common stock and warrants to acquire 28,805 shares of common stock of Adherex with an exercise price of $0.43 per share, and (b) $1,400 for 4,000 Series 1 Preferred Shares and warrants to purchase 2,000 Series 1 Preferred Shares of 2037357 Ontario Inc. The non-redeemable Series 1 Preferred Shares of 2037357 Ontario Inc. were exchangeable into 4,000 shares of common stock of Adherex. Upon such an exchange, all of the then outstanding warrants to purchase shares of Series 1 Preferred Shares of 2037357 Ontario Inc. were to be exchanged for an equal number of warrants to purchase Adherex common stock, with an exercise price of $0.43 per share. The $1,400 was to be spent on research and development projects in Canada designated by Adherex. Adherex had the right to compel the exchange of the preferred shares into common stock and warrants for common stock of Adherex at any time after January 3, 2005. The Company also issued broker warrants to purchase 6,132 shares of common stock exercisable at a price of $0.43 per share.

On June 14, 2004, New Generation exchanged its interest in 2037357 Ontario Inc. for 4,000 shares of Adherex common stock and warrants to purchase 2,000 shares of Adherex common stock. Subsequent to the exchange, 2037357 Ontario Inc. continued its existence as a wholly owned subsidiary of the Company, as Adherex Research Corp. On June 29, 2004, Adherex Research Corp. amalgamated with the Company pursuant to a short-form amalgamation under the CBCA (unaudited).

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2037357 Ontario Inc. has been accounted for in accordance with the substance of the transaction. The $1,400 has been recorded as non-redeemable preferred shares and the amounts expended will be recorded as expenses in the relevant periods. The unexpended balance has been included in cash and cash equivalents.

Stated capital reduction

As a prerequisite of the Oxiquant transaction, Adherex licensed all of its intellectual property related to the development of its proprietary compounds for non-cancer applications and transferred $250 cash to CBI, a wholly-owned subsidiary of Adherex at the time, in return for Class A preferred shares of CBI. These CBI Class A preferred shares were then distributed to all of the Adherex shareholders of record by way of special dividend, effecting a “spin out” of CBI and the non-cancer assets from Adherex.

In order to effect such a distribution under the CBCA, the Company was legally required to reduce its stated capital so that the aggregate amount of its liabilities and stated capital did not exceed the realizable value of Adherex’s assets. This requirement is set out in Section 42 of the CBCA.

Management determined that the stated capital needed to be reduced from $23,029 to $8,000, or by $15,029, in order to comply with the requirements of Section 42 of the CBCA.

Warrants issued on acquisition of intellectual property

In connection with the acquisition of intellectual property in November 2002, the Company issued 2,307 warrants with an exercise price of $0.717 that expire on May 20, 2007 and 848 introduction warrants with an exercise price of $0.41 that expire on November 20, 2007.

Convertible note warrants

In connection with the senior secured convertible notes, the Company issued 1,724 warrants with an exercise price of $0.55 per share that expire on June 23, 2007 and 504 agent warrants with an exercise price of $0.47 per share that expire on June 23, 2005. As an inducement to consent to the issuance of the December 2003 convertible notes, 1,433 of these warrants were repriced from $0.55 per share to $0.43 per share on December 3, 2003.

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Stock options

The Compensation Committee of the Board of Directors administers the Company's stock option plan. The Compensation Committee designates eligible participants to be included under the plan, and recommends to the Board for approval the number of options to be granted from time to time. Under the plan, a maximum of 10,000 options are authorized for issue (this amount was increased to 20,000 excluding the CEO's 3,500 options on December 16, 2003—unaudited). The option exercise price for all options issued under the plan is based on the fair value of the underlying shares on the date of grant. All options typically vest within a three-year period and are exercisable for a period of seven years from the date of grant. Information with respect to stock option activity is as follows:

		Exercise Price	
	Number of Options	Range	Weighted-Average
Outstanding at June 30, 2000	3,588	$ 0.3275–$0.75	$ 0.46
Exercised	(8)	0.3275	0.3275
Granted	527	1.25	1.25
Outstanding at June 30, 2001	4,107	0.3275–1.25	0.56
Cancelled	(1,252)	0.3275–1.25	0.33
Granted	851	0.33–0.65	0.39
Repriced	(720)	0.75	0.75
	720	1.50	1.50
Outstanding at June 30, 2002	3,706	0.3275–1.50	0.74
Cancelled	(570)	0.3275–1.25	0.93
Exercised	(18)	0.3275	0.33
Granted	5,107	0.33–0.35	0.33
Outstanding at June 30, 2003	8,225	0.3275–1.50	0.48
Cancelled	(78)	0.34	0.34
Exercised	(85)	0.3275–0.35	0.34
Granted	5,598	0.45–0.65	0.48
Outstanding at March 31, 2004 (unaudited)	13,660	0.3275–1.50	0.48

	Options Outstanding (unaudited)		Options Exercisable (unaudited)		Options Outstanding		Options Exercisable	
Exercise Price	Number Outstanding at March 31, 2004	Weighted-Average Remaining Contractual Life (years)	Number exercisable at March 31, 2004	Weighted-Average Remaining Contractual Life (years)	Number Outstanding at June 30, 2003	Weighted-Average Remaining Contractual Life (years)	Number Exercisable at June 30, 2003	Weighted-Average Remaining Contractual Life (years)
$0.3275	1,096	3.46	1,096	3.46	1,136	3.47	1,136	3.47
0.33	4,435	5.65	4,035	5.69	4,435	6.48	1,535	6.46
0.34	607	5.58	251	4.84	685	6.39	173	5.04
0.35	509	5.33	234	4.95	554	6.63	50	6.63
0.45	4,789	6.26	1,518	6.75	—	—	—	—
0.46	81	4.67	57	4.81	81	5.69	27	5.69
0.49	50	6.72	—	—	—	—	—	—
0.53	47	6.47	25	6.47	—	—	—	—
0.63	5	6.96	5	6.96	—	—	—	—
0.65	743	6.19	184	3.98	36	5.19	21	5.19
0.75	400	2.91	400	2.91	400	3.66	400	3.66
1.25	178	1.84	178	1.84	178	2.61	168	2.49
1.50	720	2.91	720	2.91	720	3.66	720	3.66
	13,660		8,703		8,225		4,230	

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Pro forma compensation expense

During the year ended June 30, 2003, the Company retroactively adopted the CICA 3870 "Stock-based Compensation and Other Stock-based Payments" requirement for pro forma stock based compensation to be disclosed in the notes. Compensation expense for options have been determined based on a Black-Scholes option-pricing model at the grant date, the net loss of the Company would have increased as follows:

	Nine Months Ended March 31,		Years Ended June 30,		
	2004	2003	2003	2002	2001
	(unaudited)				
Net loss before compensation expense	$ 8,004	$ 5,948	$ 8,280	$ 5,641	$ 3,715
Compensation expense	630	472	565	215	317
Pro forma net loss	$ (8,634)	$ (6,420)	$ (8,845)	$ (5,856)	$ (4,032)
Net loss per share of common stock, basic and diluted	$ (0.08)	$ (0.11)	$ (0.14)	$ (0.15)	$ (0.16)

The value of each option is estimated on the date of grant using the Black-Scholes option pricing model. Calculations were based on the following assumptions:

	Nine Months Ended March 31,		Years Ended June 30,		
	2004	2003	2003	2002	2001
	(unaudited)				
Expected dividend	0%	0%	0%	0%	0%
Risk-free interest rate	4.16%	5.06%	4.32%	5.48%	5.91%
Expected volatility	70%	70%	70%	70%	70%
Expected life	7 years	7 years	7 years	7 years	7 years

10. Research and development

Investment tax credits earned as a result of qualifying research and development expenditures and government grants have been applied to reduce research and development expenses as follows:

	Nine Months Ended March 31,		Years Ended June 30,			Cumulative From September 3, 1996 to June 30, 2003
	2004	2003	2003	2002	2001	
	(unaudited)					
Research and development	$ 3,592	$ 3,986	$ 5,245	$ 5,156	$ 3,306	$ 18,235
Investment tax credits	(75)	(265)	(373)	(302)	(415)	(1,987)
National Research Council grants	(5)	(97)	(96)	(102)	—	(282)
	$ 3,512	$ 3,624	$ 4,776	$ 4,752	$ 2,891	$ 15,966

The Company's claim for Scientific Research and Experimental Development ("SR&ED") deductions and related investment tax credits for income tax purposes are based upon management's interpretation of the applicable legislation in the Income Tax Act (Canada). These amounts are subject to review and acceptance by the Canada Revenue Agency prior to collection.

The receivable from the National Research Council relating to Industrial Research Assistance Program research grants at March 31, 2004 was nil (unaudited) and $47 at March 31, 2003 (unaudited). The receivable at

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June 30, 2003 was nil, $43 at June 30, 2002 and nil at June 30, 2001. Cumulative research and development expenditures since inception of the Company through March 31, 2004 totaled $19,478 and include cumulative direct legal and other costs associated with patents of $2,821 (unaudited).

11. Capital and operating lease commitments

As of June 30, 2003, the Company has entered into operating lease agreements for office facilities and office equipment. The minimum lease payments are as follows:

Period ending	Amount
June 30, 2004	$ 191
June 30, 2005	49
	$ 240

Rental payments on operating leases and interest and interest on capital lease payments are summarized on the table below.

Period ending	Amount	Interest
June 30, 2003	$ 215	$ 1
June 30, 2002	293	1
June 30, 2001	179	1

12. Commitments and contingencies

McGill agreement

On February 26, 2001, the Company entered into an agreement with McGill superseding all prior agreements concerning the licensed technology. The agreement grants the Company a 27-year exclusive, worldwide license to develop, use and market certain cell adhesion technology and compounds. The license agreement provides for the Company to pay future royalties of 2 percent of gross revenues from the use of the compounds and may require the Company to make payments in order to maintain the license as follows:

- $100 if the Company has not filed an investigational new drug (IND) application, or similar application with Canadian, US, European or a recognized agency relating to the licensed product prior to September 23, 2002;
- $100 if the Company has not commenced Phase II clinical trials in a recognized jurisdiction on any licensed product prior to September 23, 2004; and
- $200 if the Company has not commenced Phase III clinical trials in a recognized jurisdiction on any licensed product prior to September 23, 2006.

In addition, the Company is to fund mutually agreed upon research at McGill over a period of ten years totaling $3,300. Annual funding commenced in 2001 with a total payment of $200 and increases annually by 10 percent through to the tenth year of the agreement when annual funding reaches $500. The additional research commitment can be deferred in any year if it exceeds 5 percent of the Company’s cash and cash equivalents. As of June 30, 2003, there have been no deferrals. The Company receives certain intellectual property rights resulting from this research.

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On August 1, 2002, McGill acknowledged that work completed on the clinical development of Exherin™ was sufficient to meet the requirements of the September 23, 2002 milestone.

Rutgers agreement

In November 2002, the Company acquired an exclusive license agreement with Rutgers through the Company's acquisition of Oxiquant, which had entered into the license agreement with Rutgers in April 2001. Pursuant to the license agreement, Rutgers granted the Company worldwide license rights to "Novel Redox Clamping Agents and Uses Thereof." In consideration, Rutgers was issued 500 shares of common stock of Oxiquant, which were subsequently converted into 3,821 shares of common stock of the Company and 219 warrants. Rutgers will also receive certain milestone payments, a 4 percent running royalty on net sales for any licensed products semiannually and a 20 percent non-running royalty on any consideration received from sublicensing or transferring of the licensed technology. Milestone payment fees payable to Rutgers include: US$25 upon completion of the first clinical trial performed in compliance with FDA or corresponding foreign health authority requirements in a small number of patients to determine the metabolism and pharmacological actions of doses; US$50 upon commencement of the first Phase III clinical trial or equivalent; US$100 upon receipt of market approval in the first major market country; US$200 upon receipt of market approval in the second major market country; and US$300 on receipt of market approval in the third major market country. In addition, on the anniversary of the license agreement, a license maintenance fee starting at US$5 and increasing by that same amount each subsequent anniversary is due to Rutgers. The Company has made all maintenance payments required to date. After completion of the fifth anniversary period, and on each subsequent anniversary, the annual license maintenance fee shall be US$50, can be offset against royalties (with some restrictions).

Oregon Health & Science University agreement

In November 2002, the Company acquired an exclusive license agreement with OHSU through the Company's acquisition of Oxiquant, which had entered into the license agreement with OHSU in September 2002. Pursuant to the license agreement, OHSU granted the Company exclusive worldwide license rights to intellectual property surrounding work done by Dr. Edward Neuwelt with respect to thiol-based compounds and their use in oncology. In consideration, OHSU was issued 250 shares of common stock of Oxiquant which subsequently became, upon the acquisition of Oxiquant, 1,913 shares of common stock of the Company and 110 warrants, and will receive certain milestone payments, a 2.5 percent royalty on net sales for licensed products and a 15 percent royalty on sublicensing of the licensed technology. Milestone payment fees payable to OHSU include: US$50 upon completion of Phase I clinical trials; US$200 upon completion of Phase II clinical trials; US$500 upon completion of Phase III clinical trials; and US$250 upon first commercial sale for any licensed product. To date, no milestone payments have been required.

Employment matters

Under the terms of an agreement dated February 19, 2003, the prior Chief Executive Officer ("CEO") of the Company was terminated by mutual agreement. Pursuant to that agreement, the Company agreed to pay a total of US$350 ($535 Canadian dollars when converted at a rate of $1.5287 per the agreement). The initial payment of $229 was made during the quarter ended March 31, 2003 and was recorded as a General and Administration expense. Additionally, he will receive US$50 per year for four years paid in semi-monthly installments. The present value of the remaining payments has been recorded as a General and Administration expense. The present value of the amounts due in the next twelve months have been recorded as accrued liabilities, with the remaining amounts recorded as a long-term liability.

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13. Related party transactions

The Company entered into the following related party transactions with shareholders:

	Year Ended June 30, 2001
Laboratory supplies and equipment purchased from McGill	$ 2
Payments to shareholders for research and development work	90

As a result of the issue of shares on the Company's initial public offering, no individual shareholders held sufficient shares to constitute a related party during the year ended June 30, 2003 or June 30, 2002.

14. Income taxes

A reconciliation of the combined Canadian federal and provincial income tax rate with the Company's effective income tax rate is as follows:

	Years Ended June 30,		
	2003	2002	2001
Loss before income taxes	$(8,978)	$(5,641)	$(3,715)
Expected statutory rate	37.62%	40.00%	43.42%
Expected recovery of income tax	(3,378)	(2,256)	(1,613)
Permanent differences	8	6	9
Change in valuation allowance	3,259	1,659	1,708
Non-refundable investment tax credits	(227)	(361)	—
Share issue costs and effect of change of carry forwards	(772)	9	(159)
Effect of tax rate changes	412	943	55
Provision for income taxes	$ (698)	$ —	$ —

The Canadian statutory income tax rate of 37.62 percent is comprised of federal income tax at approximately 25.12 percent and provincial income tax at approximately 12.50 percent.

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The primary temporary differences, which gave rise to future income taxes (recovery) at June 30, 2003 and 2002 are as follows:

	Years Ended June 30,	
	2003	2002
Future tax assets		
SR&ED expenditures	$ 2,150	$ 1,510
Income tax loss carryforwards	4,850	3,090
Non-refundable investment tax credits	770	380
Share issue costs	390	130
Reserves	20	50
Fixed and intangible assets	580	330
	8,760	5,490
Less: valuation allowance	(8,670)	(5,410)
	90	80
Future tax liabilities		
Asset basis differences	(10,692)	—
Refundable investment tax credits	(90)	(80)
Net future tax liability	$(10,692)	$ —

The future income tax liability recognized in the balance sheet related to the acquired intellectual property of Oxiquant. These acquired intellectual property rights have no basis for income tax purposes and therefore will not provide any income tax deduction as they are amortized. The liability was not netted against the future tax assets of $8,760 when calculating the valuation allowance because the liability and assets reside in different taxation jurisdictions.

As at June 30, 2003, the Company has unclaimed Scientific Research and Experimental Development (SR&ED) expenditures, income tax loss carry forwards and investment tax credits. The unclaimed amounts and their expiry dates are as follows:

	Federal	Ontario
SR& ED expenditures (no expiry)	$6,150	$6,580
Income tax loss carryforwards (expiry date)		
2003	$ 42	$ 42
2004	342	342
2005	780	909
2006	1,698	1,960
2007	1,833	1,833
2008	633	633
2009	3,653	3,653
2010	5,070	5,070
Investment tax credits (expiry date)		
2007	$ —	$ —
2008	9	—
2009	7	—
2010	96	—
2011	55	—
2012	545	—

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15. Earnings per share

The outstanding number and type of securities that could potentially dilute basic earnings per share in the future but that were not included in the computation of diluted earnings per share because to do so would have reduced the loss per share (anti-dilutive) for the years presented are as follows:

Security	Nine Months Ended March 31,		June 30,	
	2004	2003	2003	2002
	(unaudited)			
Stock options	13,660	7,649	8,225	3,706
Convertible note warrants	3,077	—	1,724	—
Acquisition warrants	2,307	2,307	2,307	—
Agent warrants	7,955	848	1,352	346
Support options	—	—	—	667
Conversion of convertible notes	—	—	6,895	—
Warrants from conversion	7,033	—	—	—
Private placement warrants	28,805	—	—	—
Convertible non-redeemable shares warrants	2,000	—	—	—

16. Segment information

The Company operates in one business segment, being the development of pharmaceutical products based on its proprietary technologies, with substantially all of its physical assets and operations located in Research Triangle Park, North Carolina.

17. Research and development projects

The Company is in the development stage and has undertaken the following anticancer research and development areas:

	Nine Months Ended March 31,		Years Ended June 30,			Cumulative From September 3, 1996 to June 30, 2003
	2004	2003	2003	2002	2001	
	(unaudited)					
Research costs expensed:						
Vascular targeting	$2,960	$3,426	$4,375	$3,915	$2,018	$ 11,918
Chemoprotectants and enhancers	450	58	278	—	—	278
Other discovery projects	102	140	123	337	463	2,551
Transdermal drug delivery	—	—	—	500	410	1,219
Total research costs expensed	$3,512	$3,624	$4,776	$4,752	$2,891	$ 15,966

18. Financial instruments

Financial instruments recognized in the balance sheet as at June 30, 2003 consist of cash and cash equivalents, cash pledged as collateral, short-term investments, amounts receivable, accounts payable and

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convertible notes. The Company does not hold or issue financial instruments for trading purposes and does not hold any derivative financial instruments. With the exception of the convertible notes, the Company believes that the carrying value of its financial instruments approximates their fair values because of their short terms to maturity. The convertible notes approximate their fair value because little time had passed between the date of issue of the notes and June 30, 2003.

19. United States accounting principles (restated)

The consolidated financial statements have been prepared in accordance with Canadian GAAP. These principles differ, as they affect the Company, for the year ended June 30, 2003, 2002 and 2001 in the following material respects from U.S. GAAP. There are no differences in reported cash flow for the periods presented.

(a) Consolidated balance sheets—U.S. GAAP

	March 31, 2004	June 30, 2003	June 30, 2002
	(unaudited)	(as restated)	
Assets			
Current assets	$ 19,595	$ 4,489	$ 9,378
Other assets	295	167	—
Capital assets	475	655	960
Acquired intellectual property (1)	—	—	—
	$ 20,365	$ 5,311	$ 10,338
Liabilities			
Current liabilities	$ 1,267	$ 1,465	$ 1,053
Other long-term liabilities	145	192	—
Deferred lease inducements	—	—	64
Convertible notes (3)	—	2,707	—
Future income taxes (1)	—	—	—
	1,412	4,364	1,117
Shareholders' equity			
Common stock	38,476	25,609	23,087
Non-redeemable preferred stock of subsidiary	1,400	—	—
Contributed surplus	26,594	16,632	307
Accumulated deficit	(47,517)	(41,294)	(14,173)
	18,953	947	9,221
	$ 20,365	$ 5,311	$ 10,338

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(b) Consolidated statements of operations—U.S. GAAP

	Nine Months Ended March 31,		Years Ended June 30,		
	2004	2003	2003	2002	2001
	(unaudited)		(as restated)		
Net loss in accordance with Canadian GAAP	$ (8,004)	$ (5,948)	$ (8,280)	$ (5,641)	$ (3,715)
Adjustments to reconcile U.S. GAAP:					
Acquired intellectual property rights (1)	—	(31,162)	(31,162)	—	—
Acquired intellectual property rights amortization (1)	2,340	1,130	1,910	—	—
Future income taxes (2)	(855)	10,977	10,692	—	—
Estimated stock-based compensation costs (2)	(7)	(37)	(40)	(213)	(94)
Interest charges—convertible notes (3)	303	—	9	—	—
Net loss in accordance with U.S. GAAP	$ (6,223)	$ (25,040)	$ (26,871)	$ (5,854)	$ (3,809)
Weighted-average number of shares of common stock outstanding, basic and diluted	109,621	59,295	64,601	40,164	25,458
Net loss per share of common stock, basic and diluted	$ (0.06)	$ (0.42)	$ (0.42)	$ (0.15)	$ (0.15)

(c) Restatement

The Company has restated its U.S. GAAP results for the year ended Jun 30, 2003 to correct the treatment of intellectual property acquired in the Oxiquant transaction. The Company has concluded that the intellectual property acquired should have been classified as in-process research and development under U.S. GAAP and therefore expensed under U.S. GAAP at the time of the acquisition. The Company has also corrected the allocation between certain components of shareholders' equity.

The results presented above reflect this restatement. The following table presents the impact of this U.S. GAAP restatement on the consolidated balance sheet and consolidated statement of operations for the year ended June 30, 2003. The restatement has no effect on the U.S. GAAP consolidated statement of cash flows.

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Consolidated balance sheets—U.S. GAAP

	June 30, 2003		
	As previously reported	Restatement	As restated
Assets			
Current assets	$ 4,489	$ —	$ 4,489
Deferred expense	167	—	167
Capital assets	655	—	655
Acquired intellectual property rights	29,252	(29,252)	—
	$ 34,563	$ (29,252)	$ 5,311
Liabilities			
Current liabilities	$ 1,465	$ —	$ 1,465
Other long-term liabilities	192	—	192
Liability component of convertible notes	2,707	—	2,707
Future income taxes	10,692	(10,692)	—
	15,056	(10,692)	4,364
Shareholders' equity			
Common stock	24,484	1,125	25,609
Contributed surplus	17,757	(1,125)	16,632
Accumulated deficit	(22,734)	(18,560)	(41,294)
	19,507	(18,560)	947
	$ 34,563	$ (29,252)	$ 5,311

Consolidated Statement of Operations—U.S. GAAP

	June 30, 2003		
	As previously reported	Restatement	As restated
Net loss in accordance with Canadian GAAP	$ (8,280)	$ —	$ (8,280)
Adjustments to reconcile U.S. GAAP:			
Acquired intellectual property rights	—	(31,162)	(31,162)
Acquired intellectual property rights amortization	—	1,910	1,910
Future income taxes	—	10,692	10,692
Estimated stock-based compensation costs	(40)	—	(40)
Interest charges—convertible notes	9	—	9
Net loss in accordance with U.S. GAAP	$ (8,311)	$ (18,560)	$ (26,871)
Weighted-average number of shares of common stock outstanding, basic and diluted	64,601	—	64,601
Net loss per share of common stock, basic and diluted	$ (0.13)	$ (0.29)	$ (0.42)

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(d) Footnotes

1. Acquired Intellectual Property Rights

Canadian GAAP requires the capitalization and amortization of the costs of acquired technology. Under U.S. GAAP, the cost of acquiring technology is charged to expense as in-process research and development ("IPRD") when incurred if the feasibility of such technology has not been established and no future alternative use exists. Under U.S. GAAP, the acquired intellectual property is considered IPRD in accordance with FAS 2 –"Accounting for Research and Development Costs" ("FAS 2"). Given the Company's development and patent strategy surrounding the compounds, the acquired intellectual property does not meet the criteria for alternative use as outlined in FAS 2. As a result, the amounts will be expensed as IPRD. This difference increases the loss from operations under U.S. GAAP in the year the IPRD is acquired and reduces the loss under U.S. GAAP in subsequent periods because there is no amortization charge.

Under Canadian GAAP, a future tax liability is also recorded upon acquisition of the technology to reflect the tax effect of the difference between the carrying amount of the technology in the financial statements and the tax basis of these assets which is $nil. As the intellectual property is amortized, the future tax liability is also reduced to reflect the change in this temporary difference between tax and accounting values of the assets. Under U.S. GAAP, because the technology is expensed immediately as IPRD, there is no difference between the tax basis and financial statement carrying value of the assets and therefore no future tax liability exists.

2. Stock-based compensation costs

Under U.S. GAAP, the difference between the exercise price of options issued within a one-year period prior to the initial public offering ("IPO") and the IPO price is deferred and expensed over the vesting period of the options. This difference increases the additional paid in capital and accumulated deficit reported under U.S. GAAP, with no difference in the total shareholders' equity.

3. Convertible notes and warrants

Under Canadian GAAP, the convertible notes are split into their relative component parts: debt; the option to convert the debt; and the detachable warrants. Under U.S. GAAP, these instruments are split between the debt and detachable warrant components.

Under Canadian GAAP, the option to convert the notes into equity was valued at $1,125 for the June 23, 2003 notes and at $1,143 for the December 3, 2003 notes. Amortization of the option to convert the notes was reflected as additional interest expense of $9 for the year ended June 30, 2003 and $303 for the nine months ended March 31, 2004 (unaudited) on the Canadian GAAP consolidated statements of operations. The total cumulative amortization of $312 was credited to common stock in the Canadian GAAP consolidated statements when the notes were converted.

Adherex Technologies Inc.
(a development stage company)

Notes to the Consolidated Financial Statements—(Continued)
Canadian dollars and shares in thousands, except per share information

4. Patent expense

The Company's Canadian GAAP financial statements classify the costs associated with patents as research and development expense on the consolidated statement of operations. Under U.S. GAAP, these amounts would be classified as general and administration expense. Patent expenses for the fiscal years ended June 30, 2001, 2002, 2003 and the nine months ended March 31, 2003 and 2004 are provided below:

	Nine Months Ended March 31,		Years Ended June 30,		
	2004	2003	2003	2002	2001
	(unaudited)				
Patent expense	$ 471	$ 422	$ 631	$ 420	$ 404

20. Subsequent events (unaudited)

Equity financing

On May 20, 2004, the Company completed two equity financings with total gross proceeds of $12,374 less $762 in estimated issuance costs. The Company issued 23,347 units at a purchase price of $0.53 per unit with each unit consisting of one share of common stock and one-half of a common stock purchase warrant. Each whole warrant entitles the holder to acquire one additional share of common stock at $0.70 per share for a period of three years. The $2,902 value of the warrants has been allocated to contributed surplus and the balance of $8,710 has been credited to common stock.

Cadherin Biomedical Inc.

In February 2004, the Company filed a claim in the Ontario Superior Court of Justice against CBI in the amount of $124 on account of unpaid goods and services rendered. In July 2004, CBI filed a statement of defence and counterclaim in response to such claim. CBI's counterclaim seeks $5,000 in damages in relation to the license agreement between the parties. The Company believes that the counterclaim is without merit. Later in July 2004, the Company entered into a non-binding letter of intent to acquire all of the issued and outstanding shares of CBI through an amalgamation of CBI with a wholly-owned subsidiary of Adherex to be incorporated under the CBCA for this purpose. This letter of intent effectively replaced the memorandum of agreement entered into with CBI in December 2003 and completion of the transaction is subject to CBI shareholder approval, agreement by the parties on definitive amalgamation documentation and other customary closing conditions.. The Company expects the amalgamation to close in October 2004 after CBI's shareholders vote on the acquisition, but there can be no assurance that it will close on schedule or at all. Under the terms of the letter of intent, Adherex will issue to CBI shareholders a total of 3,220 Adherex common shares, representing a value of $1,500, based on a 20-day weighted average trading price for such shares on July 20, 2004. Of such shares, 500 Adherex common shares will be deposited in escrow as security against any misrepresentation by CBI in connection with the transaction. In addition, the Company has agreed to loan CBI up to $75 to be used by CBI to pay legitimate expenses related to the transaction. This loan is to be repaid by CBI only if the transaction does not close on or before March 31, 2005 due to the fault of CBI.

If the transaction is completed, it will provide Adherex with the rights to the non-cancer applications relating to the cadherin technology and will serve as a settlement of the claim commenced by the Company against CBI in February 2004 and the counterclaim filed by CBI against the Company in July 2004. Pending completion of the transaction, the parties have agreed to hold in abeyance all matters in relation to the claim and counterclaim between the parties. If the transaction is not completed as anticipated, the Company intends to pursue its claim against CBI and take all appropriate action to defend CBI's counterclaim.

EXHIBIT 1.1

Industry Canada

Certificate of Incorporation

Canada Business Corporations Act

Adherex Inc.

Name of corporation-Dénomination de la société

I hereby certify that the above-named Corporation, the articles of incorporation of which are attached, was incorporated under the *Canada Business Corporations Act.*

"Signed"

Director - Directeur

Industrie Canada

Certificat de constitution

Loi canadienne sur les sociétés par actions

329283-5

Corporation number-Numéro de la societé

Je certifie que la société susmentionnée dont les statuts constitutifs sont joints, a été constituée en société en vertu de la *Loi canadienne sur les sociétés* par actions.

September 3, 1996/ le 3 septembre 1996

Date of Incorporation - Date de constitution

CANADA BUSINESS CORPORATIONS ACT
FORM 1
ARTICLES OF INCORPORATION
(SECTION 6)

1. NAME OF CORPORATION

   Adherex Inc.

2. THE PLACE WITHIN CANADA WHERE THE REGISTERED OFFICE IS TO BE SITUATED

   Metropolitan Region of Montreal, Province of Quebec

3. THE CLASSES AND ANY MAXIMUM NUMBER OF SHARES THAT THE CORPORATION IS AUTHORIZED TO ISSUE

   The annexed Schedule 1 is incorporated in this form.

4. RESTRICTIONS IF ANY ON SHARE TRANSFERS

   Any transfer of shares shall require the approval of the majority of the directors.

5. NUMBER (OR MINIMUM AND MAXIMUM NUMBER) OF DIRECTORS

   Minimum 1 -Maximum 15

6. RESTRICTIONS IF ANY ON BUSINESS THE CORPORATION MAY CARRY ON

   None

7. OTHER PROVISIONS IF ANY

   The annexed Schedule 2 is incorporated in this form.

8.

   Incorporators

Name(s)	**Address**	**Signature**
Lorne Beiles	100 Sherbrooke Street West, 27th Floor Montreal, Quebec Canada H3A 3G4	“signed”

FOR DEPARTMENTAL USE ONLY
CORPORATION NO.- 329283-5

FILED - Sept 06, 1996

SCHEDULE 1

The Corporation is authorized to issue an unlimited number of each of the following classes of shares: Common shares, Class A shares, Class B shares, Class C shares, Class D shares, Class E shares and Class F shares. The rights, privileges, restrictions and conditions attached to each class o£ shares are as follows:

1.0 COMMON SHARES

1.1 The holders of the Common shares shall be entitled to receive notice of, attend and vote at all meetings of shareholders, except meetings at which only holders of a specified class of shares are entitled to vote. Each Common share shall entitle its holder to one (1) vote.

1.2 Subject to the prior rights of the holders of the Class B, Class C, Class D, Class E and Class F shares, the holders of the Common and Class A shares shall be entitled to receive the remaining property of the Corporation upon dissolution.

2.0 CLASS A SHARES

2.1 The Class A shares rank pari passu in all respects with the Common shares, save and except that, subject to the provisions of the Canada Business Corporations Act, the holders of the Class A shares shall not, as such, have any right to receive notice of, attend or vote at meetings of shareholders.

3.0 CLASS B SHARES

3.1 The holders of the Class B shares shall be entitled to receive notice of, attend and vote at all meetings of shareholders, except meetings at which only holders of a specified class of shares are entitled to vote. Each Class B share shall entitle its holder to one (1) vote.

3.2 Save and except for such dividends or distributions as are expressly contemplated in this Section 3.0, the holders of the Class B shares shall not be entitled to further participation in any earnings or profits of the Corporation or in the value of its assets.

3.3 The holders of the Class B shares shall be entitled to receive a maximum, annual, non-cumulative dividend of 8% of the amount of the consideration for which such shares were issued, payable at such times, in such manner and in such amount as the directors may determine in their discretion. The holders of the Class B shares shall not be entitled to any dividends other than or in excess of the above dividends.

3.4 The Corporation may redeem any Class B share issued by it at a price equal to the amount of the consideration for which such share was issued. At the time of payment of such redemption price, the Corporation shall pay to the holder of said share the amount of any dividend declared thereon and unpaid.

3.5 Upon dissolution of the Corporation, the holders of the Class B shares shall be entitled to receive an amount equal to the amount of the consideration for which such shares were issued, together with any dividends declared thereon and unpaid, and no more, the whole in priority to the distribution of any property to the holders of the Common and Class A shares.

4.O CLASS C SHARES

4.1 Subject to the provisions of the Canada Business Corporations Act, the holders of the Class C shares shall not, as such, have any right to receive notice of, attend or vote at meetings of shareholders.

4.2 Save and except for such dividends or distributions as are expressly contemplated in this Section 4.0, the holders of the Class C shares shall not be entitled to further participation in any earnings or profits of the Corporation or in the value of its assets.

4.3 The holders of the Class C shares shall be entitled to receive an annual, non-cumulative dividend of 10% of the amount of the consideration for which such shares were issued, payable at such times and in such manner as the directors may determine in their discretion. The holders of the Class C shares shall not be entitled to any dividends other than or in excess of the above dividends.

4.4 The Corporation may redeem any Class C share issued by it at a price equal to the amount of the consideration for which such share was issued. At the time of payment of such redemption price, the Corporation shall pay to the holder of said share the amount of any dividend declared thereon and unpaid.

4.5 Upon dissolution of the Corporation, the holders of the Class C shares shall be entitled to receive an amount equal to the amount of the consideration for which such shares were issued, together with any dividends declared thereon and unpaid, and no more, the whole in priority to the distribution of any property to the holders of the Common, Class A and Class B shares.

5.0 CLASS D SHARES

5.1 Subject to the provisions of the Canada Business Corporations Act, the holders of the Class D shares shall not, as such, have any right to receive notice of, attend or vote at meetings of shareholders.

5.2 Save and except for such dividends or distributions as are expressly contemplated in this Section 5.0, the holders of the Class D shares shall not be entitled to further participation in any earnings or profits of the Corporation or in the value of its assets.

5.3 The holders of the Class D shares shall be entitled to receive a monthly, non-cumulative dividend of Fifty Cents (50¢) per share, payable at such times and in such manner as the directors may determine in their discretion. The holders of the Class D shares shall not be entitled to any dividends other than or in excess of the above dividends.

5.4 The Corporation may, and upon the demand of any holder thereof shall, redeem any Class D share issued by it at a price per share equal to One Hundred Dollars ($100). At the time of payment of such redemption price, the Corporation shall pay to the holder of said share the amount of any dividend declared thereon and unpaid.

5.5 Upon dissolution of the Corporation the holders of the Class D shares shall be entitled to receive an amount equal to One Hundred Dollars ($100) per share, together with any dividends declared thereon and unpaid, and no more, the whole in priority to the distribution of any property to the holders of the Common, Class A, Class B and Class C shares.

6.0 CLASS E SHARES

6.1 Subject to the provisions of the Canada Business Corporations Act, the holders of the Class E shares shall not, as such, have any right to receive notice of, attend or vote at meetings of shareholders.

6.2 Save and except for such dividends or distributions as are expressly contemplated in this Section 6.0, the holders of the Class E shares shall not be entitled to further participation in any earnings or profits of the Corporation or in the value of its assets.

6.3 The holders of the Class E shares shall be entitled to receive a maximum, annual, non-cumulative dividend of 9% of the amount of the consideration for which such shares were issued, payable at such times, in such manner and in such amount as the directors may determine in their discretion. The holders of the Class E shares shall not be entitled to any dividends other than or in excess of the above dividends.

6.4 The Corporation may, and upon the demand of any holder thereof shall, redeem any Class E share issued by it at a price equal to the amount of the consideration for which such share was issued. At the time of payment of such redemption price, the Corporation shall pay to the holder of said share the amount of any dividend declared thereon and unpaid.

6.5 Upon dissolution of the Corporation the holders of the Class E shares shall be entitled to receive an amount equal to the amount of the consideration for which such shares were issued, together with any dividends declared thereon and unpaid, and no more, the whole in priority to the distribution of any property to the holders of the Common, Class A, Class B, Class C and Class D shares.

7.0 CLASS F SHARES

7.1 Subject to the provisions of the Canada Business Corporations Act, the holders of Class F shares shall not, as such, have any right to receive notice of, attend or vote at meetings of shareholders.

7.2 Save and except for such dividends or distributions as are expressly contemplated in this Section 7.0, the holders of the Class F shares shall not be entitled to further participation in any earnings or profits of the Corporation or in the value of its assets.

7.3 The holders of the Class F shares shall be entitled to receive a monthly, non-cumulative dividend of 1% of the amount of the consideration for which such shares were issued, payable at such times and in such manner as the directors may determine in their discretion. The holders of the Class F shares shall not be entitled to any dividends other than or in excess of the above dividends.

7.4 The Corporation may, and upon the demand of any holder thereof shall, redeem any Class F share issued by it at a price per share equal to the amount of the consideration for which such share was issued. At the time of payment of such redemption price, the Corporation shall pay to the holder of said share the amount of any dividend declared thereon and unpaid.

7.5 Upon dissolution of the Corporation, the holders of the Class F shares shall be entitled to receive an amount equal to the amount of the consideration for which such shares were issued, together with any dividends declared thereon and unpaid, and no more, the whole in priority to the distribution of any property to the holders of any other class of shares.

8.0 DIVIDENDS

8.1 Subject to the provisions of the Canada Business Corporations Act and of this Schedule, the directors may declare dividends on both the Common and the Class A shares or on the Class B shares, the Class C shares, the Class D shares, the Class E shares or the Class F shares alone, at such times, in such manner and in such amounts as they may determine in their discretion.

8.2 Nothing contained herein shall oblige the directors to declare any dividend or, except as hereinabove provided in respect of the Common and Class A shares, to declare a dividend on one class of shares when a dividend is declared on another class of shares.

9.0 PURCHASE OR ACQUISITION OF SHARES BY THE CORPORATION

9.1 Subject to the provisions of the Canada Business Corporations Act and of this Schedule, the Corporation may, with the consent of the holder, purchase or otherwise acquire any share issued by it, at such times, in such manner and for such consideration as the directors of the Corporation may determine in their discretion, provided that the Corporation may not purchase or otherwise acquire

any Class B, Class C, Class E or Class F share for an amount greater than the amount of the consideration for which such share was issued nor may the Corporation purchase or otherwise acquire any Class D share for an amount greater than the redemption price thereof.

SCHEDULE 2

1.0 A holder of a fractional share shall be entitled to vote that fraction of a share and to receive dividends in respect of such fractional share.

2.0 The Corporation shall have a lien on any share registered in the name of a shareholder or his legal representative for a debt of that shareholder to the Corporation.

3.0 The number of shareholders of the Corporation shall be limited to fifty (50), exclusive of persons who are in the employment of the Corporation or any of its subsidiaries and of persons who, having been formerly in the employment of the Corporation or of any of its subsidiaries, were, while in that employment, shareholders of the Corporation, two (2) or more persons who are the joint registered owners of one (1) or more shares being counted as a single shareholder.

4.0 Any invitation to the public to subscribe for any securities of the Corporation is prohibited.

5.0 Without in any way limiting the powers conferred upon the Corporation or its directors by any of the provisions of the Canada Business Corporations Act, but subject to the provisions thereof, the directors of the Corporation may, without authorization of the shareholders, cause the Corporation to,

5.1 hypothecate or otherwise create a security interest in any property, moveable or immoveable, present or future, which the Corporation may presently own or subsequently acquire, for the purpose of securing any bonds, debentures, or securities which it is by law entitled to issue or for the purpose of securing the performance of any obligation of the Corporation;

5.2 borrow money, without limitation or restriction, upon the credit of the Corporation;

5.3 issue, re-issue, sell or hypothecate debt obligations of the Corporation; or

5.4 guarantee the performance of any obligation of any person.

EXHIBIT 1.2

Industry Canada

Certificate
of Incorporation

Canada Business
Corporations Act

Industrie Canada

Certificat
de constitution

Loi canadienne sur
les sociétés par actions

3521443 Canada Inc.

Name of corporation-Dénomination de la société

352144-3

Corporation number-Numéro de la societé

I hereby certify that the above-named Corporation, the articles of incorporation of which are attached, was incorporated under the *Canada Business Corporations Act*.

Je certifie que la société susmentionnée dont les statuts constitutifs sont joints, a été constituée en société en vertu de la *Loi canadienne sur les sociétés* par actions.

"Signed"

Director- Directeur

August 14, 1998 / le 14 août 1998

Date of Incorporation - Date de constitution

CANADA BUSINESS CORPORATIONS ACT
FORM 1
ARTICLES OF INCORPORATION
(SECTION 6)

1. NAME OF CORPORATION

   3521443 Canada Inc.

2. THE PLACE WITHIN CANADA WHERE THE REGISTERED OFFICE IS TO BE SITUATED

   The Regional Municipality of Ottawa-Carleton

3. THE CLASSES AND ANY MAXIMUM NUMBER OF SHARES THAT THE CORPORATION IS AUTHORIZED TO ISSUE

   An unlimited number of common shares with the rights, privileges and restrictions attached hereto as Schedule “A”.

4. RESTRICTIONS IF ANY ON SHARE TRANSFERS

   No share or shares in the capital of the Corporation shall be transferred without the consent of either (a) a majority of the directors of the Corporation expressed by a resolution passed at a meeting of the board of directors or by an instrument or instruments in writing signed by a majority of the directors; or (b) the holders of at least 51% of the outstanding common shares of the Corporation expressed by a resolution passed at a meeting of such shareholders or by an instrument or instruments in writing signed by the holders of at least 51% of the outstanding common shares of the Corporation.

5. NUMBER (OR MINIMUM AND MAXIMUM NUMBER) OF DIRECTORS

   Minimum 1 -Maximum 12

6. RESTRICTIONS IF ANY ON BUSINESS THE CORPORATION MAY CARRY ON

   There are no such restrictions on the business the Corporation may carry on or on the powers the Corporation may exercise.

7. OTHER PROVISIONS IF ANY

   Limitation on Number of Shareholders

   The number of shareholders of the Corporation, exclusive of persons who are in its employment and exclusive of persons who, having been formerly in the employment of the Corporation, were, while in that employment, and have continued after the termination of that employment to be, shareholders of the Corporation, is limited to 50, two or more persons who are the joint registered owners of one or more shares being counted as one shareholder.

8.

   Incorporators

Name(s)	Address	Signature
Paul C. LaBarge	406 Wood Avenue, Ottawa, Ontario K1M 1J9	“signed”

FOR DEPARTMENTAL USE ONLY

CORPORATION NO.- 352144-3

FILED - Aug 17, 1998

SCHEDULE “A”

Common Shares

The holders of the Common Shares shall be entitled:

a. to vote at all meetings of shareholders of the Corporation except meetings at which only holders of a specified class of shares are entitled to vote;

b. to receive, subject to the rights of the holders of any other classes of shares, any dividends declared by the Corporation; and

c. to receive, subject to the rights of the holders of any other classes of shares, the remaining property of the Corporation on the liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary.

CANADA	)	IN THE MATTER OF the Canada
PROVINCE OF ONTARIO	}	Business Corporations Act and
JUDICIAL DISTRICT OF	)	the articles of amalgamation
OTTAWA-CARLETON	}	of ADHEREX INC.

TO WIT:

I, John Brooks, of the City of Ottawa, in the Province of Ontario, MAKE OATH AND SAY THAT:

1. 1 am a director of Adherex Inc., (hereinafter called the "Amalgamating Corporation") and as such have personal knowledge of the matters herein declared to.

2. 1 have conducted such examinations of the books and records of the Amalgamating Corporation and have made such enquiries and investigations as are necessary to enable me to make this declaration.

3. I have satisfied myself that:

   (a) the Amalgamating Corporation is and the amalgamated corporation will be able to pay its liabilities as they become due;

   (b) the realizable value of the assets of the amalgamated corporation will not be less than the aggregate of its liabilities and stated capital of all classes; and

   (c) no creditor of the Amalgamating Corporation will be prejudiced by the amalgamation.

AND I MAKE this solemn declaration conscientiously believing the same to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the	)	
City of Ottawa, in the	)	
Province of Ontario, this	)	"signed"
30th day of	)	
April, 2001.	)	

"signed"
A Commissioner etc.

CANADA	)	IN THE MATTER OF the Canada
PROVINCE OF ONTARIO	)	Business Corporations Act and
JUDICIAL DISTRICT OF	)	the articles of amalgamation
OTTAWA-CARLETON	}	of ADHEREX TECHNOLOGIES INC.

TO WIT:

I, Robert Browne, of the City of Ottawa, in the Province of Ontario, MAKE OATH AND SAY THAT:

1. I am the Chief Financial Officer of Adherex Technologies Inc. (hereinafter called the “:Amalgamating Corporation”) and as such have personal knowledge of the matters herein declared to.

2. I have conducted such examinations of the books and records of the Amalgamating Corporation and have made such enquiries and investigations as are necessary to enable me to make this declaration.

3. I have satisfied myself that:

   (a) the Amalgamating Corporation is and the amalgamated corporation will be able to pay its liabilities as they become due;

   (b) the realizable value of the assets of the amalgamated corporation will not be less than the aggregate of its liabilities and stated capital of all classes;

   (c) no creditor of the Amalgamating Corporation will be prejudiced by the amalgamation.

AND I MAKE this solemn declaration conscientiously believing the same to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the	)	
City of Ottawa, in the	)	
Province of Ontario, this	)	“signed”
30th day of	)	
April, 2001.	)	

“signed”

A Commissioner etc.

Industry Canada

Certificate
of Amendment

Canada Business
Corporations Act

Industrie Canada

Certificat
de modification

Loi canadienne sur
les sociétés par actions

ADHEREX TECHNOLOGIES INC.

Name of corporation-Dénomination de la société

352144-3

Corporation number-Numéro de la société

I hereby certify that the articles of the above-named corporation were amended:

Je certifie que la société susmentionnée ont été modifiés:

a) under section 13 of the *Canada Business Corporations Act* in accordance with the attached notice;

☐ a) en vertu de l'article 13 de Ia *Loi canadienne sur les sociétés par actions*, conformément à l'avis ci joint;

b) under section 27 of the *Canada Business Corporations Act* as set out in the attached articles of amendment designating a series of shares;

☐ b) en vertu de l'article 27 de Ia *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes désignant une série d'actions;

c) under section 179 of the *Canada Business Corporations* Act as set out in the attached articles of amendment;

☒ c) en vertu de l'article 179 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci jointes;

d) under section 191 of the *Canada Business Corporations* Act as set out in the attached articles of reorganization.

☐ d) en vertu de l'article 191 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses de réorganisation ci jointes.

"Signed"

Director – Directeur

September 18, 1998 / le 18 septembre 1998

Date of Amendment - Date de modification

CANADA BUSINESS
CORPORATIONS ACT

LOI RÉGISSANT LES SOCIETES
PAR ACTIONS DE RÉGIME FÉDÉRAL

FORM 4
ARTICLES OF AMENDMENT
(SECTION 27 OR 177)

FORMULE 4
CLAUSES MODIFICATRICES
(ARTICLE 27 OU 177)

1. Name of corporation - Dénomination de la société

3521443 CANADA INC.

2. Corporation No. - N° de la société

3521443

3. The articles of the above-named corporation are amended as follows:

Les statuts de la société mentionné ci-dessus sont modifiés de la façon suivante:

TO CHANGE THE NAME OF THE CORPORATION TO: ADHEREX TECHNOLOGIES INC.

Date
September 11, 1998

Signature
“signed”

Title – Titre
President and Director

FOR DEPARTMENTAL USE
ONLY – À L’USAGE DU MINISTERE
SEULMENT
Filed – Déposée September 23, 1998

Industry Canada

Certificate
of Amendment

Canada Business
Corporations Act

Industrie Canada

Certificat
de modification

Loi canadienne sur
les sociétés par actions

ADHEREX TECHNOLOGIES INC.

Name of corporation-Dénomination de la société

352144-3

Corporation number-Numéro de la société

I hereby certify that the articles of the above-named corporation were amended:

Je certifie que la société susmentionnée ont été modifiés:

a) under section 13 of the *Canada Business Corporations Act* in accordance with the attached notice;

☐ a) en vertu de l'article 13 de Ia *Loi canadienne sur les sociétés par actions*, conformément à l'avis ci joint;

b) under section 27 of the *Canada Business Corporations Act* as set out in the attached articles of amendment designating a series of shares;

☐ b) en vertu de l'article 27 de Ia *Loi canadienne sur* les *sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes désignant une série d'actions;

c) under section 179 of the *Canada Business Corporations* Act as set out in the attached articles of amendment;

☒ c) en vertu de l'article 179 de la *Loi canadienne sur* les *sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci jointes;

d) under section 191 of the *Canada Business Corporations* Act as set out in the attached articles of reorganization.

☐ d) en vertu de l'article 191 de la *Loi canadienne sur* les *sociétés par actions*, tel qu'il est indiqué dans les clauses de réorganisation ci jointes.

"Signed"

Director – Directeur

August 18, 2000 / le 18 août 2000

Date of Amendment- Date de modification

CANADA BUSINESS
CORPORATIONS ACT

LOI RÉGISSANT LES SOCIETES
PAR ACTIONS DE RÉGIME FÉDÉRAL

FORM 4
ARTICLES OF AMENDMENT
(SECTION 27 OR 177)

FORMULE 4
CLAUSES MODIFICATRICES
(ARTICLE 27 OU 177)

1. Name of corporation - Dénomination de la société

ADHEREX TECHNOLOGIES INC.

2. Corporation No. - N° de la société

3521443

3. The articles of the above-named corporation are amended as follows:

Les statuts de la société mentionné ci-dessus sont modifiés de la façon suivante:

1. Article 4 of the Articles of the Corporation is amended by deleting in its entirety the restrictions on the transfer of shares so that there are no restrictions on the transfer of shares.
2. Article 7 of the Articles of the Corporation is amended by deleting the provisions with respect to the limitation on the number of shareholders, in their entirety and deleting the provisions with respect to public distribution, in their entirety, and to substitute in their place the word “none”.

Date
August 18, 2000

Signature
“signed”

Title – Titre
John Brooks, President

FOR DEPARTMENTAL USE
ONLY – À L’USAGE DU MINISTERE
SEULMENT
Filed – Déposée August 18, 2000

CANADA BUSINESS CORPORATIONS ACT

LOI RÉGISSANT LES SOCIETES PAR ACTIONS DE RÉGIME FÉDÉRAL

FORM 4

FORMULE 4

ARTICLES OF AMENDMENT (SECTION 27 OR 177)

CLAUSES MODIFICATRICES (ARTICLE 27 OU 177)

1. Name of corporation - Dénomination de la société

ADHEREX TECHNOLOGIES INC.

2. Corporation No. - NE de la société

3521443

3. The articles of the above-named corporation are amended as follows:

Les statuts de la société mentionnée ci-dessus sont modifiés de la façon suivante:

The authorized shares of the Corporation are amended to change the total number of issued and outstanding Common Shares in the capital of the Corporation into a different number of Common Shares on the basis of 4 Common Shares for each Common Share issued and outstanding immediately prior to the date that these Articles of Amendment are certified by the Director appointed under the *Canada Business Corporations Act*.

	Signature	Title - Titre
October 18, 2000	"Signed"	John L. Brooks, Director

FOR DEPARTMENTAL USE ONLY - À L'USAGE DU MINISTERE SEULMENT
Filed - Déposée

EXHIBIT 1.6

Industry Canada

Certificate of Amalgamation

Canada Business Corporations Act

Industrie Canada

Certificat de fusion

Loi canadienne sur les sociétés par actions

ADHEREX TECHNOLOGIES INC.

Name of corporation-Dénomination de la société

389202-6

Corporation number-Numéro de la societé

I hereby certify that the above-named corporation resulted from an amalgamation, under section 185 of the *Canada Business Corporations Act*, of the corporations set out in the attached articles of amalgamation.

Je certifie que la société susmentionnée est issue d'une fusion, en vertu de l'article 185 de la *Loi canadienne sur les sociétés par actions*, des sociétés dont les dénominations apparaissent dans les statuts de fusion ci-joints.

"Signed"

Director - Directeur

April 30, 2001/ le 30 avril 2001

Date of Amalgamation - Date de fusion

CONSUMER AND CORPORATE AFFAIRS CANADA
CANADA BUSINESS CORPORATIONS ACT
FORM 9
ARTICLES OF AMALGAMATION
(SECTION 185)

1. NAME OF AMALGAMATED CORPORATION

   ADHEREX TECHNOLOGIES INC.

2. THE PLACE WITHIN CANADA WHERE THE REGISTERED OFFICE IS TO BE SITUATED

   The Regional Municipality of Ottawa-Carleton

3. THE CLASSES AND ANY MAXIMUM NUMBER OF SHARES THAT THE CORPORATION IS AUTHORIZED TO ISSUE

   An unlimited number of common shares with the rights, privileges and restrictions attached hereto as Schedule “A”.

4. RESTRICTIONS IF ANY ON SHARE TRANSFERS

   None

5. NUMBER (OR MINIMUM AND MAXIMUM NUMBER) OF DIRECTORS

   Minimum 1 -Maximum 12

6. RESTRICTIONS IF ANY ON BUSINESS THE CORPORATION MAY CARRY ON

   There are no such restrictions on the business the Corporation may carry on or on the powers the Corporation may exercise.

7. OTHER PROVISIONS IF ANY

   None.

8.

   The amalgamation has been approved by a resolution of the directors of each of the amalgamating corporations listed in item 10 below in accordance with Section 184(1) 184(2) of the Canada Business Corporations Act. These articles of amalgamation are the same as the articles of incorporation of Adherex Technologies Inc.

9. NAME OF THE AMALGAMATING CORPORATION THE BY-LAWS OF WHICH ARE TO BE THE BY-LAWS OF THE AMALGAMATED CORPORATION. -

ADHEREX TECHNOLOGIES INC.

10.

Name of Amalgamating Corporations	Corporation No.	Signature	Date	Description of Office
Adherex Inc.	329283-5	“signed”	April 30, 2001	C.E.O.
Adherex Technologies Inc.	352144-3	“signed”	April 30, 2001	C.F.O.

FOR DEPARTMENTAL USE ONLY

CORPORATION NO.- 389202-6

FILED - May 2, 2001

SCHEDULE “A”

To Articles of Amalgamation of Adherex Technologies Inc.

Common Shares

The holders of the Common Shares shall be entitled:

a. to vote at all meetings of shareholders of the Corporation except meetings at which only holders of a specified class of shares are entitled to vote;

b. to receive, subject to the rights of the holders of any other classes of shares, any dividends declared by the Corporation; and

c. to receive, subject to the rights of the holders of any other classes of shares, the remaining property of the Corporation on the liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary.

CANADA	)	IN THE MATTER OF the Canada
PROVINCE OF ONTARIO	}	Business Corporations Act and
JUDICIAL DISTRICT OF	)	the articles of amalgamation
OTTAWA-CARLETON	}	of ADHEREX INC.

TO WIT:

I, John Brooks, of the City of Ottawa, in the Province of Ontario, MAKE OATH AND SAY THAT:

1. I am a director of Adherex Inc., (hereinafter called the "Amalgamating Corporation") and as such have personal knowledge of the matters herein declared to.

2. I have conducted such examinations of the books and records of the Amalgamating Corporation and have made such enquiries and investigations as are necessary to enable me to make this declaration.

3. I have satisfied myself that:

   (a) the Amalgamating Corporation is and the amalgamated corporation will be able to pay its liabilities as they become due;

   (b) the realizable value of the assets of the amalgamated corporation will not be less than the aggregate of its liabilities and stated capital of all classes; and

   (c) no creditor of the Amalgamating Corporation will be prejudiced by the amalgamation.

AND I MAKE this solemn declaration conscientiously believing the same to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the	)	
City of Ottawa, in the	)	
Province of Ontario, this	)	"signed"
30th day of	)	
April, 2001.	)	

"signed"
A Commissioner etc.

CANADA	)	IN THE MATTER OF the Canada
PROVINCE OF ONTARIO	)	Business Corporations Act and
JUDICIAL DISTRICT OF	)	the articles of amalgamation
OTTAWA-CARLETON	}	of ADHEREX TECHNOLOGIES INC.

TO WIT:

I, Robert Browne, of the City of Ottawa, in the Province of Ontario, MAKE OATH AND SAY THAT:

1. I am the Chief Financial Officer of Adherex Technologies Inc. (hereinafter called the ":Amalgamating Corporation") and as such have personal knowledge of the matters herein declared to.

2. I have conducted such examinations of the books and records of the Amalgamating Corporation and have made such enquiries and investigations as are necessary to enable me to make this declaration.

3. I have satisfied myself that:

   (a) the Amalgamating Corporation is and the amalgamated corporation will be able to pay its liabilities as they become due;

   (b) the realizable value of the assets of the amalgamated corporation will not be less than the aggregate of its liabilities and stated capital of all classes;

   (c) no creditor of the Amalgamating Corporation will be prejudiced by the amalgamation.

AND I MAKE this solemn declaration conscientiously believing the same to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the	)	
City of Ottawa, in the	)	
Province of Ontario, this	)	"signed"
30th day of	)	
April, 2001.	)	

"signed"

A Commissioner etc.

Exhibit 1.7

Industry Canada Industrie Canada

Certificate of Amalgamation

Certificat de fusion

Canada Business Corporations Act

Loi canadienne sur les sociétés par actions

ADHEREX TECHNOLOGIES INC.

424736-1

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the above-named corporation resulted from an amalgamation, under section 185 of the *Canada Business Corporations Act*, of the corporations set out in the attached articles of amalgamation.

Je certifie que la société susmentionnée est issue d'une fusion, en vertu de 1'article 185 de la *Loi canadienne sur les sociétés par actions*, des sociétés dont les dénominations apparaissent dans les statuts de fusion ci-joints.

Director - Directeur

June 29, 2004 / le 29 juin 2004

Date of Amalgamation - Date de fusion

Canada

Industry Canada | Industrie Canada

Canada Business Corporations Act | Loi canadienne sur les sociétés par actions

FORM 9
ARTICLES OF AMALGAMATION
(SECTION 185)

FORMULAIRE 9
STATUTS DE FUSION
(ARTICLE 185)

1 — Name of the Amalgamated Corporation
ADHEREX TECHNOLOGIES INC.

Dénomination sociale de la société Issue de la fusion

2 — The province or territory in Canada where the registered office is to be situated
ONTARIO

La province ou le territoire au Canada où se sltuera le siège social

3 — The classes and any maximum number of shares that the corporation is authorized to issue

Catégories et tout nombre maximal d'actions que la société est autorisee à emettre

The Corporation is authorized to issue an unlimited number of shares of one class, designated as "Common Shares" which shares shall have the rights, privileges, restrictions and conditions as set-out in Schedule "A" attached hereto.

4 — Restrictions, if any, on share transfers
None

Restrictions sur le transfert des actions, s'il y a lieu

5 — Number (or minimum and maximum number) of directors
Minimum of One (1), Maximum of Twelve (12)

Nombre (ou nombre minimal et maximal) d'administrateurs

6 — Restrictions, if any, on business the corporation may carry on

Limites imposées à l'activite commerciale de la société, s'il y a lieu

There are no restrictions on the business the Corporation may carry on or on the powers the Corporation may exercise.

7 — Other provisions, if any
None.

Autres dispositions, s'il y a lieu

8 — The amalgamation has been approved pursuant to that section or subsection of the Act which is indicated as follows:

La fusion a été approuvée en accord avec l'article ou le paragraphe dela Loi indiqué ci-après

☐ 183
☒ 184(1)
☐ 184(2)

9 — Name of the amalgamating corporations Dénomination sociále des sociétés fusionnantes	Corporation No. N°de la société	Signature	Date	Title Titre	Tel. No. N°de tél.
Adherex Research Corp.	424734–5	**[SIGNATURE ILLEGIBLE]**	June 25, 2004	Secretary	(613)738 8000
Adherex Technologies Inc.	389202–6	**[SIGNATURE ILLEGIBLE]**	June 25, 2004	Secretary	(613)738 8000

FOR DEPARTMENTAL USE ONLY – A L'USAGE DU MINISTERE SEULEMENT

424736–1

IC 3190 (2003/06)

JUL 07 2004

Canada

SCHEDULE "A"

Common Shares

The holders of the Common Shares shall be entitled to:

(a) to vote at all meetings of shareholders of the Corporation except meetings at which only holders of a specified class of shares are entitled to vote;

(b) to receive, subject to the rights of the holders of any other classes of shares, any dividends declared by the Corporation; and

(c) to receive, subject to the rights of the holders of any other classes of shares, the remaining property of the Corporation on the liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary.

EXHIBIT 1.8

BY-LAW NO. 2

A by-law relating generally to the
transaction of the business and
affairs of

ADHEREX TECHNOLOGIES INC.

TABLE OF CONTENTS

BE IT ENACTED as a by-law of the Corporation as follows:

SECTION ONE
INTERPRETATION

1.01 Definitions. - In the by-laws of the Corporation, unless the context otherwise requires:

"Act" means the Canada Business Corporations Act, or any statute that may be substituted therefor, as from time to time amended;

"appoint" includes "elect" and vice versa;

"articles" means the articles attached to the Certificate of Incorporation of the Corporation as from time to time amended or restated;

"board" means the board of directors of the Corporation;

"by-laws" means this by-law and all other by-laws of the Corporation from time to time in force and effect;

"Corporation" means the corporation incorporated under the Act by the said certificate to which the articles are attached, and named "Adherex Technologies Inc.";

"meeting of shareholders" includes an annual meeting of shareholders and a special meeting of shareholders;

"special meeting of shareholders" includes a meeting of any class or classes of shareholders and a special meeting of all shareholders entitled to vote at an annual meeting of shareholders; and

"recorded address" has the meaning set forth in section 8.09.

Save as aforesaid, words and expressions defined in the Act, including "resident Canadian", have the same meanings when used herein. Words importing the singular number include the plural and vice versa; words importing gender include the masculine, feminine and neuter genders; and words importing a person include an individual, partnership, association, body corporate, trustee, executor, administrator and legal representative.

SECTION TWO
BUSINESS OF THE CORPORATION

2.01 Registered Office. - The registered office of the Corporation shall be at the place within Canada from time to time specified in the articles and at such location therein initially as is specified in the notice thereof filed with the articles and thereafter as the board may from time to time determine.

2.02 Corporate Seal. - Until changed by the board, the corporate seal, if any, of the Corporation shall be in the form impressed hereon.

2.03 Financial Year. - Until changed by the board, the financial year of the Corporation shall end on the 30th day of June in each year.

2.04 Execution of Instruments. - The board may from time to time direct the manner in which and the person or persons by whom any deeds, transfers, assignments, contracts, obligations, certificates and other instruments may or shall be signed on behalf of the Corporation. Any signing officer may affix the corporate seal to any instrument requiring the same.

2.05 Delegation of Borrowing Power. - Unless the articles of the Corporation otherwise provide, the board may from time to time delegate to a director, a committee of the board, or an officer of the Corporation any or all of the powers conferred on the board by the Act in respect of the borrowing powers of the Corporation to such extent and in such manner as the board may determine at the time of such delegation; and without limitation the board by making this by-law hereby delegates such powers to the Chief Executive Officer.

SECTION THREE
DIRECTORS

3.01 Number and Qualification of Directors. - Until changed in accordance with the Act, the board shall consist of not fewer than the minimum number and not more than the maximum number of directors provided in the articles. So long as the Corporation has more than four directors, at least 25% of the directors of the Corporation shall be resident Canadians and, if the Corporation has less than four directors, at least one director shall be a resident Canadian.

3.02 Election and Term. - The election of directors shall take place at each annual meeting of shareholders and all the directors then in office shall retire but, if qualified, shall be eligible for re-election. The number of directors to be elected at any such meeting shall be the number of directors then in office unless the directors otherwise determine. If an election of directors is not held at the proper time, the incumbent directors shall continue in office until their successors are elected.

3.03 Action by the Board. - The board shall manage the business and affairs of the Corporation. The powers of the board may be exercised at a meeting (subject to sections 3.04 and 3.10) at which a quorum is present or by resolution in writing signed by all the directors entitled to vote on that resolution at a meeting of the board. Where there is a vacancy in the board, the remaining directors may exercise all the powers of the board so long as a quorum remains in office.

3.04 Meeting by Telephone. - If all the directors of the Corporation consent thereto generally or in respect of a particular meeting, a director may participate in a meeting of the board or of a committee of the board by means of such conference telephone or other communications facilities as permit all persons participating in the meeting to hear each other, and a director participating in such a meeting by such means is deemed to be present at the meeting. Any such consent shall be effective whether given before or after the meeting to which it relates and may be given with respect to all meetings of the board and of committees of the board.

3.05 Place of Meetings. - Meetings of the board may be held at any place in or outside Canada.

3.06 Calling of Meetings. - Meetings of the board shall be held from time to time at such time and at such place as the board, the chairman of the board or any two directors may determine.

3.07 Notice of Meeting. - Subject to the specification of the purpose or business of the meeting when required by the Act, notice of the time and place of each meeting of the board shall be given in the manner provided in Section Eight to each director not less than 48 hours before the time when the meeting is to be held.

3.08 First Meeting of New Board. - Provided a quorum of directors is present, each newly elected board may without notice hold its first meeting immediately following the meeting of shareholders at which such board is elected.

3.09 Chairman and Vice Chairman. - A chairman of the board or a vice chairman of the board may be appointed from time to time by the board. The chairman of the board shall conduct any meeting of the board or, if the chairman of the board is not present, the vice chairman of the board shall conduct any meeting of the board. If neither the chairman of the board nor the vice chairman of the board are present at a meeting of the board, the chairman of the board may appoint a chairman for the purpose of conducting such meeting, or, if the chairman of the board has not appointed any director to chair the meeting, the directors present shall choose one of their number to chair the meeting.

3.10 Quorum. - The quorum for the transaction of business at any meeting of the board shall consist of 2 directors or such greater number of directors as the board may from time to time determine, provided that so long as the Corporation has more than four directors, at least 25% of the directors of the Corporation present at any meeting of the Board of Directors of the Corporation shall be resident Canadians and, if the Corporation has less than four directors, at least one director present at any meeting of the Board of Directors of the Corporation shall be a resident Canadian.

3.11 Votes to Govern. - At all meetings of the board, and subject to the requirements of the Act in respect of conflicts of interest, every question shall be decided by a majority of the votes cast on the question. In case of an equality of votes the chairman of the meeting shall be entitled to a second or casting vote.

3.12 Remuneration and Expenses. - The directors shall be paid such remuneration for their services as the board may from time to time determine. The directors shall also be entitled to be reimbursed for travelling and other expenses properly incurred by them in attending meetings of the board or any committee thereof. Nothing herein contained shall preclude any director from serving the Corporation in any other capacity and receiving remuneration therefor.

3.13 Committees. - The board may appoint from its members one or more committees of directors, however designated, and delegate to such committee any of the powers of the board except those which, under the Act, a committee of directors has no authority to exercise. Unless otherwise determined by the board, each committee shall have the power to fix its quorum at no less than a majority of its members, to elect its chairman and to regulate its procedure. Subject to the provisions of section 3.04, the powers of a committee of directors may be exercised by a meeting at which a quorum of the committee is present or by resolution in writing signed by all the members of such committee who would have been entitled to vote on that resolution at a meeting of the committee. Meetings of such committee may be held at any place in or outside Canada.

SECTION FOUR
OFFICERS

4.01 Appointment. - The board may from time to time appoint a chief executive officer, a president, a chairman of the board, one or more vice-presidents (to which title may be added words indicating seniority or function), a secretary, a treasurer and such other officers as the board may determine, including one or more assistants to any of the officers so appointed. One person may hold more than one office. The board may specify the duties of and, in accordance with this by-law and subject to the Act, delegate to such officers powers to manage the business and affairs of the Corporation. Except for a chairman of the board, an officer may but need not be a director.

4.02 Chief Executive Officer. - The chief executive officer, subject to the authority of the board, shall have general supervision of the business and affairs of the Corporation and shall have the power, authority and obligation to manage and direct the business and affairs of the Corporation in accordance with the instructions and directions of the board. The chief executive officer shall report directly to the board.

4.03 Powers and Duties of other Officers. - The powers and duties of all other officers shall be such as the terms of their engagement call for or as the board or the chief executive officer may specify. The board and the chief executive officer may, from time to time and subject to the provisions of the Act, vary, add to or limit the powers and duties of any officer. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the board or the chief executive officer otherwise directs.

4.04 Term of Office. - - The board, in its discretion, may remove any officer of the Corporation. Otherwise each officer appointed by the board shall hold office until his successor is appointed or until his earlier resignation.

4.05 Agents and Attorneys. - The Corporation, by or under the authority of the board or the chief executive officer, shall have power from time to time to appoint agents or attorneys for the Corporation in or outside Canada with such powers (including the power to subdelegate) of management, administration or otherwise as may be thought fit.

SECTION FIVE
PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

5.01 Limitation of Liability. - Every director and officer of the Corporation in exercising his powers and discharging his duties shall act honestly and in good faith with a view to the best interests of the Corporation and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Subject to the foregoing, no director or officer shall be liable for the acts, receipts, neglects or defaults of any other director, officer or employee, or for joining in any receipt or other act for conformity, or for any loss, damage or expense happening to the Corporation through the insufficiency or deficiency of title to any property acquired for or on behalf of the Corporation, or for the insufficiency or deficiency of any security in or upon which any of the moneys of the Corporation shall be invested, or for any loss or damage arising from the bankruptcy, insolvency or tortious acts of any person with whom any of the moneys, securities or effects of the Corporation shall be deposited, or for any loss occasioned by any error of judgment or oversight on his part, or for any other loss, damage or misfortune which shall happen in the execution of the duties of his office or in relation thereto; provided that nothing herein shall relieve any director or officer from the duty to act in accordance with the Act and the regulations thereunder or from liability for any breach thereof.

5.02 Indemnity. - Subject to the Act, the Corporation shall indemnify a director or officer, a former director or officer, or a person who acts or acted at the Corporation's request as a director or officer of a body corporate of which the Corporation is or was a shareholder or creditor, and his heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by him in respect of any civil, criminal or administrative action or proceeding to which he is made a party by reason of being or having been a director or officer of the Corporation or such body corporate, if (a) he acted honestly and in good faith with a view to the best interests of the Corporation; and (b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, he had reasonable grounds for believing that his conduct was lawful. The Corporation shall also indemnify such person in such other circumstances as the Act or law permits or requires. Nothing in this by-law shall limit the right of any person entitled to indemnity to claim indemnity apart from the provisions of this by-law.

SECTION SIX
SHARES

6.01 Allotment of Shares. - Subject to the Act and the articles, the board may from time to time allot or grant options to purchase the whole or any part of the authorized and unissued shares of the Corporation at such times and to such persons and for such consideration as the board shall determine, provided that no share shall be issued until it is fully paid as provided by the Act.

6.02 Commissions. - - The board may from time to time authorize the Corporation to pay a reasonable commission to any person in consideration of his purchasing or agreeing to purchase shares of the Corporation, whether from the Corporation or from any other person, or procuring or agreeing to procure purchasers for any such shares.

6.03 Non-recognition of Trusts. - Subject to the Act, the Corporation may treat the registered holder of any share as the person exclusively entitled to vote, to receive notices, to receive any dividend or other payment in respect of the share, and otherwise to exercise all the rights and powers of an owner of the share.

6.04 Share Certificates. - Every holder of one or more shares of the Corporation shall be entitled, at his option, to a share certificate, or to a non-transferable written certificate of acknowledgement of his right to obtain a share certificate, stating the number and class or series of shares held by him as shown on the securities register. Such certificates shall be in such form as the board may from time to time approve. Any such certificate shall be signed in accordance with section 2.04 and need not be under the corporate seal. Notwithstanding the foregoing, unless the board otherwise determines, certificates representing shares in respect of which a transfer agent and/or registrar has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent and/or registrar. The signature of one of the signing officers under section 2.04 or, in the case of a certificate which is not valid unless countersigned by or on behalf of a transfer agent and/or registrar and in the case of a certificate which does not require a manual signature under the Act, the signatures of

both signing officers under section 2.04 may be printed or mechanically reproduced in facsimile thereon. Every such facsimile signature shall for all purposes be deemed to be the signature of the officer whose signature it reproduces and shall be binding upon the Corporation. A certificate executed as aforesaid shall be valid notwithstanding that one or both of the officers whose facsimile signature appears thereon no longer holds office at the date of issue of the certificate.

6.05 Replacement of Share Certificates. - The board or any officer or agent designated by the board may in its or his discretion direct the issue of a new share or other such certificate in lieu of and upon cancellation of a certificate that has been mutilated or in substitution for a certificate claimed to have been lost, destroyed or wrongfully taken on payment of such reasonable fee and on such terms as to indemnity, reimbursement of expenses and evidence of loss and of title as the board may from time to time prescribe, whether generally or in any particular case.

6.06 Deceased Shareholders. - In the event of the death of a holder, or of one of the joint holders, of any share, the Corporation shall not be required to make any entry in the securities register in respect thereof or to make any dividend or other payments in respect thereof except upon production of all such documents as may be required by law and upon compliance with the reasonable requirements of the Corporation.

6.07 Transfer Agents and Registrars. - The board may from time to time appoint one or more agents to maintain, in respect of each class of shares of the Corporation issued by it, a central securities register and one or more branch securities registers. Such a person may be designated as transfer agent or registrar according to his functions and one person may be designated both registrar and transfer agent. The board may at any time terminate such appointment.

SECTION SEVEN
MEETINGS OF SHAREHOLDERS

7.01 Annual Meetings. - The annual meeting of shareholders shall be held at such time in each year and, subject to section 7.03, at such place as the board or the chief executive officer may from time to time determine, for the purpose of considering the financial statements and reports required by the Act to be placed before the annual meeting, electing directors, appointing auditors and for the transaction of such other business as may properly be brought before the meeting.

7.02 Special Meetings. - The board or the chief executive officer shall have power to call a special meeting of shareholders at any time.

7.03 Place of Meetings. - Meetings of shareholders shall be held at the registered office of the Corporation or elsewhere in the municipality in which the registered office is situate or, if the board shall so determine, at some other place in Canada.

7.04 Notice of Meetings. - Notice of the time and place of each meeting of shareholders shall be given in the manner provided in Section Eight not less than 21 nor more than 50 days before the date of the meeting to each director, to the auditor, and to each shareholder entitled to vote at the meeting.

7.05 List of Shareholders Entitled to Notice. - For every meeting of shareholders, the Corporation shall prepare a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares held by each shareholder entitled to vote at the meeting.

7.06 Meetings Without Notice. - A meeting of shareholders may be held without notice at any time and place permitted by the Act (a) if all the shareholders entitled to vote thereat are present in person or duly represented or if those not present or represented waive notice of or otherwise consent to such meeting being held, and (b) if the auditors and the directors are present or waive notice of or otherwise consent to such meeting being held; so long as such shareholders, auditors or directors present are not attending for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called. At such a meeting any business may be transacted which the Corporation at a meeting of shareholders may transact.

7.07 Chairman and Secretary. - The chairman of any meeting of shareholders shall be the chairman of the board, or in his absence, the vice chairman of the board, or in his absence, the director or officer appointed by the chairman of the board to chair the meeting, or if no such director or officer has been appointed, the chief executive officer, or in his absence, the president, or in his absence, a vice-president who is a shareholder. If no such officer is present, the persons present and entitled to vote shall choose one of their number to be chairman. If the secretary of the Corporation is absent, the chairman of the meeting shall appoint some person, who need not be a shareholder, to act as secretary of the meeting.

7.08 Quorum. - Subject to the Act in respect of a majority shareholder, a quorum for the transaction of business at any meeting of shareholders shall be two persons present in person, each being a shareholder entitled to vote thereat or a duly appointed proxyholder or representative for a shareholder so entitled. If, however, the Corporation lists it shares on Nasdaq, so long as such shares are so listed, quorum for the transaction of business at any meeting of shareholders shall be two persons present in person or represented by proxy holding not less than 33 a of the then issued and outstanding common shares.

7.09 Votes to Govern. - At any meeting of shareholders every question shall, unless otherwise required by the articles or by-laws or by law, be determined by a majority of the votes cast on the question. In case of an equality of votes either upon a show of hands or upon a poll, the chairman of the meeting shall be entitled to a second or casting vote.

7.10 Meetings by Telephonic, Electronic or other Communication Facility. - Any person entitled to attend a meeting of shareholders may participate in the meeting, to the extent and in the manner permitted by law, by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately with each other during such meeting, if the Corporation makes available such a communication facility. A person participating in such a meeting by such means is deemed, for the purposes of the Act, to be present at such meeting. The directors or shareholders of the Corporation who call a meeting of shareholders pursuant to the Act may determine that the meeting shall be held, to the extent and in the manner permitted by law, entirely by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately with each other during such meeting.

7.11 Electronic Voting by Shareholders. – Any vote at a meeting of the shareholders may be held, to the extent and in the manner permitted by law, entirely by means of a telephonic, electronic or other communication facility, if the Corporation makes available such a communication facility.

7.12 Voting While Participating Electronically. – Any person participating in a meeting of shareholders by electronic means as provided in section 7.10 and entitled to vote at that meeting may vote, to the extent and in the manner permitted by law, by means of the telephonic, electronic or other communication facility that the Corporation has made available for that purpose.

SECTION EIGHT
NOTICES

8.01 Method of Giving Notices. - Any notice (which term includes any communication or document) to be given (which term includes sent, delivered or served) pursuant to the Act, the regulations thereunder, the articles, the by-laws or otherwise to a shareholder, director, officer, auditor or member of a committee of the board shall be sufficiently given if delivered personally to the person to whom it is to be given or if delivered to his recorded address or if mailed to him at his recorded address by prepaid ordinary or air mail or if sent to him at his recorded address by any means of prepaid transmitted or recorded communication. A notice so delivered shall be deemed to have been given when it is delivered personally or to the recorded address as aforesaid; a notice so mailed shall be deemed to have been given when deposited in a post office or public letter box; and a notice so sent by any means of transmitted or recorded communication shall be deemed to have been given when dispatched or delivered to the appropriate communication company or agency or its representative for dispatch. The secretary may change or cause to be changed the recorded address of any shareholder, director, officer, auditor or member of a committee of the board in accordance with any information believed by him to be reliable.

8.02 Notice by Electronic Document. – A requirement under the Act or this by-law to provide a person with a notice, document or other information is not satisfied by the provision of an electronic document unless:

(a) the addressee has consented, in the manner prescribed by the Act, and has designated an information system for the receipt of the electronic document;

(b) the electronic document is provided to the designated information system, unless otherwise prescribed in the Act;

(c) all relevant provisions of the Act have been complied with;

(d) the information in the electronic document is accessible by the sender so as to be usable for subsequent reference; and

(e) the information in the electronic document is accessible by the addressee and capable of being retained by the addressee so as to be usable for subsequent reference.

A requirement under the Act for one or more copies of a document to be provided to a single addressee at the same time is satisfied by the provision of a single version of the electronic document. A requirement under the Act to provide a document by registered mail is not satisfied by the sending of an electronic document unless prescribed under the Act.

8.03 Signatures by Electronic Document. – A requirement under the Act for a signature or for a document to be executed, except with respect to a statutory declaration or an affidavit, is satisfied if, in relation to an electronic document, the requirements prescribed under the Act are met and if the signature results from the application by a person of a technology or a process that permits the following to be proven:

(a) the signature resulting from the use by a person of the technology or process is unique to the person;

(b) the technology or process is used by a person to incorporate, attach or associate the person's signature to the electronic document; and

(c) the technology or process can be used to identify the person using the technology or process.

8.04 Notice to Joint Shareholders. - If two or more persons are registered as joint holders of any share, any notice may be addressed to all such joint holders, but notice addressed to one of such persons shall be sufficient notice to all of them.

8.05 Computation of Time. - In computing the date when notice must be given under any provision requiring a specified number of days' notice of any meeting or other event, the day of giving the notice shall be excluded and the day of the meeting or other event shall be included.

8.06 Omissions and Errors. - The accidental omission to give any notice to any shareholder, director, officer, auditor or member of a committee of the board or the non-receipt of any notice by any such person or any error in any notice not affecting the substance thereof shall not invalidate any action taken at any meeting held pursuant to such notice or otherwise founded thereon.

8.07 Persons Entitled by Death or Operation of Law. - Every person who, by operation of law, transfer, death of a shareholder or any other means whatsoever, shall become entitled to any share, shall be bound by every notice in respect of such share which shall have been duly given to the shareholder from whom he derives his title to such share prior to his name and address being entered on the securities register (whether such notice was given before or after the happening of the event upon which he became so entitled) and prior to his furnishing to the Corporation the proof of authority or evidence of his entitlement prescribed by the Act.

8.08 Waiver of Notice. - Any shareholder, proxyholder or other person entitled to attend a meeting of shareholders, director, officer, auditor or member of a committee of the board may at any time waive any notice, or waive or abridge the time for any notice, required to be given to him under the Act, the regulations thereunder, the articles, the by-laws or otherwise, and such waiver or abridgement, whether given before or after the meeting or other event of which notice is required to be given, shall cure any default in the giving or in the time of such notice, as the case may be. Any such waiver or abridgement shall be in writing except a waiver of notice of a meeting of shareholders or of the board or a committee of the board which may be given in any manner.

8.09 Interpretation. - In this by-law, "recorded address" means in the case of a shareholder his address as recorded in the securities register; and in the case of joint shareholders the address appearing in the securities register in respect of such joint holding or the first address so appearing if there are more than one; and in the case of a director, officer, auditor or member of a committee of the board, his latest address as recorded in the records of the Corporation.

SECTION NINE
EFFECTIVE DATE

9.01 Effective Date. - This by-law shall come into force when made by the board in accordance with the Act.

9.02 Repeal. - By-law No. 1 of the Corporation, as amended ("By-Law No. 1"), is repealed as of the coming into force of this by-law. Such repeal shall not affect the previous operation of By-law No. 1 so repealed or affect the validity of any act done or right, privilege, obligation or liability acquired or incurred under, or the validity of any contract or agreement made pursuant to, or the validity of any articles (as defined in the Act) or predecessor charter documents of the Corporation obtained pursuant to, any such by-law prior to its repeal. All officers and persons acting under By-law No. 1 so repealed shall continue to act as if appointed under the provisions of this by-law and all resolutions of the shareholders or the board or a committee of the board with continuing effect passed under such repealed by-law shall continue to be good and valid except to the extent inconsistent with this by-law and until amended or repealed.

MADE by the board the 11th day of November, 2003.

/s/ D. Scott Murray

D. Scott Murray
Corporate Secretary

EXHIBIT 2.1

Adherex Technologies Inc. August 17, 2001

ROYAL BANK OF CANADA Loan Facility Agreement

Borrower		Branch of Account	
ADHEREX TECHNOLOGIES INC.		Transit # 07500	
Address Suite 340 600 Peter Morand Crescent Ottawa, Ontario K1G 5Z3		Address 90 Sparks Street Ottawa, Ontario	
Telephone No.		Telephone No. (613) 564-4891	
Contact (Name, Title)	Fax No: (613) 738-9060	Banking Officer Christine McCrady Senior Account Manager	Fax No: (613) 564-2865

LOAN FACILITY

DEMAND OPERATING LOAN(S)

maximum amount:	Purpose: Finance current operating expenditures	annual rate of interest:
$300,000		Royal Bank Prime and/or Royal Bank US Base Rate, be paid on the 16th day of each month
margin requirement: NO		minimum revolvement: $5,000.

OTHER BANKING FACILITIES	maximum amount
Corporate Visa	$20,000
Government Guarantee Small Business Loan	$45,000.
other	$
Other	$

REPORTS TO BE PROVIDED BY BORROWER	required frequency
1) Quarterly company prepared financial statements	Within 45 days of each quarter end
2) Annual audited financial statements	Within 120 days after fiscal year end
3) Annual business plan	Within 120 days after fiscal year end

SECURITY

*	Bank Form #	Description	assets covered
1.	610	Collateral Security Agreement	Covering $320,000 to support Bank exposure for Operating loans and corporate visa facilities

EDISBURSEMENT CONDITIONS

Receipt by the Bank of a properly executed copy of this agreement

THE BORROWER ACKNOWLEDGES AND AGREES THAT NOTWITHSTANDING ANY AMORTIZATION PERIODS, SCHEDULED INSTALMENT PAYMENTS, MARGIN REQUIREMENTS, FINAL REPAYMENT DATES, FEES, COVENANTS OR OTHER TERMS OR PROVISIONS OF THIS LOAN FACILITY AGREEMENT, OR ANY ARRANGEMENTS, UNDERSTANDINGS OR AGREEMENTS OUTSIDE THIS LOAN FACILITY AGREEMENT, THE LOANS PROVIDED FOR UNDER THE LOAN FACILITY ARE AVAILABLE IN THE SOLE DISCRETION OF THE BANK AND WILL BE DUE AND PAYABLE UPON DEMAND BY THE BANK

This Loan Facility Agreement cancels and supersedes any and all previous Loan Facility Agreements.

The attached Terms and Conditions are incorporated into and form part of this Loan Facility Agreement.

The parties have expressly requested that this document and all related documents, including notices, be drawn up in the English language. Les parties ont expressément demandé que ce document et tout document y afferent, y compris tout avis, soient rédigés en langue anglaise.

Governing Law: Province of Ontario

Dated the 23rd day of August, 2001.

ADHEREX TECHNOLOGIES INC.

By: /s/ Robert Browne

Robert Browne, C.F.O.

(Name and Title of Authorized Signatory)

By: /s/ John Brooks

John Brooks, C.E.O.

(Name and Title of Authorized Signatory)

ROYAL BANK OF CANADA

By: /s/ Christine McCrady

To: ROYAL BANK OF CANADA (the “Bank”)

The Bank is requested by the undersigned (the “Borrower”) to make loans or advances to the Borrower in the manner and at the rates and times specified herein (the “Credit Facility”) in consideration of the Bank making the Credit Facility available and providing the plan(s) or service(s) the Borrower agrees with the Bank as follows:

1. DRAWDOWN

During the term of this Agreement where the Credit Facility includes a revolving operating loan, the borrower may borrow, repay and reborrow up to the limit specified in respect of such loan at any time, subject to any applicable margin requirement. Where the Credit Facility includes a non-revolving term loan, the Borrower shall draw down the amount of such loan forthwith, failing which such loan may be cancelled.

2. REPAYMENT

Amounts outstanding under the Credit Facility, together with interest, shall become due in the manner and at the rates and times specified herein. Where the Credit Facility includes a non-revolving term loan, the borrower shall make consecutive periodic payments of principal with the entire balance of such loan due and payable at the end of the term specified herein. In the case of a non-revolving term loan repayable by variable rate fixed payments, each payment shall be applied, firstly, to interest due, and the balance, if any, shall e applied to principal outstanding. If any such payment is insufficient to pay all interest then due, the unpaid balance of such interest will be added to such loan, will ear interest at the same rate, and will be payable at the end of the term specified herein. Where the Credit Facility includes a revolving demand loan, the borrower shall repay all principal sums outstanding under such loan upon demand. Following demand or the occurrence of an Event of Default, the Bank shall have no obligation to make further loans, Letters of Credit, Letters of Guarantee or advances available to the Borrower.

3. REVOLVEMENT

Where the Credit Facility includes an revolving operating loan, the Borrower authorized the Bank daily or otherwise as and when determined by the Bank to ascertain the position of the deposit account herein specified, and

(a) if such position is a credit balance, the Bank may subject to the minimum revolvement specified, apply the amount of such credit balance or any part as a repayment of such loan, and

(b) if such position is a debit balance the bank shall, subject to the minimum revolvement herein specified, make an advance under such loan provided that at no time shall such loan exceed the amount of the loan limit herein specified.

5. EVIDENCE OF INDEBTEDNED (separate promissory note not required)

The Bank shall maintain at the Branch of Account accounts and records (the “Accounts”) evidencing the Borrowings made available to the Borrower by the Bank under this agreement. The Bank shall record the principal amount of such borrowings, the payment of principal and interest on account of the loans and all other amounts becoming due to the Bank under this agreement. The Accounts constitute, in the absence of manifest error, prima facie evidence of the indebtedness of the Borrower to the Bank pursuant to this agreement. The Borrower authorized and directs the Bank to automatically debit, by mechanical, electronic or manual means, any bank account of the Borrower for all amounts payable under this agreement, including but not limited to, the repayment of principal and the payment of interest, fees and all charges for the keeping of such bank accounts.

6. CALCULATION AND PAYMENT OF INTEREST

7. RBP Loans (and RBUSBR Loans)

The Borrower shall pay interest on each RBP Loan and RBUSBR Loan, monthly in arrears, on the 26th day of each month. Such interest will be calculated monthly and will accrue daily on the basis of the actual number of days elapsed and a year of 365 days. Interest on RB&USBR Loans shall be paid in US currency.

8. Administrative Fee

An administrative fee of $100 per quarter is payable quarterly in arrears.

9. COVENANTS

The Borrower covenants and agrees with the Bank that:

a) it will duly and punctually pay all sums of money due by it under the terms of this Agreement.

b) it will file all material tax returns which are or will be required to be filed, pay or make provision for payment of all material taxes (including interest and penalties) which are or will become due and payable and provide adequate reserves for the payment of any tax, the payment of which is being contested;

c) it will comply with all applicable environmental laws and regulations; advise the Bank promptly o any Action Requests or Violation Notices received concerning any of the Borrower’s property; and hold the Bank harmless for any costs or expenses which the Bank incurs for any environment-related liabilities existent now or in the future with respect to the Borrower’s property;

10. EXPENSES

The Borrower shall pay all external legal costs, fees and expenses incurred by the Bank in connection with this Agreement and the Security and the enforcement of the Bank’s rights thereunder.

11. WAIVER

No expenses or implied waiver by the Bank of any provision of this Agreement in one instance shall in any way be or be construed to be a waiver as to any other instance.

12. ASSIGNMENT

This agreement shall extend to and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns provided that the Borrower shall not be entitled to assign any interest hereunder, without the consent in writing of the Bank.

13. REVIEW

The Bank may conduct annual or periodic reviews of the affairs of the Borrower, as determined by the Bank and timely advised to the Borrower, for the purpose of determining the financial performance of the Borrower, and the borrower shall make available to the Bank annual financial statements and such other information as the Bank may reasonably require and shall do all things reasonably necessary to facilitate such review by the Bank.

14. GAAP

Unless otherwise provided, all accounting terms used in this agreement shall be interpreted in accordance with Canadian Generally Accepted Accounting principles from time to time.

15. SEVERABILITY

If any portion of this confirmation of Credit Facilities is found not to comply with the laws of Canada or any province applicable thereto, then only that portion, and not the entire agreement, is void.

16. GOVERNING LAW

This agreement shall be construed in accordance with and governed by the laws of the Province of Ontario and of Canada applicable therein.

17. POTENTIAL PREFERRED CLAIMS

"Potential Preferred Claims" means amounts owing for wages, employee deductions, sales tax, exercise tax, income tax, worker's compensation, government royalties, pension fund obligations, overdue rents or taxes, purchase-money security interests, and other statutory preferred claims.

ADHEREX TECHNOLOGIES INC.

By: /s/ Robert Browne

Robert Browne C.F.O.

(Name and Title of Authorized Signatory)

By: /s/ John Brooks

John Brooks

(Name and Title of Authorized Signatory)

ADHEREX TECHNOLOGIES INC.
STOCK OPTION PLAN

PLAN DESCRIPTION

1. Purpose of the Plan

The purpose of the Stock Option Plan is to develop the interest and incentive of eligible employees, directors and other service providers of ADHEREX TECHNOLOGIES INC. (the "Company") in the Company's growth and development by giving eligible employees, directors and other service providers an opportunity to purchase Common Shares on a favourable basis, thereby advancing the interests of the Company, enhancing the value of the Common Shares for the benefit of all the shareholders and increasing the ability of the Company to attract and retain skilled and motivated individuals in the service of the Company.

The Board of Directors has approved the terms of this Plan.

2. Definitions

In this Plan:

(a) "Board of Directors" means the board of directors of the Company;

(b) "Committee" means the appropriate compensation committee appointed by the Board of Directors to administer the Plan. All references in the Plan to the Committee means the Board of Directors if no Committee has been appointed;

(c) "Common Shares" means the Common Shares of the Company or, in the event of an adjustment contemplated in Section 9 hereof, such other Common Shares to which a Participant may be entitled upon the exercise of an Option as a result of such adjustment;

(d) "Date of Grant" means the date a Participant is granted an Option to purchase Option Shares;

(e) "Director" means a person occupying the position of director on the Board of Directors;

(f) "Employee" means a full time permanent employee of the Company or its subsidiaries;

(g) "Exchange" means The Toronto Stock Exchange or, if the Common Shares are not then listed and posted for trading on The Toronto Stock Exchange, on such stock exchange or quotation system on which such shares are listed, posted for trading or quoted as may be selected by the Committee;

(h) "Exercise Date" means the date the Company receives from the Participant a completed Stock Option Purchase Form with payment for the Option Shares being purchased;

(i) "Fair Market Value" at any date in respect of the Common Shares shall be determined by the Committee in its sole discretion, unless the Common Shares become listed and posted for trading on the Exchange, in which case the Fair Market Value shall be equal to the closing price of the Common Shares on the Exchange on the trading day immediately preceding the Date of Grant;

(j) "Option" means an option to purchase Common Shares from the treasury of the Company granted to a Participant;

(k) "Option Price" means the price per share at which a Participant may purchase Option Shares;

(l) "Option Shares" means the Common Shares of the Company which a Participant is entitled to purchase under the Plan;

(m) "Participants" means Directors, Employees and Service Providers to whom Option Shares are granted pursuant to the Plan and which remain unexercised;

(n) "Plan" means the Adherex Technologies Inc. Stock Option Plan, as the same may be amended and restated from time to time;

(o) "Service Provider" means any person other than an Employee or Director, engaged to provide ongoing management, advisory or consulting services for the Company or for a subsidiary of the Company;

(p) "Stock Option Agreement" means the stock option agreement to be entered into between the Company and a Participant of the Plan upon the grant of an Option to a Participant in the form of Appendix "A"; and

(q) "Vesting Period" means the period(s) as stipulated herein or in the Stock Option Agreement that the Participant may purchase the Option Shares.

3. Eligibility and Number of Option Shares Subject to Plan

Participation in the Plan shall be limited to Participants who are designated from time to time by the Committee. Participation shall be voluntary and the extent to which any Participant shall be entitled to participate in the Plan shall be determined by the Committee. Until changed in accordance with Section 16, the maximum number of Option Shares issuable under this Plan shall be 20,000,000 Common Shares, subject to adjustment in accordance with Section 8.

Notwithstanding the foregoing, so long as the Common Shares are listed and posted for trading on the Exchange, the number of Common Shares reserved for issuance pursuant to options to any one (1) person shall not exceed 5% of the issued and outstanding Common Shares at such time.

No fractional shares may be purchased or issued hereunder. Subject to the foregoing, the number of Option Shares that a Participant is entitled to purchase under the Plan will be determined by the Committee.

4. Price for Option Shares

The Committee shall advise each Participant designated to participate in the Plan of the number of Option Shares such Participant is entitled to purchase and the Option Price at which the Option Shares may be purchased and the Vesting Period. The Option Price at which the Option Shares may be purchased under the Plan shall be fixed by the Committee based upon the Fair Market Value of the Common Shares of the Company. The Committee may impose performance thresholds which will need to be met prior to vesting of any Options granted.

5. Exercise

Options granted under the Plan must be exercised within a period of seven (7) years from the Date of Grant, failing which the Participant's right to purchase such Option Shares lapses. Unless otherwise determined by the Committee and specifically set forth in the Stock Option Agreement to be executed by the Participant, the Vesting Periods within the seven (7) year term during which Options or a portion thereof vest and may be exercised by the Participant shall be as follows:

one-third of the Option may be exercised after the first anniversary of the date of grant;
one-third of the Option may be exercised after the second anniversary of the date of grant; and
one-third of the Option may be exercised after the third anniversary of the date of grant.

Notwithstanding such vesting period or that certain vesting period set forth in the Stock Option Agreement, the Committee may, in its sole discretion, by written notice to any Participant, accelerate the vesting of all or any of the Options such that the Options become immediately fully vested. In such circumstances, the Committee may by written notice compel the Participant to exercise the Options within 30 days of the date of such written notice to exercise, failing which the Participant's right to purchase such Option Shares lapses.

The Committee in its discretion may require that the exercise of an Option shall be subject to the Option holder signing a counterpart of the then existing shareholders agreement of the Company or any other agreement which is to apply to Option holders.

6. Payment

The Participant from time to time and at any time after the vesting of any Options and prior to the lapse of such Options, may elect to purchase all or a portion of the Option Shares available for purchase by lump sum payment by delivering to the Company at its registered office, a completed stock option purchase form in the form attached hereto as Appendix "A". Payment may be made by cash, certified cheque, bank draft or money order payable to the order of Adherex Technologies Inc.

7. Share Certificates

Upon exercise of the Option and payment in full of the purchase price the Company shall cause to be delivered to the Participant within a reasonable period of time a duplicate certificate or certificates in the name of the Participant representing the number of Option Shares the Participant has purchased. The original share certificate shall be held in trust by the Company for delivery to the holder when the shares are to be transferred, as authorized by the Plan.

8. Adjustment in Shares

Appropriate adjustments in the number of Common Shares subject to the Plan and, as regards Options granted or to be granted, in the number of Common Shares optioned and in the Option Price, shall be made by the Committee to give effect to the adjustments in the number of Common Shares resulting from sub-divisions, consolidations or re-classification of the Common Shares or other relevant changes in the authorized or issued capital of the Company.

In the event that the Company proposes to amalgamate, merge or consolidate with any other corporation, other than a corporation not dealing at arm's length with the Company as defined in the *Income Tax Act* (Canada) or a corporation which owns shares in the Company as at the date of the Plan, or to liquidate, dissolve or wind-up, the Company shall give written notice thereof to each Participant holding Options under the Plan and such

Participants shall be entitled to exercise all or a portion of the Options granted to such Participants, whether or not such Options have previously vested, within the 30 days period next following the giving of such notice. To the extent the proposed amalgamation, merger or consolidation is not completed in a reasonable time, the Company may purchase at the Option Price the Option Shares acquired by the Participant pursuant to Options which would not have vested but for the acceleration of the Vesting Period. Upon the expiration of such 30 day period, all rights of the Participants to the Option Shares or to the exercise of the Options shall terminate and cease to have any further force and effect.

9. Termination Of Participant For Any Reason

(a) In the event that an Employee's employment with the Company or any of its subsidiaries is terminated for any reason, a Director shall cease to be a Director on the Board of Directors for any reason or a Service Provider ceases to provide services to the Company, the Participant or the Participant's legal representative, as the case may be, may elect to purchase at the Option Price all or a portion of the remaining Option Shares (subject to Options that have vested at the time such employment, position on the Board of Directors or services with the Company is terminated) at any time during the 30 day period following the date of such termination of employment or position on the Board of Directors or termination of services of a Service Provider (the "Participant Termination Date"), or if specifically approved by the Board of Directors at any time prior to the earlier of (x) the expiry date thereof, or (y) the date that is three (3) years following the Participant Termination Date; and, to the extent the Company's Common Shares are not listed on any Exchange, the Company may elect to purchase at the same Option Price paid by the Participant or the Participant's legal representative all of the Common Shares purchased by such Participant under this Plan. For the purposes of this Plan, the transfer of the Employee's employment to the Company or to any subsidiary of the Company shall not be considered a termination of employment and the Employee's rights under the Option shall be the same as if such transfer had not occurred.

(b) In the event of an offer by a third party to purchase all the shares of the Company, which offer shall be accepted by shareholders who collectively own shares representing 51% or more of all of the voting shares of Company, the Participant irrevocably agrees that any shares owned by him/her at the time of such offer shall be tendered for sale in accordance with the terms of such offer.

10. Transfer and Assignment

The Participant's rights under Options granted under the Plan are not assignable or transferable by the Participant or subject to any other alienation, sale, pledge or encumbrance by such Participant during the Participant's lifetime and therefore the Options are exercisable during the Participant's lifetime only by the Participant. The obligations of each Participant shall be binding on his or her heirs, executors and administrators.

11. Employment and Board of Directors Position Non-Contractual

The granting of an Option to a Participant under the Plan does not confer upon the Participant any right to continue in the employment of the Company or any subsidiary of the Company or as a member of the Board of Directors or as a Service Provider, as the case may be, nor does it interfere in any way with the rights of the Employee or of the Company's rights to terminate the Employee's employment at any time or of the shareholders' right to elect Directors.

12. Rights As Shareholders

Participants shall not have any rights as a shareholder with respect to Option Shares until full payment has been made to the Company and a share certificate or share certificates have been duly issued.

13. Administration Of The Plan

The Plan shall be administered by the Committee. The Committee shall have the power to interpret and construe the terms and conditions of the Plan and the Options. Any determination by the Committee shall be final and conclusive on all persons affected thereby unless otherwise determined by the Board of Directors. The day-to-day administration of the Plan may be delegated to such officers and employees of the Company or any subsidiary of the Company as the Committee shall determine.

14. Notices

All written notices to be given by the Participant to the Company may be delivered personally or by registered mail, postage prepaid, addressed as follows:

Adherex Technologies Inc.
220-600 Peter Morand Cres.
Ottawa, Ontario K1G 5Z3
Attention: Corporate Secretary

Any notice given by the Participant pursuant to the terms of the Option shall not be effective until actually received by the Company at the above address. Any notice to be given to the Participant shall be sufficiently given if delivered personally or by postage prepaid mail to the last address of the Participant on the records of the Company and shall be effective seven days after mailing.

15. Corporate Action

Nothing contained in the Plan or in the Option shall be construed so as to prevent the Company or any subsidiary of the Company from taking corporate action which is deemed by the Company or the subsidiary to be appropriate or in its best interest, whether or not such action would have an adverse effect on the Plan.

16. Amendments

The Board of Directors of the Company shall have the right, in its sole discretion, to alter, amend or discontinue the Plan from time to time and at any time. No such amendment or discontinuation, however, may, without the consent of the Participant, alter or impair his rights or increase his obligations under the Plan. Any amendment to the Plan or existing options is subject to the prior approval of the Exchange and may require the approval of the Company’s shareholders.

17. Governing Law

The Plan is established under the laws of the Province of Ontario and the rights of all parties and the construction and effect of each provision of the Plan shall be according to the laws of the Province of Ontario and the laws of Canada applicable therein.

18. Government Regulation

The Company's obligation to issue and deliver Common Shares under any Option is subject to:

(a) the satisfaction of all requirements under applicable securities law in respect thereof and obtaining all regulatory approvals as the Company shall determine to be necessary or advisable in connection with the authorization, issuance or sale thereof, including shareholder approval, if required;

(b) the admission of such Common Shares to listing on any stock exchange on which Common Shares may then be listed; and

(c) the receipt from the Participant of such representations, agreements and undertakings as to future dealings in such Common Shares as the Company determines to be necessary or advisable in order to safeguard against the violation of the securities law of any jurisdiction.

In this connection, the Company shall take all reasonable steps to obtain such approvals and registrations as may be necessary for the issuance of such Common Shares in compliance with applicable securities law and for the listing of such Common Shares on any stock exchange on which such Common Shares are then listed.

Appendix "A"
Adherex Technologies Inc.

Stock Option Plan

Stock Option Agreement

Date: _____

Dear _____:

This is to advise you that you have been granted an option (the "option") to purchase _____ Common Shares at a price of $_____ per share under the Adherex Technologies Inc. Stock Option Plan (the "plan").

This option expires on the later of seven years following the date of grant, which appears on the right hand corner of this Notice, subject to other conditions of the Plan.

Subject to such expiry and the other provisions of the Plan, this option is exercisable in such amounts and at any time on or after:

_____ shares on _____, 200_.

This option is subject to the terms of the Plan.

Please refer to the Plan explanatory document for any additional information regarding the exercise of your option and completion of the Option Exercise Form. Please execute a copy of this grant where indicated below and deliver it to the Corporate Secretary of the Company c/o Adherex Technologies Inc., 220-600 Peter Morand Crescent, Ottawa, Ontario K1G 5Z3, to acknowledge your acceptance of the terms hereof.

Sincerely,
ADHEREX TECHNOLOGIES INC.

Per: _____

I have read, understood and accept the vesting provisions above and each of the terms and conditions described in a document called Adherex Technologies Inc. Stock Option Plan and accept the foregoing grant of options on such basis.

Dated the __ day of _____, _____.

_____

Signature

Appendix "B"
Adherex Technologies Inc.

Stock Option Plan

Option Exercise Form

Part 1: Identification

Name of Participant	Service
Address	Office Telephone Number
Social Insurance Number	Home Telephone Number

Part 2: Option

I hereby exercise the Option granted to me by letter dated _____under the Plan.

Total number of option stock exercised: _____

Method of payment:
(a) Cash
(b) Certified Cheque
(c) Bank Draft
(d) Money Order

Amount: _____

Number of shares: _____(value:_____)

I hereby acknowledge that I have read, understood and accepted each and all the terms and conditions described in a document called "Adherex Technologies Inc. Stock Option Plan".

Given at _____, this, _____ day of _____

_____

Signature

EXHIBIT 4.2

General Collaboration Agreement
Between
McGill University
and
Adherex Technologies, Inc.

1 PREAMBLE

1.1 Identification of the Parties

This GENERAL COLLABORATION AGREEMENT ("the "AGREEMENT") is entered into between McGill University (hereinafter referred to as "McGILL"), an institution of learning with an office at 3550 University Street, Montreal, Quebec, H3A 2A7, and Adherex Technologies Inc. a corporation incorporated and existing under the laws of Canada, having its principal office at 600 Peter Morand Crescent, Suite 340, Ottawa, Ontario K1G 5Z3, (hereinafter referred to as "ADHEREX").

This AGREEMENT is effective upon signature of both parties. This AGREEMENT supersedes all prior agreements or understandings between McGILL and ADHEREX concerning the LICENSED TECHNOLOGY.

1.2 Background of the Agreement - Licensee Representations

ADHEREX desires to enter into collaboration with McGILL for the purpose of further research, and for developing and commercializing the TECHNOLOGY IN THE FIELD, and to obtain exclusive license rights to the LICENSED PATENT in the TERRITORY under the terms and conditions of this AGREEMENT.

1.3 Background of the Agreement — McGILL Representations

McGILL, which represents to be the owner of the entire right, title and interest in the LICENSED PATENT, desires to grant an exclusive license in the LICENSED PATENT to ADHEREX in accordance to the terms of this AGREEMENT, and to enter into collaboration with ADHEREX for the purpose of further research, and for developing and commercializing the TECHNOLOGY IN THE FIELD under the terms and conditions of this AGREEMENT.

Now Therefore, in consideration of the foregoing premises, the mutual covenants and obligations hereinafter contained, and other good and valuable consideration, McGILL and ADHEREX agree as follows:

2 DEFINITIONS

2.1 Usage

For the purposes of this AGREEMENT, the following terms, words, and phrases, when used in the singular or plural, shall have the meanings given to them in this Section.

2.2 **McGill University**

“McGill University,” as abbreviated “McGILL,” means the institution of education having its principal office at 853 Sherbrooke Street, Montreal, Qc, H3A 2T6, and shall also include all McGILL AFFILIATES. McGILL is the licensor of the LICENSED PATENT in this AGREEMENT.

2.3 **Adherex Technologies Inc.**

“ADHEREX TECHNOLOGIES Inc.,” as abbreviated “ADHEREX,” means the Corporation by that name having its principal office at 600 Peter Morand Crescent, Suite 340, Ottawa, Ontario K1G 5Z3, and shall include all ADHEREX AFFILIATES. ADHEREX is the licensee of the LICENSED PATENT in this AGREEMENT.

2.4 **Affiliate**

“AFFILIATE” means, with respect to a party of this AGREEMENT, any ENTITY which directly or indirectly controls or is controlled by or is under common control with such party. The term “control” means possession, direct or indirect, of the powers to direct or cause the direction of the management or policies of the ENTITY; whether through ownership of equity participation, voting securities, or beneficial interests; by contract or by agreement or otherwise;

2.5 **Calendar Quarter**

“CALENDAR QUARTER” means a period of three (3) months in the Gregorian calendar ending on the last day of March, June, September, or December.

2.6 **Calendar Year**

“CALENDAR YEAR” means a period of twelve (12) months beginning on January 1 and ending on December 31.

2.7 **Effective Date**

“EFFECTIVE DATE” means the date upon which this AGREEMENT is executed and dated by all the parties hereto. In the event that all of the parties do not execute and date this AGREEMENT on the same date, the EFFECTIVE DATE shall be the date upon which the last party hereto executes and dates this AGREEMENT.

2.8 **Field**

“FIELD” means agents and methods for modulating classical cadherin-mediated processes including, without restricting the foregoing, the HAV sequence and uses thereof, any molecule designed to interact with or mimic the HAV sequence, and any other molecule that targets the classical cadherins.

2.9 **Gross Revenues**

“GROSS REVENUES” means all incomes, revenues, receipts, monies, up-front payments, fees and considerations paid to ADHEREX by a third party and that are directly or indirectly attributable to: (i) the sale, by ADHEREX, of PRODUCTS IN THE FIELD; (ii) the provision of SERVICES by ADHEREX; (iii) option agreements, licenses or sublicenses granted by ADHEREX to a third party with respect to PRODUCTS IN THE FIELD or to the TECHNOLOGY IN THE FIELD; (iv) manufacturing payments for PRODUCTS IN THE FIELD, whether received in cash or by way of other benefit, advantage, or concession. GROSS REVENUES shall however exclude all revenues from research and development agreements and all material transfer agreements, provided that such agreements do not include license grants or commercialization rights with respect to any aspect of the TECHNOLOGY IN THE FIELD. If received in a form other than cash, the applicable revenue will be the monetary equivalent or FAIR MARKET VALUE of the benefit, advantage, or concession. For greater certainty, GROSS REVENUES do not include amounts paid to Adherex Technologies, Inc from any AFFILIATE, amounts paid by Adherex Technologies, Inc to any AFFILIATE or any amount paid from one AFFILIATE to another AFFILIATE.

2.10 **Earned Royalties**

“EARNED ROYALTIES” shall have the meaning given in clause 6.1 herein.

2.11 **Entity**

“ENTITY” means a corporation, an association, a joint venture, a partnership, a trust, a business, including an agency, or any other organization that can exercise independent legal standing.

2.12 **Fair Market Value**

“FAIR MARKET VALUE” means the gross sales price or value which ADHEREX would realize from an unaffiliated, unrelated buyer in an arm’s length sale or exchange of consideration for an identical product or service sold or provided in the same quantity and at the same time and place as the sale or exchange for which the FAIR MARKET VALUE is to be determined.

2.13 **General Collaboration Agreement**

“GENERAL COLLABORATION AGREEMENT” or “AGREEMENT” means this general collaboration agreement. This GENERAL COLLABORATION AGREEMENT is between McGill University and Adherex Technologies, Inc. Also included in this AGREEMENT are all Exhibits attached hereto and all amendments that may be made thereto.

2.14 **Licensed Patent**

“LICENSED PATENT” means, collectively: (i) US Patent Number 6,031,072, filed on July 11, 1997 entitled “Compounds and Methods for Modulating Cell Adhesion”; (ii) the US non-provisional patent application number 09/057,363 filed on April 8, 1998, entitled “Compounds and Methods for Inhibiting the Interaction between alpha-catenin and beta-catenin”, (iii) any other patent application in the FIELD, based on inventions made jointly by ADHEREX and

McGILL, arising from research in the FIELD sponsored by ADHEREX pursuant to this AGREEMENT, (iv) any patent which shall issue on any of the above-described patent applications, or on any improvements thereof, and any reissue and extension thereof; (v) Any divisional, continuation or substitute patent application which shall be based on any of the above-described patent application or on any such patent; (vi) Patents and patent applications corresponding to each of the above-described patents and patent applications which are issued, filed, or to be filed in any and all foreign countries, any patents (including but not limited to patents of importation, improvement, or addition, utility models and inventors' certificates) which shall subsequently issue thereof and (vii) any renewals, continuations, continuations-in-part, substitutions, inventors' certificates, divisions, national, international and PCT filings, reissues, reexaminations or extensions thereof.

2.15 **Licensed Product**

"LICENSED PRODUCT" shall specifically include a composition of compounds and elements where one or more of the compounds and/or elements or the combination of compounds and/or elements is produced, manufactured, sold, leased, used or practiced subject to and within the scope of the LICENSED PATENT claims or the description of the LICENSED TECHNOLOGY.

2.16 **Licensed Technology**

"LICENSED TECHNOLOGY" means all technology improvements within the scope of the LICENSED PATENT; including, without limitation, computer programs, data, apparatus, whether patentable (but not effectively patented) or unpatentable, owned or controlled by McGILL, as of the EFFECTIVE DATE.

2.17 **Patents In The Field**

"PATENTS IN THE FIELD" means, collectively; (i) LICENSED PATENTS; (ii) the US non-provisional patent application number 09/113,977, filed July 10, 1998, entitled "Compounds and Methods for Modulating Adhesion Molecule Function", and (iii) the US non-provisional patent application number 09/491,078, filed January 24, 2000, entitled "Peptidomimetic Modulators of Cell Adhesion"; (iv) any patent which shall issue on any of the above-described patent applications, or on any improvements thereof, and any reissue and extension thereof; (v) Any divisional, continuation or substitute patent application which shall be based on any of the above-described patent application or on any such patent; (vi) Patents and patent applications corresponding to each of the above-described patents and patent applications which are issued, filed, or to be filed in any and all foreign countries, any patents (including but not limited to patents of importation, improvement, or addition, utility models and inventors' certificates) which shall subsequently issue thereof as well as (vii) any renewals, continuations, continuations-in-part, substitutions, inventors' certificates, divisions, national, international and PCT filings, reissues, reexaminations or extensions thereof.

2.18 **Product(s) In The Field**

"PRODUCT(S) IN THE FIELD" shall specifically include any composition(s) of compounds and elements where one or more of the compounds or the combination of compounds and/or elements is produced, manufactured, used or practiced subject to and within the scope of the PATENTS IN THE FIELD claims or description of the TECHNOLOGY IN THE FIELD.

2.19 **Technology in the Field**

"TECHNOLOGY IN THE FIELD" means the PATENTS IN THE FIELD, all technology improvements, and intellectual property, within the scope of the PATENTS IN THE FIELD; including, without limitation, inventions, computer programs, data, apparatus, whether patentable or unpatentable, owned or controlled by ADHEREX or McGILL, as of the EFFECTIVE DATE.

2.20 **Net Sales**

"NET SALES" means the GROSS REVENUES less qualifying costs directly attributable to such GROSS REVENUES and actually allowed and borne by ADHEREX. Such qualifying costs shall be limited to costs of the following:

Discounts and allowances actually shown on the invoice;

Packaging;

Prepaid outbound transportation expenses;

Handling charges;

Taxes; including sales, use, turnover, excise, import, export, and other taxes or duties, separately billed or invoiced, and borne by ADHEREX, imposed by a government agency on such use, sales, lease, or transfer;

Credits, allowances or refunds given on account of returned goods;

Agents' commissions paid for the sale of PRODUCTS IN THE FIELD;

Bona fida rebates;

Credit refunds, or uncollected amounts, provided however that, with respect to such uncollected amounts, ADHEREX has taken all commercially prudent steps necessary to collect such amounts;

PRODUCTS IN THE FIELD used for quality control testing for the purposes of verifying aspects of performance, e.g. sensitivity, specificity, stability, etc., either by ADHEREX or through ADHEREX's collaborators;

Any consideration received for the use of or the sale, lease or transfer made for the purpose of obtaining regulatory approval of any PRODUCTS IN THE FIELD including, without limitation, providing samples for clinical trials.

2.21 **Service**

“SERVICE” means, if used as a noun, any use of the TECHNOLOGY IN THE FIELD to facilitate the desires of another party.

2.22 **Territory**

“TERRITORY” means the World.

3 LICENSE RIGHTS GRANTED/RESERVED

3.1 **Grant of Rights**

Subject to the terms and conditions of this AGREEMENT, McGILL hereby grants to ADHEREX exclusive royalty bearing license rights to practice in the FIELD, in the TERRITORY, the LICENSED PATENT for the term of the LICENSED PATENT, with the right to manufacture, have manufactured, use, sell, lease or otherwise exploit or transfer, LICENSED PRODUCT, and non-exclusive royalty bearing license rights to practice in the FIELD, in the TERRITORY, the LICENSED TECHNOLOGY for the term of the AGREEMENT, with the right to manufacture, have manufactured, use, sell, lease or otherwise exploit or transfer LICENSED PRODUCT. Notwithstanding the rights granted hereunder, University shall retain the right to use the LICENSED PATENT for non-commercial academic and scholarly purposes, subject to confidentiality requirements.

3.2 **Rights to Sublicense**

The license rights granted under this AGREEMENT shall specifically include the right for ADHEREX to grant sublicenses to the LICENSED PATENT and the LICENSED TECHNOLOGY. ADHEREX agrees that any sublicense it grants to the LICENSED PATENT or the LICENSED TECHNOLOGY to any third party shall be granted under the following conditions:

(a) For the purposes of ensuring that McGILL’s rights under section 5 and 6 of this AGREEMENT are respected, any sublicense agreement proposed by ADHEREX that includes the right to grant sublicenses must be approved in writing by McGILL prior to its execution. McGILL’s consent shall not be unreasonably withheld;

(b) Upon termination of this Agreement and provided the obligations of ADHEREX pursuant to sections 5.3 and 5.5 of this Agreement have been satisfied within sixty (60) days following termination, McGILL will honour any sublicense granted by ADHEREX, but only in respect of the grant of rights in relation to the LICENSED PATENT and LICENSED TECHNOLOGY, provided any sublicensee availing itself of such right agrees to be bound in respect of McGILL, by the terms of its sublicense with ADHEREX relating to the payment of royalties and fees, including, without limiting the generality of the foregoing, provisions dealing with term, reporting, default and breach, and termination. Sublicensees shall have no obligation to McGILL to keep their sublicenses in force, in which case the sublicense shall immediately terminate and sublicensee shall immediately cease to use, manufacture or have manufactured, sell, lease of otherwise exploit or transfer the LICENSED PATENT and LICENSED

TECHNOLOGY. Should a sublicensee intend to continue to use, manufacture or have manufactured, sell, lease or otherwise exploit or transfer the LICENSED PATENT or LICENSED TECHNOLOGY, it shall provide McGILL with written notice of such intent, along with a copy of the sublicense agreement to which it is a party within sixty (60) days of termination of this Agreement. The above shall be part of all sublicense agreements.

(c) Within thirty (30) days after the execution of a sublicense agreement, as authorized herein, ADHEREX shall forward to McGILL a fully executed copy of such sublicense agreement, which shall be treated by McGILL as being confidential information of ADHEREX and of the relevant sublicensee. In addition to providing McGILL with a copy of the executed sublicense agreement, should such sublicense agreement be written in a language other than English and French, ADHEREX shall provide McGILL with an English translation of the sublicense agreement.

(d) The "Research and License Agreement" sublicense entered into and made on August 17, 2000 by and among BIOCHEM PHARMA INC., and ADHEREX, is deemed to be in accordance with the terms and conditions of this AGREEMENT. In the event of termination of this AGREEMENT ADHEREX shall exert its best effort to cause BIOCHEM PHARMA INC., to stop using, manufacturing or having manufactured, selling, leasing or otherwise exploiting or transferring the LICENSED PATENTS, and LICENSED TECHNOLOGY, unless BIOCHEM PHARMA INC. agrees to comply with section 3.2 (b).

4 TERM AND TERMINATION

4.1 Term of Agreement

The term of this AGREEMENT shall commence on its EFFECTIVE DATE and shall end September 23, 2028, unless it earlier terminates by operation of law.

4.2 ADHEREX's Rights to Termination

After September 25, 2006, ADHEREX may terminate this AGREEMENT, by giving written notice of its intent to terminate at least sixty (60) days prior to actual termination provided that no EARNED ROYALTIES are due or are being earned as of the date of termination. ADHEREX may not terminate this AGREEMENT for the purpose of, or in a way that would deprive McGILL of future EARNED ROYALTIES.

Upon any material breach of or default under this AGREEMENT by McGILL, ADHEREX may terminate this GENERAL COLLABORATION AGREEMENT.

ADHEREX shall give McGILL written notice of termination prior to terminating this GENERAL COLLABORATION AGREEMENT. Such notice shall state the cause(s) for termination and the procedures, if any, that ADHEREX considers that McGILL must follow to remedy such a breach. McGILL shall have sixty (60) days after the effective date of the notice to remedy the stated cause(s) for termination.

Any disagreements between the parties on whether or not the default has been remedied, shall be subject to Dispute Resolution pursuant to clause 12.2 herein. In the event that McGILL does not

attempt to remedy the default, this LICENSE AGREEMENT shall become fully paid up and ADHEREX shall then have an unrestricted right to the LICENSED TECHNOLOGY, including the LICENSED PATENTS.

4.3 McGILL's Rights to Termination

Upon any material breach of or default under this AGREEMENT by ADHEREX, McGILL may terminate this AGREEMENT.

McGILL shall give ADHEREX written notice of termination prior to terminating this AGREEMENT. Such notice shall state the cause(s) for termination and the procedures, if any, that McGILL considers that ADHEREX must follow to remedy such a breach. ADHEREX shall have sixty (60) days after the effective date of the notice to remedy the stated cause(s) for termination.

Any disagreements between the parties on whether or not the default has been remedied, shall be subject to Dispute Resolution pursuant to clause 12.2 herein. In the event that ADHEREX does not attempt to remedy the default, the AGREEMENT and all rights granted ADHEREX, shall automatically terminate at the end of the sixtieth (60) day following the giving of the notice described in the previous paragraph.

In the event ADHEREX ceases conducting business in a normal course, becomes insolvent, makes a general assignment for the benefit of creditors, suffers or permits the appointment of a receiver for its business or assets, or avails itself of, or becomes subject to, any proceeding under the Federal bankruptcy Act or any other statute of any state or country relating to insolvency or the protection of creditor rights, this AGREEMENT shall immediately and automatically terminate at the occurrence of any such event.

5 LICENSING CONSIDERATIONS

5.1 Equities

Within sixty (60) days following the EFFECTIVE DATE, ADHEREX shall issue to McGILL 2,542,084 Common Shares of Adherex Technologies Inc. common stock equivalent to 10.6% of the total issued preferred and common shares.

5.2 Diligence Payments

If ADHEREX or a sublicensee authorised hereunder has not filed an investigational new drug (IND) or similar application with the Canadian Health and Welfare Canada (Health Protection Branch) or, the U.S. Food and Drug Administration, or the European equivalent or any other recognized agency, relating to a PRODUCT IN THE FIELD, prior to September 23, 2002, ADHEREX shall pay McGILL $100,000 in order to maintain its rights under this AGREEMENT.

If ADHEREX or a sublicensee authorised hereunder has not commenced Phase II Clinical Trials in the United States or Canada or Europe or in any other recognized jurisdiction on any PRODUCT IN THE FIELD prior to September 23, 2004, ADHEREX shall pay McGILL $100,000 in order to maintain its rights under this AGREEMENT.

If ADHEREX or a sublicensee authorised hereunder has not commenced Phase III Clinical Trials in the United States or Canada or Europe or in any other recognized jurisdiction on any PRODUCT IN THE FIELD prior to September 23, 2006, ADHEREX shall pay McGILL $200,000 in order to maintain its rights under this AGREEMENT.

5.3 Sponsored Research

ADHEREX undertakes to fund mutually agreed upon research at McGILL through Research Agreements. This will include a 10-year research contract to be initiated within one year of the EFFECTIVE DATE in support of Dr. Orest Blaschuk in the amount of $100,000 per year plus 40% overhead for a total of $1.4 million for ten years.

5.4 Additional Research

ADHEREX will support additional mutually agreed upon research through Research Agreements in support of McGILL researchers (which may or may not include Dr. Blaschuk) to bring the total sponsored research amount to $200,000 in the first year following the EFFECTIVE DATE. The yearly amounts of this additional research commitment will be:

Year 1	Year 2	Year 3	Year 4	Year 5
$60,000	$82,000	$105,000	$132,000	$160,000

Year 6	Year 7	Year 8	Year 9	Year 10
$193,000	$228,000	$268,000	$312,000	$360,000

If the total financial commitment for additional research exceeds 5% of ADHEREX’s cash and cash equivalents as shown in the December 31 balance sheet of the preceding year, support for new additional research will be deferred until such time that the total financial commitment for all additional research no longer exceeds 5% of ADHEREX’s cash and cash equivalents, with the condition that ADHEREX’s financial obligations pursuant to ongoing research agreements will be respected and will not be deferred.

5.5 CIHR University/Industry chair

In addition to funding described in 5.3 and upon approval by the CIHR, ADHEREX will provide financial support for a CIHR university/industry chair supporting studies in cell adhesion for Dr. Orest Blaschuk for which McGILL will apply.

6 ROYALTIES

6.1 Earned Royalties

In consideration for the license granted in this AGREEMENT, ADHEREX shall pay to McGILL, in the manner designated below, an earned royalty of 2% of the GROSS REVENUE received by ADHEREX.

For more certainty, no royalty shall be payable to McGILL hereunder on amounts paid to Adherex Technologies, Inc. from any AFFILIATE other than Adherex Technologies, Inc., on any amount paid by Adherex Technologies, Inc. to any AFFILIATE other than Adherex Technologies, Inc., or on any amount paid from one AFFILIATE other than Adherex Technologies, Inc. to another AFFILIATE other than Adherex Technologies, Inc.

7 PAYMENTS AND REPORTS

7.1 Payments

Any amount due McGILL as the result of each PRODUCT IN THE FIELD being used, sold, or transferred pursuant to the terms of this AGREEMENT- shall accrue either i) in the case of direct sales by ADHEREX at the time ADHEREX receives payment for such PRODUCT IN THE FIELD; or, ii) in the case of sales by sublicensees at the time ADHEREX receives payment from such sublicensee. All amounts accrued for the benefit of McGILL shall be deemed held in trust for the benefit of McGILL until payment of such amounts is made pursuant to this AGREEMENT.

Unless otherwise specified in this AGREEMENT, all payment amounts due McGILL under this AGREEMENT shall be paid within forty-five (45) business days following the end of the CALENDAR QUARTER in which such payment accrues or ADHEREX otherwise incurs the obligation to pay such amounts.

All payments due McGILL based upon sales in countries outside of Canada shall accrue in the currency of the country in which the sales are made. ADHEREX shall utilise its best efforts to effect Canadian dollar transfers with respect to such royalties. However, any and all loss of exchange value, taxes, or other expenses incurred in the transfer or conversion of foreign currency into Canadian dollars, and any income, remittance, or other taxes on such royalties required to be withheld at the source shall be borne by McGILL.

All such payments shall be remitted to McGILL’s address given in the notification provision of this AGREEMENT or to such other address as McGILL shall direct.

7.2 Late Fees

ADHEREX shall pay to McGILL interest on any amounts not paid when due. Such interest will accrue from the fifteenth (15th) day after the payment was due at a rate two percent (2%) above the daily prime interest rate, as determined by the Royal Bank of Canada or its successor entity, on each day the payment is delinquent, and the interest payment will be due and payable on the first day of each month after interest begins to accrue, until full payment of all amounts due to McGILL is made.

7.3 Reports

ADHEREX shall keep, at its own expense, accurate books of account, using accepted accounting procedures, detailing all data necessary to calculate and easily audit any payments due to McGILL from ADHEREX under this AGREEMENT.

Each payment made to McGILL shall be accompanied by a written report summarizing, in sufficient detail to allow McGILL to verify all payment amounts, the data used to calculate the amounts paid. Each report pertaining to royalty payments for the applicable accounting period shall specifically include the following, as applicable:

GROSS REVENUES and NET SALES amounts.

Royalties due, broken down by category, including earned, pass through, and minimum royalty categories.

Annually, ADHEREX shall submit to McGILL a copy of its audited financial statement.

7.4 **Examination of Records**

Upon at least fifteen (15) days' written notice, McGILL shall have the right, through an independent, accounting firm to examine such records and books of account of ADHEREX and AFFILIATES as are necessary to verify compliance with the terms of this LICENSE AGREEMENT. Such right may be exercised only once during any twelve-month period. Such examination may be performed at any time within three (3) years after the end of the reporting period to which the books of account pertain, and shall be performed during normal business hours at ADHEREX's major place of business or at such other site as may be agreed upon by McGILL and ADHEREX. The accounting firm may make abstracts or copies of such books of account solely for its use in performing the examination. McGILL shall require prior to any such examination, such accounting firm to agree in writing that such firm will maintain all information, abstracts, and copies acquired during such examination in strict confidence and will not make any use of such material other than to confirm to McGILL the accuracy of ADHEREX's compliance hereunder. McGILL shall provide ADHEREX with a copy of any reports and conclusions resulting from any such examination upon receipt of same.

7.5 **Results of Examination**

If any examination of ADHEREX'S records shows that ADHEREX has paid more than required under the Agreement, any excess amounts shall, at ADHEREX'S option, be promptly refunded or credited against future royalties with interest from the date of overpayment at the Royal Bank of Canada's Prime Rate minus 1%. If any examination of ADHEREX'S records show that ADHEREX has paid less than required under this agreement, ADHEREX shall promptly pay the additional amount due together with interest and late fees as required under this agreement for late payments. If the amount of underpayment exceeds ten percent (10%) of the amount that should have been paid, ADHEREX shall also pay all reasonable costs of such examination. For more certainty, in the case of disagreement between the Parties with respect to the conclusions resulting from examination of ADHEREX'S records, such disagreement shall be subject to section 12 herein.

8 PERFORMANCE

8.1 Reasonable Efforts

During the term of this AGREEMENT, ADHEREX shall use its commercially reasonable efforts to commercialize a PRODUCT IN THE FIELD within the TERRITORY, consistent with sound and reasonable judgment in the industry

8.2 Performance

ADHEREX shall use reasonable efforts to bring the TECHNOLOGY IN THE FIELD or PATENTS IN THE FIELD to a point of practical application and make a PRODUCT(S) IN THE FIELD reasonably available to the public within a period of ten (10) years following the EFFECTIVE DATE. In the event that ADHEREX does not substantially meet the performance criteria set forth herein, McGILL may give ADHEREX written notice of its intention to terminate this AGREEMENT. Such notice shall state the cause(s) for termination and procedures, which ADHEREX must follow to prevent such termination. ADHEREX shall have sixty (60) days after the effective date of the notice to remedy the stated cause(s) for termination. Any disagreements between the parties as to whether or not the default has been remedied shall be subject to Dispute Resolution pursuant to section 12.2 herein. In the event that a disagreement between the parties as to whether or not the default has been remedied is not resolved, and that ADHEREX does not submit this matter for arbitration, this AGREEMENT and all rights granted ADHEREX may, at McGILL's option, be terminated or modified in any manner, according to the termination and modification provisions herein.

9 PATENT COST, MAINTENANCE AND MARKINGS

9.1 Patent Cost and Maintenance

ADHEREX shall be responsible for all costs and expenses relating to the filing and maintenance of PATENTS IN THE FIELD. ADHEREX shall be responsible for filing, prosecution and maintenance in force of all patents and patent applications included in the PATENTS IN THE FIELD. McGILL shall review and comment on the filing and maintenance of the LICENSED PATENTS. The filing, prosecution and maintenance of patents and patent applications for the LICENSED PATENTS pursuant to this Section shall be completed through patent counsel selected by ADHEREX with the consent of McGILL. ADHEREX shall keep McGILL reasonably informed of all office actions, proposed responses or other patent prosecution activities involving the LICENSED PATENT. All patent applications included in the LICENSED PATENT shall be filed, prosecuted and maintained in the name of McGILL, provided that ADHEREX shall have the right to file, prosecute and maintain additional patents and patent applications that do not fall within the LICENSED PATENT.

For more certainty, and notwithstanding anything to the contrary herein, McGILL acknowledges and agrees that ADHEREX shall have the right to file, prosecute and maintain in force, in its own name, all patents and patent applications included in the PATENTS IN THE FIELD, others than LICENSED PATENTS, through patent counsel selected by ADHEREX alone, and without any obligations towards McGILL. ADHEREX nevertheless agrees to keep McGILL reasonably informed of all office actions, proposed responses or other patent prosecution activities involving PATENTS IN THE FIELD other than LICENSED PATENTS.

10 WARRANTIES

10.1 Warranties, Rights and Liabilities

McGILL WARRANTS THAT: (i) IT IS THE OWNER OF THE LICENSED PATENT AND THE LICENSED TECHNOLOGY; (ii) THAT IT HAS THE RIGHT AND POWER TO GRANT THE LICENSES GRANTED HEREIN; (iii) THAT THERE ARE NO OTHER AGREEMENTS WITH ANY OTHER PARTY IN CONFLICT WITH SUCH GRANT.

WITH THE EXCEPTION OF THE ABOVE WARRANTIES SET OUT IN THIS SECTION, McGILL MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, WITH RESPECT TO THE LICENSED TECHNOLOGY, NOT EXPRESSLY SET FORTH IN THIS AGREEMENT. McGILL DOES NOT WARRANT THAT THE LICENSED TECHNOLOGY IS ERROR FREE OR THAT IT WILL MEET ADHEREX REQUIREMENTS. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED AND EXCLUDED. THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE OF LICENSED PRODUCT, DELIVERABLES, AND ANY PRODUCTS, SERVICES OR METHODS BASED ON THE LICENSED TECHNOLOGY IS ASSUMED BY ADHEREX.

WITH THE EXCEPTION OF THE ABOVE WARRANTIES SET OUT IN THIS SECTION, McGILL MAKES NO REPRESENTATIONS, EXTENDS NO WARRANTIES, EXPRESS OR IMPLIED, AND ASSUMES NO LIABILITIES OR RESPONSIBILITIES WITH RESPECT TO THE USE, SALE, OR OTHER DISPOSITION BY ADHEREX, ANY AFFILIATE, VENDEES, TRANSFEREES, OR END USERS OF LICENSED PRODUCT(S) OR THE LICENSED TECHNOLOGY.

Notwithstanding any provision to the contrary herein, ADHEREX shall have the right to deduct from royalties payable to McGILL hereunder, any damages, costs or other amounts (including reasonable attorney’s fees and costs) incurred by ADHEREX by reason of any claim or suit against ADHEREX alleging that the use, manufacture, sale, lease or other exploitation of the LICENSED PATENT or LICENSED TECHNOLOGY infringes the rights of any third party.

11 INFRINGEMENT

11.1 Infringement by a Third Party

In the event of the infringement or potential infringement of the LICENSED PATENT or of the LICENSED TECHNOLOGY by any person, the following terms and conditions shall apply: (a) Upon learning of any infringement, the party learning of such infringement or potential infringement shall forthwith provide written notice to the other party, providing particulars of which it is aware; (b) McGILL and ADHEREX shall use their reasonable best efforts, in cooperation with each other, to terminate such infringement, without litigation; (c) ADHEREX may enjoin McGILL to support proceedings if necessary in which case ADHEREX shall reimburse McGILL for expenses and costs (including reasonable attorney’s fees and costs) reasonably incurred by McGILL, including salary and overhead, for representatives of McGILL whose involvement is required in the opinion of ADHEREX.

For more certainty ADHEREX shall be entitled to retain any damages, costs or other amounts paid to ADHEREX by reason of any claim or suit against any third party based on infringement or potential infringement of the LICENSED PATENT or of the LICENSED TECHNOLOGY, and (ii) no royalty shall be paid by ADHEREX on any such damages, costs or other amounts.

12 DISPUTE RESOLUTION

12.1 Cooperation

It is the intent of this AGREEMENT that both parties should benefit from the continued development and commercialization of the TECHNOLOGIES IN THE FIELD, and that it is in both parties' best interests to ensure a healthy spirit of cooperation in which neither the financial stability nor the good public perception or reputation of either party is threatened.

12.2 Negotiation

In any dispute, controversy or difference that may arise between the Parties out of or in relation to or in connection with this Agreement, or for the breach thereof, the Parties shall seek to resolve such dispute amicably by mutual consultation. A Party shall first give notice to the other Party stating that the notifying Party believes that a dispute exists and providing a full and complete written statement setting forth the nature of the dispute, the notifying Party's position with respect to that dispute, and any resolution proposed by the notifying Party. Upon the delivery of such notice, the Parties shall then cause their senior management or their designee to meet in person as soon as possible, but in no event more than sixty (60) days after the delivery of such notice, to discuss the dispute and to make a good faith effort to resolve the matter in an amicable fashion.

12.3 Mediation

In the event the parties fail to resolve such dispute by negotiations, the matter shall be submitted first to mediation by a mediator whose expertise appears relevant to the matter in question. Such mediator shall be chosen jointly by the parties involved and the mediation costs shall be equally shared by the parties to this AGREEMENT. If, after ninety (90) days, the dispute has not been resolved by mediation, the dispute shall automatically go to arbitration in accordance with the following subsection.

12.4 Arbitration

(a) In the event the parties fail to resolve such dispute by negotiation or mediation the parties hereby agree to refer the dispute to arbitration. In the event that the parties cannot agree upon the appointment of a single arbitrator within thirty (30) days of written notice from one party to the other requesting arbitration, the party requesting the arbitration shall appoint an arbitrator and send a written notice thereof to the other party, which shall have ten (10) days from the receipt thereof to appoint a second arbitrator. The two (2) arbitrators so appointed shall appoint a third arbitrator and in the event that they cannot agree, the third arbitrator shall be appointed by a court of competent jurisdiction.

(b) The arbitration hearing shall take place within thirty (30) days following the final appointment of the arbitrators and may be heard with the participation of and in the presence of only one party if the other party fails to appear. The decision of the arbitrators shall be final and binding upon the parties. The rules of the Quebec Code of Civil Procedure on arbitration shall apply.

(c) There shall be no appeal or judicial review of such decision.

(d) The decision of the arbitrators, if more than one, shall be by majority and the responsibility for the costs and expenses of the arbitration shall be paid by the parties as determined by the arbitrator(s). The arbitrators shall render their decision in writing within two (2) weeks of the hearing.

(e) The parties agree to the homologation of the arbitration decision at the request of either party.

13 GENERAL PROVISIONS

13.1 **Assignment**

Without prior written approval from McGILL's authorized representative, this AGREEMENT may not be assigned or transferred by ADHEREX, except to the successor or assignee of ADHEREX's entire business interest. In the event ADHEREX's entire business interest is to be assigned or transferred, ADHEREX shall give McGILL not less than forty-five (45) days advance notification. McGILL shall be given the opportunity to express its concerns over any ethical issues related to the takeover, and those concerns will be addressed before transfer or assignment of this AGREEMENT can be completed. For greater certainty ADHEREX may assign any technology other than the LICENSED TECHNOLOGY without the prior written approval of McGILL.

13.2 **Entire Agreement**

This AGREEMENT constitutes the entire agreement and understanding between McGILL and ADHEREX with respect to the LICENSED TECHNOLOGY, and any modification of this AGREEMENT shall be in writing and shall be signed by a duly authorized representative of both McGILL and ADHEREX. There are no understandings, representations, or warranties between McGILL and ADHEREX concerning the LICENSED TECHNOLOGY except as expressly set-forth in this AGREEMENT.

As of the coming into force of this AGREEMENT, this AGREEMENT supersedes all prior agreements or understandings between McGILL and ADHEREX concerning the LICENSED TECHNOLOGY including, for more certainty, the Licence Agreement entered into between the parties September 23, 1998.

13.3 **Force Majeure**

Neither McGILL nor ADHEREX shall be in default of the terms of this AGREEMENT because the party delays performance or fails to perform such terms; provided such delay or failure is not the result of the party's intentional or negligent acts or omissions, but the result of causes beyond the reasonable control of such party. Causes reasonably beyond the control of McGILL and ADHEREX shall include, but not be limited to, revolutions; civil disobedience; fires; acts of God, war, or public enemies; blockades; embargoes; strikes; labour disputes; laws; governmental, administrative or judicial orders, proclamations, regulations, ordinances, demands, or requirements; delays in transit or deliveries; actions or inactions of regulatory bodies or inability to secure necessary permits, permissions, raw materials, or equipment.

13.4 **Governing Law**

This AGREEMENT shall be deemed to have been made in Province of Quebec and shall be governed and construed in accordance with the laws of the Province of Quebec.

13.5 **Notices**

All notices, reports, payments, requests, consents, demands and other communications between McGILL and ADHEREX, pertaining to subjects related to this AGREEMENT, shall be in writing and shall be deemed duly given and effective (A) when actually received by mail or personal delivery, or (B) when mailed by prepaid registered or certified mail to the receiving party at the address set forth below, or to such other address as may be later designated by written notice from either party to the other party:

McGILL's Notification Address:

Director, Office of Technology Transfer, McGill University, 3550 University St., Montreal, QC, H3A 2A7.

ADHEREX's Notification Address:

President, ADHEREX Technologies Inc., 600 Peter Morand Crescent, Suite 340, Ottawa, Ontario K1G 5Z3.

13.6 **Use of Name**

ADHEREX shall not, without prior written consent from McGILL in each specific case, use McGILL's name, trademark(s), or any adaptations thereof.

McGILL shall not, without prior written consent from ADHEREX in each specific case, use ADHEREX's name, trademarks, or any adaptations thereof.

13.7 **Confidentiality**

Each party ("Receiving Party") agrees to keep in strict confidence any information provided by the other party ("Disclosing Party") that is not generally known among or readily accessible to

persons that normally deal with the kind of information in question, that has actual or potential commercial value because of its confidential or secret nature, that Disclosing Party has taken reasonable steps under the circumstances to keep confidential or secret, and that, where disclosed in tangible or electronic form, has been marked or otherwise identified by Disclosing Party, at the time of disclosure, as being “confidential”, “proprietary”, “for internal use only” or with a similar legend, provided that in no event shall the absence of such a mark or legend shall preclude disclosed information which would be considered confidential by a person exercising reasonable business judgement from being treated as confidential by Receiving Party such as, but not limited to, unpatented inventions, know-how, ideas, methods, formulas and all technical, marketing, pricing, financial and other business data and information of the Disclosing Party, (“Confidential Information”).

The Receiving Party shall take reasonable measures to prevent unauthorized access, disclosure, possession, alteration, transfer, use, and reproduction of Disclosing Party’s Confidential Information and, except as may be required for the exercise of its rights or the performance of its obligation hereunder, Receiving Party shall neither disclose Disclosing Party’s Confidential Information to anyone save to officers, directors, employees, or representatives of Receiving Party who need to know such Confidential Information for the purposes of exercising Receiving Party’s rights or performing Receiving Party’s obligations hereunder, provided each person to whom Disclosing Party’s Confidential Information is so disclosed is informed by the Receiving Party of the confidential nature of Disclosing Party’s Confidential Information and undertakes to treat Disclosing Party’s Confidential Information in accordance with the provisions of this Section, nor copy or otherwise use any such Confidential Information without the prior written consent of the Disclosing Party.

The obligations of confidentiality shall not apply to information which (i) is or becomes publicly available through no wrongful act or breach of confidentiality by Receiving Party under this Agreement; (ii) was already in the rightful possession of the Receiving Party prior to its disclosure; (iii) is independently developed by the Receiving Party without use of any Disclosing Party’s Confidential Information; (iv) is or becomes available to the Receiving Party on a non-confidential basis from a source other than the Disclosing Party, provided that such source is not known by the Receiving Party to be subject to any confidentiality obligation towards the Disclosing Party, or (v) is required to be disclosed by law, by the order of a government agency or by a court of competent jurisdiction, provided that the Receiving Party gives prior written notification to the Disclosing Party of its intention to disclose such information.

For more certainty, this agreement and its terms and all information and reports provided to McGILL in the future must be maintained as confidential by both parties, provided that parties may disclose such information to potential business partners, investors or investment bankers that are not Disclosing Party’s competitors nor affiliates or subsidiaries of such Disclosing Party’s competitors, including to their officers, directors, employees or to their attorneys, accountants, financial or other professional advisors which are bound by the law to keep Disclosing Party’s Confidential Information in confidentiality to, at least, the same extent as the Receiving Party in bound to keep Disclosing Party’s Confidential Information in confidentiality hereunder, in connection with the due diligence review of Receiving Party by such business partners, investors, or investment bankers.

13.8 **Language**

This Agreement is drawn up in English at the request of both parties. Les parties aux présentes conviennent que ce document soit rédigé en anglais.

14 SUCCESSORS

This Agreement and the provisions hereof shall enure to the benefit of and shall be binding upon the Parties and their respective successors and permitted assigns.

15 SIGNATURES

IN WITNESS WHEREOF, McGILL and ADHEREX have caused this LICENSE AGREEMENT to be executed in duplicate originals by their duly authorized representative.

For McGILL UNIVERSITY:		For ADHEREX TECHNOLOGIES, INC:	
Pierre Belanger	/s/ Pierre Belanger	John Brooks	/s/ John Brooks
Vice President, Research		CEO	
Date:	February 26, 2001	Date:	February 26, 2001

EXCLUSIVE LICENSE AGREEMENT

THIS LICENSE AGREEMENT (the "Agreement") is made and effective as of the 13th day of April, 2001, (the "Effective Date") by and between RUTGERS, THE STATE UNIVERSITY, having its statewide Office of Corporate Liaison and Technology Transfer at 58 Bevier Road, Piscataway, New Jersey 08854-8010, (hereinafter referred to as "Rutgers") , and OXIQUANT, INC. a Delaware corporation having a principal place of business at 787 Seventh Avenue, New York, NY 10019 (hereinafter referred to as "Licensee").

RECITALS

WHEREAS, Certain inventions disclosed under Rutgers Case No. 99-0041, generally characterized as "Novel Redox Clamping Agents and Uses Thereof", hereinafter collectively referred to as the "Invention", were made in the course of research at Rutgers, The State University of New Jersey, by Drs. Edward J. Yurkow and Fred H. Mermelstein (hereinafter, "Inventors"); and

WHEREAS, Licensee is a "small business firm" as defined in 15 U.S.C. 632; and

WHEREAS, Licensee wishes to obtain certain rights from Rutgers for the commercial development, manufacture, use, and sale of the Invention, and Rutgers is willing to grant such rights on the terms and conditions set forth in this Agreement; and

WHEREAS, Rutgers is desirous that the Invention be developed and utilized to the fullest extent so that the benefits can be enjoyed by the general public.

NOW THEREFORE, the parties agree as follows:

1. DEFINITIONS

1.1 "Affiliate" means any corporation or business entity that directly or indirectly controls, is controlled by, or is under common control with Licensee to the extent or at least 50 percent of the outstanding stock or other voting rights entitled to elect directors.

1.2 "Data" means all information owned or controlled by Rutgers and acquired by Licensee, its Affiliates or its sublicensees directly or indirectly from or through Rutgers, its units, its employees, the Inventors, or its consultants relating to the Invention, Licensed Products, or this Agreement, including but not limited to, all patent prosecution documents and all information received from Inventors.

1.3 "Licensed Field" means the use of the Invention for human therapeutic purposes in the field of oncology.

1.4 "Licensed Method" means any process, method, or use that is covered by Rutgers Patent Rights or whose use or practice would constitute, but for the license granted to Licensee pursuant to this Agreement, an infringement of any issued or pending claim within Rutgers Patent Rights.

1.5 "Licensed Product(s)" means any material or product or kit, or any service, process, or procedure that (i) either is covered by Rutgers Patent Rights or whose discovery, development, registration, manufacture, use, or sale would constitute, but for the license granted to Licensee pursuant to this Agreement, an infringement of any claim within Rutgers Patent Rights or (ii) is discovered, developed, made, sold, registered, or practiced using Licensed Method.

1.6 "Major Market Countries" means the United States of America, France, Germany, Italy, Japan, and the United Kingdom.

1.7 "Net Sales" means the total of the gross consideration received for Licensed Products made, used, leased, transferred, distributed, sold or otherwise disposed of by Licensee, its Affiliates, and its

sublicensees, less the sum of the following actual and customary deductions (net of rebates or allowances of such deductions received) included on the invoice and actually paid: cash, trade, or quantity discounts; returns; sales or use taxes imposed upon particular sales; import/export duties; and transportation charges. In the event Licensee or any of its Affiliates or sublicensees makes a transfer of a Licensed Product to a third party for other than monetary consideration or for less than fair market value, such transfer shall be considered a sale hereunder to be calculated at a fair market value for accounting and royalty purposes. In the event that a Licensed Product comprising a kit is sold in combination with another Licensee product, "Net Sales" for such combination product shall be calculated by utilizing the above definition, but substituting for gross consideration the number calculated by multiplying the gross consideration received for the combination product by a fraction, the numerator of which is the sum of the direct cost of the components and active ingredients of the Licensed Product kit and the denominator of which is the sum of the direct cost of the components and active ingredients of (i) the Licensed Product kit and (ii) the other Licensee product. A Licensed Product shall be deemed leased, transferred, sold, or otherwise disposed of at the time Licensee bills, invoices, ships, or receives payment for such Licensed Product, whichever occurs first.

1.8 "Rutgers Patent Rights" means U.S. Provisional Patent Application Number 60/120, 128 and U.S. Patent(s) issuing thereon and foreign patent (s) and patent application(s) corresponding to all of the foregoing, to the extent owned by Rutgers, including any reissues, extensions (including governmental equivalents thereto), substitutions, continuations, and divisions thereof.

1.9 "Territory" means all countries of the world in which Rutgers has intellectual property rights licensed hereunder, subject to any exclusions provided in this Agreement.

2. GRANT

2.1 Subject to the limitations set forth in this Agreement, Rutgers hereby grants to Licensee an exclusive license under Rutgers Patent Rights in the Licensed Field to make, have made, use, distribute and sell Licensed Products and to practice Licensed method in the Territory during the term of this Agreement.

2.2 If the Invention was funded by the U.S. Government, the license granted hereunder shall be subject to the overriding obligations to the U.S. Government set forth in 35 U.S.C. 200-212 and applicable governmental implementing regulations and to the royalty free non-exclusive licenses thereunder to which the U.S. Government is entitled as well as to any other applicable governmental restrictions, if any.

2.3 Rutgers expressly reserves the right to have the invention and associated intellectual property rights licensed hereunder used solely for educational, research and other non-business purposes.

2.4 To Rutgers' knowledge and belief, based solely on inquiries of it Director of Corporate Liaison and Technology Transfer, Rutgers has all right, title, and interest in and to its ownership interest in the Patent Rights, including exclusive, absolute, irrevocable right, title and interest thereto, free and clear of all liens, charges, encumbrances or other restrictions or limitations of any kind whatsoever, and to Rutgers' knowledge and belief, based solely on inquiries of its Director of Corporate Liaison and Technology Transfer, there are no licenses, options, liens, or threatened legal disputes, proceedings or claims on the Effective Date noticed to the Office of General Counsel of Rutgers or the Rutgers Director of Corporate Liaison and Technology Transfer relating to, or adversely affecting, or limiting its rights or the rights of the Licensee under this Agreement.

2.5 To Rutgers' knowledge and belief, based solely on the inquiries of its Director of Corporate Liaison and Technology Transfer, as of the Effective Date, there is no claim, pending or threatened, of which the Director or the Office of General Counsel of Rutgers has notice, of infringement, interference, or invalidity regarding any part or all of the Patent Rights and their use as contemplated in the underlying patent applications as presently drafted.

3. SUBLICENSES

3.1 Rutgers grants to Licensee the right to grant sublicenses to third parties under any or all of the licenses granted in Article 2, provided Licensee has current exclusive rights thereto under this Agreement at the time it exercises a right of sublicense. To the extent applicable, such sublicense shall include all of the rights of and obligations due to Rutgers (and to the United States Government) that are contained in this Agreement.

3.2 Within thirty (30) days after execution thereof, Licensee shall provide Rutgers with a copy of each sublicense issued hereunder, and shall thereafter collect and guarantee payment of all royalties and other obligations due Rutgers relating to the sublicensees and summarize and deliver all reports due Rutgers relating to the sublicensees.

3.3 Upon termination of this Agreement for any reason, Rutgers agrees to negotiate in good faith, if requested by the sublicensee prior to such termination, a direct license with the sublicensee on commercial terms which shall be equivalent to the commercial terms in the existing sublicense and on other terms consistent and similar to the terms in this Agreement. The sublicense shall be temporarily extended after Agreement termination for a reasonable period, but not to exceed 120 days after Agreement termination, provided that sublicensee agrees in writing that Rutgers shall not assume any liabilities or obligations over and above those contained in the Agreement terms.

4. LICENSE ISSUE FEE, LICENSE MAINTENANCE FEES AND MILESTONE PAYMENTS

4.1 Licensee agrees to pay to Rutgers a License Issue Fee of $5000 within thirty (30) days after the execution of this Agreement. This fee is non-refundable, but may be offset against future running royalties payable hereunder.

4.2 Licensee agrees to pay to Rutgers a License Maintenance Fee on each anniversary of the Effective Date of this Agreement. The initial payment shall be $5000. Each subsequent payment shad increase $5000 so that the payment on the fifth anniversary of the first payment under this Section shall be $25,000. These payments are non-refundable and not creditable against future royalties. On each subsequent anniversary the annual License Maintenance Fee payment shall be $50,000. The $50,000 payments are non-refundable and are creditable against royalties, provided that royalties which would otherwise be due with respect to any annual period, but for the credit, shall not be reduced in any such annual period by more than 50% because of the credit.

4.3 Licensee shall pay to Rutgers Milestone Payment Fees in accordance with the following schedule:

Event	Amount
Completion of first to be conducted Phase I/IIA Clinical Trial or equivalent thereof	$ 25,000 U.S.
Commencement of the first to be conducted Phase III Clinical Trial or the equivalent thereof	$ 50,000 U.S.
Receipt of Market Approval in the first Major Market country	$ 100,000 U.S.
Receipt of Market Approval in the second Major Market country	$ 200,000 U.S.
Receipt of Market Approval in the third Major Market country	$ 300,000 U.S.

These Milestone Payment Fees shall be paid to Rutgers within 30 days after the occurrence of the event set forth on the schedule above and shall not be refundable or creditable against royalties, however, the first payment of $25,000 and the second payment of $50,000 are creditable against payments due to Rutgers pursuant Section 4.4.

For purposes of this Section 4.3, the following terms shall have the following meanings. “Market Approval” means regulatory or other governmental approval to sell any Licensed Product in a country or given territory. “Phase I/IIA Clinical Trial” means a clinical trial performed in compliance with U.S. Food and Drug Administration or corresponding foreign health authority requirements, under a Licensee, designee or sublicensee sponsored IND or equivalent, in a small number of patients to determine the metabolism and pharmacological actions of doses. “Phase III clinical Trial” means a pivotal clinical trial performed in compliance with U.S. Food and Drug Administration authority requirements or corresponding foreign health authority requirements, under a Licensee, designee or sublicensee sponsored IND or equivalent, having a sufficient number of patients to provided statistically significant results regarding safety and efficacy.

4.4 Licensee shall pay to Rutgers 20% of all non-running royalty consideration received by Licensee from sub-licensing or transferring (other than to Affiliates of Licensee) the rights licensed to Licensee hereunder except the following:

(a) consideration constituting any portion of the purchase price for an equity interest in Licensee or any Affiliate of Licensee (provided that assets relating to Licensed Products do not constitute substantially all of the assets of such Affiliates’ business); or

(b) any portion thereof designated in the sublicense agreement to be used by Licensee for its development of Licensed Products and Licensed Methods and actually used for such purpose.

4.5 Simultaneously with the execution of this Agreement, Licensee and Rutgers are entering into a stock purchase agreement (the “Stock Purchase Agreement”) pursuant to which, among other things, in partial consideration for the rights granted by Rutgers to Licensee hereunder, Licensee is issuing to Rutgers certain of its shares of Common Stock of Licensee. Licensee represents and warrants that when the Common Stock is delivered to Rutgers (i) it shall constitute no less than ten percent (10%) of the total authorized shares of all classes of stock of Licensee, fully diluted, (ii) that it shall be free from any claims, security interests or liens and (iii) that Licensee shall have full right and authority to deliver the stock to Rutgers. Rutgers shall have no less rights in and with respect to such Stock than the founders of Licensee have or obtain with respect to their stock, including without limitation, any anti-dilution, events of disposition, registration, notice, or indemnification rights.

5. ROYALTIES

5.1 Except as otherwise required by law, Licensee shall pay to Rutgers a running royalty of four percent (4%) of Net Sates during the term of this Agreement. Sales among Licensee, its Affiliates and its sublicensees for ultimate third party use shall be disregarded for purposes of computing royalties; royalties shall be payable only upon sales or transfers between unrelated third parties and shall be based on arms length consideration.

5.2 Royalties and Rutgers’ share of other sublicensee payments shall be paid to Rutgers semi-annually on or before the following dates of each calendar year:

December 31 June 30

Each such payment will be for unpaid royalties that accrued or other sublicensee payments that were made within Licensee’s most recently completed calendar semi-annual period.

5.3 All amounts due Rutgers shall be payable in United States Dollars in Piscataway, New Jersey. When Licensed Products are sold for monies other than United States Dollars, the earned royalties

will first be determined in the foreign currency of the country in which such Licensed Products were sold and then converted into equivalent United States Dollars. The exchange rate will be the United States Dollar buying rate quoted in the Wall Street Journal on the last day of the reporting period.

5.4 Licensee shall be responsible for any and all taxes, fees, or other charges imposed by the government of any country outside the United States on the remittance of royalty income for sales occurring in any such country. Licensee shall also be responsible for all bank transfer charges.

5.5 If at any time legal restrictions prevent the acquisition or prompt remittance of United States Dollars by Licensee with respect to any country where a Licensed Product is sold, Licensee shall pay royalties due to Rutgers from Licensee's other sources of United States Dollars.

5.6 In the event that any patent or any claim thereof included within the Rutgers Patent Rights shall be held invalid in a final decision by a court of competent jurisdiction and last resort in any country and from which no appeal has or can be taken, all obligation to pay royalties based on such patent or claim or any claim patentably indistinct therefrom shall cease as of the date of such final decision with respect to such country. Licensee shall not, however, be relieved from paying any royalties that accrued before such decision or that are based on, another patent or claim not involved in such decision.

5.7 If a license to the Invention has been granted to the United States Government and if the Invention was funded by the U.S. Government, no royalties shall be payable hereunder on Licensed Products sold to the U.S. Government Licensee and its sublicensees shall reduce the amount charged for Licensed Products sold to the United States Government by an amount equal to the royalty for such Licensed Products otherwise due Rutgers as provided herein.

6. DILIGENCE

6.1 Licensee, upon and after execution of this Agreement, shall use commercially reasonable efforts to develop, test, obtain any required governmental approvals, manufacture, market and sell Licensed Products in all countries of the Territory and shall earnestly and diligently endeavor to market the same within a reasonable time after receipt of marketing and sales approval by a government regulatory agency or authority.

6.2 Licensee shall be entitled to exercise prudent and reasonable business judgment in meeting its diligence obligations in this Article 6, but shall be required to exercise at least the same efforts that a company of similar size and resources would exercise with respect to its own valuable pharmaceutical products in development.

6.3 All Affiliates and sublicensees who perform any development, registration, marketing and sales efforts with respect to Licensed Products shall be obligated to at the least the minimum diligence requirements set out in Sections 6.1 and 6.2 above.

7. PROGRESS AND ROYALTY REPORTS

7.1 Beginning one (1) year after the Effective Date, and annually thereafter, Licensee shall submit to Rutgers a progress report covering Licensee's activities related to the development and testing of all Licensed Products and the obtaining of the governmental approvals necessary for marketing. These progress reports shall be made for each Licensed Product in each country of the Territory. Licensee shall also provide copies to Rutgers in a timely fashion of any other status reports prepared with respect to its development efforts in the ordinary course of business by or on its behalf.

7.2 The progress reports submitted under section 7.1 shall include sufficient information to enable Rutgers to determine Licensee's progress in fulfilling its obligations under Article 6, including, but not limited to, the following topics:

- summary of work completed
- summary of work in progress, including product development and testing and progress in obtaining government approvals

- current schedule of anticipated events or milestones
- general market plans for introduction of Licensed products in countries of the Territory in which Licensed product has not been introduced
- general summary of resources (dollar value) spent in the reporting period for research, development, and marketing of Licensed Products
- summary of activities in obtaining sublicensees and summary of activities of sublicensees
- copies of most recently available audited financial reports or certified financial statements, as the case may be

7.3 Licensee shall have a continuing responsibility to keep Rutgers informed of the large/small entity status (as defined by the United States Patent and Trademark Office) of itself and its sublicensees.

7.4 Licensee shall report to Rutgers in its immediately subsequent progress and royalty report the date of first commercial sale of each Licensed Product in each country.

7.5 After the first commercial sale of a Licensed Product anywhere in the world, Licensee will make semi-annual royalty reports to Rutgers on or before each June 30 and December 31 of each year. Each such royalty report will cover Licensee's most recently completed calendar semi-annual period and will show (a) the units and gross sales and Net Sales of each type of Licensed Product sold by Licensee on which royalties have not been paid, including a clear indication of how Net Sales were calculated; (b) the royalties and fees, in U.S. dollars, payable hereunder, including a breakdown, where more than one patent is licensed hereunder, of how royalty income is allocated among the patents; (c) the method used to calculate the royalty; (d) the exchange rates used, if any; and (d) any other information relating to the foregoing reasonably requested by Rutgers.

7.6 If no sales of Licensed Products have been made during any reporting period subsequent to the first reporting period that commercial sales of a Licensed Product are made, a statement to this effect shall be made by Licensee.

8. BOOKS AND RECORDS

8.1 Licensee shall keep and cause its Affiliates and sublicensees to keep books and records in accordance with generally accepted accounting principles accurately showing all transactions and information relating to this Agreement. Such books and records shall be preserved for at least five (5) years from the date of the entry to which they pertain and shall be open to inspection by representatives or agents of Rutgers at reasonable times upon reasonable notice.

8.2 The fees and expenses of Rutgers' representatives performing such an examination shall be borne by Rutgers. However, if an error in royalties of more than five percent (5%) of the total royalties due for any year is discovered, or if as a result of the examination it is determined that Licensee is in material breach of its other obligations under this Agreement, then the fees and expenses of these representatives shall be borne by Licensee, and Licensee shall promptly reimburse Rutgers for reasonably documented audit expenses as well as all overdue royalty and late interest payments.

9. TERM OF THE AGREEMENT

9.1 Unless otherwise terminated by operation of law or by acts of the parties in accordance with the provisions of this Agreement, this Agreement shall be in force from the Effective Date and shall remain in effect in each country of the Territory until the expiration of the last-to-expire patent licensed under this Agreement in such country.

9.2 Any expiration or termination of this Agreement shall not affect the rights and obligations set forth in the following Articles:

Article 8	Books and Records
Article 12	Disposition of Licensed Products on Hand Upon Termination
Article 13	Use of Names, Trademarks and Confidential Data
Article 18	Indemnification
Article 23	Failure to Perform
Article 27	Confidentiality

10. TERMINATION FOR CAUSE BY EITHER PARTY

10.1 If one party should breach or fail to perform any provision of this Agreement or the Transaction Agreement referenced in Section 4.5 hereof, then the other party may give written notice of such default (Notice of Default) to the breaching party. If the breaching party should fail to cure such default within sixty (60) days of notice thereof, the non-breaching party shall have the right to terminate this Agreement and the licenses herein by a second written notice (Notice of Termination) to the breaching party. If a Notice of Termination is sent to breaching party, this Agreement shall automatically terminate on the effective date of such notice. Termination shall not relieve breaching party of its obligation to pay all amounts due to the non-breaching party as of the effective date of termination and shall not impair any accrued rights of the non-breaching party.

11. VOLUNTARY TERMINATION BY LICENSEE

11.1 Licensee shall have the right at any time to terminate this Agreement in its entirety by giving 90 days' advance notice thereof in writing to Rutgers.

11.2 Any termination pursuant to the above paragraph shall not relieve Licensee of any obligation or liability accrued hereunder prior to such termination or rescind anything done by Licensee or any payments made to Rutgers hereunder prior to the time such termination becomes effective, and such termination shall not affect in any manner any rights of Rutgers arising under this Agreement prior to such termination.

12. DISPOSITION OF LICENSED PRODUCTS AND INFORMATION ON HAND UPON TERMINATION

12.1 Upon termination of this Agreement by either party (i) Licensee shall have the privilege of disposing of all previously made or partially made Licensed Products (Licensee may complete partially made Licensed Products), but no more, within a period of one hundred and eighty (180) days after the initial notice of termination given pursuant to paragraph 10.1 or 11.1 hereunder, provided, however, that the disposition of such Licensed Products shall be subject to the terms of this Agreement including, but not limited to, the payment of royalties at the rate and at the time provided herein and the rendering of reports thereon; and (ii) Licensee shall promptly return, and shall cause its Affiliates and sublicensees to return, to Rutgers all property belonging to Rutgers, if any, that has been provided to Licensee or its Affiliates or sublicensees hereunder, and all copies and facsimiles thereof and derivatives therefrom (except that Licensee may retain one copy of written material for record purposes only, provided such material is not used by Licensee for any other purpose and is not disclosed to others).

13. USE OF NAMES, TRADEMARKS, AND PUBLICATION

13.1 Nothing contained in this Agreement shall be construed as granting any right to Licensee, its Affiliates or sublicensees to use in advertising, publicity, or other promotional activities or otherwise any name, trade name, trademark, or other designation of Rutgers or any of its units (including contraction, abbreviation or simulation of any of the foregoing). Unless required by law or consented to in advance in writing by an authorized representative of Rutgers, the use by Licensee of the name, "Rutgers, The State University" or any campus or unit of Rutgers is expressly prohibited.

13.2 In the event that Rutgers desires to publish or disclose, by written, oral or other presentation, Rutgers Patent Rights which the Inventors reasonably believe jeopardize any proposed patent filings which fall within the Rutgers Patent Rights, Inventors shall notify Licensee and Rutgers in writing by facsimile, where confirmed by the receiving party, and/or by certified or registered mail (return receipt requested) of their intention at least fifteen (15) days prior to any speech, lecture or other oral presentation and at least 60 days before any written or other publication or disclosure. The Inventors shall include with

such notice a written summary description of any proposed oral presentation and in the case of any proposed written or other disclosure, a current draft of such proposed disclosure or abstract. Licensee may request that the Inventors and Rutgers, no later than 15 days following receipt of such notice, delay such publication or disclosure in order to enable Licensee to request that Rutgers file, or have filed on its behalf, an appropriate continuation-in-part to a patent application included in the Rutgers Patent Rights. Upon receipt of such request, Rutgers shall delay any publication or disclosure until such time as Rutgers has filed, or had filed on its behalf, such continuation-in-part of any Rutgers Patent Right which may be appropriate and feasible in accordance with the provisions of Article 15 of this Agreement.

14. LIMITED WARRANTY

14.1 Rutgers warrants to Licensee that it has the lawful right to grant this license and that the Director of the Rutgers' Office of Corporation Liaison and Technology Transfer after inquiry of the Rutgers' Office of the General Counsel has no notice of (i) any infringement or misappropriation by any third party of any of the Rutgers Patent Rights, or (ii) any claim by a third party contesting the validity of the Rutgers Patent Rights, or (iii) any pending or threatened litigation or contested administrative proceeding with respect to the Invention or the Rutgers Patent Rights.

14.2 This license and the associated Invention are provided WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED. RUTGERS MAKES NO REPRESENTATION OR WARRANTY THAT THE LICENSED PRODUCTS OR LICENSED METHODS WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.

14.3 IN NO EVENT WILL RUTGERS BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST PROFITS, RESULTING FROM EXERCISE OF THIS LICENSE OR MANUFACTURE, SALE, OR USE OF THE INVENTION OR LICENSED PRODUCTS OR RUTGERS INTELLECTUAL PROPERTY LICENSED HEREUNDER.

14.4 Nothing in this Agreement shall be construed as:

(14.4a) a warranty or representation by Rutgers as to the validity or scope of any Rutgers Patent Rights; or

(14.4b) a warranty or representation that anything made, used, sold or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of patents or other intellectual property rights of third parties; or

(14.4c) an obligation to bring or prosecute actions or suits against third parties except as provided in Article 17; or

(14.4d) conferring by implication, estoppel or otherwise any license or rights under any patents or other intellectual property of Rutgers other than Rutgers Patent Rights, regardless of whether such patents are dominant or subordinate to Rutgers Patent Rights; or

(14.4e) an obligation to furnish any know-how not provided in Rutgers intellectual property licensed hereunder.

15. PATENT PROSECUTION AND MAINTENANCE

15.1 Rutgers shall diligently prosecute and maintain the United States patent applications and patents comprising Rutgers Patent Rights using counsel of its choice. Rutgers' counsel shall take instructions only from Rutgers. If a change in patent counsel is required as deemed by Rutgers and/or Licensee, Rutgers shall reasonably consult with Licensee with respect to selection of new patent counsel. Selection of new patent counsel shall be reasonably acceptable to both parties. Rutgers shall provide Licensee with copies of all relevant documentation in advance of filing so that Licensee may be informed and apprised of the continuing prosecution and provide consultative comments and suggestions to Rutgers. Licensee agrees to keep this documentation confidential.

15.2 Rutgers shall give due consideration to amending any patent application to include claims reasonably requested by Licensee to protect the Licensed Products contemplated to be sold under this Agreement.

15.3 Rutgers shall cooperate with Licensee in applying for an extension of the term of any patent included within Rutgers Patent Rights if appropriate under the Drug Price Competition and Patent Term Restoration Act of 1984. Licensee shall prepare all such documents, and Rutgers agrees to execute such documents and to take such additional action as Licensee may reasonably request in connection therewith.

15.4 All past, present, and future costs of preparing, filing, prosecuting, defending, and maintaining all United States patent applications and/or patents, including interferences and oppositions, and all corresponding foreign patent applications and patents covered by Rutgers Patent Rights shall be borne by Licensee. Such costs include patent prosecution costs for the Invention incurred by Rutgers prior to the Effective Date of approximately $5700 as of September 14, 2000, based on information currently available to Rutgers, which amount shall be due within thirty (30) days of the Effective Date. Current and future costs shall be payable by Licensee within thirty (30) days of the billing date.

15.5 Rutgers shall, at the request of Licensee, file, prosecute, and maintain patent applications and patents covered by Rutgers Patent Rights in foreign countries if available. Licensee consents to the filing of all PCT and foreign patent applications that have already been filed as of the Effective Date. Licensee shall notify Rutgers by July 15, 2001 its decision to obtain all other foreign patents. This notice shall be in writing and shall identify the countries desired. The absence of such a notice from Licensee shall be considered by Rutgers to be an election not to request foreign rights.

15.6 Licensee's obligation to underwrite and to pay patent prosecution costs shall continue for so long as this Agreement remains in effect, provided, however, that Licensee may terminate its obligations with respect to any given patent application or patent upon three (3) months' prior written notice to Rutgers. Rutgers shall use reasonable efforts to curtail future patent costs when such a notice is received from Licensee. Licensee shall promptly pay patent costs which cannot be so curtailed. Commencing on the effective date of such notice, Rutgers may continue prosecution and/or maintenance of such application(s) or patent(s) at its sole discretion and expense, and Licensee shall have no further right or licenses thereunder.

15.7 Rutgers shall have the right to file patent applications at its own expense in any country or countries in which Licensee has not elected to secure patent rights or in which Licensee's patent rights hereunder have terminated, and such applications and resultant patents shall not be subject to this Agreement and may he freely licensed by Rutgers to third parties.

15.8 Rutgers shall not abandon any patent applications or issued patent comprising a part of the Rutgers Patent Rights or otherwise fail to prosecute diligently or maintain any Rutgers Patent Rights except following at least forty-five (45) days written notice to Licensee, following which Licensee shall have the right, but not the obligation, to commence or continue such prosecution and to maintain any such Rutgers Patent Rights under its own control and expense.

16. PATENT MARKING

16.1 Licensee shall mark all Licensed Products made, used, sold or otherwise disposed of under the terms of this Agreement, and/or their containers, in accordance with the applicable patent marking laws.

17. PATENT INFRINGEMENT

17.1 In the event that Licensee shall learn of the substantial infringement of any patent licensed under this Agreement, Licensee shall notify Rutgers attention in writing and shall provide Rutgers with reasonable evidence of such infringement. Both parties to this Agreement agree that during the period and in a jurisdiction where Licensee has exclusive rights under this Agreement, neither will notify a third party of the infringement of any of Rutgers Patent Rights without first obtaining consent of the other Party,

which consent shall not be unreasonably denied. Both parties shall use their best efforts in cooperation with each other to terminate such infringement without litigation.

17.2 Licensee may request that Rutgers take legal action against the infringement of Rutgers Patent Rights. Such request shall be made in writing and shall include reasonable evidence of such infringement and damages to Licensee. If the infringing activity has not been abated within ninety (90) days following the effective date of such request, Rutgers shall have the right to commence suit on its own account or refuse to commence such suit. Rutgers shall give notice of its election in writing to Licensee by the end of the one-hundredth (100th) day after receiving notice of such request from Licensee. Licensee may thereafter bring suit for patent infringement if and only if Rutgers refuses to commence suit and if the infringement occurred during the period and in a jurisdiction where Licensee had exclusive rights under this Agreement. However, in the event Licensee elects to bring suit in accordance with this paragraph, Rutgers may thereafter join such suit at its own expense.

17.3 Such legal action as is decided upon shall be 80 percent at the expense of Licensee and 20% at the expense of Rutgers if brought by Rutgers and 100% at the expense of Licensee if brought by Licensee. All recoveries recovered thereby shall belong 80% to Licensee and 20% to Rutgers, after each party is first reimbursed out of any proceeds for its reasonable legal expenses.

17.4 Each party agrees to cooperate with the other in litigation proceedings instituted hereunder but at the expense of the party on account of whom suit is brought for out-of-pocket expenses. Such litigation shall be controlled by the party bringing the suit. Each party may be represented by counsel of its choice at its own expense.

18. INDEMNIFICATION AND INSURANCE

18.1 To the maximum extent permitted by law, Licensee shall indemnify, hold harmless and defend Rutgers, its governors, trustees, officers, employees, students, agents and the Inventors against any and all claims, suits, losses, liabilities, damages, costs, fees and expenses (including reasonable attorneys fees) resulting from or arising out of the exercise of the rights granted under this license or any sublicense by or on behalf of Licensee, its Affiliates, sublicensees and their respective customers. This indemnification shall not include any gross negligence and/or willful misconduct by Rutgers. This indemnification shall include, but is not limited to, claims alleging products liability. Notwithstanding the foregoing, Licensee shall not have responsibility to assume the defense of any claim prosecuted against both Licensee and Rutgers to the extent there is an actual or potential conflict of interest requiring separate representation (it being understood that Licensee shall nevertheless remain responsible for indemnifying Rutgers for defense costs to the extent provided herein). In the absence of such a conflict, any separate representation of Rutgers, with respect with respect to such a claim asserted against both Licensee and Rutgers shall be a Rutgers expense.

18.2 Throughout the term of this Agreement and to the extent applicable from and after the date of first commercial sale of a Licensed Product, Licensee shall maintain commercially issued policies of insurance, which provide coverage and limits as required by statute or as necessary to prudently insure the activities and operations of Licensee. The commercial general liability insurance policy, which shall be in effect at least from the time of commencement of the first human clinical trial of a Licensed Product shall include the interests of Rutgers as an additional insured and provide coverage limits of not less than $2,000,000 combined single limits as respects premises, operations, contractual liability and, if applicable, liability arising out of products and/or completed operations. Licensee shall provide Rutgers with certificates of insurance for commercially insured policies.

It is expressly agreed that the insurance requirements are minimum requirements which shall not in any way limit the liability of Licensee and shall be primary coverage. Any insurance or self-insurance program maintained by Rutgers shall be excess and noncontributory.

18.3 Rutgers shall promptly notify Licensee in writing of any claim or suit brought against Rutgers in respect of which Rutgers intends to invoke the provisions of Article 18. Licensee shall keep Rutgers informed on a current basis of its defense of any claims pursuant to Article 18.

19. NOTICES

19.1 Any notice or payment required to be given to either party shall be deemed to have been properly given and to be effective (a) on the date of delivery if delivered in, person, (b) five (5) days after mailing if mailed by first-class certified mail, postage paid and deposited in the United States mail, to the respective addresses given below, or to such other address as it shall designate by written notice given to the other party or (c) on the date of delivery if delivered by express delivery service such as Federal Express or DHL.

In the case of Licensee:	Oxiquant, Inc. c/o Paramount Capital 787 Seventh Avenue New York, NY 10019 Attn: Dr. F. Mermelstein
In the case of Rutgers:	Rutgers, The State University of New Jersey Office of Corporate Liaison and Technology Transfer 58 Bevier Road ASB Annex II Piscataway, NJ 08854-8010 Attention: Director

20. ASSIGNABILITY

20.1 This Agreement is binding upon and shall inure to the benefit of Rutgers, its successors and assigns, but shall be personal to Licensee and assignable by Licensee only with the written consent of Rutgers, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Licensee may, without such consent, assign this Agreement in whole or in part to:

(a) a purchaser, merging or consolidating corporation, or acquiror of substantially all of Licensee's assets or business and/or pursuant to any reorganization of Licensee qualifying under section 368 of the Internal Revenue Code of 1986 as amended, as may be in effect at such time; or

(b) any Affiliate of Licensee so long as Licensee remains responsible as guarantor for the performance of this Agreement.

21. LATE PAYMENTS

21.1 In the event any amounts due Rutgers hereunder, including but not limited to royalty payments, fees and patent cost reimbursements, are not received when due, Licensee shall pay to Rutgers interest charges at a rate of eighteen (18) percent per annum or the highest rate permitted by law, if less than eighteen percent. Such interest shall be calculated from the date payment was due until actually received by Rutgers.

22. WAIVER

22.1 It is agreed that failure to enforce any provisions of this Agreement by a party shall not be deemed a waiver of any breach or default hereunder by the other party. It is further agreed that no express waiver by either party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

23. FAILURE TO PERFORM

23.1 In the event of a failure of performance due under the terms of this Agreement and if it becomes necessary for either party to undertake legal action against the other on account thereof, then the prevailing party shall be entitled to reasonable attorney's fees in addition to costs and necessary disbursements.

24. GOVERNING LAWS

24.1 THIS AGREEMENT SHALL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW JERSEY WITHOUT REGARD TO ITS CONFLICTS OF LAW PROVISIONS, but the scope and validity of any patent or patent application shall be governed by the applicable laws of the country of such patent or patent application.

25. FOREIGN GOVERNMENT APPROVAL OR REGISTRATION

25.1 If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee shall assume all legal obligations to do so and the costs in connection therewith.

26. EXPORT CONTROL LAWS

26.1 Licensee shall observe all applicable United States and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations.

27. CONFIDENTIALITY

27.1 Licensee (i) shall not use any Data or unpublished Rutgers Patent Rights, except for the sole purpose of performing this Agreement, (ii) shall safeguard the same against disclosure to others with the same degree of care as it exercises with its own data of a similar nature, and (iii) shall not disclose or permit the disclosure of Data or unpublished Rutgers Patent Rights to others (except to its employees, agents or consultants who are bound to Licensee and Rutgers by a like obligation of confidentiality) without the express written permission of Rutgers, except that Licensee shall not be prevented from using or disclosing any Data:

(27.1a) which Licensee can demonstrate by written records was previously known to it; or

(27.1b) which is now, or becomes in the future, information generally available to the public in the form supplied, other than through acts or omissions of Licensee; or

(27.1c) which is lawfully obtained by Licensee from sources independent of Rutgers who were entitled to provide such information to Licensee; or

(27.1d) which is required by law to be disclosed.

The obligations of Licensee under this section 27.1 shall remain in effect during the term of this Agreement and for five (5) years from the date of termination or expiration of this Agreement.

28. INFRINGEMENT UNDER DRUG PRICE COMPETITION ACT

28.1 In the event either party receives notice pertaining to any patent included within Rutgers Patent Rights pursuant to the Drug Price Competition and Patent Term Restoration Act of 1984 (Public Law 98-417, hereinafter, “the Act”), including but not necessarily limited to notices pursuant to Sections 101 and 103 of the Act from persons who have filed an Abbreviated New Drug Application (“ANDA”) or a “paper” New Drug Application (“paper NDA”), or in the case of an infringement of Rutgers Patent Rights as defined in Section 271(e) of Title 35 of the United States Code, such party shall notify the other party promptly but in no event later than ten (10) days after receipt of such notice.

28.2 If Licensee wishes action to be taken against such infringement, as provided in the Act, Licensee shall request such action by written notice to Rutgers. Within thirty (30) days of receiving said request, Rutgers will give written notice to Licensee of its election to commence suit on its own account or refuse to commence such suit. Licensee may thereafter bring suit for patent infringement as provided by the Act if and only if Rutgers refuses to commence suit and if the infringement occurred during the period that Licensee had exclusive rights in the United States under this Agreement. However, in the event Licensee elects to bring suit in accordance with this paragraph, Rutgers may thereafter join such suit at its own expense.

28.3 The provisions of paragraphs 17.3 and 17.4 shall likewise apply to any legal action brought under this Article 29.

28.4 Rutgers hereby authorizes Licensee to include in any NDA for a Licensed Product a list of patents included within Rutgers Patent Rights identifying Rutgers as patent owner.

29. MISCELLANEOUS

29.1 The headings of the several articles are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

29.2 This Agreement will not be binding upon the parties until it has been signed below on behalf of each party by a duly authorized representative.

29.3 No amendment or modification hereof shall be valid binding upon the parties unless made in writing and signed behalf of each party by a duly authorized representative.

29.4 This Agreement embodies the entire understanding of the parties and shall supersede all previous and contemporaneous communications, representations or understandings, either oral or written, between the parties relating to the subject matter hereof.

29.5 Licensee shall not enter into any agreements relating to this Agreement with Inventors or other Rutgers employees or students in contravention of the legal rights or policies Rutgers.

29.6 In case any of the provisions contained in this Agreement shall be held to be invalid, illegal or unenforceable in any respect, (i) such invalidity, illegality or unenforceability shall not affect any other provisions hereof, (ii) the particular provision, to the extent permitted by law, shall be reasonably construed and equitably reformed to be valid and enforceable and (iii) this Agreement shall be construed as if such invalid or illegal or unenforceable provisions had never been contained herein.

29.7 Rutgers shall have the right to terminate this Agreement forthwith by giving written notice of termination to Licensee at any time upon or after the filing by Licensee of a petition in bankruptcy or insolvency, or upon or after any adjudication that Licensee is bankrupt or insolvent, or upon or after the filing by Licensee of any petition or answer seeking judicial reorganization, readjustment or arrangement of the business of Licensee under any law relating to bankruptcy or insolvency, or upon or after the appointment of a receiver for all or substantially all of the property of Licensee, or upon or after the making of any assignment or attempted assignment for the benefit of creditors, or upon or after the institution of any proceeding or passage of any resolution for the liquidation or winding up of Licensee’s business or for termination of its corporate life.

29.8 Neither Licensee nor its Affiliates shall, originate any publicity, news release or other public announcement, written or oral, relating to this Agreement or the existence of an arrangement between the parties, except as required by law, without the prior written approval of Rutgers, which approval shall not be unreasonably withheld.

29.9 This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

29.10 Nothing herein shall be deemed to constitute one party as the agent or representative of the other party or both parties as joint venturers or partners. Each party is an independent contractor.

IN WITNESS WHEREOF, both Rutgers and Licensee have executed this Agreement, in duplicate originals, by their duly authorized representatives on the day and year hereinafter written.

Oxiquant, Inc.

by: /s/ Fred H. Mermelstein Date: May 10, 2001

Fred H. Mermelstein, Ph.D.
President

Rutgers, The State University

by: /s/ William T. Adams Date: April 13, 2001

William T. Adams, Director
Office of Corporate Liaison and
Technology Transfer

EXHIBIT 4.4

AMENDMENT NO. 1

THIS Amendment No. 1 (this "Amendment") to that certain License Agreement (the "License Agreement") entered into by and among RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY ("Rutgers") and Oxiquant, Inc. (the "Licensee") dated as of April 13, 2001 is hereby entered into by and between Rutgers and the Licensee this 19th day of November, 2002.

1. In exchange for Five Thousand Dollars ($5,000.00) and other good and valuable consideration, receipt of which is hereby acknowledged by Rutgers, Rutgers and Licensee hereby agree, in accordance with Section 29.3 of the License Agreement, to amend and restate the License Agreement, as set forth in paragraphs 2 and 3 below.

2. Section 4.5 of the License Agreement is hereby amended and restated to read as follows:

"4.5 Simultaneously with the execution of this Agreement, Licensee and Rutgers are entering into a Stock Purchase Agreement (the "Stock Purchase Agreement") pursuant to which, among other things, in partial consideration for the rights granted by Rutgers to Licensee hereunder, Licensee is issuing to Rutgers certain of its shares of Common Stock. Licensee represents and warrants that when the Common Stock is delivered to Rutgers (i) it shall constitute no less than ten percent (10%) of the total issued and outstanding shares of all classes of stock of Licensee, fully diluted, (ii) that it shall be free from any claims, security interests or liens and (iii) that Licensee shall have full right and authority to deliver the stock to Rutgers. Rutgers shall have no less rights in and with respect to such Stock than the founders of Licensee have or obtain with respect to their stock, including without limitation, any anti-dilution, events of disposition, registration, notice, or indemnification rights."

3. Section 1.8 of the License Agreement is hereby amended and restated to read as follows:

"1.8 "Rutgers Patent Rights" shall mean U.S. Provisional Patent Application Number 60/120,128, U.S. Patent Application No. 10/228,644 and U.S. application(s) and patent(s) and foreign application(s) and patent(s) claiming priority thereof, including PCT International Application Number PCT/US00/03878 and all national phase applications thereof or patents issuing on such national applications, to the extent owned by Rutgers, and including any reissues, extensions (including governmental equivalents thereto), reexaminations, substitutions, continuations, and divisions of the foregoing applications and patents."

4. The terms of this Amendment in Section 2 above shall be effective as of April 13, 2001. All terms of the License Agreement not explicitly amended herein shall remain in effect as originally stated in the License Agreement.

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, or caused this Amendment to be duly executed by their respective officers, partners or other representatives, thereunto duly authorized, all as of the day and year first above written.

Licensee		Rutgers, The State University of New Jersey	
By	/s/ Fred Mermelstein	By	/s/ William T. Adams
	(Signature)		(Signature)
Name	Fred Mermelstein	Name	William T. Adams
	(Please Print)		(Please Print)
Title	President	Title	Director, OCLTT
Date	November 20, 2002	Date	November 20, 2002

EXCLUSIVE LICENSE AGREEMENT
BETWEEN OREGON HEALTH & SCIENCE UNIVERSITY
AND
OXIQUANT, INC.

This Agreement, effective as of September 26, 2002, ("Effective Date") is entered into by and between the Oregon Health & Science University ("OHSU"), having offices at 2525 S. W. First Avenue, Suite 120, Portland, Oregon 97201-4753, and Oxiquant, Inc. ("OXIQUANT"), a Delaware corporation, having offices at 787 Seventh Avenue, New York, New York 10019.

1. BACKGROUND

1.01 OHSU owns certain inventions, conceived at OHSU and assigned by the inventors to OHSU as described in Appendix A, wherein such inventions, as well as any related confidential matter, pertain to thiol-based chemoprotectant compounds and chemosensitizers their use in oncology and other disorders, pharmaceutical compositions and other thiol-based technologies (the "Technology").

1.02 OHSU has the right to grant licenses to the Licensed Patents Rights (defined in Section 3.01), subject only to any applicable royalty-free, nonexclusive licenses heretofore granted to the United States Government.

1.03 OHSU desires to have the Licensees Patents Rights utilized in the public interest and is willing to grant a license thereunder.

1.04 OXIQUANT now desires to obtain a license to the Licensed Patents Rights exclusive within the Fields of Use upon the terms and conditions hereinafter set forth.

2. DEFINITIONS

2.01 "Affiliate" means any corporation, company or other legal entity that directly or indirectly controls, or is controlled by, or is under common control with OXIQUANT.

2.02 "First Commercial Sale" means the initial transfer by or on behalf of OXIQUANT or its sublicensees of licensed Products or the initial practice of a Licensed Process by or on behalf of OXIQUANT or its sublicensees in exchange for cash or some equivalent to which value can be assigned for the purpose of determining Net Sates.

2.03 "Government" means the government of the United States of America.

2.04 "Improvements" shall mean any modification of a Licensed Process or Licensed Product or any inventions (whether patentable or not), information and data, in the Field of Use that, during the term of this Agreement, the manufacture use or sale of which would infringe an issued or pending claim within the Licensed Patent Rights.

2.05 "Know-how" shall mean all tangible information (other than those contained in the Patent Rights) whether patentable or not (but which have not been patented) and physical objects related to the Licensed Patents Rights, including but not limited to formulations, materials, data, drawings and sketches, designs, testing and test results, regulatory information of a like nature, owned by OHSU, which OHSU has the right to disclose and license to OXIQUANT, and which arose in one or more of the Principal Investigators' laboratories under the direction of one or more of the Principal Investigators prior to the Effective Date of this Agreement.

2.06 "Patent Rights" shall mean:

a) U.S. and foreign patent applications and patents listed in Appendix A or subsequently added to Appendix A by agreement of the parties, all divisions and continuations of these applications, all patents issuing from such applications, divisions, and continuations, and any reissues, reexaminations, and extensions of all such patents; and

b) to the extent that the following contain one or more claims directed to the invention or inventions claimed in (a) above: (i) continuations-in-part of (a) above; (ii) all divisions and continuations of these continuations-in-part; (iii) all patents issuing from such continuations-in-part, divisions, and continuations; and (iv) any reissues, reexaminations, and extensions of all such patents; and

c) any later-filed foreign patent applications filed by or on behalf of OHSU, to the extent that the claimed subject matter of such applications is the same as the patents or patent applications referred to in (a) above, together with all all divisions and continuations of these applications, all patents issuing from such applications, divisions, and continuations, and any reissues, reexaminations, and extensions of all such patents.

2.07 "Principal Investigators" means the OHSU laboratory of Dr. Edward Neuwelt and the researchers and laboratory personnel under his supervision, while such individuals are in the employment of OHSU.

2.08 "Licensed Product(s)" means tangible materials which, in the course of manufacture, use, sale or importation would be covered, in whole or in part, by one or more claims of the Licensed Patent Rights that have not been held invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.09 "Licensed Process(es)" means processes or methods which, in the course of being practiced would be covered, in whole or in part, by one or more claims of the Licensed Patent Rights that have not been held invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.10 "Net Sales" means the total gross receipts for sales of Licensed Products or practice of Licensed Processes by or on behalf of OXIQUANT, its Affiliates, and/or their sublicensees, and from leasing, renting, or otherwise making Licensed Products or Licensed Processes available to others without sale or other dispositions, whether invoiced or not, less discounts, returns and allowances actually granted to customers and commissions actually paid to third-party distributors and other third-party sales agencies, and freight charges. No deductions shall be made far any cost incurred by OXIQUANT, its Affiliates, and/or their sublicensees related to the research and development of Licensed Products or practice of the Licensed Processes, including, without limitation, any royalties payable to third parties.

2.11 "Fields of Use" means the use of the Technology for all human therapeutic purposes.

2.12 "Trigger Event" means (a) if OXIQUANT shall become bankrupt, or shall file a petition in bankruptcy, or if the business of OXIQUANT shall be placed in the hands of a receiver, assignee or trustee for the benefit of creditors, whether by the voluntary act of OXIQUANT or otherwise, or (b) if OXIQUANT fails to make commercially reasonable efforts to cure any breach by a sublicensee of its agreement with OXIQUANT related to the Licensed Patent Rights, or if after OXIQUANT makes such commercially reasonable efforts and sublicensee is still in breach, OXIQUANT fails to terminate such sublicensee agreement within a reasonable period of time, but in no event longer than one hundred and twenty (120) days.

2.13 "License Period" shall mean the term of this Agreement as set forth in Article 14 of this Agreement.

2.14 "Qualified Financing" shall mean the first sale of equity securities of OXIQUANT that results in gross proceeds to OXIQUANT of not less than $6,000,000, provided that the holders of a majority of the shares issued in the Qualified financing are not Affiliates of OXIQUANT, and provided further, that if the equity security issued in the Qualified Financing is preferred stock, each share issued is convertible into one share of common stock.

2.15 "New Developments" means any inventions (whether patentable or not), information and data in the Field of Use that (a) are developed in one or more of the Principal Investigators laboratories under the direction of one or more of the Principal Investigators, (b) relates directly to the Technology, and (c) do not otherwise constitute an Improvement or Licensed Patent Right.

3. GRANT OF RIGHTS

3.01 OHSU hereby grants to OXIQUANT, and OXIQUANT accepts, subject to the terms and conditions of this Agreement, an exclusive worldwide license, in the Field of Use under the Patent Rights and to utilize the Know-how

and Improvements, throughout the License Period, to (a) make, have made, use, lease, offer for sale, sell and import any Licensed Products and to practice and have practiced any Licensed Processes; and (b) sublicense to third parties, in accordance with Article 4 below, the rights granted under subparagraph (a) of this Paragraph 3.01 (together with (a), the "Licensed Patent Rights").

3.02 For a period of three (3) years after the Effective Date, OXIQUANT will have the first right to negotiate for the license of any additional patent rights arising out of New Developments, subject to any rights previously granted by OHSU to third-parties in the course of conceiving or otherwise acquiring such additional patent rights or New Developments. With respect to each additional New Development to which the right of first negotiation is applicable, OHSU shall notify OXIQUANT of the creation of such New Development. Upon receipt of such notice, OXIQUANT and OHSU shall negotiate in good faith to arrive at terms and conditions (including royalty terms) under which OHSU would license the patent rights to such New Development to OXIQUANT. If, within sixty (60) days after OXIQUANT is provided notice of the New Development from OHSU, the parties do not agree in writing on terms and conditions for the license of the patent rights to such New Development, then the rights of OXIQUANT under this Section 3.02 shall be of no further force or effect with respect to such New Development.

3.03 This Agreement confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of OHSU other than Licensed Patent Rights. Subject to the other provisions of this Agreement (including without limitation the licenses granted in Paragraph 3.01), all intellectual property that each party owns as of the Effective Date of this Agreement, and all intellectual property developed or acquired by each party hereafter (whether or not based on or derived from the Licensed Patents Rights) shall remain the property of such party.

3.04 The Licensed Patent Rights are exclusive in the Field of Use, except that OHSU may use the Licensed Patent Rights and Know-how solely for educational and research purposes (a) by itself or (b) in collaboration with third party academic or non-profit research organizations. Further, the Government may use the Licensed Patent Rights and Know-how as provided for in Paragraph 5.01. OHSU retains the right to use and license the Licensed Patent Rights outside of the Field of Use.

3.05 OHSU hereby warrants and represents that, to the knowledge and belief of the Principal Investigator and the technology transfer office of OHSU, the US and foreign patent applications and patents itemized on Appendix A and described in section 2.06(a) sets forth all of the patents and patent applications relating to the Technology in the Field of Use owned by or licensed by OHSU on the Effective Date, other than the US and foreign patents applications and patents itemized on Appendix B.

3.06 To knowledge and belief of the Principal Investigator and the technology transfer office of OHSU, and excluding any rights granted to the Government or the Principal Investigator that have been disclosed to OXIQUANT, OHSU has all right, title, and interest in and to the Licensed Patent Rights, including exclusive, absolute, irrevocable right, title and interest thereto, free and clear of all liens, charges, encumbrances or other restrictions or limitations of any kind whatsoever and to OHSU's knowledge and belief there are no licenses, options, restrictions, liens, rights of third parties, disputes royalty obligations, proceedings or claims relating to, affecting, or limiting its rights or the rights of OXIQUANT under this Agreement with respect to, or which may lead to a claim of infringement or invalidity regarding, any part or all of the Licensed Patent Rights and their use as contemplated in the underlying patent applications as presently drafted.

3.07 To the knowledge and belief of the Principal Investigator and the personnel of the technology transfer office of OHSU, there is no claim, pending or threatened, of infringement, interference or invalidity regarding, any part or all of the Licensed Patent Rights and their use as contemplated in the underlying patent applications as presently drafted.

4. SUBLICENSING

4.01 OXIQUANT agrees that any sublicenses granted by it shall provide that the obligations to OHSU of Paragraphs 5.01, 5.02, 9.01, 11.01, 11.02, 13.01-13.03, 14.01-14.09, 15.01 and 17.08-17.11 of this Agreement shall be binding upon any sublicensee as if it were a party to this Agreement. OXIQUANT further agrees to attach copies of these Paragraphs to all sublicense agreements. OXIQUANT further agrees that each sublicense shall contain a provision requiring sublicensee to provide reports to OXIQUANT sufficient to permit OXIQUANT to meet its obligations under Article 10 hereof.

4.02 OXIQUANT agrees to prohibit any sublicensee from further sublicensing, without the consent of OXIQUANT.

4.03 Any sublicenses granted by OXIQUANT shall provide for the termination of the sublicense, or the conversion to a license directly between such sublicensees and OHSU, at the option of the sublicensee, upon termination of this Agreement under Article 14. Such conversion is contingent upon acceptance by the sublicensee of the terms of this Agreement; provided, that each such conversion shall be upon substantially the same royalty rates as were in effect between OXIQUANT and the applicable sublicensee prior to conversion.

4.04 OXIQUANT agrees to forward to OHSU a copy of each fully executed sublicense agreement postmarked within thirty (30) days of the execution of such agreement.

4.05 In the event of a default by OXIQUANT under Article 14 hereunder that is not cured pursuant to the terms of this Agreement, all payments then or thereafter due to OXIQUANT from each of its sublicensees shall, upon notice from OHSU to any such sublicensee, become owed directly to OHSU for the account of OXIQUANT; provided that OHSU shall remit to OXIQUANT the amount by which such payments in the aggregate exceed the total amount owed by OXIQUANT to OHSU. Upon cure of the applicable default by OXIQUANT in accordance with the terms and conditions of this Agreement, such direct payment from sublicensee to OHSU shall cease, and OXIQUANT shall receive payment from the sublicensee pursuant to the terms of the sublicense agreement between OXIQUANT and such sublicensee.

4.06 If OXIQUANT enters into sublicenses, OXIQUANT remains primarily liable to OHSU for all of OXIQUANT's duties and obligations contained in this Agreement.

5. STATUORY AND OHSU REQUIREMENTS AND RESERVED GOVERNMENT RIGHTS

5.01 OXIQUANT acknowledges that the Government has provided certain funding support for the invention and development of the Licensed Patents Rights. Accordingly, under 35 U.S.C. 200-212, §37 CFR 401, and any other regulations issued thereunder, as amended, and any other applicable law, regulation or grant, the Government retains certain rights in, and imposes certain conditions on, the Licensed Patents Rights and their use or exploitation, including without limitation the requirement that Licensed Products to be sold or used in the United States must be substantially manufactured in the United States. The license grants under this Agreement are expressly subject to all of such Government rights and conditions, which are hereby incorporated into this Agreement by this reference.

5.02 OXIQUANT agrees that products used or sold in the United States embodying Licensed Products shall be manufactured substantially in the United States, unless a written waiver is obtained in advance from the Government.

6. ROYALTIES AND OTHER CONSIDERATION

6.01 OXIQUANT shall pay, throughout the License Period, royalties to OHSU as set forth below,

a) Two and one-half percent (2.5%) of Net Sales.

b) In the event that a Licensed Product is sold in the form of a combination product containing one or more products or technologies which are themselves not a Licensed Product, the Net Sales for such combination product shall be calculated by multiplying the sales price of such combination product by the fraction A/(A+B) where A is the invoice price of the Licensed Product or the Pair Market Value of the Licensed Product if sold to an Affiliate and B is the total invoice price of the other products or technologies or the Fair Market Value of the other products or technologies if purchased from an Affiliate. However, in no event shall OHSU's royalty be less than one percent (1%) of Net Sales of such combination product.

6.02 Licensee agrees to pay OHSU the following milestone and payments;

a) $5,000 upon execution of this Agreement.

b) $50,000 upon successful completion of Phase I safety trials for any Licensed Product.

c) $200,000 upon successful completion of Phase II clinical trials for any Licensed Product.

d) $500,000 upon successful completion of Phase III clinical trials for any Licensed Product. In the event that any Licensed Product fails Phase III clinical trials, and a substitute product (backup compound) that is also a Licensed Product must be substituted for the same indication, tic additional Phase I or II milestone payments shall be due for such backup compound(s).

e) $260,000 upon First Commercial Sale for any Licensed Product.

f) Milestone payments set forth in Paragraphs 6.02(b)—(d) are nonrefundable, and shall have no credit or offset against future royalties. First Commercial Sale payments set forth in Paragraph 6.02(e) are to be fully credited against future royalties due.

6.03 OXIQUANT shall pay to OHSU a sublicensing fee of fifteen percent (15%) of any monies or other consideration received by OXIQUANT or its Affiliates from any sublicensing of the Licensed Patent Rights, including without limitation any sublicense initiation fees, milestone payments, and any premium on any equity investment by sublicensees. Any non-cash consideration received by OXIQUANT or its Affiliates from such sublicensees shall be valued at its fair market value as of the date of receipt. However, said payments from any sublicensee shall not include consideration received for research & development ("R&D") services, and no amount shall be due to OHSU from OXIQUANT for consideration received for R&D services. This provision shall not be applied to royalty payments received by OXIQUANT from sublicensees as OHSU's royalty for such sales shall be based solely on Paragraph 6.01.

6.04 A claim of a patent or patent application licensed under this Agreement shall cease to fall within the Licensed Patent Rights for the purpose of computing the earned royalty payments in any given country on the earliest of the dates that (a) the claim has been abandoned but not continued, (b) the patent expires, (c) the patent is no longer maintained by OHSU, or (d) the claim of the Licensed Patent Rights has been held to be invalid or unenforceable by an unappealed or unappealable decision of a court of competent jurisdiction or administrative agency.

6.05 No multiple royalties shall be payable to OHSU because any Licensed Products or Licensed Processes are covered by more than one of the Licensed Patent Rights.

6.06 On sales of Licensed Products and Licensed Processes by OXIQUANT to an Affiliate or otherwise in other than an arm's-length transaction, the value of the Net Sales attributed under this Article 6 to such a transaction shall be the greater of the actual sales price and that which would have been received in an arm's-length transaction, based on sales of similar quantity and quality products on or about the time of such transaction. Notwithstanding the foregoing, in no event will OXIQUANT be obligated to pay a royalty on any transaction involving the sale of Licensed Products or Licensed Processes from OXIQUANT to its Affiliate where such transaction occurs for the purpose of effecting a further sale of such Licensed Products or Licensed Processes to a third party which sale will be subject to the payment of royalties hereunder, OXIQUANT shall notify OHSU of its intention to enter into any transaction between OXIQUANT and its Affiliates prior to entering into such transaction.

6.07 Royalties due under this Article 6 shall be paid in U.S. dollars. For conversion of foreign currency to U.S. dollars, the conversion rate shall be the rate quoted in The Wall Street Journal on the last business day of the applicable calendar quarter or half-year, as applicable, that the payment is due. All checks and bank drafts shall be drawn on United States banks and shall be payable to Oregon Health & Sciences University at the address shown on the Signature Page below. Any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by OXIQUANT.

6.08 Amounts which are not paid by their due date and which are not the subject of a bona fide dispute shall accrue interest from the due date until paid, at a rate equal to 1.0 percent per month, subject to applicable usury law.

7. EQUITY

7.01 Issuance of Common Stock

In consideration of the license granted pursuant to this Agreement upon execution of this Agreement, OXIQUANT will issue 250,250 shares of its common stock, par value $0.001 per share (the "Common Stock") to OHSU, and will deliver to OHSU a certificate representing the Common Stock that OHSU is purchasing.

7.02 Additional Issuance of Common Stock

a) In the event that OXIQUANT issues equity securities in the Qualified Financing at a price less than $1.998 per share (appropriately adjusted to reflect any stock splits, reverse splits, stock dividends, recapitalizations and the like), then, simultaneously with the issuance of such shares, OXIQUANT shall issue to OSHU, that number of additional shares of Common Stock equal to the quotient of (i) $500,000 minus the product of 250,250 shares (appropriately adjusted to reflect any stack splits; reverse splits, stock dividends, recapitalizations and the like) and the Qualified Financing Price; divided by (ii) the Qualified Financing Price. The "Qualified Financing Price" shall equal the price per share at which OXIQUANT sells securities in the Qualified Financing, and will take into account all consideration paid by investors in the Qualified Financing and all value received by investors (including, without limitation, warrants) in the Qualified Financing, with the fair market value of non-cash items determined by the good faith judgment of OXIQUANT's board of directors.

b) OXIQUANT shall provide copies of all transaction documents relating to the Qualified Financing to OHSU at least ten business days prior to the closing of the Qualified Financing.

c) The provisions of this Section 7.02 shall terminate in the event of a corporate transaction in which OHSU receives in exchange for its shares of OXIQUANT, cash and/or shares of a publicly traded corporation (including, without limitation a corporation whose shares are traded on the Toronto Stock Exchange) that have an aggregate fair market value of at least $500,000 as determined by the average closing price of the stock for the ten days prior to the execution of a definitive merger or acquisition agreement.

7.03 Representations of OXIQUANT

OXIQUANT hereby represents and warrants to OHSU that:

a) OXIQUANT is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as now conducted and as proposed to be conducted. OXIQUANT is duty qualified to transact business as a foreign corporation in each jurisdiction in which it conducts its business, except where failure to be so qualified would not have a material adverse effect on OXIQUANT's financial condition, business, operations or property.

b) As of the date of this Agreement, the authorized, issued and outstanding capital stock of OXIQUANT, on a fully diluted basis, and including the shares to be issued pursuant to Section 7.01, is 5,005,000 shares of Common Stock, and all issued and outstanding shares of OXIQUANT are validly issued, fully paid and nonassessable. There are no options, warrants, conversion privileges or other rights (or agreements for any such rights) outstanding to purchase or otherwise obtain from OXIQUANT any of OXIQUANT's securities, There exists no obligation (contingent or other) by OXIQUANT to purchase, redeem or otherwise acquire any of its equity securities or any interest therein.

c) All corporate action on the part of OXIQUANT, its officers, directors and stockholders necessary for the authorization, execution and delivery of this Agreement, the performance of all obligations of OXIQUANT hereunder, and the authorization, issuance, sale and delivery of the Common Stock has been taken, and this Agreement constitutes valid and legally binding obligations of OXIQUANT, enforceable in accordance with its terms.

d) OXIQUANT is not in violation or default in any material respect of any provision of its charter or bylaws, of in any material respect of any instrument, judgment, order, writ, decree or contract to which it is a party or by

which it is bound, or, to the best of its knowledge, of any provision of any federal or state statute, rule or regulation applicable to OXIQUANT. The execution, delivery and performance of this Agreement, and the consummation of the transactions contemplated hereby will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either a default under any such provision, instrument, judgment, order, writ, decree or contract or an event that results in the creation of any lien, charge or encumbrance upon any assets of OXIQUANT or the suspension, revocation, impairment, forfeiture, or nonrenewal of any material permit, license, authorization or approval applicable to OXIQUANT, its business or operations or any of its assets or properties.

e) OXIQUANT has provided OHSU with all information OXIQUANT believes is reasonably necessary in connection with OHSU's decision to acquire the Common Stock. To OXIQUANT's knowledge, there are no facts that (either individually or in the aggregate) materially adversely affect the business, assets, financial condition, or prospects of OXIQUANT that have not been disclosed, in writing, to OHSU.

7.04 Representations of OHSU

The Common Stock will be acquired by OHSU for investment purposes only, for an indefinite period of time, for its own account, not as a nominee or agent for anv other entity, and not with a view to the sale or distribution of all or any part thereof, and OHSU has no present intention of selling, granting any participation in, or otherwise distributing, any or all of the common Stock. OHSU does not have any contract, undertaking, agreement or arrangement with any entity to sell, transfer or grant participation to such person, firm or corporation, with respect to any or all of the Common Stock.

7.05 Registration Rights

a) If the board of directors of OXIQUANT shall authorize the filing of a registration statement under the Securities Act of 1933, as amended (the "Act") in connection with the proposed offer of any of OXIQUANT's securities by any of OXIQUANT's stockholders (other than a registration statement on Form S-8 or Form S-4 or any other form which does not include substantially the same information as would be required in a form for the general registration of securities), OXIQUANT will, (i) promptly notify OHSU that such registration statement will be filed and that the common stock then held by OHSU will be included in such registration statement at OHSU's request; (ii) cause the shares requested by OHSU to be included in such registration statement, subject to cut back to the extent reasonably required by OXIQUANT or its underwriters so long as all of OXIQUANT's stockholders with registration rights are cut back in proportion to their holding of OXIQUANT equity securities; (iii) use its reasonable best efforts to cause such registration statement to become effective as soon as practicable and (iv) take all other action necessary under federal or state law or regulation to permit all such registered shares to be sold or otherwise disposed of, and will maintain such compliance with each such federal or state law or regulation for the period necessary for OHSU to effect the proposed sale or other disposition.

b) If OHSU's Common Stock is or becomes freely tradeable without restriction then OHSU shall have no right to the registration rights described in this Section.

c) Notwithstanding paragraph 7.05(a), OXIQUANT may at any time, abandon or delay any registration commenced by it.

7.06 Market Standoff

OHSU agrees that, in connection with the initial underwritten public offering registered under the Act of shares of common stock or other equity securities of OXIQUANT by or on behalf of OXIQUANT, they shall not sell or transfer, or offer to sell or transfer, any equity securities of OXIQUANT not included in such offering far such period as the managing underwriter of such offering determines is necessary to effect the underwritten public offering (not to exceed 180 days) and OHSU further agrees that it will sign an agreement as requested by the managing underwriter of such offering to effect the foregoing. The foregoing provisions of this Section 7.06 shall be applicable to OHSU only if all officers, directors and greater than five percent stockholders of OXIQUANT enter into similar agreements.

8. DOMESTIC AND FOREIGN PATENT FILING, PROSECUTION, AND MAINTENANCE

8.01 OXIQUANT, upon execution of this Agreement, shall reimburse OHSU for all of out-of-pocket expenses OHSU has incurred for the preparation, filing, prosecution and maintenance of Licensed Patent Rights prior to execution of this Agreement and shall reimburse OHSU for all future, reasonable out-of-pocket expenses incurred for the preparation, filing, prosecution and maintenance of Licensed Patent Rights within sixty (60) days from notice to OXIQUANT of reasonable documentation of such expenses by OHSU.

8.02 OHSU shall diligently prosecute and maintain the Licensed Patent Rights as set forth in Appendix A hereto (as the same may be amended or supplemented from time to time after the date hereof). OXIQUANT shall have the right to select OHSU's patent prosecution counsel subject to approval by OHSU, such approval not to be unreasonably withheld. OHSU agrees to instruct patent prosecution counsel to follow any instructions that are simultaneously provided by OXIQUANT to patent prosecution counsel and OHSU, unless OHSU reasonably objects to such instructions within 10 days of the notice of such instructions (provided that such notice period shall be deemed waived to the extent necessary to avoid material prejudice to the Licensed Patent Rights. OHSU agrees to keep OXIQUANT reasonably well informed with respect to the status and progress of any such applications, prosecutions and maintenance activities, including, without limitation, providing a copy to OXIQUANT of all correspondence between patent counsel and the filing offices, and to consult in good faith with OXIQUANT and take into account OXIQUANT's comments and requests with respect thereto. Both parties agree to provide reasonable cooperation to each other to facilitate the application and prosecution of patents pursuant to this Agreement.

8.03 OHSU may, in its discretion, elect to abandon any patent applications or issued patent comprising the Licensed Patent Rights, in which case OXIQUANT shall have no further royalty obligation to OHSU in respect of any Licensed Products and Licensed Processes the manufacture, use or sale of which is covered by an issued claim of such abandoned Licensed Patent Rights. Prior to any such abandonment, OHSU shall give OXIQUANT at least sixty (60) days notice and a reasonable opportunity to take over prosecution of such Licensed Patent Rights. In such event, OXIQUANT shall have the right, but not the obligation, to commence or continue such prosecution and to maintain any such Licensed Patent Rights under its own control and at its expense. OHSU agrees to cooperate in such activities including execution of any assignments or other documents necessary to enable OXIQUANT to obtain and retain sole ownership and control of such Licensed Patent Rights.

8.04 Each party shall promptly inform the other as to all matters that come to its attention that may affect the preparation, filing, prosecution, or maintenance of the Licensed Patent Rights and permit each other to provide comments and suggestions with respect to the preparation, filing, and prosecution of Licensed Patent Rights, which comments and suggestions shall be considered by the other party.

9. RECORD KEEPING

9.01 OXIQUANT agrees to keep, and cause its sublicensees to keep accurate and correct records of Licensed Products made, used, or sold and Licensed Processes practiced under this Agreement appropriate to determine the amount of royalties due OHSU. Such records shall be retained at OXIQUANT's principle place of business and shall be available up to twice per year upon reasonable notice to OXIQUANT, for two (2) years following the end of the calendar year to which they pertain, during normal business hours, for inspection at the expense of OHSU by an accountant or other designated auditor selected by OHSU, except one to whom OXIQUANT has reasonable objection, for the sole purpose of verifying reports and payments hereunder. The accountant or auditor shall only disclose to OHSU information relating to the accuracy of reports and payments made under this Agreement. If an inspection shows an under-reporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then OXIQUANT shall reimburse OHSU for the cost of the inspection at the time OXIQUANT pays the unreported royalties, including any interest charges as required by Paragraph 6.08 of this Agreement. All payments required under this paragraph 9.01 shall be due on the date OHSU provides OXIQUANT notice of the payment due.

10. REPORTS

10.01 Within sixty (60) days from the end of each quarter of each calendar year, OXIQUANT shall deliver to OHSU complete and accurate reports, giving such particulars of the business conducted by OXIQUANT during the preceding

quarter under this Agreement as shall be pertinent to a royalty accounting hereunder. These shall include at least the following:

a) All Licensed Products and Licensed Processes used, leased or sold, by or for OXIQUANT, its Affiliates and its sublicensees.

b) Total amounts invoiced for Licensed Products and Licensed Processes used, leased or sold, by or for OXIQUANT, its Affiliates or sublicensees.

c) Deductions applicable in computed Net Sales.

d) Total royalties due based on Net Sales by or for OXIQUANT, its Affiliates or sublicensees.

e) Total fees due based on sublicensing revenue earned by OXIQUANT or its Affiliates.

f) Details of any non-cash equivalent transactions involving the transfer or other disposition of Licensed Products or practicing of Licensed Processes, as well as non-cash equivalent transactions involving any sublicense of the rights granted to OXIQUANT hereunder, and the method by which OXIQUANT determined the fair market value of the applicable non-cash equivalent consideration.

g) Names and addresses of all sublicensees and Affiliates of OXIQUANT.

h) On an annual basis, OXIQUANT's year-end financial statements.

10.02 With each such quarterly report submitted, OXIQUANT shall pay to OHSU the royalties due and payable under this Agreement, if any.

10.03 OXIQUANT agrees to forward to OHSU annually a copy of any report, which is in substance similar to the report required by this Article 10, received from any sublicensee and other documents received from any sublicensee as OHSU may reasonably request, as may be pertinent to an accounting of fees and royalties.

10.04 OHSU agree to hold in confidence each report delivered by OXIQUANT pursuant to this Article 10 until three (3) year subsequent to the termination of this Agreement. Notwithstanding the foregoing, OHSU may disclose any such information required to be disclosed pursuant to any judicial, administrative or governmental request, subpoena, requirement or order, provided that OHSU take reasonable steps to provide OXIQUANT with prompt notice of such obligation to disclose so that OXIQUANT has the opportunity to contest such request, subpoena, requirement or order.

11. DUE DILIGENCE

11.01 OXIQUANT shall use its reasonable best efforts to introduce the Licensed Products into the commercial market or apply the Licensed Processes to commercial use as soon as practicable. The efforts of a sublicensee shall be considered the efforts of OXIQUANT for the purposes of this Section 11.01.

11.02 Upon the First Commercial Sale until the expiration of this Agreement, OXIQUANT shall use its reasonable best efforts to keep Licensed Products and Licensed Processes reasonably accessible to the public.

12. INFRINGEMENT AND PATENT ENFORCEMENT

12.01 OXIQUANT and OHSU shall promptly provide written notice, to the other party, of any alleged infringement by a third party of the Licensed Patent Rights and provide such other party with any available evidence of such infringement.

12.02 During the term of this Agreement, OXIQUANT shall have the right, but not the obligation, to prosecute and/or defend, at its own expense and utilizing counsel of its choice, any infringement of, and/or challenge to, the Licensed Patent Rights. In furtherance of such right, OXIQUANT hereby agrees that QHSU may join OXIQUANT as a party in

any such suit, without expense to OHSU. No settlement, consent judgment or other voluntary final disposition of any such suit which would adversely affect the rights of OHSU may be entered into without the consent of OHSU, which consent shall not be unreasonably withheld.

12.03 In the event that a claim or suit is asserted or brought against OXIQUANT alleging that the manufacture or sale of any Licensed Product by OXIQUANT, an Affiliate of OXIQUANT, or any sublicensee, or the use of such Licensed Product by any customer of any of the foregoing, infringes proprietary rights of a third party, OXIQUANT shall give written notice thereof to OHSU. OXIQUANT may, in its sole discretion, modify such Licensed Product to avoid such infringement and/or may settle on terms that it deems advisable in its sole discretion, subject to Paragraph 12.02; provided, that OXIQUANT shall not enter into any settlement affecting the validity of the Licensed Patents Rights or that would otherwise have a materially adverse impact on OHSU without OHSU's prior written consent. Otherwise, OXIQUANT shall have the right, but not the obligation, to defend any such claim or suit. In the event OXIQUANT elects not to defend such suit within sixty (60) days after the filing thereof, OHSU shall have the right, but not the obligation to do so at its sole expense.

12.04 Without limiting either party's obligation to cooperate with the other under Section 12.08, OXIQUANT shall take no action to compel OHSU either to initiate or to join in any suit brought under Paragraphs 12.02 or 12.03. OXIQUANT may request OHSU to initiate or join any such suit if necessary to avoid dismissal of the suit. Should OHSU be made a party to any such suit, OXIQUANT shall reimburse OHSU for any costs, expenses, or fees which OHSU incurs as a result of such motion or other action, including any and all costs incurred by OHSU in opposing any such motion or other action.

12.05 Any recovery of damages by OXIQUANT, in any such suit, shall be applied first in satisfaction of any unreimbursed expenses and legal fees of OXIQUANT relating to the suit and then to OHSU for any royalties credited in accordance with Paragraph 12.06. The balance remaining from any such recovery shall be treated as payments received by OXIQUANT from sublicensees and shared by OHSU and OXIQUANT in accordance with Paragraph 6.03 hereof.

12.06 OXIQUANT may credit any litigation costs incurred by OXIQUANT in any country pursuant to this Article 12 and all amounts paid in judgement or settlement of litigation within the scope of this Article 12 against royalties thereafter payable to OHSU hereunder for such country and apply the same toward one-half of its actual, reasonable out-of-pocket litigation costs. If such litigation costs in such country exceeds 50% of royalties payable to OHSU in any year in which such costs are incurred than the amount of such costs, expenses and amounts paid in judgement or settlement, in excess of such 50% of the royalties payable shall be carried over and credited against royalty payments in future years for such country.

12.07 If within six (6) months after receiving notice of any alleged infringement, OXIQUANT shall have been unsuccessful in persuading the alleged infringer to desist, or shall not have brought and shall not be diligently prosecuting an infringement action, or if OXIQUANT shall notify OHSU, at any time prior thereto, of its intention not to bring suit against the alleged infringer, then, and in those events only, OHSU shall have the right, but not the obligation, to prosecute, at its own expense and utilizing counsel of its choice, any infringement of the Licensed Patent Rights, and OXIQUANT may, for such purposes, join OHSU as a party plaintiff. The total cost of any such infringement action commenced solely by OHSU shall be borne by OHSU and OHSU shall keep any recovery or damages for infringement or otherwise derived therefrom and such shall not be applicable to any royalty obligation of OXIQUANT.

12.08 In any suit to enforce and/or defend the Licensed Patent Rights pursuant to this License Agreement, the party not in control of such suit shall, at the request and expense of the controlling party, cooperate in all reasonable respects and, to the extent practicable, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.

13. DISCLAIMER OF WARRANTIES AND INDEMNIFICATION

13.01 Subject to Sections 3.05 through 3.07, OHSU does not warrant the validity of the Licensed Patent Rights and makes no representations whatsoever with regard to the scope of the Licensed Patent Rights, or that the Licensed Patent Rights or Know-How may be exploited without infringing other patents or other intellectual property rights of third parties.

13.02 OHSU MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY SUBJECT MATTER DEFINED BY THE CLAIMS OF THE LICENSED PATENT RIGHTS OR BY THE KNOW-HOW.

13.03 OXIQUANT shaft indemnify and hold OHSU, its directors, trustees, officers, employees, students, fellows, agents, and consultants harmless from and against all liability, demands, damages, expenses, and losses, including but not limited to death, personal injury, illness, or property damage (collectively, "Losses") in connection with or arising out of (a) the use of the Licensed Patent Rights or Know-how by or on behalf of OXIQUANT, its Affiliates, or the sublicensees, agents, independent contractors, directors, employees, or third parties of any of the foregoing, or (b) the design, manufacture, distribution, or use of any Licensed Products, Licensed Processes or materials, or other products or processes developed in connection with or arising out of the Licensed Patent Rights or Know-How, or (c) otherwise arising out of exercise of Licensed Patent Rights granted under this Agreement, to the extent such Losses are not the result of OHSU's gross negligence or willful misconduct or a misrepresentation of the representations set forth in Sections 3.05 through 3.07. OXIQUANT shall, at all times following the Qualified Financing, carry commercial liability insurance or self-insurance sufficient to cover its contractual obligations with respect to activities performed under this Agreement. In no event shall such insurance cover less than $5,000,000 in the aggregate and $2,000,000 per occurrence. OXIQUANT shall cause OHSU to be named as an additional insured on any such policy, and shall cause the applicable insurance provider to notify OHSU of any cancellation of such policy or any reduction in the coverage limits of such policy below those required herein. OXIQUANT shall provide evidence of this coverage to OHSU upon request.

14. TERM, TERMINATION AND MODIFICATION OF RIGHTS

14.01 The term of this Agreement is effective as of the Effective Date and shall extend to the expiration of the last to expire claim contained in the Licensed Patent Rights (the "Term") unless sooner terminated as provided in this Article 14.

14.02 In the event that OXIQUANT is in default in the performance of any material obligations under this Agreement, and if the default has not been remedied within sixty (60) days after the date of notice in writing from OHSU to OXIQUANT of such default, OHSU may terminate the Term by written notice to OXIQUANT.

14.03 OXIQUANT may, upon sixty (60) days written notice to OHSU, terminate this Agreement by doing all of the following:

a) Ceasing to make, have made, use, import, sell and offer for sale any Licensed Products and/or use of Licensed Processes;

b) Terminating all sublicenses, and causing all sublicensees to cease making, having made, using, importing, selling and offering for sale any Licensed Products and/or use of Licensed Processes; and

c) Paying all monies owed to OHSU under this Agreement.

14.04 OHSU shall specifically have the right, but not the obligation, to terminate this Agreement if OHSU determines that: 1) OXIQUANT is more than sixty (60) days late in paying to OHSU any consideration due under this Agreement and OXIQUANT does not immediately pay OHSU in full upon OHSU's written demand, 2) OXIQUANT experiences a Trigger Event, or 3) OXIQUANT materially breaches this Agreement (other than a breach solely under 14.04 (1)) and does not cure the breach within sixty (60) days after written notice of the breach.

14.05 Within ninety (90) days of expiration or termination of this Agreement under this Article 14, a final report shall be submitted by OXIQUANT. Any royalty payments, including those related to patent expense, due to OHSU shall become immediately due and payable upon termination or expiration. If this Agreement is terminated under this Article 14, sublicensees may elect to convert their sublicenses to direct licenses with OHSU subject to Paragraph 4.03.

14.06 Upon termination of this Agreement, OXIQUANT and any sublicensee shall, at OHSU's request, return to OHSU any data generated during the term of this Agreement that will facilitate the development of the technology licensed under this Agreement, provided, however, that OXIQUANT may keep one copy for archival purposes only.

14.07 Upon termination of this Agreement, OXIQUANT shall cause physical inventories to be taken immediately of: (a) all completed Licensed Product(s) on hand under the control of OXIQUANT or any Affiliate or sublicensee; and (b) such Licensed Product(s) as are in the process of manufacture and component parts thereof as of the date of termination of this Agreement, which inventories shall be reduced to writing. OXIQUANT shall deliver copies of such written inventories, verified by an officer of OXIQUANT forthwith to OHSU. OHSU shall have 45 days after receipt of such verified inventories within which to challenge the inventory and request an audit. Upon five days written notice to OXIQUANT, OHSU and its agents shall be given access during business hours to the premises of OXIQUANT or its Affiliates or sublicensees for the purpose of conducting an audit. Upon the termination of this Agreement, OXIQUANT shall, at its own expense forthwith remove, efface or destroy all references to OHSU from all advertising or other materials used in the promotion of OXIQUANT's business or the business of any Affiliate or sublicensee and OXIQUANT and any Affiliate or sublicensee shall not thereafter represent in any manner that it has rights in or to the Licensed Patent Rights or Licensed Product(s) or Licensed Processes.

14.08 Notwithstanding the foregoing, OXIQUANT shall have a period of six (6) months after termination to sell off its inventory of Licensed Product(s) existing on the date of termination of this Agreement and shall pay royalties to OHSU with respect to such Licensed Product(s) within thirty (30) days following the expiration of such six-month period ("Sell Off Right").

14.09 Paragraphs 4.03, 4.05, 6.04-6.08, 7.02, 7,05, 7.06, 9.01, 10.04, 12.01-12.08, 13.01-13.03, 14.05-14.09, 15.01 and 17.01-17.12 of this Agreement shall survive termination of this Agreement. OXIQUANT's obligation to pay all monies owed accruing under this Agreement shall survive termination of this Agreement.

15. CONFIDENTIALITY

15.01 Any proprietary or confidential information (including but not limited to information related to the Patent Rights and Know-how) collectively constitute the "Confidential Information". OXIQUANT and OHSU agree that they will not use the Confidential Information of the other party for any purpose unrelated to this Agreement, and will hold it in confidence during the term of this Agreement and for a period of five (5) years after the termination or expiration date of this Agreement. OXIQUANT shall exercise with respect to OHSU's Confidential Information the same degree of care as OXIQUANT exercises with respect to its own confidential or proprietary information of a similar nature (which in no event shall be less than reasonable care), and shall not disclose it or permit its disclosure to any third party (except to those of its employees, consultants, or agents who are bound by the same obligation of confidentiality as OXIQUANT is bound by pursuant to this Agreement). However, such undertaking of confidentiality by OXIQUANT shall not apply to any information or data which:

a) OXIQUANT receives at any time from a third-party lawfully in possession of same and having the right to disclose same.

b) Is, as of the date of this Agreement, in the public domain, or subsequently enters the public domain through no fault of OXIQUANT.

c) Is independently developed by OXIQUANT as demonstrated by written evidence without reference to information disclosed to OXIQUANT by OHSU.

d) Is disclosed pursuant to the prior written approval of OHSU.

e) Is required to be disclosed pursuant to law or legal process (including, without limitation, to a governmental authority) provided, in the case of disclosure pursuant to legal process, prompt notice of the impending disclosure is provided to OHSU so that OHSU may, in its discretion and at its own cost and expense, contest such disclosure.

16. USE OF NAMES AND PUBLICATION

16.01 Nothing contained in this Agreement shall be construed as granting any right to OXIQUANT or its Affiliates to use in advertising, publicity, or other promotional activities any name, trade name, trademark, or other designation of OHSU

or any of its units (including contraction, abbreviation or simulation of any of the foregoing) without the prior, written consent of OHSU, provided, however, that OHSU acknowledge and agree that OXIQUANT may use the names of OHSU and the names of the Principal Investigators in various documents used by OXIQUANT for capital raising and financing without such prior written consent where the use of such names is required by law and in any such event OXIQUANT shall use reasonable efforts to notify OHSU and the Principal Investigator of any such use prior to the use or, if prior notification is not possible, promptly thereafter. OHSU acknowledge that the Principal Investigators may act as consultants and scientific advisors to OXIQUANT with respect to the licenses granted to OXIQUANT hereunder, subject to the respective policies of OHSU.

16.02 Nothing herein shall be deemed to establish a relationship of principal and agent between OHSU and OXIQUANT, nor any of their agents or employees for any purpose whatsoever. This Agreement shall not be construed as creating a partnership between OHSU and OXIQUANT, or as creating any other form of legal association or arrangement which would impose liability upon one party for the act or failure to act of the other party.

16.03 In the event that OHSU or Principal Investigators desire, individually or as a group, to publish or disclose, by written, oral or other presentation, Know-how, Licensed Patent Rights, or any material information related thereto then OHSU or the Principal Investigator(s) shall notify OXIQUANT and in writing by facsimile where confirmed by the receiving party, and/or by certified or registered mail (return receipt requested) of their intention at least sixty (60) days prior to any speech, lecture or other oral presentation and at least sixty (60) days before any written or other publication or disclosure, The Principal Investigator(s) shall include with such notice a description of any proposed oral presentation or, in any proposed written or other disclosure, a current draft of such proposed disclosure or abstract. OXIQUANT may request that the Principal Investigator(s) and OHSU, no later than thirty (30) days following the receipt of such notice, delay such presentation, publication or disclosure for a period of not more than thirty (30) days, in order to enable OHSU to file, or have filed on their behalf, a patent application, copyright or other appropriate form of intellectual property protection related to the information to be disclosed or request that OHSU do so. Upon receipt of such request to delay such presentation, publication or disclosure, OHSU and the Principal Investigator(s) shall arrange for a delay of such presentation, publication or disclosure for the period requested by OXIQUANT, not to exceed thirty (30) days from the original proposed date of publication or disclosure. If neither the Principal Investigator(s) nor OHSU receive any such request from OXIQUANT to delay such presentation, publication or disclosure, OHSU or the Principal Investigator(s) may submit such material for presentation, publication or other form of disclosure.

17. MISCELLANEOUS PROVISIONS

17.01 Neither party may waive or release any of its rights or interests in this Agreement except in writing. The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

17.02 This Agreement embodies the entire understanding of the parties with regard to the subject matter hereof, and shall supersede all previous communications, representations or understandings, either oral or written, between the parties relating thereto.

17.03 The provisions of this Agreement are severable, and in the event that any provision of this Agreement shall be determined to be invalid or unenforceable under any controlling body of law, such determination shall not in any way affect the validity or enforceability of the remaining provisions of this Agreement.

17.04 If either party desires a modification to this Agreement, the parties shall, upon reasonable notice of the proposed modification by the party desiring the change, confer in good faith to determine the desirability of such modification. No modification will be effective until a written amendment is signed by the signatories to this Agreement or their designees.

17.05 Each party hereby irrevocably consents to the personal jurisdiction and venue of the state and federal courts located in the states of Oregon and New York with respect to any suit, claim, action or other proceeding of any kind arising out of this Agreement or the transactions contemplated hereby. This Agreement shall be governed by the laws of the State of Oregon, without regard to the principle of conflicts of laws to the contrary.

17.06 All notices required or permitted by this Agreement shall be in writing and shall be deemed given if delivered personally or upon obtaining written confirmation of receipt following facsimile transmission, or one (1) business day after being sent by reputable overnight courier service or five (5) business days after being mailed by prepaid, first class, registered or certified mail (return receipt requested), in each case properly sent to the other party at the address or facsimile number designated on the following Signature Page, or to such other address as may be designated by like notice.

17.07 This Agreement and the rights and duties appertaining hereto may not be assigned, directly or by operation of law, by either party without first obtaining the written consent of the other which consent shall not be unreasonably withheld. Any such purported assignment, without the written consent of the other party, shall be null and of no effect. Notwithstanding the foregoing, OXIQUANT may assign this Agreement to a purchaser, merging or consolidating corporation, or acquirer of substantially all of OXIQUANT's assets or business and/or pursuant to any reorganization qualifying under section 368 of the Internal Revenue Code of 1986 as amended, as may be in effect at such time.

17.08 Licensee agrees in its use of any OHSU-supplied materials to comply with all applicable statutes, regulations, and guidelines.

17.09 OXIQUANT acknowledges that it is subject to and agrees to abide by the United States laws and regulations (including the Export Administration Act of 1979 and Arms Export Control Act) controlling the export of technical data, computer software, laboratory prototypes, biological material, and other commodities. The transfer of such items may require a license from the cognizant agency of the Government or written assurances by OXIQUANT that it shall not export such items to certain foreign countries without prior approval of such agency. OHSU neither represents that a license is or is not required or that, if required, it shall be issued.

17.10 QXIQUANT agrees to use its best efforts to mark the Licensed Products or their packaging sold in the United States with all applicable U.S. patent numbers and similarly to indicate "Patent Pending" status. OXIQUANT agrees that it will use its best efforts to mark all Licensed Products manufactured in, shipped to, or sold in other countries in such a manner as to preserve OHSU patent rights in such countries.

17.11 By entering into this Agreement, OHSU does not directly or indirectly endorse any product or service provided, or to be provided, by OXIQUANT whether directly or indirectly related to this Agreement. OXIQUANT shall not state or imply that this Agreement is an endorsement by OHSU, or its employees. Additionally, OXIQUANT shall not use the names of OHSU or their employees in any advertising, promotional, or sales literature without the prior written consent of OHSU. No party hereto may issue a press release regarding this Agreement without obtaining the written consent of the other party and provided, further, that the contents of said press release are mutually agreed to by the parties, except as required by law.

17.12 The parties agree to attempt to settle amicably any controversy or claim arising under this Agreement or a breach of this Agreement.

[SIGNATURES BEGIN ON NEXT PAGE.]

FOR OHSU:

by: /s/ Todd T. Sherer Date: September 26, 2002

Todd T. Sherer, Ph.D.
Director, Technology and Research Collaborations,
Oregon Health & Science University

Mailing Address for Notices:

Technology and Research Collaborations, AD120
Oregon Health & Science university
2525 S.W. First Avenue, Suite 120
Portland, Oregon 97201-4753

FOR OXIQUANT, Inc.

by: /s/ Fred Mermelstein Date: September 26, 2002

Fred Mermelstein, Ph.D.
President

Mailing Address for Notices:

APPENDIX A

Licensed Patent or Patent Applications

Item #	Patent No	Application No.	Serial No.	Country	Title	Inventors	Filing Date	Issue Date	Current Status	Uni Ref No.
1	5,124,146	644,331	N/A	US Int'l	Differential delivery of therapeutic agents across the blood brain barrier	Neuwelt	22-Jan-91	23-Jun-92	Published	OHSU #120
2	N/A	N/A	PCT/US01/40624 WO 01/80832 60/199,936 60/229/870	US Int'l	Administration of a thiol based chemoprotectant compound	Neuwelt	26-Apr-00	N/A	Nationalization due 26 Oct 2002 Draft of claims written to be filed Oct 16	OHSU # 493
2 a)	N/A	N/A	60/229,870	Provisional	Chemoprotectant compounds for protection against organ damage	Neuwelt Muldoon	30-Aug-00	N/A	Pending	OHSU #493 continued
2 b)	N/A	N/A	60/199,936	Provisional	Localised administration of a thiol based chemoprotectant compound against myelosuppression	Newwelt Muldoon Pagel	26-Apr-00	N/A	Pending	OHSU #493 continued
3	N/A	N/A	PCT/USO1/27296 60/229,869	US Int'l	Chemoprotectant for gastric toxicity	Neuwelt Muldoon	30-Aug-00	N/A	Nationalization due Feb 28, 2003	OHSU # 512
3 a)	N/A	N/A	60/229,869	Provisional	Chemoprotectant for gastric toxicity	Neuwelt Muldoon	30-Aug-00	N/A	Pending	OHSU # 512 continued
4	N/A	N/A	In progress	Provisional	Prevention of mucositis and related diseases along the GI tract	Neuwelt	In progress	N/A	In progress	493-B
5	N/A	N/A	Pending	Provisional	Administration of NAC to diminish infarction volume	Neuwelt	20-Sep-02	N/A	Pending	493-A
6	4,800,042	122,027	07/122,027	US Int'l	Method for the delivery of genetic material across the blood brain barrier	Neuwelt	18-Nov-87	12-Sep-89	Published	OHSU # 121
7	5,059,415	314,940	07/314,940	US Int'l	Method for diagnostically imaging lesions in the brain inside a blood brain barrier	Newwelt	21-Feb-89	22-Oct-91	Published	OHSU # 131

APPENDIX B

Patent or Patent Application not included in License

Rem #	Tech ID#	Title	Country	Status	Application Type	File Date	Social Number	Patent No.
1	120	Differential delivery of Therapeutic agents across the	US	Abandoned	Parent	11/18/1987	07/112024	
1a	120	Differential delivery of Therapeutic agents across the	Canada	Abandoned	Foreign non-PCT	11/17/1988	CA/583,428	
1b	120	Differential delivery of therapeutic agents across the	European patent conversion	Abandoned	PCT Regional Phase –BPC	11/17/1998	EP/89905613.6	
1c	120	Differential delivery of therapeutic agents across the	Japan	Abandoned	Nationalized PCT	11/17/1998	500,563/89	
1d	120	Differential delivery of therapeutic agents across the	Patent Cooperation Treaty	Published	PCT	11/17/1988	PCT/US88/04119	
2	121	Method for the delivery of genetic material across the blood brain barrier	US	Published		11/18/1988	PCT/US88/04128	
2	121	Method for the delivery of genetic material across the blood brain barrier	Canada	Abandoned	Foreign non-PCT	11/17/1988	583,427	
2	121	Method for the delivery of genetic material across the blood brain barrier	European	Abandoned	PCT Regional Phase	11/18/1988	89900518	

Rem #	Tech ID#	Title	Country	Status	Application Type	File Date	Social Number	Patent No.
2	121	Method for the delivery of genetic material across the blood brain barrier	Japan	Abandoned	Nationalized PCT	11/18/1988	500,978/89	
3	128	Method for the delivery of therapeutic agents to [____] brain	US	Abandoned	Parent	5/18/1988	07/195,969	
3a	128		US	Abandoned	Continuation	11/20/1990	07/615,716	
3b	128		Patent Conv	Abandoned	PCT	5/16/1989	PCT/USl10	
3c	128		Canada	Abandoned	Nationalized PC	5/12/1989	599,521	
3d	128		European	Abandoned	PCT Regional phase	5/16/1989	89906963	
4	132	Cell surface antigen for binding with L6 mono antibody	US	Abandoned	Parent	5/4/1989	07/348,048	
5	173		US	Expired		12/12/1991	07/607,767	5,200506
5a	173		Canada			5/1/1990	2,015,862	
5b	173		European	Status		5/2/1990	90103158	
5c	173		Japan			5/7/1990	117,296/90	
5d	173		US		C/P	2/22/1990	07/483,512	
6	254	Method for delivery of white blood cells to the CNS for enzyme transfer						
7	295	Iron-Oxide Particles Capable of uptake by Neurons	US	Abandoned	C/P	3/21/1994	06/216,525	

EXHIBIT 4.6

MERGER AGREEMENT

THIS MERGER AGREEMENT dated as of October 2, 2002 (the "Agreement") is made by and among **ADHEREX TECHNOLOGIES INC.**, a corporation amalgamated under the Canada Business Corporations Act ("Adherex"), **ADHEREX, INC.**, a Delaware corporation and a wholly owned subsidiary of Adherex ("Adherex US"), and **OXIQUANT, INC.**, a Delaware corporation (the "Company").

WHEREAS the respective Boards of Directors of Adherex (the "Adherex Board"), Adherex US (the "Adherex US Board") and the Company (the "Company Board") have each determined that it is in the best interests of their respective shareholders and/or stockholders, as may be applicable, for Adherex to acquire the Company upon the terms and subject to the conditions set forth herein;

AND WHEREAS in furtherance of such acquisition, Adherex Board, Adherex US Board and the Company Board have each approved the merger of Adherex US with and into the Company (the "Merger") in accordance with the General Corporation Law of the State of Delaware ("Delaware Law") and upon the terms and subject to the conditions set forth herein;

AND WHEREAS the Stockholder's Representative has been appointed as the representative of the Stockholders (as hereinafter defined) in order to satisfy the requirements of Article IX hereof and the Stockholders' Representative has accepted such appointment;

AND WHEREAS for United States Federal income tax purposes, it is intended that the Merger shall qualify as a reorganization within the meaning of Section 368 of the Tax Code;

AND WHEREAS certain capitalized terms used in this Agreement bear the definitions provided therefor in Section 10.8 hereof;

NOW THEREFORE in consideration of the foregoing and the mutual covenants and agreements herein contained, and intending to be legally bound hereby, Adherex, Adherex US and the Company hereby agree as follows:

ARTICLE I
THE MERGER

1.1 The Merger. At the Effective Time (as defined hereinafter) and subject to, and upon the terms and conditions of, this Agreement and Delaware Law, Adherex US shall merge with and into the Company, the separate corporate existence of Adherex US shall cease and the Company shall continue as the surviving corporation. The Company as the surviving corporation after the Merger is hereinafter sometimes referred to as the "Surviving Company." Following the Merger, the Surviving Company shall be a wholly owned subsidiary of Adherex. It is intended that the Merger constitute a tax-free reorganization under Section 368(a)(2)(E) of the Tax Code and, by executing this Agreement, the parties intend to adopt a plan of reorganization within the meaning of Section 368 of the Tax Code.

1.2 Effective Time. As promptly as practicable after the satisfaction or waiver of the conditions set forth in Article VI hereof, the parties hereto shall cause the Merger to be consummated by filing a Certificate of Merger in the form attached as Exhibit "A" hereto (the "Certificate of Merger") with the Secretary of State of the State of Delaware, in such form as required by, and executed in accordance with the relevant provisions of, Delaware Law (the time of such filing being the "Effective Time").

1.3 Effect of the Merger. At the Effective Time, the Merger shall have all effects as provided in the applicable provisions of Delaware Law. Without limiting the generality of the foregoing, and subject to the provisions of this Agreement, at the Effective Time all the property, rights, privileges, powers and franchises of the Company and Adherex US shall vest in the Surviving Company, and all debts, liabilities, obligations and duties of the Company and Adherex US shall become the debts, liabilities, obligations and duties of the Surviving Company.

1.4 Certificate of Incorporation; By-Laws. Unless otherwise determined by Adherex and the Company prior to the Effective Time, at the Effective Time the Certificate of Incorporation of the Company, as amended pursuant to the Certificate of Merger, shall be the Certificate of Incorporation of the Surviving Company until thereafter amended as provided by law and such Certificate of Incorporation and the By-laws of the Company shall be the By-laws of the Surviving Company until thereafter amended as provided by Delaware Law, the Certificate of Incorporation of the Surviving Company and such By-laws.

1.5 Directors and Officers. The sole director of Adherex US immediately prior to the Effective Time shall be the initial director of the Surviving Company, to hold office in accordance with the Certificate of Incorporation and By-laws of the Surviving Company, and the officers of Adherex US immediately prior to the Effective Time shall be the initial officers of the Surviving Company, in each case until their respective successors are duly elected or appointed and qualified.

1.6 Effect on Company Capital Stock. At the Effective Time and following the Share Consolidation, by virtue of the Merger and, except as provided herein, without any action on the part of Adherex US, Adherex, the Company or the Stockholders, the following shall be deemed to have occurred:

(a) Each share of Common Stock of the Company issued and outstanding immediately prior to the Effective Time, other than shares of Common Stock to be cancelled pursuant to Section 1.6(b) hereof and any Dissenting Shares (as defined and to the extent provided for in Section 1.7 hereof), shall automatically convert into and be exchangeable for: (i) such number of fully paid and non-assessable Common Shares (as defined in Section 3.3 hereof) equal to the product resulting from multiplying one (1) times the Exchange Ratio (such Common Shares, the "Merger Shares"), and (ii) a fully paid and non-assessable warrant, in the form attached hereto as Exhibit "B," to purchase the number of Common Shares equal to the product resulting from multiplying one (1) times the Warrant Exchange Ratio at a price equal to the Warrant Purchase Price (each, a "Merger Warrant" and, together with the Merger Shares, the "Merger Securities");

(b) Each share of Common Stock held in the treasury of the Company and each share of Common Stock owned by Adherex US, Adherex or any direct or indirect wholly owned subsidiary of Adherex or of the Company immediately prior to the Effective Time shall be cancelled and extinguished without any conversion thereof;

(c) Each share of common stock, $.001 par value of Adherex US (the "Subsidiary Common Stock"), issued to Adherex and outstanding immediately prior to the Effective Time, which shall be the only shares of capital stock of Adherex US outstanding prior to the Effective Time and shall be owned by Adherex at the Effective Time, shall be converted into and exchanged for one (1) validly issued, fully paid and non-assessable share of common stock, par value $0.001 per share, of the Surviving Company and shall constitute at the Effective Time all of the issued and outstanding capital stock of the Surviving Company;

(d) The Exchange Ratio and Warrant Exchange Ratio shall be adjusted to reflect fully the effect of any stock split, reverse split, stock dividend (including any dividend or distribution of securities convertible into Common Shares), reorganization, recapitalization or other like change with respect to Common Shares occurring after the Effective Time; and

(e) No fraction of a Merger Share will be issued, but rather the number of Merger Shares to which any Stockholder is entitled shall be rounded down to the nearest whole share.

1.7 Dissenting Shares. Notwithstanding any provisions of this Agreement to the contrary, any shares of capital stock of the Company outstanding immediately prior to the Effective Time held by any person that has not consented to the Merger and has demanded and perfected such person's right of appraisal of such shares in accordance with Delaware Law and who, as of the Effective Time, has not effectively withdrawn or lost such right to appraisal (such person a "Dissenting Stockholder" and such shares, the "Dissenting Shares"), shall not be converted into or represent a right to receive Merger Securities pursuant to Section 1.6 hereof, but such holder shall only be entitled to such rights as are granted by Delaware Law. Notwithstanding the foregoing, if any holder of shares of capital stock of the Company who demands appraisal of such Dissenting Shares under Delaware Law shall effectively withdraw or lose (through failure to perfect or otherwise) such holder's right to appraisal, then, as of the later of the Effective Time or the occurrence of such event, such holder's shares shall automatically be converted into and represent only the right to receive Merger Securities pursuant to Section 1.6 hereof, without interest thereon, upon surrender of the certificate or certificates representing such shares. The Company shall give Adherex prompt notice of any written demands for appraisal of any shares of capital stock of the Company, withdrawals of such demands and any other instruments served pursuant to Delaware Law and received by the Company. The Company shall give to Adherex the opportunity to participate in all negotiations and proceedings with respect to demands for appraisal under Delaware Law hereunder. The Company shall not, except with the prior written consent of Adherex (which consent shall not be unreasonably withheld), voluntarily make any payment with respect to any demands for appraisal of any capital stock of the Company or offer to settle or settle any such demands.

1.8 Surrender of Company Certificates.

(a) Prior to the Effective Time, Adherex shall designate a bank or trust company (or other person acceptable to Adherex and the Company) to act as exchange agent (the "Exchange Agent") in the Merger, which may be its registrar and transfer agent.

(b) At the Effective Time, Adherex shall make available to the Exchange Agent for exchange in accordance with this Article I, through such reasonable procedures as Adherex may adopt, the Merger Securities issuable pursuant to Section 1.6 hereof in exchange for outstanding shares of Common Stock.

(c) Promptly after the Effective Time, Adherex shall cause the Exchange Agent to mail to each holder of record of a certificate or certificates (the "Company Certificates") which immediately prior to the Effective Time represented outstanding shares of Common Stock whose shares were converted into the right to receive Merger Securities pursuant to Section 1.6 hereof:

(i) a letter of transmittal (which shall specify that delivery shall be effected, and risk of loss and title to the Company Certificates shall pass, only upon delivery of the Company Certificates to the Exchange Agent and shall be in such form and have such other provisions as Adherex may reasonably specify); and

(ii) instructions for use in effecting the surrender of the Company Certificates for cancellation to the Exchange Agent or to such other agent or agents as may be appointed by Adherex. Upon surrender of the Company Certificates to the Exchange Agent, together with such letter of transmittal, duly completed and validly executed in accordance with the instructions thereto, the holder of such Company Certificate shall be entitled to receive in exchange therefor a certificate representing the number of whole Merger Shares and Merger Warrants which such holder has the right to receive pursuant to Section 1.6 hereof (the "Adherex Certificates"), and the Company Certificate so surrendered shall forthwith be cancelled. Until so surrendered, each outstanding Company Certificate that, prior to the Effective Time, represented shares of Common Stock will be deemed from and after the Effective Time, for all corporate purposes to evidence the ownership of the number of Merger Securities into which shares of Common Stock shall have been so converted in accordance with Section 1.6 hereof.

(d) No dividends or other distributions declared or made after the Effective Time with respect to Common Shares with a record date on or after the Effective Time will be paid to the holder of any unsurrendered Company Certificate with respect to Merger Shares represented thereby until the holder of record of such Company Certificate shall surrender such Company Certificate. Subject to applicable law, following surrender of any such Company Certificate, there shall be paid to the record holder of the certificates representing whole Merger Shares issued in exchange therefor, without interest, at the time of such surrender, the amount of dividends or other distributions with a record date after the Effective Time theretofore paid with respect to such Merger Shares.

(e) If any certificate for Merger Shares or Merger Warrants is to be issued in a name other than that in which the Company Certificate surrendered in exchange therefor is registered, it will be a condition of the issuance thereof that (i) the Company Certificate so surrendered will be properly endorsed and otherwise in proper form for transfer, (ii) that the person requesting such exchange will have paid to Adherex, or any agent designated by it, any transfer or other taxes required by reason of the issuance of a certificate for Merger Shares or Merger Warrants in any name other than that of the registered holder of the certificate surrendered, or established to the satisfaction of Adherex or any agent designated by it that such tax has been paid or is not payable and (iii) that an opinion shall have been delivered to Adherex on behalf of the transferor to the effect that such transfer will not violate any applicable securities laws.

(f) Notwithstanding anything to the contrary in this Section 1.8, none of the Exchange Agent, the Surviving Company or any party hereto shall be liable to a Stockholder for any amount properly paid to a public official pursuant to any applicable abandoned property, escheat or similar law.

1.9 No Further Ownership Rights in Common Stock. All Merger Securities issued upon the surrender for exchange of shares of Common Stock in accordance with the terms hereof shall be deemed to have been issued in full satisfaction of all rights pertaining to such shares of Common Stock, and there shall be no further registration of transfers on the records of the Company of shares of Common Stock which are outstanding immediately prior to the Effective Time. If, after the Effective Time, Company Certificates are presented to the Surviving Company for any reason, they shall be cancelled and exchanged for Merger Securities as provided in this Article I and appropriately entered into the stock ledger of the Surviving Company.

1.10 Lost, Stolen or Destroyed Company Certificates. In the event any Company Certificates shall have been lost, stolen or destroyed, the Exchange Agent shall issue in exchange for such lost, stolen or destroyed certificates, upon the making of an affidavit of that fact by the holder thereof and providing such indemnity as required by the Exchange Agent, such Merger Securities, as may be required pursuant to Section 1.6 hereof, provided, however, that Adherex may, if required by the Exchange Agent and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificates to deliver a bond in such sum as the Exchange Agent may direct as indemnity against any claim that may be made against Adherex or the Exchange Agent with respect to the certificates alleged to have been lost, stolen or destroyed.

1.11 Taking Necessary Action; Further Action. If, at any time after the Effective Time, any such further action is necessary or desirable to vest the Surviving Company with full right, title and possession to all assets, property, rights, privileges, powers and franchises of the Company and Adherex US, the officers and directors of the Surviving Company are fully authorized in the name of the Company and Adherex US to take, and will take, all such lawful and necessary action.

ARTICLE II
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

In order to induce each of Adherex and Adherex US to enter into this Agreement and consummate the transactions contemplated hereby, the Company hereby represents and warrants to Adherex and Adherex US as follows:

2.1 Organization and Good Standing. The Company is a corporation duly incorporated, organized, validly existing and in good standing under Delaware Law. The Company has all requisite corporate power and authority to own or lease and operate its properties, to carry on its business as presently conducted. The Company is duly licensed or qualified to do business as a foreign corporation in each jurisdiction wherein the character of its property or the nature of the activities presently conducted by it, makes such qualification necessary, except where the failure to be so licensed or qualified would not have, or be reasonably likely to have, a Material Adverse Effect. The Company is not in violation of any term or provision of its certificate of incorporation (the "Certificate of Incorporation") or by-laws (the "By-Laws") as in effect as of this date. The Company is not subject to any reporting requirements of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act").

2.2 Authorization and Non-Contravention. This Agreement is a valid and binding obligation of the Company, enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, moratorium, reorganization or similar laws, from time to time in effect, which affect enforcement of creditors' rights generally. The Company has all requisite corporate power and authority to execute and deliver this Agreement and to consummate the transactions contemplated hereby. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate or other action of the Company and no other corporate proceedings on the part of the Company are necessary to approve this Agreement and to consummate any of the transactions contemplated hereby, other than the adoption of this Agreement by the Stockholders in accordance with Delaware Law. The Company Board has, as of the date hereof, approved and deemed this Agreement to be advisable and determined that the Merger is fair to and in the best interest of the Company and the Stockholders. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby will not: (a) violate, conflict with or result in a default under any contract or obligation to which the Company is a party or by which it or its assets are bound, or any provision of the Certificate of Incorporation or By-Laws, or cause the creation of any lien or encumbrance upon any of the assets of the Company, except

for those which would not have, or be reasonably likely to have, a Material Adverse Effect; (b) violate or result in a violation of, or constitute a default (whether after the giving of notice, lapse of time or both) under, any provision of any law, regulation or rule, or, to the knowledge of the Company, any order of, or any restriction imposed by any court or other governmental agency applicable to any of the Company, except for those which would not have, or be reasonably likely to have, a Material Adverse Effect; (c) require from the Company any notice to, declaration or filing with, or consent or approval of any governmental authority or other third party other than pursuant to applicable securities laws (including, without limitation, U.S. "blue sky" laws); or (d) accelerate any obligation under, or give rise to a right of termination of, any agreement, permit, license or authorization to which the Company is a party or by which it is bound, except for those which would not have, or be reasonably likely to have, a Material Adverse Effect.

2.3 Authorized and Outstanding Shares. As of the date hereof, the authorized capital of the Company consists of 10,000,000 shares of common stock, par value $.001 (the "Common Stock"), and 5,000,000 shares of preferred stock. As of the date hereof, there are (i) 5,255,000 shares of Common Stock, all of which are validly issued and outstanding and none of which are subject to escrow or pooling agreements, and (ii) no shares of preferred stock issued or outstanding. All of the issued and outstanding shares in the capital stock of the Company have been offered, issued and sold in compliance with applicable securities laws. As of the date hereof, the issued and outstanding shares in the capital stock of the Company are held beneficially and of record by the persons identified in Schedule 2.3 hereto in the amounts indicated thereon. All of the issued and outstanding shares of Common Stock were duly authorized and validly issued and are fully paid and non-assessable and are fee of any liens or encumbrances created by or resulting from the actions of the Company and are not subject to pre-emptive rights or rights of first refusal created by statute, the Certificate of Incorporation, the By-Laws or any agreement to which the Company is a party or by which it is bound. None of the shares of Common Stock are listed on any stock exchange.

2.4 Options, etc. Schedule 2.4 hereto sets forth the name of each holder of subscriptions, options, warrants, convertible securities, calls, commitments, agreements or obligations or any character or rights or obligations capable of becoming any of the foregoing, calling for the purchase, redemption or issuance of any shares of capital stock of the Company and any other securities of the Company or otherwise exercisable or exchangeable into shares of capital stock of the Company (collectively, "Rights"), the number and class or series of shares of capital stock for which such Rights are so exercisable or exchangeable with respect to each holder, along with the applicable vesting schedule, if any, and the exercise price thereof. All of the issued and outstanding Rights have been offered, issued and sold in compliance with applicable securities laws. Except as disclosed in Schedule 2.4 or otherwise reflected on Schedule 2.3, there are no outstanding subscriptions, options, warrants, agreements, arrangements or commitments of any kind for or relating to the issuance, or sale of, or outstanding securities convertible into or exchangeable for, any shares of capital stock of any class or other equity interests in the Company.

2.5 Agreements with Stockholders. Except as set forth in Schedules 2.4 or 2.5 hereto: (i) the Company does not have any obligation to purchase, redeem, or otherwise acquire any shares of capital stock of the Company or any interests therein or to pay any dividend or to make any distribution in respect thereof; (ii) there are no pre-emptive rights, rights of first refusal, put or call rights or obligations or anti-dilution rights with respect to the issuance, sale or redemption of any shares of capital stock of the Company. Except as set forth on Schedule 2.4, there are no rights to have shares of capital stock of the Company registered for sale to the public pursuant to the laws of any jurisdiction, and there are no agreements of which the Company is aware relating to the voting of the Company's voting securities or restrictions on the transfer of shares of capital stock of the Company.

2.6 Subsidiaries. The Company does not own or control, directly or indirectly, any interest in any other corporation, partnership, limited liability company, association or other business entity.

2.7 Financial Statements. The Company has delivered to Adherex and Adherex US those financial statements copies of which are attached hereto as Schedule 2.7 hereto (collectively, the "Financial Statements"). The Financial Statements have been prepared in accordance with United States generally accepted accounting principles as in effect from time to time ("US GAAP"), applied consistently during the periods covered thereby, and present fairly in all material respects the financial condition of the Company at the dates of said statements and the results of its operations for the periods covered thereby.

2.8 Absence of Undisclosed Liabilities. Except as stated or adequately reserved against in the Financial Statements, incurred as a result of or arising out of the transactions contemplated under the Transaction Documents or as set forth in Schedule 2.8 hereto, the Company does not have any liability or obligation of any nature, whether accrued, absolute, contingent or otherwise, asserted or unasserted, known or unknown, in any case which has, or is reasonably likely to have, a Material Adverse Effect. The Company has not assumed, guaranteed, endorsed or otherwise become directly or contingently liable on or for any indebtedness of any other person.

2.9 Absence of Certain Developments. Since December 31, 2001, except as set forth on Schedule 2.9, the Company has conducted its business only in the ordinary course consistent with past practice and except for general industry and economic conditions, there has been (a) no change in the respective condition (financial or otherwise) of the Company, or in the assets, liabilities, business or prospects of the Company that has or is reasonably likely to have a Material Adverse Effect, (b) no declaration, setting aside or payment of any dividend or other distribution with respect to, or any direct or indirect redemption or acquisition of, any of the shares of capital stock of the Company, (c) no issuance of any shares of the capital stock of the Company or any direct or indirect redemption, purchase or other acquisition of any of the capital stock or other equity securities of the Company, (d) no waiver of any valuable right of the Company or cancellation of any material debt or claim held by the Company, (e) no discharge or satisfaction by the Company of any material lien or encumbrance or payment by the Company of any obligation or liability (fixed or contingent), (f) no material increase in the compensation paid or payable to any officer, director, employee or agent of the Company, (g) no material loss, destruction or damage to any property of the Company, whether or not insured, (h) no material labour dispute involving the Company and no material change in the personnel of the Company, or the terms and conditions of their employment, (i) no acquisition or disposition of any assets (or any contract or arrangement therefor), including any of the Intellectual Property Rights (as defined in Section 2.13 hereof) other than in the ordinary course of the Company's business, nor any other transaction by the Company otherwise than for fair value in the ordinary course of its business, (j) no change in accounting methods or practices of the Company, (k) no loss, or any development that is expected to result in a loss, of any significant supplier, customer, distributor or account of the Company (other than the completion in the ordinary course of business of specific projects for customers), (l) no amendment or termination of any contract or agreement to which the Company is a party or by which it is bound, and (m) no commitment (contingent or otherwise) to do any of the foregoing.

2.10 Litigation. Except as set forth on Schedule 2.10, to the knowledge of the Company, there is no litigation, arbitration or governmental proceeding or investigation pending or threatened, by or against the Company, or affecting any of the properties or assets of the Company, or against any officer, key employee or Stockholder of the Company in such person's capacity as such, nor, to the knowledge of the Company, has there occurred any event nor does there exist any condition on the basis of which any litigation, proceeding or investigation might properly be instituted with any chance of recovery where

such recovery could have a Material Adverse Effect. Neither the Company nor any officer, key employee or Stockholder thereof in such person's capacity as such is, to the knowledge of the Company, subject to any order, writ, injunction, decree, ruling or decision of any court, commission, board or other government agency.

2.11 Tax Matters.

(a) The Company has paid all federal, provincial, state, local, foreign (including, without limitation, any taxes due in any U.S. jurisdiction) or other taxes, including, without limitation, and where applicable, gross or net income taxes, capital taxes, excise taxes, sales taxes, use taxes, goods and services, harmonized sales, gross receipts taxes, franchise taxes, net worth taxes, employment and payroll related taxes, withholding taxes, stamp taxes, transfer and property taxes, value-added taxes, unemployment insurance, severance, health insurance and Canada and Quebec and other government pension plan premiums or contributions, or other tax of any kind whatsoever, including any liability therefor as a transferee under Section 6901 of the Tax Code or any similar provision of applicable laws, as a result of Treasury Regulation §1.1502-6 of the U.S. Internal Revenue Service or any similar provision of applicable laws or as a result of any tax sharing or similar agreement together with any interest, penalty, fine or addition thereto, whether disputed or not (collectively, "Taxes"), required to be paid by it through the date hereof, whether or not assessed by the appropriate governmental authority, and has fully provided for any Taxes not yet due in the books and records and financial statements, as applicable, of the Company.

(b) All Taxes and other assessments and levies that the Company is required to withhold or collect have been withheld and collected and have been paid over to the proper governmental authorities when due.

(c) The Company has, in accordance with applicable law, timely (taking into consideration all extensions) and properly filed all federal, provincial, state, local and foreign tax returns (including, without limitation, any U.S. federal, state or local tax returns), declarations, reports, claims for refund, information returns or statements and any schedule or amendment thereto relating to Taxes or required to be filed by any taxing authority in connection with the determination of any Tax (collectively, "Tax Returns") required to be filed by it through the date hereof. All such Tax Returns were correct and complete in all material respects and included all income and other amounts and information required to be reported thereon.

(d) Neither the Canada Customs and Revenue Agency, the U.S. Internal Revenue Service nor any other taxing authority is now asserting or, to the knowledge of the Company, threatening to assert against the Company any deficiency or claim for additional Taxes and there are no matters under discussion, audit or appeal with any relevant governmental authority. No issue relating to the Company or involving any Tax for which the Company might be liable has been resolved in favour of any taxing authority in any audit or examination which, by application of the same principles could reasonably be expected to result in a deficiency for Taxes for any other period.

(e) The Company files Tax Returns in all jurisdictions where it is required to so file. No claim has ever been made in writing by an authority in a jurisdiction where the Company does not file Tax Returns that it is or may be subject to taxation by that jurisdiction.

(f) The Company has not waived any statute of limitations in respect of Taxes or agreed to any extension of time with respect to payment or collection of any Tax, filing of a Tax Return, or with respect to any Tax assessment or deficiency and no power of attorney granted by or with respect to the Company relating to Taxes is currently in force.

(g) There are no liens or other security interests encumbering any of the assets of the Company that arose in connection with any failure (or alleged failure) to pay any Taxes (except where such security interests arise as a matter of law prior to the due date for paying the related Taxes).

(h) Except as set forth in Schedule 2.11(h) hereto, there has never been any audit of any Tax Return filed by the Company, no such audit is in progress to the knowledge of the Company, and the Company has not been notified by any tax authority that any such audit is contemplated or pending. The Company has delivered to Adherex true, complete and correct copies of all income Tax Returns, audit reports and statements of deficiencies filed or issued to or with respect to the Company (or, insofar as such items relate to the Company, by or to any affiliated, consolidated, combined or unitary group of which the Company was then a member) since its date of inception.

(i) The unpaid Taxes of the Company (i) did not, as of the Financial Statements, exceed the reserve for Tax liability (other than any reserve for deferred taxes established to reflect timing differences between book and tax income) set forth on the face of the Financial Statements (other than in any notes thereto) and (ii) do not exceed that reserve as adjusted for the passage of time through the date hereof in accordance with US GAAP and the past custom and practice of the Company in filing its Tax Returns.

(j) The Company is not and has never been (i) a member of any affiliated group filing or required to file a consolidated, combined, or unitary Tax Return or (ii) a party to or bound by, nor does it have or has it ever had any obligation under, any Tax sharing agreement or similar contract or arrangement. The Company does not have any liability for the Taxes of any other person under Treasury Regulation §1.1502-6 of the U.S. Internal Revenue Service (or any similar provision of state, local, or foreign law), as a transferee or successor, by contract, or otherwise.

(k) The Company has not distributed to its Stockholders or security holders stock or securities of a controlled corporation in a transaction to which Section 355 of the Tax Code applies (x) in the two years prior to the date of this Agreement or (y) in a distribution which could otherwise constitute part of a “plan” or “series of related transactions” (within the meaning of Section 355(e) of the Tax Code) that includes the transactions contemplated by this Agreement.

(l) The Company is not a party to any contract or agreement, plan, or arrangement concerning any person that, individually or collectively with other similar agreements, could reasonably be expected to give rise to the payment of any amount that would not be deductible by the Company by reason of Section 280G of the Code.

(m) The Company is not and has not been during the applicable period specified in Section 897(c)(1)(A)(ii) of the Tax Code, a United States real property holding corporation within the meaning of Section 897(c)(2) of the Tax Code.

(n) No Stockholder holds any Common Stock which is subject to a substantial risk of forfeiture (within the meaning of Section 83 of the Tax Code) with respect to which a valid election under Section 83(b) of the Tax Code has not been made, and no payment to any Stockholder of any portion of the consideration payable pursuant to this Agreement to the holders of Common Stock will result in compensation or other income to such Stockholder with respect to which Adherex or the Company would be required to deduct or withhold any Tax.

(o) The Company has not used the installment method to defer any material liability for Taxes to any taxable period ending after the Effective Time, and the Company is not required to make any adjustments pursuant to Section 481 of the Tax Code or any similar provision of state or local law. There is no limitation on the utilization by the Company of its net operating losses, built-in losses, tax credits or other similar items under Section 382, 383, or 384 of the Tax Code.

2.12 Title to Properties. Schedule 2.12 hereto lists all real and personal property used in or necessary to the conduct of the business of the Company that had an original purchase price of at least $5,000 and that has been acquired since December 31, 2001. The Company has good and marketable title of record to all of its owned real property and a valid and enforceable leasehold interest in all of its leased real property, free and clear of all liens, restrictions and encumbrances. Subject to any encumbrances thereon disclosed in Schedule 2.13(a) hereto, the Company has good title to or a valid and enforceable leasehold interest in all personal property used in or necessary to its business, and the same is in good condition and repair in all material respects (ordinary wear and tear excepted). The Company is not in violation of any zoning, building or safety ordinance, regulation or requirement or other law or regulation applicable to the operation of its owned or leased properties, except for violations which, singly or in the aggregate, would not have a Material Adverse Effect nor has the Company received written notice of any violation with which it has not complied in all material respects.

2.13 Intellectual Property.

(a) Ownership of Intellectual Property Assets. Except as set forth in Schedule 2.13(a), the Company is the exclusive owner of, and has good, valid and marketable title to each of the Intellectual Property Assets (as defined in sub-section 2.13(m) hereof) free and clear of all mortgages, pledges, charges, liens, security interests, or other encumbrances or agreements, and has the right to use without payment to a third party all of the Intellectual Property Assets. No claim is pending or, to the best knowledge of the Company, threatened against the Company and/or its officers, employees and consultants to the effect that the respective right, title and interest of the Company in and to the Intellectual Property Assets is invalid or unenforceable by the Company. Except as set forth on Schedule 2.13(a) hereto, all former and current employees, consultants and contractors of the Company have executed written instruments with the Company that assign to the Company all rights to any inventions, improvements, discoveries, or information relating to the business of the Company. To the knowledge of the Company, no employee of Company has entered into any agreement that restricts or limits in any way the scope or type of work in which such employee may be engaged or requires such employee to transfer, assign, or disclose information concerning such employee's work to anyone other than the Company. To the knowledge of the Company, no employee or consultant of the Company has utilized or is utilizing any intellectual property belonging to any third party except for any licenses or other agreements listed pursuant to sub-section 2.13(g) hereof.

(b) Patents. Schedule 2.13(b) hereto sets forth a complete and accurate list and summary description of all Patents (as defined in sub-section 2.13(m) hereof. All of the issued Patents are currently in compliance with formal legal requirements (including, without limitation, payment of filing, examination and maintenance fees and proofs of working or use), are not subject to any maintenance fees or taxes or actions falling due within ninety (90) days after the Effective Time, except where such non-compliance would not have a Material Adverse Effect, and to the Company's knowledge, such Patents are valid and enforceable. In each case where a Patent is

held by the Company by assignment, such assignment has been duly recorded with the U.S. Patent and Trademark Office and all other jurisdictions of registration. No Patent has been or is now involved in any interference, reissue, re-examination or opposition proceeding. To the knowledge of the Company, there is no potentially interfering patent or patent application of any third party. All products made, used or sold under the Patents have not been improperly marked with a patent notice.

(c) Trade-marks. Schedule 2.13(c) hereto sets forth a complete and accurate list and summary description of all Marks (as defined in sub-section 2.13(m) below). All Marks that have been registered with the U.S. Patent and Trademark Office and/or any other jurisdiction are currently in compliance with formal legal requirements (including, without limitation, the timely post-registration filing of affidavits of use and incontestability and renewal applications), are valid and enforceable, and are not subject to any maintenance fees or taxes or actions falling due within ninety (90) days after the Effective Time. In each case where a Mark is held by the Company by assignment, the assignment has been duly recorded with the U.S. Patent and Trademark Office and all other jurisdictions of registration where required by law or otherwise necessary or appropriate. No Mark of the Company has been or is now involved in any opposition, invalidation or cancellation proceeding and, to the knowledge of the Company, no such action is threatened with respect to any of the Marks belonging to the Company. All products and materials containing a Mark bear the proper notice where required by law or otherwise necessary or appropriate.

(d) Copyrights. Schedule 2.13(d) hereto sets forth a complete and accurate list and summary description of all Copyrights (as defined in sub-section 2.13(m) hereof). All Copyrights that have been registered with the U.S. Copyright Office are identified on such Schedule and are currently in compliance with formal legal requirements, are valid and enforceable, and are not subject to any fees or taxes or actions falling due within ninety (90) days after the date of the Effective Time. In each case where a Copyright is held by the Company by assignment, the assignment has been duly recorded with the U.S. Copyright Office and all other jurisdictions of registration where required by law or otherwise necessary or appropriate. None of the source or object code, algorithms, or structure included in the Products (as defined below) is copied from, based upon, or derived from any other source or object code, algorithm or structure in violation of the rights of any third party. Any substantial similarity of any of the Products to any computer program owned by any third party did not result from such Products being copied from, based upon, or derived from any such computer software program in violation of the rights of any third party. All copies of works encompassed by the Copyrights have been marked with the proper copyright notice where required by law or otherwise necessary or appropriate.

(e) Trade Secrets. The Company has taken all reasonable security measures (including, without limitation, entering into appropriate confidentiality and non-disclosure agreements with all officers, directors, employees, and consultants of the Company, and any other persons with access to the Trade Secrets (as defined in sub-section 2.13(m) hereof)) to protect the secrecy, confidentiality and value of such Trade Secrets. To the knowledge of the Company, there has not been any breach by any party to any such confidentiality or non-disclosure agreement. The Trade Secrets have not been disclosed by the Company to any person or entity other than employees or contractors of the Company who had a need to know and use the Trade Secrets in the course of their employment or contract performance. To the knowledge of the Company, the Company has the right to use, free and clear of claims of third parties, all Trade Secrets. To the knowledge of the Company, no third party has asserted that the use by the Company of any Trade Secret violates the rights of any third party.

(f) Exclusivity of Rights. Except as set forth on Schedule 2.13(f) hereto, to its knowledge, the Company has the exclusive right to use, license, distribute, transfer and bring infringement actions with respect to each of the Intellectual Property Assets. Except as set forth on Schedule 2.13(f) hereto, the Company (i) has not licensed or granted to anyone rights of any nature to use any of the Intellectual Property Assets; and (ii) to its knowledge, is not obligated to and does not pay royalties or other fees to anyone for its ownership, use, license or transfer of any of the Intellectual Property Assets.

(g) Licenses Received. Except for computer software that is generally commercially available with a per sale copy cost of less than $2,500, all licenses or other agreements under which the Company is granted rights by others in Intellectual Property Assets are listed in Schedule 2.13(g) hereto. All such licenses or other agreements are in full force and effect, to the knowledge of the Company there is no material default by any party thereto, and, except as set forth on Schedule 2.13(g) hereto, all of the rights of the Company thereunder are freely assignable. True and complete copies of all such licenses or other agreements, and any amendments thereto, have been provided to Adherex and Adherex US, and to the knowledge of the Company, the licensors under the licenses and other agreements under which the Company is granted rights have all requisite power and authority to grant the rights purported to be conferred thereby.

(h) Licenses Granted. All licenses or other agreements under which the Company has granted rights to others in Intellectual Property Assets are listed in Schedule 2.13(h) hereto. Except as set forth thereon, all such licenses or other agreements are in full force and effect, and to the knowledge of the Company there is no material default by any party thereto. True and complete copies of all such licenses or other agreements, and any amendments thereto, have been provided to Adherex and Adherex US.

(i) Affirmative Obligations. The Company does not have any obligation to any third party to maintain, modify, improve or upgrade any of the Products.

(j) Sufficiency. To the knowledge of the Company, the Intellectual Property Assets constitute all of the assets of the Company used in designing, creating and developing the Products, and are all those necessary for the operation of the business of the Company as currently conducted and planned to be conducted, except where the failure to have any asset would not have a Material Adverse Effect.

(k) Infringement. To the knowledge of the Company, none of the Products manufactured and sold, or contemplated to be manufactured and sold, nor any process or know-how used, by the Company infringes any patent, trade-mark, service mark, trade name, copyright or other proprietary right of any person.

(l) Non-Disclosure Contracts. Each of the Non-Disclosure Contracts is a valid and binding obligation of the Company, enforceable in accordance with its terms.

(m) For purposes of this Section 2.13,

(i) "Intellectual Property Assets" means the intellectual property assets of the Company, necessary or appropriate for the its business as currently conducted or proposed to be conducted, which assets consist of the following property:

(A) the Products (as defined below);

(B) all patents, patent applications (whether provisional or pending), patent rights, and inventions and discoveries and invention disclosures (whether or not patented) together with any and all patents issuing thereon, including continuation, divisionals and re-issue applications and continuation-in-part applications and any United States or foreign patents granted upon such applications, based upon inventions or improvements discovered by the Company (collectively, "Patents");

(C) the name "Oxiquant", all trade names, trade dress, logos, packaging design, slogans, Internet domain names, registered and unregistered trade-marks and service marks and applications for any of the foregoing (collectively, "Marks");

(D) all (I) copyright registrations and applications, (II) if the failure to possess such copyrights would cause a Material Adverse Effect, copyrights that are not registered or applications in both published and unpublished works, including without limitation all compilations, databases and computer programs and (III) derivatives, translations, adaptations and combinations of the above (collectively, "Copyrights");

(E) all know-how, trade secrets, confidential or proprietary information, research in progress, algorithms, data, designs, processes, formulae, drawings, schematics, blueprints, flow charts, models, prototypes, techniques, Beta testing procedures and Beta testing results (collectively, "Trade Secrets"); and

(F) all goodwill, franchises, licenses, permits, consents, approvals, technical information, telephone numbers, and claims of infringement against third parties (collectively, the "Rights").

(ii) "Products" means the items listed on Schedule 2.13(m)(ii) hereto, which consists of products that are sold, marketed, and distributed by the Company.

(iii) "Non-Disclosure Contracts" means all non-disclosure and/or confidentiality agreements entered into between the Company on the one hand and persons in connection with disclosures by the Company on the other hand relating to the Products and the Intellectual Property Assets.

2.14 Certain Contracts and Arrangements. Except as set forth in the Transaction Documents or in Schedules 2.13 or 2.14 hereto, the Company is not a party or subject to or bound by:

(a) any contract or agreement (i) involving a potential commitment or payment by the Company in excess of $75,000 or (ii) which is otherwise material and not entered into in the ordinary course of business;

(b) any contract, lease or agreement which is not cancelable by the Company without penalty on less than ninety (90) days' notice;

(c) any contract containing covenants directly or explicitly limiting in any material respect the freedom of the Company to compete in any line of business or with any person or entity;

(d) any contract or agreement relating to the licensing, distribution, development, purchase, sale or servicing of its products except in the ordinary course of business consistent with past practices;

(e) any indenture, mortgage, promissory note, loan agreement, guaranty or other agreement or commitment for borrowing or any pledge or security arrangement;

(f) any employment contracts, non-competition agreements or other agreements with present or former officers, directors, employees or Stockholders of the Company, or persons related to or affiliated with such persons;

(g) any share redemption or purchase agreements or other agreements affecting or relating to any shares of capital stock of the Company, including, without limitation, any agreement with any stockholder of the Company which includes anti-dilution rights, registration rights, voting arrangements, operating covenants or similar provisions;

(h) any pension, profit sharing, bonus, retirement, severance or stock option plans;

(i) any royalty, dividend or similar arrangement based on the revenues or profits of the Company or any contract or agreement involving fixed price or fixed volume arrangements;

(j) any joint venture, partnership, manufacturer, development or supply agreement;

(k) any acquisition, merger or similar agreement;

(l) any contract with any governmental entity; or

(m) any other material contract not executed in the ordinary course of business.

All contracts, agreements, leases and instruments set forth on Schedule 2.14 hereto are valid and are in full force and effect and constitute legal, valid and binding obligations of the Company and, to the knowledge of the Company, of the other parties thereto, and are enforceable in accordance with their respective terms. The Company does not have any knowledge of any notice or threat to terminate any such contracts, agreements, leases or instruments. Neither the Company nor, to the knowledge of the Company, any other party, is in default in complying with any provisions of any such contract, agreement, lease or instrument, and no condition or event or fact exists which, with notice, lapse of time or both, would constitute a default thereunder on the part of the Company, except for any such default, condition, event or fact that, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect.

2.15 Governmental Approvals; Compliance with Laws. The Company is in compliance in all respects with all applicable laws and regulations, except where the failure to be in compliance would not have a Material Adverse Effect. Except as set forth on Schedule 2.15 hereto, the Company has all of the permits, licenses, orders, franchises and other rights and privileges of all federal, state or local or other foreign governmental or regulatory bodies necessary for the Company to conduct its business as presently conducted and as contemplated to be conducted, except for those the absence of which would cause a Material Adverse Effect. All such permits, licenses, orders, franchises and other rights and privileges are in full force and effect and, to the knowledge of the Company, no suspension or cancellation of any of them is threatened, and none of such permits, licenses, orders, franchises or other rights and privileges will be affected by the consummation of the transactions contemplated by the Transaction Documents.

2.16 Insurance Coverage. Schedule 2.16 hereto contains an accurate summary of the insurance policies currently maintained by the Company. There are currently no claims pending against the Company under any insurance policies currently in effect and covering the property, business or employees of the Company, and all premiums due and payable with respect to the policies maintained by the Company have been paid to date. To the knowledge of the Company, there is no threatened termination of any such policies or arrangements.

2.17 Employee Matters.

(a) Schedule 2.17 hereto lists and describes all the employee benefit, fringe benefit, supplemental unemployment benefit, bonus, incentive, profit sharing, termination, change of control, pension, retirement, stock option, stock purchase, stock appreciation, health, welfare, medical, dental, disability, life insurance and similar plans, programmes, arrangements or practices relating to the current or former employees, officers or directors of the Company, respectively, maintained, sponsored or funded by the Company, whether written or oral, funded or unfunded, insured or self-insured, registered or unregistered (collectively, the "Company Employee Plans").

(b) All of the Company Employee Plans are and have been established, registered, qualified, invested and administered, in all respects, in accordance with their terms and all applicable laws, including all tax laws where same is required for preferential tax treatment. No fact or circumstance exists that could adversely affect the preferential tax treatment ordinarily accorded to any such Company Employee Plan.

(c) All obligations regarding the Company Employee Plans have been satisfied, there are no outstanding defaults or violations by any party to any Company Employee Plan and no taxes, penalties, or fees are owing or eligible under or in respect of any of the Company Employee Plans.

(d) The Company may unilaterally amend or terminate, in whole or in part, each Company Employee Plan subject only to written employment agreements as disclosed in Schedule 2.17 hereto and approvals required by applicable laws.

(e) No Company Employee Plan is subject to any examination or other proceeding, action or claim, or, to the knowledge of the Company after due investigation, pending investigation, in any case, initiated by any regulatory authority or by any other party (other than routine claims for benefits), and there exists no state of facts which could reasonably be expected to give rise to any such investigation, examination or other proceeding, action or claim or to affect the registration of any Company Employee Plan required to be registered.

(f) All contributions or premiums required to be paid by the Company under the terms of each Company Employee Plan or by applicable laws have been made in a timely fashion in accordance with applicable laws and the terms of the Company Employee Plans. The Company does not have any liability with respect to any of the Company Employee Plans, other than liability that accrues in the ordinary course of business under such plans after the date hereof.

(g) There have been no improper withdrawals, applications or transfers of assets of any Company Employee Plan and neither the Company nor any of its agents or delegates, has breached any fiduciary obligation with respect to the administration or investment of any Company Employee Plan.

(h) Each Company Employee Plan which is a funded plan is fully funded as of the date hereof on both a going concern and a solvency basis pursuant to the actuarial assumptions and methodology utilized in the most recent actuarial valuation therefor.

(i) None of the Company Employee Plans enjoy any special tax status under any applicable laws, nor have any advance tax rulings been sought or received in respect of any Company Employee Plan.

(j) No insurance policy or any other agreement affecting any Company Employee Plan requires or permits a retroactive increase in contributions, premiums or other payments due thereunder. The level of insurance reserves under each insured Company Employee Plan is reasonable and sufficient to provide for all incurred but unreported claims.

(k) None of the Company Employee Plans (other than pension plans) provide benefits to retired employees or to the beneficiaries or dependants of retired employees.

(l) Except as set forth on Schedule 2.17(l) hereto, no Company Employee Plan is subject to the U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA"), or any regulation promulgated thereunder.

2.18 Employees.

(a) Except as otherwise set forth in Schedule 2.18(a) hereto:

(i) The Company is not and has not engaged in any unfair labour practice and no unfair labour practice complaint, grievance or arbitration proceeding is pending or, to the best of the knowledge of the Company, threatened against the Company; and

(ii) No collective bargaining agreement is currently being negotiated by the Company with respect to any employees of the Company and there are no collective agreements in force with respect to any of its employees. No union representation question exists respecting the employees of the Company. There is no labour strike, dispute, work slowdown or work stoppage pending or involving or, to the best of the knowledge of the Company, threatened against the Company. No trade union has applied to have the Company declared a related employer pursuant to any labour relations legislation in any jurisdiction in which the Company carries on business.

(b) Schedule 2.18(b) hereto contains a correct and complete list of each employee, director, independent contractor, consultant and agent of the Company, whether actively at work or not, their respective salaries, wage rates, commissions and consulting fees, bonus arrangements, benefits, positions, ages, status as full-time or part-time employees and length of service. Except for the written employment agreements set forth in Schedule 2.18(b) hereto, no employee of the Company has any agreement as to length of notice or severance payment required to terminate his or her employment, other than such as results by applicable law from the employment of an employee without an agreement as to notice or severance.

(c) All amounts due or accrued due for all salary, wages, bonuses, commissions, vacation with pay, pension benefits or other employee benefits are reflected in the books and records of the Company.

2.19 No Brokers or Finders. Except as set forth on Schedule 2.19 hereto, no person has or will have, as a result of the transactions contemplated by this Agreement, any right, interest or claim against or upon the Company for any commission, fee or other compensation as a finder or broker because of any act or omission by the Company or any of its Stockholders or affiliates.

2.20 Transactions with Affiliates. Except as set forth in Schedule 2.20 hereto, there are no loans, leases or other continuing arrangements between the Company or any subsidiary of the Company on the one hand, and any officer, director, affiliate or Stockholder of the Company or any such subsidiary, respectively, or any respective family member or affiliate of such officer, director or Stockholder on the other hand.

2.21 Environmental Matters. No Hazardous Materials have been generated, transported, used, disposed, stored or treated by the Company, except in material compliance with applicable Environmental Laws. No Hazardous Materials have been released, discharged, disposed, or otherwise caused to enter the soil or water in, under or upon any real property owned, leased or operated by the Company, except in material compliance with applicable Environmental Laws.

2.22 Corporate Records. The corporate record books of the Company accurately record, in all material respects, all corporate action taken by its Stockholders, the Company Board and all committees thereof. The copies of the corporate records of the Company, as made available to Adherex and Adherex US for review, are true and complete copies of the originals of such documents.

2.23 Customers, Distributors and Partners. Schedule 2.23 hereto sets forth the name of each customer and distributor of the Company who accounted for more than five percent (5%) of the revenues of the Company for the year ended December 31, 2001 (respectively, the "Company Customers" and "Company Distributors") together with the names of any persons or entities with which the Company has a material strategic partnership or similar relationship ("Company Partners"). No Company Customer, Company Distributor or Company Partner has cancelled or otherwise terminated its relationship with the Company or has decreased materially its usage or purchases of the services or products of the Company. No Company Customer, Company Distributor or Company Partner has, to the knowledge of the Company, any plan or intention to terminate, to cancel or otherwise materially and adversely modify its relationship with the Company or to decrease materially or limit its usage, purchase or distribution of the services or products of the Company.

2.24 Tax Free Status of Merger. To the knowledge of the Company, neither the Company nor any of its affiliates has taken or agreed to take any action, failed to take any action or is aware of any fact or circumstance that would prevent the Merger from constituting a tax-free reorganization within the meaning of Section 368(a) of the Tax Code or that would cause any of the Stockholders to recognize gain for U.S. income tax purposes upon the exchange of their Common Stock or Preferred Stock for Merger Securities pursuant to the Merger.

2.25 No General Solicitation or General Advertising. None of the Company, its affiliates or any person acting on its or their behalf has engaged in any general solicitation or general advertising (as each such term is used in Regulation D under the U.S. Act) with respect to the Merger Securities, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or broadcast over radio or television, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising.

ARTICLE III
REPRESENTATIONS AND WARRANTIES OF ADHEREX AND ADHEREX US

In order to induce the Company to enter into this Agreement and consummate the transactions contemplated hereby, Adherex and Adherex US hereby represent and warrant to the Company as follows:

3.1 Incorporation and Organization. Adherex is a corporation duly incorporated, organized, validly existing and in good standing under the CBCA and Adherex US is a corporation duly incorporated, organized, validly existing and in good standing under Delaware Law. Each of Adherex and Adherex US has all requisite corporate power and authority to own or lease and operate its respective properties, to carry on its respective businesses as presently conducted, to enter into and perform the Transaction Documents and to carry out the transactions contemplated hereby and thereby. Each of Adherex and Adherex US is duly licensed or qualified to do business as a foreign corporation in each jurisdiction wherein the character of its property or the nature of the activities presently conducted by it, makes such qualification necessary, except where the failure to be so licensed or qualified would not have, or be reasonably likely to have, a Material Adverse Effect. Adherex is not in violation of any term or provision of its articles of incorporation or its by-laws, each as amended (the "Adherex Constating Documents") and Adherex is not in violation of any term or provision of its certificate of incorporation (the "Adherex US Certificate of Incorporation") or by-laws (the "Adherex US By-Laws") as in effect as of this date. Adherex US is not subject to any reporting requirements of the Exchange Act.

3.2 Authorization and Non-Contravention. This Agreement is a valid and binding obligation of each of Adherex and Adherex US, enforceable against each of them in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, moratorium, reorganization or similar laws, from time to time in effect, which affect enforcement of creditors' rights generally. Each of Adherex and Adherex US has all requisite corporate power and authority to execute and deliver this Agreement and to consummate the transactions contemplated hereby. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate or other action of the Adherex and Adherex US and no other corporate proceedings on the part of either are necessary to approve this Agreement and to consummate any of the transactions contemplated hereby, other than the adoption of this Agreement by the Shareholders in accordance with the CBCA and the rules and regulations of the TSX and the adoption of this Agreement by the sole stockholder of Adherex US in accordance with Delaware Law. The Adherex Board has, as of the date hereof, determined that the Merger is fair to and in the best interest of Adherex and the Shareholders. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby will not: (a) violate, conflict with or result in a default under any contract or obligation to which Adherex or Adherex US is a party or by which it or its assets are bound, or any provision of the Adherex Constating Documents, the Adherex US Certificate of Incorporation or the Adherex US By-Laws, or cause the creation of any lien or encumbrance upon any of the assets of Adherex or Adherex US, except for those which would not have, or be reasonably likely to have, a Material Adverse Effect; (b) violate or result in a violation of, or constitute a default (whether after the giving of notice, lapse of time or both) under, any provision of any law, regulation or rule, or, to the knowledge of Adherex, any order of, or any restriction imposed by any court or other governmental agency applicable to either of Adherex or Adherex US, except for those which would not have, or be reasonably likely to have, a Material Adverse Effect; (c) require from Adherex or Adherex US any notice to, declaration or filing with, or consent or approval of any governmental authority or other third party other than pursuant to applicable securities laws (including, without limitation, U.S. "blue sky" laws); or

(d) accelerate any obligation under, or give rise to a right of termination of, any agreement, permit, license or authorization to which Adherex or Adherex US is a party or by which either is bound, except for those which would not have, or reasonably likely to have, an Material Adverse Effect.

3.3 Authorized and Issued Capital of Adherex. The authorized capital of Adherex consists of an unlimited number of common shares (the "Common Shares") of which on the date hereof, 40,163,985 Common Shares are validly issued and outstanding as fully paid and non-assessable shares. All of the issued and outstanding Common Shares are free of any liens or encumbrances created by or resulting from the actions of Adherex, and are not subject to pre-emptive rights or rights of first refusal created by statute, the Constating Documents or any agreement to which Adherex is a party or by which it is bound. All Common Shares outstanding on the date hereof have been offered, issued, sold and delivered by Adherex in compliance with all registration or qualification and prospectus requirements (or applicable exemptions therefrom) of all applicable Canadian Securities Laws (as defined below) and other applicable securities laws. Except as set forth in this Section 3.3 or reflected in Schedule 3.3 hereto, Adherex does not have and is not bound by any outstanding subscriptions, options, warrants, convertible securities, calls, commitments, agreements or obligations of any character calling for the purchase, redemption or issuance of any Common Shares or any other equity security of Adherex or any securities representing the right to purchase or otherwise receive any Common Shares or any other equity security of Adherex. The Common Shares are listed and posted for trading on The Toronto Stock Exchange (the "TSX").

3.4 Reporting Issuer Status. Adherex is a reporting issuer in good standing under the securities laws of the Provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland, the rules, their respective regulations, prescribed forms, orders and rulings made thereunder and the policy statements issued by the securities commissions or other applicable securities regulatory authorities thereunder including, without limitation, the Ontario Act (collectively, the "Canadian Securities Laws") and is in compliance with the by-laws, rules and regulations of the TSX. Adherex has timely filed all forms, reports and documents required to be filed by Adherex under the Canadian Securities Laws and the rules and regulations of the TSX since Adherex became a reporting issuer under the Canadian Securities Laws or commenced listing on the TSX, as applicable. All such required forms, reports and documents are referred to herein as the "Securities Reports." As of their respective dates, the Securities Reports (i) were prepared in accordance with the requirements of applicable Canadian Securities Laws and the rules and regulations of the TSX applicable thereto and (ii) did not at the time they were filed contain any misrepresentation of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. Adherex is a "qualifying issuer" as that term is defined in Multilateral Instrument 45-102 – Resale of Securities of the Canadian Securities Administrators ("MI 45-102"). Adherex has made available to the Company a true and correct copy of each Securities Report filed by or for Adherex. If at any time prior to the Effective Time any event relating to Adherex should be disclosed by Adherex which should be set forth in an amendment or supplement to any Securities Report, Adherex shall promptly inform the Company thereof.

3.5 Authorized and Issued Capital of Adherex US. The authorized capital of Adherex US consists of 3,000 shares of Subsidiary Common Stock of which 1,000 shares of Subsidiary Common Stock are issued and outstanding, all of which shares are held beneficially and of record by Adherex. Adherex US does not have and is not bound by any outstanding subscriptions, options, warrants, convertible securities, calls, commitments, agreements or obligations or any character calling for the purchase, redemption or issuance of any shares or capital stock or other equity security of Adherex US or any securities representing the right to purchase or otherwise receive any shares of the capital stock or any

other equity security of Adherex US. All outstanding shares of the capital stock of Adherex US were issued in compliance with applicable Canadian Securities Laws and applicable U.S. securities laws. None of the shares of Subsidiary Common Stock are listed on any stock exchange.

3.6 Other Adherex Securities. Schedule 3.6 hereto sets forth all subscriptions, options, warrants, convertible securities, calls, commitments, agreements or obligations or any character or rights or obligations capable of becoming any of the foregoing, calling for the purchase, redemption or issuance of any shares in the capital of Adherex and any other securities of Adherex or otherwise exercisable or exchangeable into shares in the capital of Adherex (collectively, "Adherex Rights"), the number and class or series of shares in the capital of Adherex for which such Adherex Rights are so exercisable or exchangeable, along with the applicable vesting schedule, if any, and the exercise price thereof. All of the issued and outstanding Adherex Rights have been offered, issued and sold in compliance with applicable securities laws. Except as disclosed in Schedule 3.6 hereto, there are no outstanding subscriptions, options, warrants, agreements, arrangements or commitments of any kind for or relating to the issuance, or sale of, or outstanding securities convertible into or exchangeable for, any shares in the capital of or other equity interests in Adherex.

3.7 Other Agreements Relating to Common Shares. Except as set forth in Schedules 3.6 or 3.7 hereto: (i) Adherex does not have any obligation to purchase, redeem, or otherwise acquire any shares of its capital stock or any interests therein or to pay any dividend or to make any distribution in respect thereof; (ii) there are no pre-emptive rights, rights of first refusal, put or call rights or obligations or anti-dilution rights with respect to the issuance, sale or redemption of any shares of capital stock of Adherex. There are no rights to have shares of capital stock of Adherex or Adherex US registered for sale to the public pursuant to the laws of any jurisdiction, and there are no agreements of which Adherex is aware, relating to the voting of Adherex's voting securities or restrictions on the transfer of shares of capital stock of Adherex.

3.8 Validity of Merger Securities. The Merger Shares to be issued to the Stockholders in the Merger, when issued in accordance with the provisions of this Agreement, and the Warrant Shares when issued pursuant to the terms of the Merger Warrants, will be validly issued, fully paid and non-assessable, and not subject to any encumbrances or pre-emptive rights except for applicable restrictions on transfer imposed by applicable securities laws, including those imposed by the U.S. Act including, without limitation, by Rule 144 promulgated under the United States Securities Act of 1933, as amended (the "U.S. Act"), under applicable "blue sky" state securities laws and/or Canadian Securities Laws, and will be issued in compliance with Canadian Securities Laws, and applicable United States and applicable state securities laws. The distribution of the securities of the corporation created, or to be created, by Adherex prior to the Effective Time in connection with the Spin-Out, as contemplated by Section 6.3(a), shall be exempt from the prospectus and registered dealer requirements of all applicable Canadian Securities Laws and the applicable securities laws of any territory of Canada.

3.9 Subsidiaries. Except as disclosed on Schedule 3.9 and other than Adherex US, Adherex does not own or control, directly or indirectly, any interest in any other corporation, partnership, limited liability company, association, joint venture or other business entity.

3.10 Adherex Financial Statements. The audited balance sheets of Adherex at each of the fiscal years ended June 30, 2001 and 2002, and the related statements of loss, shareholders' equity and cash flows for each of the three years ending June 30, 2000, 2001 and 2002 (collectively, the "Adherex Financial Statements") present fairly the financial condition and results of operations of Adherex as at such dates and for the respective periods indicated therein and have been prepared in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"), applied consistently during the periods covered thereby, except as otherwise stated in the notes to such financial statements. The Adherex Financial Statements comply with all applicable requirements of Canadian Securities Laws.

3.11 Absence of Undisclosed Liabilities. Except as stated or adequately reserved against in the Adherex Financial Statements, incurred as a result of or arising out of the transactions contemplated under the Transaction Documents or as set forth on Schedule 3.11 hereto, Adherex does not have any liability or obligation of any nature, whether accrued, absolute, contingent or otherwise, asserted or unasserted, known or unknown, in any case which has, or is reasonably likely to have, a Material Adverse Effect. Neither Adherex nor Adherex US has assumed, guaranteed, endorsed or otherwise become directly or contingently liable on or for any indebtedness of any other person.

3.12 Absence of Certain Developments. Since June 30, 2002, except as set forth on Schedule 3.12, Adherex has conducted its business only in the ordinary course consistent with past practice and, except for general industry and economic conditions, there has been (a) no change in the respective condition (financial or otherwise) of Adherex, or in the assets, liabilities, business or prospects of Adherex that has or is reasonably likely to have an Material Adverse Effect, (b) no declaration, setting aside or payment of any dividend or other distribution with respect to, or any direct or indirect redemption or acquisition of, any of the shares in the capital of Adherex, (c) no issuance of any shares in the capital of Adherex or any direct or indirect redemption, purchase or other acquisition of any of the capital or other equity securities of Adherex, (d) no waiver of any valuable right of Adherex or cancellation of any material debt or claim held by Adherex, (e) no discharge or satisfaction by Adherex of any material lien or encumbrance or payment by Adherex of any obligation or liability (fixed or contingent), (f) no material increase in the compensation paid or payable to any officer, director, employee or agent of Adherex that exceeds $50,000 in the aggregate, (g) no material loss, destruction or damage to any property of Adherex, whether or not insured, (h) no material labour dispute involving Adherex and no material change in the personnel of Adherex, or the terms and conditions of their employment, (i) no acquisition or disposition of any assets (or any contract or arrangement therefor), including any Adherex Intellectual Property Rights, other than in the ordinary course of Adherex's business, nor any other transaction by Adherex otherwise than for fair value in the ordinary course of its business, (j) no change in accounting methods or practices of Adherex, (k) no loss, or any development that is expected to result in a loss, of any significant supplier, customer, distributor or account of Adherex (other than the completion in the ordinary course of business of specific projects for customers), (l) no amendment or termination of any contract or agreement to which Adherex is a party or by which it is bound, and (m) no commitment (contingent or otherwise) to do any of the foregoing.

3.13 Litigation. Except as set forth on Schedule 3.13, to the knowledge of Adherex, there is no litigation, arbitration or governmental proceeding or investigation pending or threatened, by or against Adherex, or affecting any of the properties or assets of Adherex, or against any officer, key employee or Shareholder of Adherex in such person's capacity as such, nor, to the knowledge of Adherex, has there occurred any event nor does there exist any condition on the basis of which any litigation, proceeding or investigation might properly be instituted with any chance of recovery where such recovery could have a Material Adverse Effect. Neither Adherex nor any officer, key employee or Shareholder thereof in such person's capacity as such is, to the knowledge of Adherex, subject to any order, writ, injunction, decree, ruling or decision of any court, commission, board or other government agency.

3.14 Adherex Tax Matters.

(a) Each of Adherex and Adherex US has paid all Taxes, including all installments on account of Taxes for the current year that are due and payable whether or not assessed by the appropriate governmental authority, required to be paid by it through the date hereof and has fully provided for any such Taxes not yet due in the books and records and financial statements, as applicable, of Adherex or Adherex US, respectively.

(b) All Taxes and other assessments and levies that each of Adherex and Adherex US is required to withhold or collect have been withheld and collected and have been paid over to the proper governmental authorities when due.

(c) Each of Adherex and Adherex US has, in accordance with applicable law, timely (taking into consideration all extensions) and properly filed all Tax Returns required to be filed by it through the date hereof. All such Tax Returns were correct and complete in all material respects and included all income and other amounts and information required to be reported thereon.

(d) Neither the Canada Customs and Revenue Agency, the U.S. Internal Revenue Service nor any other taxing authority is now asserting or, to the knowledge of Adherex, threatening to assert against Adherex or Adherex US any deficiency or claim for additional Taxes, and there are no matters under assessment, audit or appeal with any relevant taxing authority. No issue relating to Adherex or Adherex US or involving any Tax for which either might be liable has been resolved in favour of any taxing authority in any audit or examination which, by application of the same principles could reasonably be expected to result in a deficiency for Taxes of Adherex or Adherex US for any other period.

(e) Each of Adherex and Adherex US files Tax Returns in all jurisdictions where each is required to so file. No claim has ever been made in writing by an authority in a jurisdiction where Adherex or Adherex US does not file Tax Returns that Adherex or Adherex US (as applicable) is or may be subject to taxation by that jurisdiction.

(f) Neither Adherex nor Adherex US has waived any statute of limitations in respect of Taxes or agreed to any extension of time with respect to payment or collection of any Tax, filing of a Tax Return, election, designation or similar filings relating to Taxes or with respect to any Tax assessment or deficiency and no power of attorney granted by or with respect to either of Adherex or Adherex US relating to Taxes is currently in force.

(g) There are no liens or other security interests encumbering any of the respective assets of Adherex and Adherex US that arose in connection with any failure (or alleged failure) to pay any Taxes (except where such security interests arise as a matter of law prior to the due date for paying the related Taxes).

(h) Except as set forth in Schedule 3.14(h) hereto, there has never been any audit of any Tax Return filed by or on behalf of Adherex or Adherex US, no such audit is in progress to the knowledge of Adherex and Adherex US, and neither Adherex nor Adherex US has been notified by any tax authority that any such audit is contemplated or pending. Each of Adherex and Adherex US has delivered true, complete and correct copies of all income Tax Returns, audit reports and statements of deficiencies filed or issued to or with respect to Adherex or Adherex US (or, insofar as such items relate to Adherex or Adherex US, by or to any affiliated, consolidated, combined or unitary group of which Adherex or Adherex US was then a member) since their respective dates of inception.

(i) The unpaid Taxes of Adherex and Adherex US (i) did not, as of June 30, 2002, exceed the reserve for tax liability (other than any reserve for deferred taxes established to reflect timing differences between book and tax income) set forth on the face of the Adherex Financial

Statements (other than in any notes thereto) and (ii) do not exceed that reserve as adjusted for the passage of time through the date hereof in accordance with Canadian GAAP and the past custom and practice of Adherex in filing its Tax Returns.

(j) As at the date of this Agreement, neither Adherex nor Adherex US has filed any Tax Return in the United States (including in any State or territory thereof).

(k) All Canadian federal and provincial income and capital tax liabilities of Adherex have been assessed by a relevant taxing authority and notices of assessment have been issued by all relevant taxing authorities for all taxation years prior to and including the taxation year ended June 30, 2001.

(l) Adherex has no unsatisfied liabilities for Taxes (including all related expenses) with respect to any notice of assessment or reassessment or similar document received by Adherex relating to any Taxes.

3.15 Title to Properties. Schedule 3.15 hereto lists all real and personal property used in or necessary to the conduct of the business of Adherex that had an original purchase price of at least $5,000 and that has been acquired since June 30, 2002. Adherex has good and marketable title of record to all of its owned real property and a valid and enforceable leasehold interest in all of its leased real property, free and clear of all liens, restrictions and encumbrances. Subject to any encumbrances thereon disclosed in Schedule 3.15 hereto, Adherex has good title to or a valid and enforceable leasehold interest in all personal property used in or necessary to its business, and the same is in good condition and repair in all material respects (ordinary wear and tear excepted). Adherex is not in violation of any zoning, building or safety ordinance, regulation or requirement or other law or regulation applicable to the operation of its owned or leased properties, except for violations which, singly or in the aggregate, would not have a Material Adverse Effect nor has Adherex received written notice of any violation with which it has not complied in all material respects. Adherex US does not own, leases or have any other rights or interests in any real or personal property.

3.16 Intellectual Property.

(a) Ownership of Intellectual Property Assets. Except as set forth in Schedule 3.16(a), Adherex is the exclusive owner of, and has good, valid and marketable title to each of the Intellectual Property Assets (as defined in sub-section 3.16(m) hereof) free and clear of all mortgages, pledges, charges, liens, security interests, or other encumbrances or agreements, and has the right to use without payment to a third party all of the Intellectual Property Assets. No claim is pending or, to the best knowledge of Adherex, threatened against Adherex and/or its officers, employees and consultants to the effect that the respective right, title and interest of Adherex in and to the Intellectual Property Assets is invalid or unenforceable by Adherex. Except as set forth on Schedule 3.16(a) hereto, all former and current employees, consultants and contractors of Adherex have executed written instruments with Adherex that assign to Adherex all rights to any inventions, improvements, discoveries, or information relating to the business of Adherex. To the knowledge of Adherex, no employee of Adherex has entered into any agreement that restricts or limits in any way the scope or type of work in which such employee may be engaged or requires such employee to transfer, assign, or disclose information concerning such employee's work to anyone other than Adherex. To the knowledge of Adherex, no employee or consultant of Adherex has utilized or is utilizing any intellectual property belonging to any third party except for any licenses or other agreements listed pursuant to sub-section 3.16(g) hereof.

(b) Patents. Schedule 3.16(b) hereto sets forth a complete and accurate list and summary description of all Patents (as defined in sub-section 3.16(m) hereof). All of the issued Patents are currently in compliance with formal legal requirements (including, without limitation, payment of filing, examination and maintenance fees and proofs of working or use), are not subject to any maintenance fees or taxes or actions falling due within ninety (90) days after the Effective Time, except where such non-compliance would not have a Material Adverse Effect, and to the knowledge of Adherex, such Patents are valid and enforceable. In each case where a Patent is held by Adherex by assignment, such assignment has been duly recorded with the U.S. Patent and Trademark Office and all other jurisdictions of registration. No Patent has been or is now involved in any interference, reissue, re-examination or opposition proceeding. To the knowledge of Adherex, there is no potentially interfering patent or patent application of any third party. All products made, used or sold under the Patents have not been improperly marked with a patent notice.

(c) Trade-marks. Schedule 3.16(c) hereto sets forth a complete and accurate list and summary description of all Marks (as defined in sub-section 3.16(m) below). All Marks that have been registered with the U.S. Patent and Trademark Office and/or any other jurisdiction are currently in compliance with formal legal requirements (including, without limitation, the timely post-registration filing of affidavits of use and incontestability and renewal applications), are valid and enforceable, and are not subject to any maintenance fees or taxes or actions falling due within ninety (90) days after the Effective Time. In each case where a Mark is held by Adherex by assignment, the assignment has been duly recorded with the U.S. Patent and Trademark Office and all other jurisdictions of registration where required by law or otherwise necessary or appropriate. No Mark of Adherex has been or is now involved in any opposition, invalidation or cancellation proceeding and, to the knowledge of Adherex, no such action is threatened with respect to any of the Marks belonging to Adherex. All products and materials containing a Mark bear the proper notice where required by law or otherwise necessary or appropriate.

(d) Copyrights. Schedule 3.16(d) hereto sets forth a complete and accurate list and summary description of all Copyrights (as defined in sub-section 3.16(m) hereof). All Copyrights that have been registered with the U.S. Copyright Office are identified on such Schedule and are currently in compliance with formal legal requirements, are valid and enforceable, and are not subject to any fees or taxes or actions falling due within ninety (90) days after the date of the Effective Time. In each case where a Copyright is held by Adherex by assignment, the assignment has been duly recorded with the U.S. Copyright Office and all other jurisdictions of registration where required by law or otherwise necessary or appropriate. None of the source or object code, algorithms, or structure included in the Products (as defined below in this Section 3.16) is copied from, based upon, or derived from any other source or object code, algorithm or structure in violation of the rights of any third party. Any substantial similarity of any of the Products to any computer program owned by any third party did not result from such Products being copied from, based upon, or derived from any such computer software program in violation of the rights of any third party. All copies of works encompassed by the Copyrights have been marked with the proper copyright notice where required by law or otherwise necessary or appropriate.

(e) Trade Secrets. Adherex has taken all reasonable security measures (including, without limitation, entering into appropriate confidentiality and non-disclosure agreements with all officers, directors, employees, and consultants of Adherex, and any other persons with access to the Trade Secrets (as defined in sub-section 3.16(m) hereof)) to protect the secrecy, confidentiality and value of such Trade Secrets. To the knowledge of Adherex, there has not

been any breach by any party to any such confidentiality or non-disclosure agreement. The Trade Secrets have not been disclosed by Adherex to any person or entity other than employees or contractors of Adherex who had a need to know and use the Trade Secrets in the course of their employment or contract performance. To the knowledge of Adherex, Adherex has the right to use, free and clear of claims of third parties, all Trade Secrets. To the knowledge of Adherex, no third party has asserted that the use by Adherex of any Trade Secret violates the rights of any third party.

(f) Exclusivity of Rights. Except as set forth on Schedule 3.16(f) hereto, to Adherex's knowledge, Adherex has the exclusive right to use, license, distribute, transfer and bring infringement actions with respect to each of the Intellectual Property Assets. Except as set forth on Schedule 3.16(f) hereto, Adherex (i) has not licensed or granted to anyone rights of any nature to use any of the Intellectual Property Assets; and (ii) to Adherex's knowledge, is not obligated to and does not pay royalties or other fees to anyone for its ownership, use, license or transfer of any of the Intellectual Property Assets.

(g) Licenses Received. Except for computer software that is generally commercially available with a per sale copy cost of less than $2,500, all licenses or other agreements under which Adherex is granted rights by others in Intellectual Property Assets are listed in Schedule 3.16(g) hereto. All such licenses or other agreements are in full force and effect, to the knowledge of Adherex there is no material default by any party thereto, and, except as set forth on Schedule 3.16(g) hereto, all of the rights of Adherex thereunder are freely assignable. True and complete copies of all such licenses or other agreements, and any amendments thereto, have been provided to the Company, and to the knowledge of Adherex, the licensors under the licenses and other agreements under which Adherex is granted rights have all requisite power and authority to grant the rights purported to be conferred thereby.

(h) Licenses Granted. All licenses or other agreements under which Adherex has granted rights to others in Intellectual Property Assets are listed in Schedule 3.16(h) hereto. Except as set forth thereon, all such licenses or other agreements are in full force and effect, and to the knowledge of Adherex there is no material default by any party thereto. True and complete copies of all such licenses or other agreements, and any amendments thereto, have been provided to the Company.

(i) Affirmative Obligations. Except as set forth on Schedule 3.16(i), Adherex does not have any obligation to any third party to maintain, modify, improve or upgrade any of the Products.

(j) Sufficiency. To the knowledge of Adherex, the Intellectual Property Assets constitute all of the assets of Adherex used in designing, creating and developing the Products, and are all those necessary for the operation of the business of Adherex as currently conducted and planned to be conducted, except where the failure to have any asset would not have a Material Adverse Effect.

(k) Infringement. To the knowledge of Adherex, none of the Products manufactured and sold, or contemplated to be manufactured and sold, nor any process or know-how used, by Adherex infringes any patent, trade-mark, service mark, trade name, copyright or other proprietary right of any person.

(l) Non-Disclosure Contracts. Each of the Non-Disclosure Contracts (as defined below in this Section 3.16) is a valid and binding obligation of Adherex, enforceable in accordance with its terms.

(m) For purposes of this Section 3.16,

(i) "Intellectual Property Assets" means the intellectual property assets of Adherex, necessary or appropriate for the its business as currently conducted or proposed to be conducted, which assets consist of the following property:

(A) the Products (as defined below);

(B) all patents, patent applications (whether provisional or pending), patent rights, and inventions and discoveries and invention disclosures (whether or not patented) together with any and all patents issuing thereon, including continuation, divisionals and re-issue applications and continuation-in-part applications and any United States or foreign patents granted upon such applications, based upon inventions or improvements discovered by Adherex (collectively, "Patents");

(C) the name "Adherex", all trade names, trade dress, logos, packaging design, slogans, Internet domain names, registered and unregistered trade-marks and service marks and applications for any of the foregoing (collectively, "Marks");

(D) all (I) copyright registrations and applications, (II) if the failure to possess such copyrights would cause a Material Adverse Effect, copyrights that are not registered or applications in both published and unpublished works, including without limitation all compilations, databases and computer programs and (III) derivatives, translations, adaptations and combinations of the above (collectively, "Copyrights");

(E) all know-how, trade secrets, confidential or proprietary information, research in progress, algorithms, data, designs, processes, formulae, drawings, schematics, blueprints, flow charts, models, prototypes, techniques, Beta testing procedures and Beta testing results (collectively, "Trade Secrets"); and

(F) all goodwill, franchises, licenses, permits, consents, approvals, technical information, telephone numbers, and claims of infringement against third parties (collectively, the "Rights").

(ii) "Products" means the items listed on Schedule 3.16(m)(ii) hereto, which consists of products that are sold, marketed, and distributed by Adherex.

(iii) "Non-Disclosure Contracts" means all non-disclosure and/or confidentiality agreements entered into between Adherex on the one hand, and persons in connection with disclosures by Adherex on the other hand, relating to the Products and the Intellectual Property Assets.

3.17 Certain Contracts and Arrangements. Except as set forth in the Transaction Documents or in Schedules 3.16 or 3.17 hereto, Adherex is not a party or subject to or bound by:

(a) any contract or agreement (i) involving a potential commitment or payment by Adherex in excess of $75,000 or (ii) which is otherwise material and not entered into in the ordinary course of business;

(b) any contract, lease or agreement which is not cancelable by Adherex without penalty on less than ninety (90) days' notice;

(c) any contract containing covenants directly or explicitly limiting in any material respect the freedom of Adherex to compete in any line of business or with any person or entity;

(d) any contract or agreement relating to the licensing, distribution, development, purchase, sale or servicing of its products except in the ordinary course of business consistent with past practices;

(e) any indenture, mortgage, promissory note, loan agreement, guaranty or other agreement or commitment for borrowing or any pledge or security arrangement;

(f) any employment contracts, non-competition agreements or other agreements with present or former officers, directors, employees or Shareholders of Adherex, or persons related to or affiliated with such persons;

(g) any share redemption or purchase agreements or other agreements affecting or relating to any shares of capital stock of Adherex, including, without limitation, any agreement with any stockholder of Adherex which includes anti-dilution rights, registration rights, voting arrangements, operating covenants or similar provisions;

(h) any pension, profit sharing, bonus, retirement, severance or stock option plans;

(i) any royalty, dividend or similar arrangement based on the revenues or profits of Adherex or any contract or agreement involving fixed price or fixed volume arrangements;

(j) any joint venture, partnership, manufacturer, development or supply agreement;

(k) any acquisition, merger or similar agreement;

(l) any contract with any governmental entity; or

(m) any other material contract not executed in the ordinary course of business.

All contracts, agreements, leases and instruments set forth on Schedule 3.17 hereto are valid and are in full force and effect and constitute legal, valid and binding obligations of Adherex and, to the knowledge of Adherex, of the other parties thereto, and are enforceable in accordance with their respective terms. Adherex does not have any knowledge of any notice or threat to terminate any such contracts, agreements, leases or instruments. Neither Adherex nor, to the knowledge of Adherex, any other party, is in default in complying with any provisions of any such contract, agreement, lease or instrument, and no condition or event or fact exists which, with notice, lapse of time or both, would constitute a default thereunder on the part of Adherex, except for any such default, condition, event or fact that, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect. Other than the Transaction Documents, Adherex US is not a party to, or bound by, any agreement (written or oral), indenture, mortgage, guaranty or other instrument.

3.18 Governmental Approvals; Compliance with Laws. Each of Adherex and Adherex US is in compliance in all respects with all applicable laws and regulations, except where the failure to be in compliance would not have a Material Adverse Effect. Except as set forth on Schedule 3.18 hereto, each

of Adherex and Adherex US has all of the permits, licenses, orders, franchises and other rights and privileges of all federal, state or local or other foreign governmental or regulatory bodies necessary for Adherex and Adherex US to conduct its respective business as presently conducted and as contemplated to be conducted, except for those the absence of which would cause an Material Adverse Effect. All such permits, licenses, orders, franchises and other rights and privileges are in full force and effect and, to the knowledge of Adherex or Adherex US, no suspension or cancellation of any of them is threatened, and none of such permits, licenses, orders, franchises or other rights and privileges will be affected by the consummation of the transactions contemplated by the Transaction Documents.

3.19 Insurance Coverage. Schedule 3.19 hereto contains an accurate summary of the insurance policies currently maintained by Adherex. There are currently no claims pending against Adherex under any insurance policies currently in effect and covering the property, business or employees of Adherex, and all premiums due and payable with respect to the policies maintained by Adherex have been paid to date. To the knowledge of Adherex, there is no threatened termination of any such policies or arrangements.

3.20 Employee Matters.

(a) Schedule 3.20 hereto lists and describes all the employee benefit, fringe benefit, supplemental unemployment benefit, bonus, incentive, profit sharing, termination, change of control, pension, retirement, stock option, stock purchase, stock appreciation, health, welfare, medical, dental, disability, life insurance and similar plans, programmes, arrangements or practices relating to the current or former employees, officers or directors of Adherex, respectively, maintained, sponsored or funded by Adherex, whether written or oral, funded or unfunded, insured or self-insured, registered or unregistered (collectively, the "Adherex Employee Plans").

(b) All of the Adherex Employee Plans are and have been established, registered, qualified, invested and administered, in all respects, in accordance with their terms and all applicable laws, including all tax laws where same is required for preferential tax treatment. No fact or circumstance exists that could adversely affect the preferential tax treatment ordinarily accorded to any such Adherex Employee Plan.

(c) All obligations regarding the Adherex Employee Plans have been satisfied, there are no outstanding defaults or violations by any party to any Adherex Employee Plan and no taxes, penalties, or fees are owing or eligible under or in respect of any of the Adherex Employee Plans.

(d) Adherex may unilaterally amend or terminate, in whole or in part, each Adherex Employee Plan subject only to written employment agreements as disclosed in Schedule 3.20 hereto and approvals required by applicable laws.

(e) No Adherex Employee Plan is subject to any examination or other proceeding, action or claim, or, to the knowledge of Adherex, pending investigation, in any case, initiated by any regulatory authority or by any other party (other than routine claims for benefits), and there exists no state of facts which could reasonably be expected to give rise to any such investigation, examination or other proceeding, action or claim or to affect the registration of any Adherex Employee Plan required to be registered.

(f) All contributions or premiums required to be paid by Adherex under the terms of each Adherex Employee Plan or by applicable laws have been made in a timely fashion in accordance with applicable laws and the terms of the Adherex Employee Plans. Adherex does not have any liability with respect to any of the Adherex Employee Plans, other than liability that accrues in the ordinary course of business under such plans after the date hereof.

(g) There have been no improper withdrawals, applications or transfers of assets of any Adherex Employee Plan and neither Adherex nor any of its agents or delegates, has breached any fiduciary obligation with respect to the administration or investment of any Adherex Employee Plan.

(h) Each Adherex Employee Plan which is a funded plan is fully funded as of the date hereof on both a going concern and a solvency basis pursuant to the actuarial assumptions and methodology utilized in the most recent actuarial valuation therefor.

(i) None of the Adherex Employee Plans enjoy any special tax status under any applicable laws, nor have any advance tax rulings been sought or received in respect of any Adherex Employee Plan.

(j) No insurance policy or any other agreement affecting any Adherex Employee Plan requires or permits a retroactive increase in contributions, premiums or other payments due thereunder. The level of insurance reserves under each insured Adherex Employee Plan is reasonable and sufficient to provide for all incurred but unreported claims.

(k) None of the Adherex Employee Plans (other than pension plans) provide benefits to retired employees or to the beneficiaries or dependants of retired employees.

(l) No Adherex Employee Plan is subject to ERISA, or any regulation promulgated thereunder.

3.21 Employees.

(a) Except as otherwise set forth in Schedule 3.21(a) hereto:

(i) Adherex is not and has not engaged in any unfair labour practice and no unfair labour practice complaint, grievance or arbitration proceeding is pending or, to the best of the knowledge of Adherex, threatened against Adherex; and

(ii) No collective bargaining agreement is currently being negotiated by Adherex with respect to any employees of Adherex and there are no collective agreements in force with respect to any of its employees. No union representation question exists respecting the employees of Adherex. There is no labour strike, dispute, work slowdown or work stoppage pending or involving or, to the best of the knowledge of Adherex, threatened against Adherex. No trade union has applied to have Adherex declared a related employer pursuant to any labour relations legislation in any jurisdiction in which Adherex carries on business.

(b) Schedule 3.21(b) hereto contains a correct and complete list of each officer and director of Adherex (and any persons who is an affiliate of such officer or director), whether actively at work or not, their respective salaries, wage rates, commissions and consulting fees, bonus arrangements, benefits, positions, ages, status as full-time or part-time employees and length of service. Except for the written employment agreements set forth in Schedule 3.21(b) hereto, no officer or director employee of Adherex has any agreement as to length of notice or severance payment required to terminate his or her employment, other than such as results by applicable law from the employment of an employee without an agreement as to notice or severance.

3.22 Brokers or Finders. Except as set forth on Schedule 3.22 hereto, no person has or will have, as a result of the transactions contemplated by this Agreement, any right, interest or claim against or upon Adherex or Adherex US for any commission, fee or other compensation as a finder or broker because of any act or omission by Adherex or Adherex US or any of the Shareholders or their affiliates.

3.23 Environmental Matters. No Hazardous Materials have been generated, transported, used, disposed, stored or treated by Adherex or Adherex US, except in material compliance with applicable Environmental Laws. No Hazardous Materials have been released, discharged, disposed, or otherwise caused to enter the soil or water in, under or upon any real property owned, leased or operated by Adherex or Adherex US, except in material compliance with applicable Environmental Laws.

3.24 Corporate Records. The corporate record books of Adherex accurately record, in all material respects, all corporate action taken by its Shareholders, the Adherex Board and all committees thereof. The copies of the corporate records of Adherex, as made available to the Company for review, are true and complete copies of the originals of such documents. The corporate record books of Adherex US accurately record all corporate action taken by its stockholders, the Adherex US Board and all committees thereof. The copies of the corporate records of Adherex US, as made available to the Company for review, are true and complete copies of the originals of such documents.

3.25 Customers, Distributors and Partners. Schedule 3.25 hereto sets forth the name of each customer and distributor of Adherex who accounted for more than five percent (5%) of the revenues of Adherex for the year ended June 30, 2002 (respectively, the "Adherex Customers" and "Adherex Distributors") together with the names of any persons or entities with which Adherex has a material strategic partnership or similar relationship ("Adherex Partners"). No Adherex Customer, Adherex Distributor or Adherex Partner has cancelled or otherwise terminated its relationship with Adherex or has decreased materially its usage or purchases of the services or products of Adherex. No Adherex Customer, Adherex Distributor or Adherex Partner has, to the knowledge of Adherex, any plan or intention to terminate, to cancel or otherwise materially and adversely modify its relationship with Adherex or to decrease materially or limit its usage, purchase or distribution of the services or products of Adherex.

3.26 Tax Free Status of Merger. To the knowledge of each of Adherex and Adherex US, none of Adherex, Adherex US nor any of their respective affiliates (i) has taken or agreed to take any action, or (ii) is aware of any fact or circumstance (other than any fact or circumstance of which the Company is also aware), which, in either case, Adherex or Adherex US has been advised would prevent the Merger from constituting a tax-free reorganization within the meaning of Section 368(a) of the Tax Code. Except as specifically described above in this Section 3.26, neither Adherex nor Adherex US makes any representation or warranty regarding the Tax impact of the Merger on the Company or any Stockholder.

ARTICLE IV
COVENANTS

4.1 Covenants of the Company. The Company hereby covenants and agrees with Adherex and Adherex US that prior to the Effective Time, the Company will:

(a) subject to termination under Article VII, until the Effective Time:

(i) not enter into any transaction or incur any obligation or liability, other than in the ordinary course of business or as contemplated in this Agreement or as otherwise agreed to by Adherex;

(ii) not merge into or with, amalgamate or consolidate with, enter into any other corporate reorganization with, sell all or any part of its assets to (other than in the ordinary course of its business) any other corporation or person, or perform any act or enter into any transaction or negotiation which interferes or is inconsistent with the completion of the transactions contemplated hereby or would render inaccurate in any material way any of the representations and warranties set forth in Article II hereof if such representations and warranties were made at a date subsequent to such act, negotiation or transaction and all references to the date of this Agreement therein were deemed to be such later date, except as contemplated in this Agreement; and without limiting the generality of the foregoing, the Company will not, without the prior written consent of Adherex:

(A) make any distribution by way of dividend, return of capital or otherwise to or for the benefit of its stockholders

(B) issue any shares or other securities exercisable for, convertible into or exchangeable for shares or enter into any commitment or agreement therefor;

(C) increase or decrease its authorized capital; or

(D) alter or amend its charter documents including, without limitation, the Certificate of Incorporation and the By-Laws, as the same exist at the date of this Agreement;

(iii) do all such acts and things as may be reasonably necessary or required in order to give effect to the Merger and, without limiting the generality of the foregoing, the Company will apply for and use its good faith efforts to obtain:

(A) the approval of the Stockholders required for the consummation of the Merger; and

(B) such other consents, orders and approvals as counsel may advise are necessary or desirable for the consummation of the Merger and transactions contemplated by this Agreement.

(b) give the representatives of Adherex full access, during normal business hours and upon reasonable notice, to all of the assets, properties, books, records, agreements and commitments of the Company and furnish such information concerning the Company as Adherex may reasonably request;

(c) use all reasonable efforts to cause each of the conditions set forth in Article VI hereof which require action by it to be satisfied on or before the time required for satisfaction;

(d) on or before the Effective Time, provide to Adherex audited financial statements for the Company for the period from inception of the Company to August 31, 2002 that present fairly the financial condition and results of operations of the Company at such date and for the period indicated therein, prepared in accordance with US GAAP (the "Company Audited Financials");

(e) not prepare of file any Tax Return materially inconsistent with its past practice or take any position, make any election or adopt any method on any Tax Return that is materially inconsistent with prior practice;

(f) not conduct any business or commercial activities except in the ordinary course of business or as expressly contemplated by this Agreement;

(g) timely file all required Tax Returns, taking into account extensions, and will provide copies of such income tax returns to Adherex and timely pay all Taxes that become due;

(h) prepare and deliver to Adherex, the Closing Balance Sheet; and

(i) not take or cause to be taken any action which would disqualify the Merger as a tax-free reorganization under Section 368 of the Tax Code.

4.2 Adherex and Adherex US Covenants. Adherex and Adherex US, jointly and severally, hereby covenant and agree with the Company that prior to the Effective Time, Adherex and Adherex US will:

(a) subject to termination under Article VII, until the Effective Time:

(i) not enter into any transaction or incur any obligation or liability other than in the ordinary course of Adherex's business, or as contemplated by this Agreement or as otherwise agreed to by the Company;

(ii) not merge into or with, amalgamate or consolidate with, enter into any other corporate reorganization with, sell all or any part of their respective assets to any other corporation or person, or perform any act or enter into any transaction or negotiation which interferes or is inconsistent with the completion of the transactions contemplated hereby or would render inaccurate in any material way any of the representations and warranties set forth in Article III hereof if such representations and warranties were made at a date subsequent to such act, negotiation or transaction and all references to the date of this Agreement therein were deemed to be such later date, except as contemplated in this Agreement and, without limiting the generality of the foregoing, neither Adherex nor Adherex US will, without the prior written consent of the Company:

(A) make any distribution by way of dividend, return of capital or otherwise to or for the benefit of their respective stockholders, except for the Spin-Out as contemplated in Section 6.3(a);

(B) issue any shares of their respective capital stock or other securities exercisable for, convertible into or exchangeable for such shares of capital stock or enter into any commitment or agreement therefor;

(C) increase or decrease its paid-up capital except as necessary for, or as part of, the Spin Out as contemplated by Section 6.3(a); or

(D) alter or amend their respective charter documents including, without limitation, the Adherex Constating Documents, the Adherex US Certificate of Incorporation and the Adherex US By-Laws, as the same exist at the date of this Agreement;

(iii) do all such acts and things as may be reasonably necessary or required in order to give effect to the Merger and, without limiting the generality of the foregoing, Adherex will apply for and use its good faith efforts to obtain:

(A) the approval of the Shareholders required for the implementation of the Merger; and

(B) such other consents, orders and approvals as counsel may advise are necessary or desirable for the implementation of the Merger and transactions contemplated by this Agreement

(b) give the representatives of the Company full access, during normal business hours and upon reasonable notice, to all of the assets, properties, books, records, agreements and commitments of Adherex and furnish such information concerning Adherex as the Company may reasonably request; and

(c) use all reasonable efforts to cause each of the conditions set forth in Article VI hereof which require action by it to be satisfied with on or before the time required for satisfaction;

(d) following the receipt of the fairness opinion described in Section 7.1(a)(v), submit to the Shareholders the Adherex Board's recommendation that the Shareholders approve this Agreement and the Merger (unless in the written opinion of Adherex's legal counsel such recommendation would breach the fiduciary obligations of the Adherex Board), and to the extent required by applicable law, convene the Adherex Meeting and solicit proxies to be voted at the Adherex Meeting in favor of the approval of this Agreement and the Merger;

(e) not make any declaration setting aside or payment of any dividend or any other distributions in respect of any of its equity securities except as expressly permitted herein;

(f) not sell or otherwise dispose of any capital asset in excess of $25,000 or other than in the ordinary course of business consistent with its normal business practices or as otherwise contemplated herein;

(g) use its commercially reasonable best efforts to preserve intact its business organizations and to preserve its present relationships with any suppliers and customers;

(h) not take or cause to be taken any action which would disqualify the Merger as a tax-free reorganization under Section 368 of the Tax Code;

(i) use its commercially reasonable best efforts to maintain in full force and effect and in the same amounts policies of insurance comparable in amount and scope of coverage now maintained on behalf of itself and not amend or cancel any such policies of insurance;

(j) prepare and file all Tax Returns required to be filed by it on a timely basis, taking into account extensions, and in a manner consistent with past practice and duly and timely remit and pay all Adherex Taxes when due;

(k) promptly notify the Company of the occurrence of any extraordinary event adversely affecting Adherex, Adherex US or their respective businesses affairs, prospects, operations, properties, assets or conditions;

(l) will provide all information reasonably requested by Company regarding Adherex reasonably necessary for inclusion in any proxy statement (or similar document) to be submitted by Company to its Stockholders in connection with the approval of this Agreement and the Merger;

(m) not enter into any transaction with any of the officers and directors of Adherex or any immediate family member of any of the foregoing, or any entity in which any of such persons has a material interest (other than a publicly-held corporation whose stock is traded on a national securities exchange or an over the counter market and less than 1% of the stock of which is beneficially owned by such persons);

(n) except to the extent required by Adherex's external auditors, not permit a change in its methods of maintaining its books, accounts or business records or, except as required by Canadian GAAP (in which event prior notice shall be given to the Company), change any of its accounting principles or the methods by which such principles are applied for tax and accounting purposes;

(o) not (i) incur any indebtedness for borrowed money other than trade debt and other obligations incurred in the ordinary course, (ii) create any fixed or floating charge, lien or encumbrance over any part of its properties or assets, except in the ordinary course of business, (iii) make any loan to any other Person, or (iv) guarantee the liabilities of any or obligations of any other person or entity;

(p) take all actions necessary to cause Adherex US to perform its obligations under this Agreement and to consummate the Merger and the other transactions contemplated by the Merger on the terms and subject to the conditions set forth in this Agreement; and

(q) make all reasonable representations as are requested by legal counsel for the Company for the purpose of preparing the tax opinion referred to in Section 6.3(h) hereof.

ARTICLE V
ADDITIONAL AGREEMENTS

5.1 Meetings of Shareholders.

(a) The Company shall promptly after the date hereof take all action necessary in accordance with Delaware Law and its Certificate of Incorporation and By-laws to secure the approval and adoption of this Agreement and the transactions contemplated hereby from the Stockholders. The Company shall use its best efforts to solicit from Stockholders proxies or written consents in favor of the adoption of this Agreement and the Merger and shall take all other action necessary or advisable to secure the vote or consent of Stockholders required by Delaware Law to effect the Merger. The Company shall furnish to the Stockholders all such information concerning the Merger, this Agreement, Adherex and Adherex US as is required pursuant to applicable securities laws, including without limitation, Regulation D of the U.S. Act (such information as amended or supplemented is referred to herein as the "Company Information Statement").

(b) Adherex shall furnish to the Company such information concerning Adherex as is necessary in order for the Company Information Statement, in as far as it relates to Adherex and Adherex US, to be prepared in accordance with all applicable rules and regulations, including without limitation, Regulation D of the U.S. Act. The information to be supplied by Adherex for inclusion in the Company Information Statement shall not, on the date the Company Information Statement (or any amendment thereof or supplement thereto) is first mailed or otherwise

delivered to the Stockholders, at the time of any meeting of Stockholders and at the Effective Time, contain any untrue statement of material fact or shall omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which it was made, not false or misleading. If at any time prior to the Effective Time any event relating to Adherex or any of its affiliates, officers or directors should be discovered by Adherex which should be set forth in an amendment or a supplement to the Company Information Statement, Adherex shall promptly inform the Company. Notwithstanding the foregoing, Adherex makes no representation or warranty with respect to any information supplied by or relating to the Company that is contained in the Company Information Statement.

(c) Adherex shall promptly after the date hereof take all action necessary in accordance with all applicable laws and as required by the TSX and its Constating Documents to convene a meeting of the Shareholders (the "Adherex Meeting") to consider and approve (i) the Merger and (ii) the Share Combination. Adherex shall use its best efforts to solicit from Shareholders proxies in favour of the Merger and shall take all other action necessary or advisable to secure the vote or consent of Shareholders required by all applicable laws and as required by the TSX to effect the Merger.

(d) The Company shall furnish to Adherex such information concerning the Company as is necessary in order for the Information Circular (as defined herein), in as far as it relates to the Company, to be prepared in accordance with all applicable rules and regulations. The information to be supplied by the Company for inclusion in the Information Circular to be to be sent to the shareholders of Adherex in connection with the Adherex Meeting (such information circular as amended or supplemented is referred to herein as the "Information Circular"), shall not, on the date the Information Circular (or any amendment thereof or supplement thereto) is first mailed to the Shareholders, at the time of Adherex Meeting and at the Effective Time, contain any untrue statement of material fact or shall omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which it was made, not false or misleading. If at any time prior to the Effective Time any event relating to the Company or any of its affiliates, officers or directors should be discovered by the Company which should be set forth in an amendment or a supplement to the Information Circular, the Company shall promptly inform Adherex and Adherex US. Notwithstanding the foregoing, the Company makes no representation or warranty with respect to any information supplied by or relating to Adherex or Adherex US that is contained in the Information Circular.

5.2 Access to Information and Confidentiality.

(a) Upon reasonable notice and subject to restrictions contained in confidentiality agreements to which such party is subject (from which such party shall use reasonable efforts to be released) the Company and Adherex shall each (and shall cause each of their respective subsidiaries to) afford to the officers, employees, accountants, counsel and other representatives of the other, reasonable access, during the period prior to the Effective Time, to all its properties, books, contracts, commitments and records and, during such period, each of the Company and Adherex shall (and shall cause each of their respective subsidiaries to) furnish promptly to the other all information concerning its business, properties and personnel as such other party may reasonably request, and each party shall make available to the other party the appropriate individuals for discussion of such party's business, properties and personnel as the other party may reasonably request; and

(b) Each party will keep such information confidential in accordance with the terms of the Confidentiality Agreement attached hereto as Exhibit “F”.

5.3 Consents and Approvals.

(a) The Company, Adherex and Adherex US shall use their reasonable best efforts to obtain all consents, waivers, approvals, authorizations or orders (including, without limitation, all United States and Canadian governmental and regulatory rulings and approvals and approvals of the TSX), and the Company, Adherex and Adherex US shall make all filings (including, without limitation, all filings with United States and Canadian governmental or regulatory agencies and the TSX) required in connection with the authorization, execution and delivery of this Agreement by the Company, Adherex and Adherex US, and the consummation by them of the transactions contemplated thereby. The Company and Adherex shall furnish all information required by the other to be included in the proxy materials prepared by them or for any application or other filing to be made pursuant to the rules and regulations of any United States or foreign governmental body in connection with the transactions contemplated by this Agreement.

(b) Adherex shall, at its sole cost, use reasonable best efforts to obtain the conditional approval of the TSX for the listing thereon of the Merger Shares and the Warrant Shares and shall use reasonable best efforts to obtain any other approvals, consents or authorization required by Adherex or Adherex US from applicable governmental authorities or third parties in connection with the transactions contemplated hereby, including without limitation, the issuance of the Merger Shares and the Warrant Shares to the Stockholders.

5.4 Investment Representation Letters. The Company shall use its best efforts to cause each Stockholder to deliver to Adherex, prior to the Effective Time, a Representation Letter. The Company shall assist Adherex in obtaining such information as Adherex reasonably requires to allow Adherex to determine the number and nature of the Stockholders in their capacity as “purchasers” (as such term is used under Rule 506 of Regulation D promulgated under the U.S. Act (“Regulation D”)). To the extent that Adherex reasonably determines that a Stockholder is not an “accredited investor” (as such term is defined in Rule 501(a) of Regulation D) and does not meet the financial knowledge and experience requirements of Rule 506 of Regulation D, the Company agrees that it shall use its commercially reasonable efforts to cause all such Stockholders to use a “purchaser representative” (as such term is defined in Rule 501(h) of Regulation D) to assist such Stockholders in evaluating the Information Circular and the investment decisions represented by this Agreement, the Merger and the transactions contemplated hereby and thereby.

5.5 Notification of Certain Matters. The Company shall give prompt written notice to Adherex, and Adherex shall give prompt written notice to the Company, of:

(a) the occurrence, or non-occurrence, of any event the occurrence, or non-occurrence, of which would be likely to cause any representation or warranty contained in this Agreement to be untrue or inaccurate;

(b) any failure of the Company, Adherex or Adherex US, as the case may be, to comply with or satisfy any covenant, condition or agreement to be complied with or satisfied by it hereunder; provided, however, that the delivery of any notice pursuant to this sub-section 5.5(b) shall not limit or otherwise affect the remedies available hereunder to the party receiving such notice; and

(c) any other non-public event or development that could reasonably be expected to materially and adversely impact such party or its ability to consummate the transactions contemplated hereunder.

5.6 Further Action. Upon the terms and subject to the conditions hereof, each of the parties hereto shall use all reasonable efforts to take, or cause to be taken, all actions and to do, or cause to be done, all other things necessary, proper or advisable to obtain in a timely manner all necessary waivers, consents and approvals of third parties and to effect all necessary registrations and filings, and to otherwise satisfy or cause to be satisfied all conditions precedent to its obligations under this Agreement.

5.7 Public Announcements. Each of Adherex and the Company shall receive written consent from each other before issuing any press release or otherwise making any public statements with respect to the Merger or this Agreement and shall not issue any such press release or make any such public statement prior to receiving such consent; provided, however, that if any party is required by applicable law to make any public announcement or other disclosure with respect to the Merger or this Agreement, such party shall provide notice to the other party as soon as is reasonably practicable and shall consult with the other party with respect to the content of such announcement or disclosure.

5.8 Board and Management. At and after the Effective Time and subject to the provisions of the CBCA, the Adherex Board will be reconstituted to consist of nine (9) directors, four (4) of whom shall be nominees of the Company (the "Company Nominees"), four (4) of whom shall be nominees of Adherex (the "Adherex Nominees") and one (1) of whom shall, promptly following the Effective Time, be nominated jointly by the Company Nominees and the Adherex Nominees. The Company Nominees shall be Mark C. Rogers, Fred Mermelstein, Stephen C. Rocamboli and Bill Peters. The Adherex Nominees shall be John Brooks, Robin Norris, Peter Morand and Ray Hessian. Mr. Rogers shall be appointed Chairman of the Adherex Board. At and after the Effective Time, Mr. Brooks shall be appointed to serve as Chief Executive Officer of Adherex, Mr. Norris shall serve as President and Chief Operating Officer of Adherex.

5.9 Share Consolidation. At the Adherex Meeting, Adherex shall solicit the consent of the Shareholders to effect a share consolidation on the basis of one for four (the "Share Combination"). The Share Combination shall be effective prior to the Effective Time.

5.10 Preservation of Tax-Free Status. Following the Effective Time, Adherex, Oxiquant (as the Surviving Company following the Effective Time) and/or their respective affiliates, will not take or cause to be taken any action which would disqualify the Merger as a tax-free reorganization under Section 368 of the Tax Code. In particular, without limiting the generality of the foregoing, prior to the fifth (5th) anniversary of the Effective Time, neither Adherex nor the Company (as the Surviving Company following the Effective Time) shall make any actual or deemed "disposition" (as that term is defined by Treasury Regulation §1.367(a)-8 promulgated under the Tax Code) of the Surviving Company if the effect of such a "disposition" is to cause any Stockholder to recognize gain under any gain recognition agreement entered into pursuant to Treasury Regulation §1.367(a)-8 promulgated under the Tax Code.

ARTICLE VI
CONDITIONS OF MERGER

6.1 Conditions for the Benefit of the Company, Adherex and Adherex US. The respective obligations of each of the Company, Adherex and Adherex US to effect the Merger shall be subject to the satisfaction at or prior to the Effective Time of the following conditions:

(a) the Merger and this Agreement, with or without amendment, shall have been approved and adopted by the Stockholders in accordance with the provisions of Delaware Law, and the Merger shall have been approved by the Shareholders at the Adherex Meeting by the Shareholders in accordance with the provisions of all applicable laws, the Certificate of Incorporation, the By-Laws, the Constating Documents and the requirements of any applicable regulatory authorities;

(b) the TSX shall have approved the terms of the Merger and shall have conditionally approved the listing thereon of each of the Merger Shares and the Warrant Shares, subject to compliance with the usual requirements of the TSX;

(c) each of the persons who will be officers and directors of Adherex following the Effective Time and each other person who will hold, directly or indirectly, more than 5% of the Common Shares following the Effective Time and each affiliate of any such person (each such officer, director, shareholder and affiliate thereof, a "Restricted Party") shall enter into an agreement with Adherex substantially in the form attached at Exhibit "G" hereto (each, a "Lock-up Agreement");

(d) all other consents, orders, regulations and approvals, including regulatory and judicial approvals and orders required or necessary or desirable for the completion of the transactions provided for in this Agreement and the Merger shall have been obtained or received from the persons, authorities or bodies having jurisdiction in the circumstances;

(e) there shall not be in force any order or decree of a court of competent jurisdiction, any federal, provincial, municipal or other governmental department or any commission, board, agency or regulatory body restraining, interfering with or enjoining the consummation of the transactions contemplated by this Agreement, including, without limitation, the Merger; and

(f) none of the consents, orders, regulations or approvals contemplated herein shall contain terms or conditions or require undertakings or security deemed unsatisfactory or unacceptable by either of Adherex or the Company, acting reasonably.

6.2 Additional Conditions for the Benefit of Adherex and Adherex US. The obligations of Adherex and Adherex US to effect the Merger are also subject to each of the following conditions at or prior to the Effective Time:

(a) the representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects on and as of the Effective Time, except for changes contemplated by this Agreement, and except for those representations and warranties which address matters only as of a particular date (which shall remain true and correct as of such date) with the same force and effect as if made on and as of the Effective Time, and Adherex and Adherex US shall have received a certificate to such effect signed by each of the President and Treasurer of the Company;

(b) the Company shall have performed or complied in all material respects with all agreements and covenants required by this Agreement to be performed or complied with by it on or prior to the Effective Time, and Adherex and Adherex US shall have received a certificate to such effect signed by each of the President and Treasurer of the Company;

(c) the net liabilities of the Company as of the Effective Time shall not exceed the sum of US$100,000 plus the Company's liabilities relating to the license agreement between the Company and Oregon Health & Sciences University (the "Maximum Net Liability");

(d) all material consents, waivers, approvals, authorizations or orders required to be obtained (including consents of third parties in connection with the Intellectual Property to the transactions contemplated hereunder), and all filings required to be made, by the Company for the authorization, execution and delivery of this Agreement and the consummation by it of the transactions contemplated hereby shall have been obtained and made by the Company;

(e) the Company shall have delivered to Adherex:

(i) certified copies of resolutions duly passed by the Company Board approving this Agreement and the consummation of the transactions contemplated hereby; and

(ii) certified copies of the resolutions of the Stockholders approving the Merger and the consummation of the transactions contemplated thereby

(f) Adherex shall have received an Investment Representation Letter from each Stockholder other than any Dissenting Stockholders and such Investment Representation Letters shall not reveal more than thirty-five (35) Stockholders who are not "accredited investors" (as such term is defined in Rule 501 of Regulation D) or who are not otherwise excluded from the calculation of the number of purchasers under Rule 501(e) of Regulation D. Each Stockholder who is not an "accredited investor" (as such term is defined in Rule 501 of Regulation D) and who does not meet the sophistication requirements set forth in Rule 501 of Regulation D shall be represented by a "purchaser representative" (as such term is defined in Rule 501(h) of Regulation D), reasonably satisfactory to Adherex and its counsel, and such purchaser representative shall have executed and delivered documentation reasonably satisfactory to Adherex and its counsel;

(g) Adherex shall have received a Lock-up Agreement from each Restricted Party;

(h) the statutory period under Delaware Law for exercise of dissenter's rights shall have elapsed without the holders of Common Stock holding more than 3% of the Common Stock having exercised such dissenter's rights;

(i) the Company shall have delivered to Adherex the Certificate of Merger;

(j) the Company shall have delivered to Adherex: (i) a certificate or certificates dated as of dates not more than two days prior to the Effective Time, from the Secretary of State of the State of Delaware, and other corporate authorities as to the good standing, and qualification to do business, of the Company in each jurisdiction where it is so qualified and (ii) the Certificate of Incorporation of the Company, certified by the Secretary of State of the State of Delaware as of a date not more than two days prior to the Effective Time;

(k) the form and substance of all legal matters contemplated hereby and of all papers delivered hereunder shall be reasonably acceptable to Adherex;

(l) no material injunction shall have been obtained, and no material suit, action or other proceeding shall be pending or threatened before any court or governmental entity in which it is sought to restrain or prohibit or, in the reasonable belief of the Adherex Board, materially modify the consummation of the transactions contemplated hereby, or involving a claim that the consummation of the transactions contemplated hereby would result in a violation of any law, decree or regulation of any government entity; and

(m) Maslon Edelman Borman & Brand, LLP, legal counsel for the Company, shall have delivered to Adherex an opinion with respect to Company's good standing, authority to enter into Merger and enforceability of Agreement in a form acceptable to Adherex and its counsel acting reasonably.

6.3 Additional Conditions to the Obligations of the Company. The obligation of the Company to effect the Merger is also subject each of the following conditions at or prior to the Effective Time:

(a) Adherex shall have divested itself of all non-cancer assets and businesses of Adherex, which assets and businesses are set forth in **Schedule 6.3(a)** hereof to a corporation to be created by Adherex prior to the Effective Time (collectively, the "Spin-Out");

(b) the representations and warranties of Adherex and Adherex US contained in this Agreement shall be true and correct in all material respects on and as of the Effective Time, except for changes contemplated by this Agreement or the Spin-Out, and except for those representations and warranties which address matters only as of a particular date (which shall remain true and correct as of such date) with the same force and effect as if made on and as of the Effective Time, and the Company shall have received a certificate to such effect signed by each of the President and Chief Financial Officer of each of Adherex and Adherex US;

(c) each of Adherex and Adherex US shall have performed or complied in all material respects with all agreements and covenants required by this Agreement to be performed or complied with by it on or prior to the Effective Time, and the Company shall have received a certificate to such effect signed by each of the President and Chief Financial Officer of each of Adherex and Adherex US;

(d) all material consents, waivers, approvals, authorizations or orders required to be obtained, and all filings required to be made, by Adherex and Adherex US for the authorization, execution and delivery of this Agreement and the consummation by it of the transactions contemplated hereby shall have been obtained and made by Adherex and Adherex US;

(e) Adherex and Adherex US shall have delivered to the Company:

  (i) certified copies of resolutions duly passed by the Adherex Board and the Adherex US Board approving this Agreement and the consummation of the transactions contemplated hereby; and

  (ii) certified copies of duly passed resolutions of Shareholders and the stockholder of Adherex US approving the Merger and the consummation of the transactions contemplated thereby;

(f) Adherex shall have delivered to the Company a certified copy of the approval described in sub-section 6.1(a) hereof;

(g) the Company shall have received an opinion of its counsel that the transactions contemplated hereunder shall qualify as a tax free reorganization under Section 368 of the Tax Code and that the Stockholders will not recognize gain for U.S. income tax purposes upon the conversion of their Common Stock for Merger Securities pursuant to the Merger;

(h) Adherex or Adherex US (as applicable) shall have delivered to the Company: (i) a certificate or certificates dated as of dates not more than five days prior to the Effective Time, from Industry Canada and other appropriate authorities as to the good standing, and qualification to do business, of Adherex in each jurisdiction where Adherex is so qualified; and (ii) a certified copy Constating Documents as of a date not more than two days prior to the Effective Time; and (iii) a copy certified by the Secretary of State of the State of Delaware of the Adherex US Certificate of Incorporation as of a date not more than two days prior to the Effective Time;

(i) no material injunction shall have been obtained, and no material suit, action or other proceeding shall be pending or threatened before any court or governmental entity in which it is sought to restrain or prohibit or, in the reasonable belief of the Company Board, materially modify the consummation of the transactions contemplated hereby, or involving a claim that the consummation of the transactions contemplated hereby would result in a violation of any law, decree or regulation of any government entity;

(j) the form and substance of all legal matters contemplated hereby and of all papers delivered hereunder shall be reasonably acceptable to the Company; and

(k) Legal counsel for Adherex, shall have delivered to the Company an opinion with respect to (i) the resale of the Merger Shares and the Warrant Shares immediately following the Effective Time pursuant Regulation S under the U.S. Act and under Canadian Securities Laws and the rules and regulations of the TSX, (ii) the good standing of Adherex and Adherex US, (iii) the authority of Adherex and Adherex US to enter into this Agreement, (iv) the distribution of securities of the corporation to be created by Adherex prior to the Effective Time, to the existing shareholders of Adherex, in order to effect the Spin-Out shall be exempt from the prospectus and registered dealer requirements of the securities laws of each province and territory of Canada. and (v) the enforceability of this Agreement against Adherex and Adherex US, in a form acceptable to the Company and its counsel acting reasonably.

ARTICLE VII
TERMINATION, AMENDMENT AND WAIVER

7.1 Termination.

(a) Subject to Section 7.2 hereof, this Agreement may be terminated by Adherex, and the Merger contemplated hereby may be abandoned at any time prior to the Effective Time, notwithstanding approval thereof by the Shareholders, if: (i) any of the conditions in Sections 6.1 and 6.2 hereof are not satisfied by the dates specified for satisfaction, if any; (ii) if the Company breaches any of its representations, warranties, or covenants herein in any material respect and such breach remains uncured for a period of ten days after notice of such breach provided by Adherex; (iii) if the Company breaches the Company's obligations set forth in Article VIII hereof; (iv) if the Effective Time does not occur prior to December 31, 2002; and (v) within five (5) days from the date of this Agreement, an independent investment banker or financial advisor has not issued an opinion to the Adherex Board generally supporting the fairness and reasonableness to Adherex of the transactions contemplated hereby; provided that if Adherex does not provide the Company notice of its intent to terminate this Agreement pursuant to this clause (v) within such 5-day period, Adherex shall thereafter have no right to terminate this Agreement pursuant to this clause (v). Notwithstanding the foregoing, in order to terminate this Agreement by reason of breach of Section 6.2 hereof, Adherex must deliver written notice of such termination to Company on or prior to the Effective Time;

(b) Subject to Section 7.2 hereof, this Agreement may be terminated by the Company and the Merger contemplated hereby may be abandoned at any time prior to the Effective Time, notwithstanding approval thereof by the Stockholders, if (i) any of the conditions in Sections 6.1 and 6.3 hereof are not satisfied by the dates specified for satisfaction, if any, (ii) if Adherex breaches any of its representations, warranties, or covenants herein in any material respect and such breach remains uncured for a period of ten days after notice of such breach provided by the Company, (iii) if Adherex breaches any of its obligations set forth in Article VIII hereof, or (iv) if the Effective Time does not occur prior to December 31, 2002. Notwithstanding the foregoing, in order to terminate this Agreement by reason of breach of Section 6.3 hereof, the Company must deliver written notice of such termination to Adherex on or prior to the Effective Time.

Upon termination of this agreement as a result of the foregoing, all parties shall return all documentation, information and any other property in its possession or control, to the owners of such property, and the parties will have no further rights or obligations to each other except for accrued rights and obligations arising from any prior breach of this agreement, or unless expressly provided for in this Agreement.

7.2 Notice of Unfulfilled Conditions. If either of Adherex or the Company shall determine at any time prior to the Effective Time that it intends to refuse to consummate the Merger or any of the other transactions contemplated hereby because of any unfulfilled or unperformed condition contained in this Agreement on the part of the other of them to be fulfilled or performed, Adherex or the Company, as the case may be, shall so notify the other of them forthwith upon making such determination in order that such other of them shall have the right and opportunity to take such steps, at its own expense, as may be necessary for the purpose of fulfilling or performing such condition within a reasonable period of time, but in no event later than ten business days after receipt of notice of such intention.

7.3 Mutual Termination. This Agreement may, at any time before or after the holding of the Adherex Meeting, but no later than the last business day immediately preceding the Effective Time, be terminated by mutual agreement of the Adherex Board and the Company Board without further action on the part of Shareholders or the Stockholders.

7.4 Effect of Termination. In the event of the termination of this Agreement pursuant to Section 7.3 this Agreement shall forthwith become void and there shall be no liability on the part of any party hereto except:

(a) with respect to the obligation to return all documentation, information and any other property as provided in Section 7.1 hereof and to abide by the provisions of the Confidentiality Agreement; and

(b) nothing herein shall relieve any party from liability for any breach hereof.

7.5 Fees and Expenses. Each party will bear its own costs in respect of the transactions contemplated hereby.

7.6 Amendment. This Agreement may be amended by the parties hereto by action taken by or on behalf of their respective Boards of Directors at any time prior to the Effective Time; provided, however, that, after approval of the Merger by the Stockholders, no amendment may be made which would reduce the amount or change the type of consideration into which each share of the Common Stock shall be converted upon consummation of the Merger. This Agreement may not be amended except by an instrument in writing signed by the parties hereto.

7.7 Waiver. At any time prior to the Effective Time, any party hereto may:

(a) extend the time for the performance of any of the obligations or other acts required hereunder;

(b) waive any inaccuracies in the representations and warranties contained herein or in any document delivered pursuant hereto; and

(c) waive compliance with any of the agreements or conditions contained herein, in the case of each of sub-sections 7.7(a), (b) and (c), by or of the other parties hereto. Any such extension or waiver shall be valid if set forth in an instrument in writing signed by the party or parties to be bound thereby.

ARTICLE VIII
EXCLUSIVITY

8.1 In consideration of the actions to be taken and expenses to be incurred by Adherex and the Company in furtherance of this agreement without the prior written consent of the other party (which written consent shall not be unreasonably withheld or delayed), each of Adherex and the Company agrees that until the Effective Time or termination of this Agreement by either party, each shall not solicit or negotiate any offer to buy, or offer to agree to sell, or sell, any of its assets or its shares (except as permitted in Article VI and other than shares issued in financing transaction approved by the Adherex Board or pursuant to the exercise of options, warrants or other rights to purchase securities outstanding as of the date hereof or pursuant to incentive stock options granted after the date hereof pursuant to Adherex's incentive stock option plan) or any interest therein and shall not merge or enter into a business combination with or solicit or negotiate any offer to merge or enter into a business combination with or into any corporation or entity other than the other party (each such transaction being referred to as a "Proposed Acquisition Transaction"); provided, that nothing in this clause will in any way limit Adherex or the Company from responding to any proposal of any other person or dealing with (said "dealing with" shall exclude solicitation) any other person in respect of the foregoing that is not solicited by Adherex or the Company if in the good faith opinion of the Adherex or the Company Board and in the written opinion of such parties' outside counsel, a failure to do so would represent a breach of fiduciary obligations of the directors of Adherex or the Company. Each of Adherex and Company will immediately notify the other if any discussions or negotiations are sought to be initiated, any inquiry or proposal is made, or any information is requested with respect to any Proposed Acquisition Transaction and notify the other of the terms of any proposal which it may receive in respect of such Proposed Acquisition Transaction, including, without limitation, the identity of the prospective purchaser or acquiring party. Each of Adherex and Company shall provide the other a copy of any written offer received in respect of a Proposed Acquisition Transaction.

8.2 Nothing contained in this Article VIII shall prohibit Adherex from taking and disclosing to Shareholders a position contemplated by Rule 14d-9 or 14e-2 promulgated under the Exchange Act or from making any disclosure to the Shareholders if, in the good faith judgment of the Adherex Board, after consultation with outside counsel, failure to so disclose would be inconsistent with its obligations under applicable law; provided, however, that, subject to the preceding paragraph, neither Adherex nor the Adherex Board nor any committee thereof shall withdraw, or propose publicly to withdraw, its position with respect to this Agreement or the Merger or approve or recommend, or propose publicly to approve or recommend, a competing proposal, without providing written notice to the other parties as soon as reasonably practicable.

ARTICLE IX

[Intentionally Omitted.]

ARTICLE X
GENERAL PROVISIONS

10.1 Entire Agreement. The Transaction Documents constitute the full and entire understanding and agreement among the parties hereto with respect to the subject matters hereof and thereof, and any and all other written or oral agreements existing prior to or contemporaneously herewith are expressly superseded and canceled.

10.2 Notices and Demands. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been delivered (i) three (3) business days after being sent by registered or certified mail, return receipt requested postage pre-paid, (ii) one (1) business day after being sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, or (iii) the same business day if sent by facsimile transmission with written confirmation of transmission during such business day, in each case to the intended recipient at the address set forth therefor, as follows:

To the Company, to:

Oxiquant, Inc.
787 Seventh Avenue
New York, NY 10019
Facsimile: (212) 554-4355
Attention: Secretary

Each with a copy to:

Maslon Edelman Borman & Brand, LLP
3300 Wells Fargo Center
90 South Seventh Street
Minneapolis, MN 55402
Facsimile: 612-642-8358
Attention: William M. Mower

To Adherex or Adherex US, to:

Adherex Technologies Inc.
600 Peter Morand Crescent
Ottawa, ON K1G 5Z3
Facsimile: (613) 738-9060
Attention: John Brooks

Each with a copy to:

LaBarge Weinstein
333 Preston Street, 11th Floor
Ottawa, Ontario K15 5N4
Facsimile: (613) 231-3900
Attention: Randy L. Taylor

or to such other address or fax number of which any party may notify the other parties as provided above. Notices shall be effective as of the date of such delivery, mailing or fax.

10.3 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be deemed prohibited or invalid under such applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, and such prohibition or invalidity shall not invalidate the remainder of such provision or the other provisions of this Agreement.

10.4 Parties in Interest. This Agreement shall be binding upon and inure solely to the benefit of the parties hereto and by virtue of their approval of the Merger, the Stockholders, and nothing in this Agreement, express or implied, is intended to or shall confer upon any other person any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

10.5 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall constitute an original but all of which shall constitute but one and the same instrument. One or more counterparts of this Agreement may be delivered via facsimile transmission, with the intention that they shall have the same effect as an original counterpart hereof.

10.6 Effect of Headings; Construction. The descriptive headings in this Agreement have been inserted for convenience only and shall not be deemed to limit or otherwise affect the construction of any provision thereof or hereof. The parties have participated jointly in the negotiation and drafting of the Transaction Documents with counsel sophisticated in investment transactions. In the event an ambiguity or question of intent or interpretation arises, this Agreement and the agreements, documents and instruments executed and delivered in connection herewith shall be construed as if drafted jointly by the parties and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Agreement and the agreements, documents and instruments executed and delivered in connection herewith.

10.7 Governing Law. This Agreement shall be interpreted, construed and governed by and in accordance with the internal laws of the State of Delaware. In the event of any action or proceeding commenced by the Company arising out of this Agreement, or the negotiation, validity or performance hereof or the transactions contemplated herein, such action or proceeding shall be venued in the Superior Court of Justice of the Province of Ontario in the City of Ottawa, Ontario and, in the event of any action or proceeding commenced by either of Adherex or Adherex US arising out of this Agreement, or the negotiation, validity or performance hereof or the transactions contemplated herein, such action or proceeding shall be venued in the United States District Court for the Southern District of New York.

10.8 Certain Definitions. For the purposes of this Agreement, the following definitions shall apply:

(a) "affiliate" means a person that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, the first mentioned person; including, without limitation, any partnership or joint venture in which the person (either alone, or through or together with any other subsidiary) has, directly or indirectly, an interest of 5% or more;

(b) "beneficial owner" with respect to any shares of the Common Stock, means a person who shall be deemed to be the beneficial owner of such shares:

(i) which such person or any of its affiliates or associates beneficially owns, directly or indirectly;

(ii) which such person or any of its affiliates or associates (as such term is defined in Rule 12b-2 of the Exchange Act) has, directly or indirectly:

(A) the right to acquire (whether such right is exercisable immediately or subject only to the passage of time), pursuant to any agreement, arrangement or understanding or upon the exercise of consideration rights, exchange rights, warrants or options, or otherwise; or

(B) the right to vote pursuant to any agreement, arrangement or understanding; or

(iii) which are beneficially owned, directly or indirectly, by any other persons with whom such person or any of its affiliates or persons with whom such person or any of its affiliates or associates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any shares;

(c) "business day" means any day other than a day on which banks in the City of Ottawa, Province of Ontario or in the State of New York are required or authorized to be closed;

(d) "Closing Balance Sheet" means an unaudited balance sheet of the Company prepared accordance with US GAAP, on a basis consistent with the Company Audited Financials as of a date that is within three (3) days of the Effective Time and mutually acceptable to the Company and Adherex. The Closing Balance Sheet shall include the then outstanding amounts under any lines of credit and accrued expenses in connection with the transactions contemplated hereunder;

(e) "Common Shares" has the meaning ascribed thereto in Section 3.3;

(f) "Common Stock" means the common stock of the Company, par value $0.001 per share;

(g) "Confidentiality Agreement" means the Confidentiality Agreement dated on or about July 18 2002, between Adherex and the Company;

(h) "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, or as trustee or executor, of the power to direct or cause the direction of the management or policies of a person, whether through the ownership of stock, as trustee or executor, by contract or credit arrangement or otherwise;

(i) "Derivative Securities" shall mean (i) all Adherex Rights (other than any Unvested Options) outstanding immediately prior to or at the Effective Time (A) with a right to purchase or otherwise acquire Common Shares at a price of less than CND$1.00 per share (as equitably adjusted for stock splits, combinations and the like), or (B) that expire on or after the date that is three years from the Effective Time, and (ii) all Common Shares issuable under Vested Options;

(j) "Environmental Laws" means all applicable Canadian or United States federal, state, provincial, local and foreign laws, rules, regulations, codes, ordinances, orders, decrees, directives, permits, licenses and judgments relating to pollution, contamination or protection of the environment (including, without limitation, all applicable federal, state, provincial, local and foreign laws, rules, regulations, codes, ordinances, orders, decrees, directives, permits, licenses and judgments relating to Hazardous Materials in effect as of the date of this Agreement);

(k) "Exchange Ratio" means the number equal to the quotient resulting from dividing (i) the number of Common Shares issued and outstanding immediately prior to the Effective Time but after giving effect to the Share Combination, by (ii) the number of shares of Common Stock issued and outstanding immediately prior to the Effective Time;

(l) "Hazardous Materials" means any dangerous, toxic or hazardous pollutant, contaminant, chemical, waste, material or substance as defined in or governed by any federal, state or local law, statute, code, ordinance, regulation, rule or other requirement relating to such substance or otherwise relating to the environment or human health or safety, including without limitation any waste, material, substance, pollutant or contaminant that might cause any injury to human health or safety or to the environment or might subject any Person to any imposition of costs or liability under any Environmental Law;

(m) "Material Adverse Effect" means, with respect to any person, a material adverse effect on such person's business, assets, condition (financial or otherwise), liabilities, prospects or results of operations of such person;

(n) "Option Plan" means the employee stock option plan of Adherex in effect as of the date hereof;

(o) "person" means an individual, corporation, partnership, association, trust, unincorporated organization, other entity or group (as defined in Section 13(d)(3) of the Exchange Act);

(p) "Public Documents" means any and all documents filed with securities commissions or similar regulatory authorities in the US or Canada;

(q) "Shareholder" means a holder of any Common Shares;

(r) "Stockholder" means a holder of any shares of Common Stock;

(s) "subsidiary" or "subsidiaries" of the Company, the Surviving Company, Adherex or any other person means any corporation, partnership, joint venture or other legal entity of which the Company, the Surviving Company, Adherex or such other person, as the case may be, (either alone or through or together with any other subsidiary) owns, directly or indirectly, more than 50% of the stock or other equity interests the holders of which are generally entitled to vote for the election of the board of directors or other governing body of such corporation or other legal entity;

(t) "Tax Code" means the United States' Internal Revenue Code of 1986, as amended;

(u) "Transaction Documents" means (i) this Agreement (including the schedules and exhibits attached hereto), (ii) the Certificate of Merger, (iii) the Investment Representation Letters, (iv) the Lock-Up Agreements, (v) the certificates required to be delivered pursuant to each of Sections 6.2(j) and 6.3(e), (vi) the items required to be delivered pursuant to Sections 6.2(a), 6.2(b), 6.2(e) and 6.2(j), 6.3(b), 6.3(c), 6.3(e) and 6.3(f);

(v) "TSX" means The Toronto Stock Exchange;

(w) "Unvested Options" means those options to purchase Common Shares granted pursuant to the Option Plan and outstanding at or immediately prior to the Effective Time that are not otherwise Vested Options;

(x) "Vested Options" means those options to purchase Common Shares granted pursuant to the Option Plan and outstanding at or immediately prior to the Effective Time that (i) have either (A) an exercise price of less than $1.00 (as equitably adjusted for stock splits, combinations and the like) or (B) an expiry date later than that date which is three (3) years following the Effective Time and (ii) have vested pursuant to the provisions of the Option Plan at or prior to or at the Effective Time;

(y) "Warrant Exchange Ratio" means the number of Common Shares purchasable under all of the Derivative Securities (after giving effect to the Share Combination), divided by the number of shares of Common Stock outstanding immediately prior to the Effective Time; and

(z) "Warrant Purchase Price" means the weighted average price per share at which Common Shares may be acquired upon exercise or conversion of the Derivative Securities.

10.9 Disclaimer Regarding Tax Status. The Company and the Stockholders have obtained and are relying solely on their own independent legal advice regarding the tax implications of the Merger on the Company or any Stockholder and whether the Merger constitutes a tax-free reorganization within the meaning of Section 368(a) of the Tax Code.

10.10 Further Assurances. Notwithstanding any provision to the contrary contained herein, without further consideration, the parties hereto agree that after the Effective Time, each will take all appropriate action and execute any documents, instruments or conveyances of any kind which may be reasonably necessary or advisable to carry out the provisions of this Agreement.

10.11 Funds. Unless otherwise clearly stated, all references to dollar amounts contained in this Agreement shall refer to lawful money of the United States of America.

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IN WITNESS WHEREOF, the undersigned have executed this Merger Agreement as of the day and year first above written.

ADHEREX TECHNOLOGIES INC.

Per: **/s/ John Brooks**

Name: **John Brooks**
Title: **Chief Executive Officer**

ADHEREX, INC.

Per: **/s/ John Brooks**

Name: **John Brooks**
Title: **Chief Executive Officer**

OXIQUANT, INC.

Per: **/s/ Fred Mermelstein**

Name: **Fred Mermelstein**
Title: **President**

EXHIBIT 4.7

EXCLUSIVE LICENSE AGREEMENT

This Exclusive License Agreement ("Agreement") dated as of November 14, 2002 is by and between **Adherex Technologies Inc.**, a corporation incorporated and existing under the laws of Canada, having its principal office at 600 Peter Morand Crescent, Ottawa, Ontario, K1G 5Z3 ("Adherex") and **Cadherin Biomedical Inc.**, a corporation incorporated and existing under the laws of Canada, having its principal office at 600 Peter Morand Crescent, Ottawa, Ontario K1Z 5Z3 ("Cadherin").

WHEREAS, Adherex is the owner or licensee of certain rights related to its proprietary cell adhesion platform technology;

WHEREAS, Adherex agrees to grant, and Cadherin desires to obtain, a license to such rights for use in all fields other than cancer;

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. DEFINITIONS.

1.1 "Affiliate" means any corporation or other entity which controls, is controlled by, or is under common control with a party to this Agreement. A corporation or other entity shall be regarded as in control of another corporation or entity if it owns or directly or indirectly controls more than fifty percent (50%) of the voting stock or other ownership interest of the other corporation or entity, or if it possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of the corporation or other entity or the power to elect or appoint fifty percent (50%) or more of the members of the governing body of the corporation or other entity.

1.2 "Compound Exclusivity" means the exclusive right to make, have made, use, research, develop and commercialize (in the respective field) a compound, however, it does not provide any rights to Adherex in the Non-Cancer Field or to Cadherin in the Adherex Fields.

1.3 "Confidential Information" means any confidential or proprietary information furnished by one party to the other party in connection with this Agreement, provided that (i) such information is specifically designated as confidential in writing at the time of disclosure, or (ii) a reasonable person receiving such information would understand such information to be confidential or proprietary information of the disclosing party in the context of disclosure.

1.4 "Effective Date" means November 14, 2002.

1.5 "Fair Market Value" means the gross sales price or value which Cadherin would realize from an unaffiliated, unrelated buyer in an arm's length sale or exchange of consideration for an identical product or service sold or provided in the same quantity and at the same time and place as the sale or exchange for which the Fair Market Value is to be determined.

1.6 “Gross Revenues” means all incomes, revenues, receipts, monies, up-front payments, fees and considerations paid to Cadherin by a third party and that are directly or indirectly attributable to: (i) the sale, by Cadherin, of McGill Products; (ii) the provision of Services by Cadherin; (iii) option agreements, licenses or sublicenses granted by Cadherin to a third party with respect to McGill Products or to the Technology in the Field; (iv) manufacturing payments for McGill Products, whether received in cash or by way of other benefit, advantage, or concession. Gross Revenues shall however exclude all revenues from research and development agreements and all material transfer agreements, provided that such agreements do not include license grants or commercialization rights with respect to any aspect of the Technology in the Field. If received in a form other than cash, the applicable revenue will be the monetary equivalent or Fair Market Value of the benefit, advantage, or concession. For greater certainty, Gross Revenues do not include amounts paid to Cadherin from any Affiliate, amounts paid by Cadherin to any Affiliate or any amount paid from one Affiliate of Cadherin to another Affiliate of Cadherin.

1.7 “Improvement” shall mean any discovery or invention conceived or reduced to practice, solely or jointly, by or on behalf of Adherex or Cadherin during the term of this Agreement which is dominated by the Patent Rights. For purposes of this Agreement, an Improvement shall be “dominated” by the Patent Rights if, absent a license, the practice of such Improvement would directly or indirectly infringe one or more valid claims of the Patent Rights (assuming for the purposes of this definition only that both parties require a license hereunder to practice the Patent Rights).

1.8 “Licensed Patent” shall have the meaning set forth in the McGill License Agreement.

1.9 “McGill License Agreement” means the General Collaboration Agreement between McGill University and Adherex dated as of February 26, 2001.

1.10 “McGill Product” means any Product in the Field as defined in the McGill License Agreement.

1.11 “Non-Cancer Field” means any use or application in humans or animals other than the prevention, treatment, prognosis or diagnosis of cancer and the side effects of cancer treatment. It shall include drug delivery, however, Adherex retains an exclusive, worldwide, royalty free right to use any drug delivery technology licensed through this Agreement for the prevention, treatment, prognosis or diagnosis of cancer.

1.12 “Patent Rights” means (i) the United States and foreign patent applications and patents listed on Exhibit A, and (ii) any and all continuations, divisionals, or continuations-in-part applications thereto, and any patents that issue therefrom, including any extensions, renewals, reissues, or re-examinations thereof. For the avoidance of doubt, it is agreed that Patent Rights shall include any Licensed Patent licensed to Adherex under the McGill License Agreement. Adherex retains Compound Exclusivity for Exherin.

1.13 "Pre-clinical Development Program" means the creation and implementation of a formal development program to conduct scientific studies required or necessary for the filing of an investigational new drug application (or its in a equivalent in a foreign domicile).

1.14 "Product" means (i) any McGill Product, or (ii) any other product whose manufacture, use, sale, or import would, absent the license granted to Cadherin hereunder, infringe one or more valid claims of the Patent Rights**,** or (iii) any other product or service made or delivered using a method or process the use or practice of which would, absent the license granted to Cadherin hereunder, infringe one or more valid claims of the Patent Rights.

1.15 "Technology in the Field" shall have the meaning set forth in the McGill License Agreement.

1.16 "Territory" means the world.

1.17 "Term" has the meaning defined in Section 9.1 hereof.

2. LICENSE GRANTS.

2.1 Grant to Cadherin. In consideration of a portion of the compensation paid by Cadherin to Adherex under the Merger Agreement, and subject to the terms and conditions set forth in this Agreement including, without limitation, Section 2.4 hereof, Adherex hereby grants to Cadherin, under the Patent Rights and during the Term, an exclusive (even against Adherex itself), worldwide license, with the right to sublicense in accordance with Section 2.2 hereof, to make, have made, use, offer for sale, sell, and import any Products within the Non-Cancer Field as defined in section in 1.11. Other than the payment obligation to Adherex to satisfy requirements of the McGill License Agreement as set forth in Section 3.2 below, the foregoing license shall be fully-paid and royalty-free. The license granted hereunder is exclusive to Cadherin to the extent that Adherex itself may not make, have made, use, offer for sale, sell and import any Products within the Non-Cancer Field and in the Territory during the Term, and further provided, that during the Term, Adherex may not grant to any third parties whatsoever any sublicensing rights or similar rights of any nature to make, have made, use, offer for sale, sell and import any Products within the Non-Cancer Field and in the Territory.

2.2 Sublicense. Any sublicense by Cadherin of the rights granted to Cadherin under Section 2.1 shall be consistent with the terms of this Agreement and shall include an obligation for the sublicensee to comply with the applicable provisions of this Agreement including, without limitation, Section 5 (Confidentiality and Publication), Section 8.1 (Indemnification) and Section 11.1 (Use of Name). Cadherin shall notify Adherex of the existence of any sublicense of the rights granted herein within ten (10) business days of entering into such sublicense.

2.3 License to Improvements.

(a) To Cadherin. Subject to the terms and conditions set forth in this Agreement including, without limitation, Section 2.4 hereof, Adherex hereby grants to Cadherin, under any intellectual property rights owned or controlled by Adherex which claim an Improvement conceived or reduced to practice by Adherex, a non-exclusive, royalty-free, worldwide license, without the right to sublicense, to make, have made, use, offer for sale, sell, and import any Products within the Non-Cancer Field.

(b) To Adherex. Subject to the terms and conditions set forth in this Agreement including, without limitation, Section 2.4 hereof, Cadherin hereby grants to Adherex, under any intellectual property rights owned or controlled by Cadherin which claim an Improvement conceived or reduced to practice by Cadherin, a non-exclusive worldwide license, without the right to sublicense, to make, have made, use, offer for sale, sell, and import any products within the Adherex Fields.

2.4 Exclusivity. Notwithstanding any other provision of this Agreement to the contrary, the parties agree that:

(a) in the event that Adherex or its Affiliates or sublicensees intend to commercialize any specific compound or molecule covered by the Patent Rights as a product in one or more of the Adherex Fields and has begun bona fide preclinical development on such product, and Adherex reasonably believes that the commercialization of the same compound or molecule (or any salt substitution of such compound or molecule which shall be collectively referred to herein as the "Compound Group") by Cadherin in the Non-Cancer Field would adversely impact the commercialization of such compound or molecule by Adherex in the Adherex Fields, then unless Cadherin has first provided notice to Adherex under Section 2.4(b) below, Adherex shall have Compound Exclusivity to such Compound Group and Cadherin shall not have a right to make, have made, use, offer for sale, sell or import such Compound Group as a Product in the Non-Cancer Field.

(b) Subject to 2.4(a) above, in the event that Cadherin, its Affiliates or sublicensees, intend to commercialize any specific compound or molecule as a Product in the Non-Cancer Field and has begun bona fide preclinical development work on such Product, and Cadherin reasonably believes that the commercialization of the same Compound Group by Adherex in the Adherex Fields would adversely impact the commercialization of such compound or molecule by Cadherin in the Non-Cancer Field, then Cadherin shall notify Adherex in writing. Adherex shall reply to such notification within fifteen (15) business days indicating whether or not Adherex has begun or intends to begin bona fide pre-clinical development work on such Compound Group.

(i) If Adherex notifies Cadherin that Adherex has begun or intends to begin such bona fide preclinical development work, then Cadherin shall be denied Compound Exclusivity over such Compound Group and Adherex shall have Compound Exclusivity over such Compound Group under Section 2.4(a) above.

(ii) If Adherex notifies Cadherin that Adherex has not begun and does not intend to begin such bona fide preclinical development work and Adherex has not first provided notice to Cadherin under Section 2.4(a) above, Cadherin shall have Compound Exclusivity over such Compound Group upon payment to Adherex of Twenty Thousand Dollars ($20,000) per Compound Group, and Adherex shall not have the right to make, have made, use, offer for sale, sell, or import such Compound Group covered by the Patent Rights as a product in the Adherex Fields. Notwithstanding the foregoing or any other clause in this Agreement, Cadherin will not have the right to make, have made, use, offer for sale, sell, or import any Compound Group covered by the Patent Rights as a product in the Adherex Fields.

(c) In order for Adherex to maintain Compound Exclusivity over a Compound Group under Section 2.4(a) above, it must (i) initiate a Preclinical Development Program within three (3) months of providing notice to Cadherin that it intends to develop such Compound Group and (ii) file for an IND for one or more compounds in the Compound Group with the United States FDA or comparable filing with the competent foreign agency in Canada, Japan or a country of the European Union within fifteen (15) months of providing notice to Cadherin that it intends to commence pre-clinical development of a Compound Group. In order for Cadherin to maintain Compound Exclusivity over a Compound Group under Section 2.4(b)(ii) above, Cadherin must file for an investigational new drug (IND) application for one or more compounds in the Compound Group with the United States FDA or comparable filing with the competent foreign agency in Canada, Japan or a country of the European Union within fifteen (15) months after acquiring Compound Exclusivity over such Compound Group.

(d) In the event that either party fails to timely satisfy its obligations set forth in Section 2.4(c) above, then either (i) such party may extend the period of exclusivity for up to an additional twelve (12) months by paying the other party Ten Thousand Dollars ($10,000) per month per Compound Group until such time as an IND is filed, or (ii) such party shall lose exclusivity for such Compound Group. In the event such party fails to timely satisfy its obligations under this Section 2.4(d)(i) within the three (3) month period, or loses exclusivity under Section 2.4(d)(ii), or abandons development of a Compound Group, then either party shall be free to develop and commercialize such Compound Group, and may request exclusivity in accordance with the terms of this Section 2.4. In this event, the $20,000 under Section 2.4 (b)(ii) shall not apply.

2.5 No Implied License. Except as expressly set forth herein, no license, express or implied, under any intellectual property rights owned or controlled or developed hereunder by either party is granted to the other party. It is understood and agreed that nothing in this Agreement grants Cadherin any rights outside of the Non-Cancer Field and Adherex retains no rights in any field except the Adherex Fields.

2.6 Technology Transfer Costs. Cadherin shall also reimburse Adherex for all reasonable and actual out-of-pocket costs for transferring materials and information comprising including any time expended by Adherex professional staff in the requested transfer activities. These technical transfer costs and charges shall be due and payable thirty (30) days after receipt by Cadherin of an invoice from Adherex itemizing such costs on a periodic (monthly) basis.

3. CONSIDERATION UNDER McGILL LICENSE AGREEMENT.

3.1 Consent. The parties acknowledge that McGill has consented to the sublicense of the Licensed Patents (as defined in the McGill License Agreement) in accordance with the consent letter in the form attached hereto as Exhibit B.

3.2 Payments To McGill. In consideration of the sublicense granted to Cadherin pursuant to this Agreement under the Licensed Patent and Technology in the Field, Cadherin

shall pay to Adherex, in the manner designated below, an earned royalty of two percent (2%) of the Gross Revenue received by Cadherin for any McGill Product. The parties agree that Adherex shall be obligated to make all payments to McGill pursuant to Section 6.1 of the McGill License Agreement. All payments due Adherex hereunder shall be paid within forty-five (45) days following the end of the calendar quarter in which such payment accrues and shall be paid in Canadian dollars or as otherwise agreed by the parties. All payments shall be remitted to Adherex's address given in Section 11.2 hereof or to such other address as Adherex shall direct.

Cadherin shall pay to Adherex interest on any amount not paid when due. Such interest will accrue from the fifteenth (15th) day after the payment was due at a rate of two percent (2%) above the daily prime interest rate, as determined by Royal Bank of Canada or its successor entity, on each day the payment is delinquent, and the interest payment will be due and payable on the first day of each month after interest begins to accrue, until fully payment of all amounts due Adherex is made.

Cadherin shall keep, at its own expense, accurate books of account, using accepted accounting procedures, detailing all data necessary to calculate and easily audit any payments due to Adherex from Cadherin under this Agreement.

Upon at least fifteen (15) days' written notice, Adherex shall have the right, through an independent accounting firm, to examine such records and books of account of Cadherin as are necessary to verify compliance with the terms of this Agreement. Such right may be exercised only once during any twelve-month period. Such examination may be performed at any time within three (3) years after the end of the reporting period to which the books of account pertain, and shall be performed during normal business hours at Cadherin's major place of business or at such other site as may be agreed upon by Adherex and Cadherin. The accounting firm may make abstracts or copies of such books of account solely for its use in performing the examination. Adherex shall require prior to any such examination, such accounting firm to agree in writing that such firm will maintain all information, abstracts, and copies acquired during such examination in strict confidence and will not make any use of such material other than to confirm to Adherex the accuracy of Cadherin's compliance hereunder. Adherex shall provide Cadherin with a copy of any reports and conclusions resulting from any such examination upon receipt of same.

If any examination of Cadherin's records shows that Cadherin has paid more than required under this Agreement, any excess amounts shall, at Cadherin's option, be promptly refunded or credited against future royalties with interest from the date of overpayment at the Royal Bank of Canada's Prime Rate minus 1%. If any examination of Cadherin's records shows that Cadherin has paid less than required under this Agreement, Cadherin shall promptly pay the additional amount due together with interest and late fees as required under this Agreement for late payments. If the amount of underpayment exceeds ten percent (10%) of the amount that should have been paid, Cadherin shall also pay all reasonable costs of such examination.

3.3 Other Obligations under the McGill License Agreement. The parties agree that Adherex shall remain obligated to make all payments to McGill pursuant to the following sections of the McGill License Agreement: Section 5.2 (Diligence Payments), Section 5.3 (Sponsored Research), Section 5.4 (Additional Research) and Section 5.5 (CIHR University/Industry Chair). Cadherin shall have no right to direct any of the research programs provided for under the McGill License.

4. NON COMPETITION.

4.1 Distinguishing the Product. Cadherin will use its best efforts to develop methods of use and administration, formulations of pharmaceutical compounds, and packaging for all of the Products licensed by Cadherin under this Agreement to support the regulatory approval of each Product developed by Cadherin in a way that distinguishes such Product's or Products' use in the Non-Cancer Field from the Adherex Field.

Adherex will use its best efforts to develop methods of use and administration, formulations of pharmaceutical compounds, and packaging for all of the Products to support the regulatory approval of each Product developed by Adherex in a way that distinguishes such Product's or Products' use in the Adherex Field from the Non-Cancer Field.

4.2 Off-label Use. Both parties shall not in any way position and use all reasonable efforts to avoid off-label usage. Should either party identify that there is off-label usage of a Product, it shall immediately notify the other party of this usage. The party selling the Product will take all reasonable steps to minimize this off-label usage and pay the other party a royalty to compensate for lost sales. If the parties cannot agree on the amount of the royalty, both agree to submit to binding arbitration.

4.3 Avoidance of Adherex Field. For the term of this Agreement, Cadherin will not develop any Products in the Adherex Field based upon the technology in the Patent Rights or Improvements or upon cell adhesion technology. In addition, as long as there is any officer or director of Cadherin who is also an officer or director of Adherex, Cadherin will not develop or seek to acquire any Products in the Adherex Field.

5. CONFIDENTIALITY AND PUBLICATION.

5.1 Obligations. During the Term of this Agreement and for a period of five (5) years thereafter, each party (the "Receiving Party") shall maintain in confidence and use only for the purposes specifically authorized in this Agreement the Confidential Information disclosed by the other party (the "Disclosing Party"), except that the Receiving Party may disclose or permit the disclosure of Confidential Information to its directors, officers, employees, consultants and advisors who are obligated to maintain the confidential nature of the such Confidential Information and who need to know such Confidential Information for the purposes of this Agreement.

5.2 Exceptions. The foregoing obligations of the Receiving Party shall not apply to the extent the Receiving Party can demonstrate that certain Confidential Information (i) was in the public domain prior to the time of its disclosure under this Agreement, (ii) entered the public domain after the time of its disclosure under this Agreement through means other than an unauthorized disclosure resulting from an act or omission of the Receiving Party; (iii) was independently developed or discovered by the Receiving Party without use of the Confidential Information, but only provided such independent development is evidenced by contemporaneous written documentation, (iv) is or was disclosed to the Receiving Party at any time, whether prior

to or after the time of its disclosure under this Agreement, by a third party having no fiduciary relationship with the Disclosing Party and having no obligation of confidentiality with respect to such Confidential Information, or (v) is required to be disclosed to comply with applicable laws or regulations, or with a court or administrative order, *provided*, that the Disclosing Party receives prior written notice of such disclosure and that the Receiving Party takes all reasonable and lawful actions to obtain confidential treatment for such disclosure and, if possible, to minimize the extent of the disclosure.

5.3 Return. Upon the expiration or termination of this Agreement, and at the request of the Disclosing Party, the Receiving Party shall return to the Disclosing Party all originals, copies and summaries of documents, materials, and other tangible manifestations of Confidential Information in the possession or control of the Receiving Party, except that the Receiving Party may retain one copy of the Confidential Information in the possession of its legal counsel solely for the purpose of monitoring its obligations under this Agreement.

5.4 Right to Publication. Adherex agrees that Cadherin shall have the right to publish or to present publicly (collectively, a "Publication") the results of any research, work or other development performed pursuant to this Agreement by or on behalf of Cadherin (collectively, "Results"). Cadherin agrees to submit any proposed Publication to Adherex where such Publication may have patent implications for review at least twenty (20) days prior to submission of presentation of such Publication. If Adherex requests a delay in submission or presentation based on patent considerations, Cadherin agrees to delay such submission or presentation for a period not to exceed ninety (90) days from the date of such request. Cadherin further agrees to give due consideration to any comments made by Adherex, with respect to such publication but, except as set forth in the immediate following sentence, Cadherin shall determine the content of the Publication. Nothing in this Section 9.5 shall be construed to allow Cadherin to publish or otherwise disclose any Confidential Information disclosed to Cadherin by Adherex.

6. PATENT PROSECUTION.

Except as provided below, and subject to the applicable terms of the McGill License Agreement, Adherex shall have the sole and exclusive right to file, prosecute and maintain the Patent Rights in the Territory, using patent counsel reasonably acceptable to Cadherin, at Adherex's expense. Adherex shall keep Cadherin informed regarding the status and prosecution of all patent applications and patents comprising the Patent Rights.

In the event that Adherex determines on a country-by-country basis in the Territory that it will not, for any reason, file or prosecute any patent application or maintain any patent within the Patent Rights, it will notify Cadherin of its decision promptly and in no event later than fifteen (15) days prior to the date of abandonment of such patent application or patent. Cadherin shall thereafter have the sole and exclusive right but not the obligation to undertake and control such filing, prosecution or maintenance at its own cost and expense, subject to the applicable terms of the McGill License Agreement. In such event, Adherex shall cooperate with Cadherin and provide such nonmonetary assistance as Cadherin may reasonably request.

7. PATENT RIGHTS INFRINGEMENT.

7.1 Notification. Each party will inform the other promptly in writing of any alleged infringement of the Patent Rights by a third party and of any available evidence thereof, as well as any facts which may affect the validity, scope or enforceability of the Patent Rights of which either party becomes aware.

7.2 Cadherin Right to Prosecute. Subject to the applicable terms of the McGill License Agreement, Cadherin shall have the first right, but shall not be obligated, to commence legal action at its own expense to defend against a declaratory action alleging invalidity or non-infringement of the Patent Rights or to prosecute all infringements of the Patent Rights where such infringements are occurring in the Non-Cancer Field and in the Territory. Adherex shall have the right to receive, from time to time at its request, full and complete information from Cadherin concerning the status of any such litigation. Adherex shall, at the request and expense of Cadherin, provide reasonable cooperation in any such litigation. The total cost of any such action commenced solely by Cadherin (and with respect to which Adherex does not elect to become an intervening party, as hereinafter provided) shall be borne by Cadherin, and Cadherin shall retain any recovery or damages derived therefrom.

In the event that Cadherin institutes a court proceeding relating to infringement of the Patent Rights in the Non-Cancer Field and in the Territory, Adherex shall have the right to intervene in such proceeding and Cadherin shall not oppose such intervention, provided that (i) Adherex notifies the court and Cadherin of its intention to intervene within 180 days of the commencement of such proceeding, and (ii) Adherex shares equally with Cadherin the total costs incurred by Cadherin (including without limitation attorney and expert fees) of conducting such proceeding. Cadherin shall retain control of the conduct and settlement of any such proceeding; provided further, however, that no settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of Adherex, which consent shall not be unreasonably withheld or delayed. Any recovery of damages for any such proceeding (or settlement thereof) shall be applied first in satisfaction of any out-of-pocket expenses incurred by the parties relating to the proceeding (including without limitation attorney and expert fees), and the balance shall be equally divided between the parties.

7.3 Adherex Right to Prosecute. In the event that Cadherin declines to commence legal action to defend against a declaratory action alleging invalidity of the Patent Rights or to prosecute infringements of the Patent Rights in the Non-Cancer Field and in the Territory, Cadherin shall notify Adherex of its decision promptly in writing (and in no event later than 10 days thereafter). Thereafter, Adherex shall have the right, but shall not be obligated, to commence legal action at its own expense to defend or prosecute such infringements relating to the Patent Rights, subject to the applicable terms of the McGill License Agreement. Cadherin agrees that Adherex may include Cadherin as a party in any such suit subject to indemnifying Cadherin against any order for costs or other damages that may be made against Cadherin in such proceedings. No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of Cadherin, which consent shall not be unreasonably withheld or delayed. Cadherin shall have the right to receive, from time to time at its request, full and complete information from Adherex concerning the status of any such litigation. Cadherin shall, at the request and expense of Adherex, provide reasonable cooperation in any such litigation. The total cost of any such action commenced solely by Adherex shall be borne by Adherex, and Adherex shall retain any recovery or damages derived therefrom.

8. INDEMNIFICATION.

8.1 Indemnification of Adherex. Cadherin shall, and shall cause its sublicensees to, at all times during the Term of this Agreement and thereafter, indemnify, defend and hold harmless Adherex and its directors, officers, employees, stockholders and agents ("Adherex Indemnitees") against all third party claims, suits, actions, proceedings, demands, expenses, costs, damages, deficiencies, losses, liabilities or judgments of any kind whatsoever, including without limitation legal expenses and attorneys' fees, ("Claims") based upon, arising out of or otherwise relating to the grant of rights to Cadherin under this Agreement including, without limitation, any cause of action relating to product liability or the death of or injury to any person or person or out of any damage to property, resulting from the production, manufacture, sale, use, consumption or advertisement of any Product made by or on behalf of Cadherin. Notwithstanding the foregoing, Cadherin shall have no obligation to indemnify any Adherex Indemnitees to the extent any Claim arises out of the negligence or willful misconduct of any Adherex Indemnitees under this Agreement, or arises out of any breach of any representation of Adherex under this Agreement.

8.2 Conditions to Indemnification. The obligations of Cadherin under Section 8.1 are conditioned upon: (i) the written notice to Cadherin of any potential liability promptly after the Adherex Indemnitee becomes aware of such potential liability (provided that the failure to give such prompt notice shall not affect Cadherin's indemnification obligations except to the extent that Cadherin is actually prejudiced thereby); (ii) Cadherin having the right to assume the defense or settlement of any suit or claim related to the liability; (iii) the Adherex Indemnitees providing reasonable assistance in connection with the defense and settlement. Cadherin shall not enter into any settlement which admits or concedes that any aspect of the Patent Rights is invalid or unenforceable, or otherwise negatively affects the rights or obligations of Adherex without Adherex's consent, which consent shall not be unreasonably withheld. If Cadherin defends the suit or claim, the Adherex Indemnitees may participate in (but not control) the defense thereof at its sole cost and expense. Notwithstanding the foregoing, if, in the reasonable judgment of the Adherex Indemnitees, such suit or claim involves an issue or matter which could have a materially adverse effect on the business operations or assets of the Adherex Indemitee, the Adherex Indemnitee may waive its rights to indemnity under this Agreement and control the defense or settlement thereof.

9. TERM AND TERMINATION.

9.1 Term. This Agreement becomes effective as of the Effective Date and, unless sooner terminated in accordance with the provisions of Section 9.2 below, remains in force on a country-by-country basis until the expiration of the last-to-expire of the Patent Rights (the "Term").

9.2 Termination for Breach. This Agreement may be terminated by either party upon written notice of any material breach or default by the other party under this Agreement that the breaching party fails to remedy within thirty (30) days after the written notice thereof by the non-breaching party. Moreover, if any action or inaction by Cadherin hereunder shall cause Adherex

to be in material breach of the McGill License Agreement, Adherex may terminate this Agreement upon 30 days notice, provided however, that Cadherin does not take appropriate measures to assist Adherex to cure such breach within such 30 day period.

9.3 Bankruptcy. Adherex shall also have the right to terminate this Agreement if:

a) Cadherin becomes bankrupt or generally fails to pay its debts as such debts become due; is adjudicated insolvent or bankrupt; admits in writing its inability to pay its debts; or shall suffer a custodian, receiver or trustee for it or substantially all of its property to be appointed and, if appointed without its consent, not be discharged within thirty (30) days; makes an assignment for the benefit of creditors; or suffers proceedings under any law related to bankruptcy, insolvency, liquidation or the reorganization, readjustment or the release of debtors to be instituted against it and, if contested by it, not dismissed or stayed within thirty (30) days;

b) any order for relief is entered relating to any of the proceedings described in Paragraph 9.3(a); or

c) Cadherin shall by any act or failure to act indicate its consent to, approval of or acquiescence in any of the proceedings described in Paragraphs 9.3(a) or (b).

9.4 Effect of Expiration or Termination. Expiration or termination of this Agreement shall not relieve the parties of any obligation that accrued prior to such expiration or termination. The provisions of Sections 5, 8, 9, 10 and 11 shall survive any termination or expiration of this Agreement. The provisions of Section 7 shall survive any termination or expiration of this Agreement for the duration of any litigation or proceeding that was commenced prior to the effective date of such termination or expiration.

In the event that this Agreement is terminated by either party pursuant to Section 9.2, the license rights granted to Cadherin pursuant to Section 2.1 and 2.3 shall terminate and Cadherin shall immediately cease to manufacture and sell the Products; *provided however*, that Cadherin may dispose of its inventory of Products on hand as of the effective date of termination and may fill any orders for Products accepted prior to the effective date of termination. The license rights granted to Adherex pursuant to Section 2.3 shall survive any termination or expiration of this Agreement.

9.5 McGill License Agreement. Adherex shall notify Cadherin in writing in the event of any termination of the McGill License Agreement. The parties acknowledge that, pursuant to Section 3.2 of the McGill License Agreement, in the event of termination of the McGill License Agreement and provided that the obligations of Adherex pursuant to Sections 5.3 and 5.5 of the McGill License Agreement have been satisfied within sixty (60) days following such termination, McGill will honour the sublicense of Licensed Patent and Licensed Technology (as defined in the McGill License Agreement) granted by Adherex to Cadherin hereunder, provided that Cadherin agrees to be bound in respect of McGill by the terms of this Agreement relating to the payments pursuant to Section 3.2 hereof, including, without limiting the generality of the foregoing, the following provisions hereof: Section 9.1 (Term), Section 3.2 (Payments to McGill), Section 9.2 (Termination for Breach) and Section 9.3 (Effect of Expiration or Termination). Cadherin shall have no obligation to McGill to keep the sublicense in force, in

which case the sublicense shall immediately terminate and Cadherin shall immediately cease to use, manufacture or have manufactured, sell, lease or otherwise exploit or transfer the Licensed Patent and Licensed Technology (as defined in the McGill License Agreement). Should Cadherin intend to continue to use, manufacture or have manufactured, sell, lease or otherwise exploit or transfer the Licensed Patent or Licensed Technology (as defined in the McGill License Agreement), it shall provide McGill with written notice of such intent, along with a copy of the sublicense agreement to which it is a party within sixty (60) days of the termination of the McGill License Agreement.

Pursuant to Section 13.2 of the McGill License Agreement, in the event of insolvency of Adherex, McGill shall undertake to offer existing Adherex sublicensees (including Cadherin) a right of first offer to rights to the Licensed Patent. The rights granted in such a license will reflect the rights granted in the original sublicense and the terms offered will consider monies spent by the sublicensee in the development of the Licensed Technology.

10. WARRANTIES AND DISCLAIMERS.

10.1 Authorization. Each party represents and warrants to the other that it has the legal right and power to enter into this Agreement and to fully perform its obligations hereunder.

10.2 By Adherex. Adherex represents and warrants to Cadherin that (i) it has the lawful right to grant the license to Cadherin set forth hereunder, and (ii) as of the Effective Date and during the Term, it has not granted and will not grant to any third party, any right or license under the Patent Rights in the Non-Cancer Field in the Territory, and (iii) during the Term, it will not itself make, have made, use, sell or import any Products within the Non-Cancer Field and in the Territory. Adherex represents to Cadherin to use commercially reasonable efforts to maintain the McGill License Agreement in full force and effect.

10.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, EACH PARTY HERETO MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR VALIDITY OR ENFORCEMENT OF THE PATENT RIGHTS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR A WARRANTY GIVEN BY ADHEREX THAT THE PRACTICE BY CADHERIN OF THE PATENT RIGHTS SHALL NOT INFRINGE THE INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY.

11. MISCELLANEOUS.

11.1 Use of Names. Except as required by law or otherwise set forth in the Merger Agreement, neither party shall use the name of the other party or any of their respective officers, employees, consultants, or agents in any press release, promotional material or other publicity without the prior written consent of the other party.

11.2 Notice. Any notices or other communications required or permitted hereunder shall be sufficiently given if delivered personally, sent by reputable overnight delivery service (such as Federal Express or Airborne Express) or sent by first class certified mail, postage prepaid, addressed as follows or to such other address of which the parties may have given notice:

To Adherex: Adherex Technologies Inc.
Attention: Chief Executive Officer
600 Peter Morand Crescent
Ottawa, Ontario K1G 5Z3
Canada

To Cadherin: Cadherin Biomedical Inc.
Attention: Chief Executive Officer
600 Peter Morand Crescent
Ottawa, Ontario K1G 5Z3
Canada

Unless otherwise specified herein, such notices or other communications shall be deemed received (a) on the date delivered, if delivered personally, (b) one business day after being sent, if sent by reputable overnight delivery service or (c) three business days after being sent, if sent by certified mail.

11.3 Assignment. This Agreement may not be assigned or otherwise transferred by Cadherin without the consent of Adherex, such consent not to be unreasonably withheld or delayed, except either party may assign this Agreement without the consent of the other party to an Affiliate or in connection with the transfer or sale of all or substantially all of the portion of its business to which this Agreement relates, or in the event of its merger or consolidation or change in control or similar transaction. Any purported assignment in violation of this Section shall be void. Any permitted assignee shall assume all obligations of its assignor under this Agreement in writing.

11.4 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario, without giving effect to principles of conflict or choice of laws.

11.5 Arbitration. Both parties agree to binding arbitration in the event any dispute arising out of this agreement can not be resolved between them.

11.6 Entire Agreement; Amendments. This Agreement represents the entire understanding and agreement between the parties hereto with respect to the subject matter hereof and supersede all prior oral and written and all contemporaneous oral negotiations, commitments and understandings between such parties. This Agreement may not be modified or amended except by a written agreement duly executed by both parties hereto.

11.7 Waivers. No delay on the part of any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any waiver on the part of any party of any such right, power or privilege, nor any single or partial exercise of any such right, power or privilege, preclude any further exercise thereof or the exercise of any other such right, power or privilege. The rights and remedies of any party based upon, arising out of or otherwise in

respect of any inaccuracy in or breach of any representation, warranty, covenant or agreement contained in this Agreement shall in no way be limited by the fact that the act, omission, occurrence or other state of facts upon which any claim of any such inaccuracy or breach is based may also be the subject matter of any other representation, warranty, covenant or agreement contained in this Agreement (or in any other agreement between the parties) as to which there is not inaccuracy or breach.

11.6 Section Headings. The section headings are for the convenience of the parties and in no way alter, modify, amend, limit, or restrict the contractual obligations of the parties.

11.7 Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

11.8 Third Party Beneficiaries. The parties hereto agree that this Agreement is not intended to create any third party beneficiaries, other than the Adherex Indemnitees pursuant to Section 8.1 hereof.

11.9 Relationship of the Parties. Adherex and Cadherin are independent contractors under this Agreement. Nothing contained in this Agreement is intended nor is it to be construed so as to constitute Adherex and Cadherin as partners or joint venturers with respect to this Agreement. Employees of any party remain employees of said party and shall at no time be considered agents of or to be obligated to render a fiduciary duty to the other party.

11.10 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which shall be one and the same document.

IN WITNESS WHEREOF, this Exclusive License Agreement has been duly executed as an instrument under seal by the parties hereto as of and on the date first above written.

ADHEREX TECHNOLOGIES INC.

/s/ John Brooks

Title:
Date: November 14, 2002

CADHERIN BIOMEDICAL INC.

/s/ John Brooks

Title:
Date: November 14, 2002

Exhibit A
Patent Rights

Exhibit B
McGill Consent Letter

McGill University

Attention: _____

RE: Sublicense Consent

Dear _____:

As you know, Adherex Technologies Inc. ("Adherex") is entering into an Exclusive License Agreement ("Agreement") with Cadherin Biomedical Inc. ("Cadherin") under which Adherex will, among other things, sublicense to Cadherin in the non-cancer field the rights licensed by McGill University ("McGill") to Adherex under the General Collaboration Agreement between McGill and Adherex dated _____ (the "McGill License Agreement").

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, McGill and Adherex agree as follows:

1. In accordance with Section 3.2(a) of the McGill License Agreement, McGill hereby consents to the sublicensing to Cadherin of the Licensed Patent and Licensed Technology (as such terms are defined in the McGill License Agreement), with the right for Cadherin to further sublicense such rights. McGill acknowledges that it has reviewed a copy of the Agreement and hereby consents to its terms.

2. Adherex agrees that, as full and complete consideration under the sublicense granted to Cadherin in the Agreement, the sufficiency of which McGill hereby acknowledges, Adherex shall pay to McGill any and all amounts received by Adherex from Cadherin under Section 3.2 of the Agreement (which amounts shall equal two percent (2%) of the Gross Revenue (as defined in the Agreement) payable by Cadherin for any McGill Product (as defined in the Agreement)).

3. The Agreement shall not in any way diminish, reduce or eliminate any of Adherex's duties or obligations under the McGill License Agreement, and Adherex shall remain primarily liable to McGill for all of Adherex's duties and obligations contained in the McGill License Agreement.

Please indicate your agreement with the terms of this letter by signing both copies of this letter in the space provided below and returning it to me.

Sincerely,

_____

Adherex Technologies Inc.

Agreed and accepted:

McGill University

_____

Name:

Date:

EXHIBIT 4.8

Commercial Park West

Realmark–Commercial, LLC

Lease

Date: March 10, 2004

To: John Stubbs
Corporate Realty Advisors
5511 Capital Center Drive, Suite 320
Raleigh, NC 27606
(919) 851-9111

From: Douglas Marshall
Property Manager
Commercial Park West
2327 Englert Drive, Suite 101
Durham, NC 27713
(919) 361-8838

Landlord: Realmark–Commercial, LLC (“Landlord”)
2350 N. Forest Road
Getzville, NY 14068
(716) 636-0280

Tenant: Adherex Technologies, Inc. (“Tenant”)
Dr. William Peters, Dr. Robin Norris, & Eric Karl
2530 Meridian Parkway, Suite 200
Durham, NC 27713

Premises: Commercial Park West
2300 Englert Drive, Suite G
Durham, NC 27713

Commercial Lease Agreement

BETWEEN

Realmark-Commercial, LLC **Lessor**

AND

Adherex, Inc. **Lessee**

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Commercial Lease Agreement

THIS LEASE AGREEMENT is made and entered into as of the

1st day of April 2004

by and between

Realmark-Commercial LLC

hereinafter referred to as "Lessor"

AND

Adherex, Inc.

hereinafter referred to as "Lessee".

WITNESSETH:

1. **PREMISES:** In consideration of the mutual covenants and agreements herein stated, Lessor hereby leases to Lessee and Lessee hereby leases from Lessor the following described premises (the "Premises"), together with the appurtenances thereto:

5,700 rentable square feet (RSF) of space situated at Commercial Park West, 2300 Englert Dr., Suite G; Durham, NC 27713 (sometimes referred to as the "building" or the "project"). **Within sixty (60) days after the Commencement Date, Lessee shall have the right to have its architect remeasure the Premises in accordance with BOMA Standards. If Lessee's measurements discloses a different square footage than that set forth above, the parties hereto shall amend the Lease to reflect the change in square footage and the rental amounts and Lessee's proportionate share of shared expenses hereunder shall likewise be amended to reflect the correct rental of square footage of the Premises in which case measurements shall be from the center of each demising wall between tenants and to the glass line on any exterior walls or outside of the exterior wall if a glass line dose not exist. In the event the Lessee remeasures the space the Lessor will have the right of reasonable review.**

The location of the Premises within the building shall be as shown on Exhibit A attached hereto and made a part hereof by this reference.

Lessor acknowledges and agrees that Lessee shall have the non-exclusive right to use free of charge, any and all Common Areas, as hereinafter defined, but not limited to, all parking areas. With respect thereto, Lessor acknowledges and agrees that it shall maintain at all times during the Lease term parking serving the building, at a ratio of not less than five (5) parking spaces per 1,000 square feet of rentable area within the building.

For purposes of prorating various expenses, the Premises represent **5.76%** percent of the building or project.

2. **TERM:** ~~(a)~~ Subject to and upon the conditions set forth below, the term of the Lease shall commence on _____ ~~**March 1, 2004** (the "commencement date") and shall expire on **February 28, 2010** (which shall be~~ **that date which is the later of (i) the date of substantial completion of the Lessor's Work as defined in Exhibit D or (ii) June 1, 2004 (the "Commencement Date") and shall expire** on the last day of the **seventy-second (72nd) full** calendar month **thereafter,** unless sooner terminated as hereinafter provided. ~~Lessor shall use its reasonable efforts to establish the "completion date" as March 1, 2004 or sooner.~~ **Notwithstanding any other provision contained herein to the contrary, Lessor acknowledges and agrees that it has assured Lessee that it shall achieve substantial completion the Lessor's Work and deliver possession of the Premises to Lessee on or before June 1, 2004 (the "Completion Date Deadline"). Accordingly, in the event Lessor fails to deliver possession of the Premises to Lessee having substantially completed such Lessor's Work on or before said Completion Date Deadline for any reason other than Lessee caused delays or Act of God events, then, in such event, Lessee shall be entitled to a credit equal to two (2) days base rent (at the monthly rental rate applicable to the 7th through 12th months of Lease term) for each day beyond the Completion Date Deadline that Lessor has failed to deliver possession of the Premises to Lessee with Lessor's Work having been substantially completed. Furthermore, Lessor acknowledges and agrees that in the event it has failed to deliver the Premises to Lessee having substantially completed the Lessor's Work on or before September 1st, 2004 for any reason other than Lessee caused delays or Act of God, Lessee shall be entitled to terminate this Lease by providing written notice of such election to Lessor any time on or before September 10th, 2004.**

(b) ~~If the Premises are not available for occupancy on the "commencement date" or "completion date", the Lease shall not be affected thereby and Lessee shall have no claim against Lessor as a result of the postponement of such date.~~

3. **RENT:** ~~(a)~~ Lessee agrees to pay monthly as base rental during the term of this Lease **(~~as shown on the~~ in accordance with the base rental schedule** attached **~~rent schedule~~**) **hereto** which amounts shall be payable to Lessor at the address shown below on the first day of the month. One monthly installment of rent shall be due and payable on the ~~date of execution of this Lease~~ **Commencement Date** by Lessee for the first month's rent and a like monthly installment shall be due and payable on or before the first day of each calendar month succeeding the "Commencement Date" during the demised term; provided, that if the "Commencement Date" should be a date other than the first day of a calendar month, the monthly rental set forth above shall be prorated to the end of that calendar month, and all succeeding installments of rent shall be payable on or before the first day of each succeeding calendar month during the demised term. Lessee shall pay, as additional rental, all other sums due under this Lease. All rent and sums to be paid under this Lease are to be paid without demand, set-off, abatement or deduction, except as specifically provided in the Lease. If the Lease terminates on a day other than the last day of a calendar month, the rent for said month will be prorated.

(b) On the date of execution of this Lease by Lessee, there shall be due and payable by Lessee a security deposit in an amount equal to **Six Thousand Dollars 00/100 ($6,000.00)** ~~monthly rental installment(s)~~ to be held **as security** for the performance by Lessee of Lessee's covenants and obligations under this Lease, it being expressly understood that the deposit shall not be considered an advance payment of rental or a measure of Lessor's damage in case of default by Lessee. Upon the occurrence of any event of default by Lessee or breach by Lessee of Lessee's covenants under this Lease, Lessor may, from time to time, without prejudice to any other remedy, use the security deposit to the extent necessary to make good any arrears of rent and/or damage, injury, expense or liability caused to Lessor by the event of default or breach of covenant, any remaining balance of the security deposit to be returned by Lessor to Lessee upon termination of this Lease.

(c) If any increase in the fire or other insurance premiums paid by Lessor for the building in which Lessee occupies space is caused **solely** by Lessee's use and occupancy of the Premises, including without limitation Lessee's use, storage, production or handling of any Hazardous Material (as hereinafter defined in Paragraph 11), or if Lessee vacates the Premises and causes an increase in such premiums, the Lessee shall pay as additional rent, upon demand, the amount of such increase to Lessor.

(d) Other remedies for nonpayment of rent notwithstanding, if the monthly rental payment is not received by Lessor on or before the tenth day of the month for which rent is due, or if any other payment due Lessor by Lessee is not received by Lessor on or before the tenth day following the date it was due, a late charge of five percent (5%) of such past due amount shall become due and payable in addition to such amounts owed under this Lease.

(e) Beginning with the Commencement Date, Lessee agrees to pay to Lessor, as additional rental each year, Lessee's proportionate share **(5.76%)** of any direct expenses (as defined below) incurred by or accrued as an expense of Lessor or its agents on account of the operation or maintenance of the building (and all appurtenances thereto) in which the Premises are situated and including a portion of any charges attributable to the Common Areas. ("Common Areas" shall mean all areas, improvements, space, equipment, signs and special services provided by Lessor for the common or joint use and benefit of **all of** the occupants of the building, their employees, agents, servants, customers, and other invitees, including, without limitation, parking areas, entranceways, exits, walkways, service roads, driveways, retaining walls, landscaped areas and truck serviceways.) **~~Of which is estimated at One Dollar 85/100 ($1.85)~~ With respect to the foregoing, Lessor represents and warrants that its good faith estimate of the direct expenses for the year 2004 shall be $1.85 per rentable square foot. In no event shall the direct expenses charged to Lessee exceed $1.90** per square foot for 2004. Such additional rental shall be paid on the first day of each calendar month throughout the term, without deduction or set-off, in equal monthly installments of an amount based on Lessor's projections of direct expenses for the applicable calendar year, and all such monthly payments shall be credited to Lessee's rental account for such calendar year. Lessor shall, within nine months following the close of each calendar year during the term of the Lease, invoice Lessee for the additional rental. The invoice shall include in reasonable detail all computations of the additional rental. If this Lease shall terminate on a day other than the last day of a year, the amount of any additional rental payable by Lessee applicable to the year in which such termination shall occur shall be prorated on the ratio that the number of days from the commencement of such year to and including such termination date bears to 365. If such invoice shows an amount owing by Lessee that is less than the sum of the monthly payments made by Lessee in the previous calendar year, Lessor shall credit such excess to installments of rent (both base and additional) next due from Lessee until such has been exhausted, or if this Lease shall expire prior to the application of such excess, Lessor shall pay Lessee the balance not theretofore applied against rent. If such invoice shows an amount owing by Lessee, which is more than the sum of the monthly payments made by Lessee in the previous calendar year, Lessee shall pay such deficiency to Lessor within ten days after receipt of the invoice. Lessee shall have the right, at its own expense and at a reasonable time, to audit Lessor's books relevant to the additional rentals under this Paragraph 3. **In the event an audit by Lessee discloses that Lessee has been overcharged by ten percent (10%) or more in any given year, Lessor shall reimburse Lessee for the reasonable cost of such audit. Furthermore, Lessor acknowledges and agrees that should Lessor or any other tenant of Lessor perform an audit of direct expenses which discloses that Lessee was overcharged then, in such event Lessor shall be obligated to provide Lessee a credit in the amount of the overcharge as disclosed by such audit.** The provisions herein shall survive the expiration or sooner termination of the Lease.

(f) The term "direct expenses" as used above includes all **reasonable and customary** direct costs of operation and maintenance of the building and/or project of which the Premises are a part, including, but not limited to, utility and service charges attributable to Common Areas **~~or~~ and** paid by Lessor, the costs of building supplies, repairs, maintenance and service contracts for the building, Common Areas and all related mechanical equipment, property management charges, the costs of grounds maintenance, landscaping, parking maintenance and striping, all real property taxes and installments of special assessments, including special assessments due to deed restrictions and/or owner's associations which accrue against the building and/or project of which the Premises are a part during the term of this Lease, as well as all insurance premiums Lessor is required to pay or deems necessary to pay, including all risk property, general liability and sign insurance. The term "direct expenses" shall also include capital improvements (amortized on a basis reasonably determined by Lessor) that are required by governmental law, rule or regulation, which law, rule or regulation was not applicable to the building at the time it was originally constructed, or that result in cost savings in connection with the operation or maintenance of the building**, but only to the extent of such expected cost savings**. The term "direct expenses" does not include any capital

improvements to the building and/or project of which the Premises are a part, other than as specifically provided hereinabove, nor shall it include income and franchise taxes of Lessor, expenses incurred in leasing to or procuring of tenants, leasing commissions, advertising expenses, expenses for the renovation of space for new tenants, interest or principal payments on any mortgage or other indebtedness of Lessor, compensation paid to any employee of Lessor above the grade of building superintendent, ~~nor~~ any depreciation allowance or expense, **legal expenses, expenses for services provided by Lessor's affiliates to the extent in excess of what would have been incurred in an arm-length's transaction.**

(g) Lessee shall pay all taxes or assessments of any nature imposed or assessed upon its trade fixtures, equipment, machinery, inventory, merchandise or other personal property located on the Premises and owned by or in the custody of Lessee as promptly as all such taxes or assessments may become due and payable without delinquency.

(h) For the purposes of this subsection, (h) direct expenses are comprised of "controllable expenses" and "non-controllable expenses". Controllable expenses are those components of direct expenses that are not related to taxes or insurance. Non-controllable expenses are those components of direct expenses that are not controllable expenses. Notwithstanding any other provision to this Lease to the contrary, during the Term of this Lease, for the purpose of calculating Lessee's proportionate share of direct expenses each year, the items of controllable expenses shall be deemed not to increase by more than three percent (3%) per calendar year for each calendar year from and after calendar year 2004. There shall be no cap on non-controllable expenses.

4. **SIGNS:** Any signs or advertising to be used in connection with the Premises shall be first submitted to Lessor for approval before installation of same, and all signs, advertising or markings on the Premises shall be permitted only in the area designated by Lessor. **Lessor will provide reasonable signage on the building, subject to all governmental approvals and an allowance of $3,000.00. Any cost for such building signage in excess to the allowance shall be paid for by the Lessee. Signage will be the same as the current exterior signage for 2300 Englert Dr.**

5. **USAGE AND INSURANCE:** The Premises are to be used by the Lessee for the purpose of **general office, lab, design, testing and developing cancer focused therapy and Tumor vascular targeting platforms** and **developing non-cancer related applications for such technology and** for no other purpose without the prior written consent of the Lessor **which approval will not be unreasonably withheld or delayed. Lessor hereby represents and warrants that the foregoing permitted use of the Premises is permissible under applicable zoning ordinances governing the use of the Premises. Lessee shall have the right to access the Premises twenty-four (24) hours a day, seven (7) days a week throughout the term of this Lease.**

Lessee shall not use the Premises (or fail to maintain them) in any manner constituting a violation of any ordinance, statute, regulation or order of any governmental agency, including, but not limited to, zoning ordinances, nor will the Lessee maintain or permit any nuisance to occur on the Premises, or make void or voidable any insurance then in force on the Premises.

Lessee covenants and agrees that the Lessee will use, maintain and occupy the Premises in a careful, safe and proper manner and will not commit waste thereon.

6. **SERVICES TO THE PREMISES:** Lessor shall, subject to interruptions which are normal and to the scheduling of repairs by providers of such services, cause to be furnished to the Premises in common with other lessees, the following connections: water and sewer connections, phone line connections providing access to the local public telephone company, **T-1 connections** and normal electrical connections and natural gas connections.

7. **UTILITIES:** Lessee agrees that it will pay all charges for gas, electricity or other illumination used on the Premises, and will pay in addition directly to Lessor all water and sewage charges described hereafter. **With respect to the foregoing, Lessor represents and warrants to Lessee that the Premises are separately metered for gas and electricity services.** If the Premises are recognized as part of a building containing a number of tenants, the Lessee agrees to pay its proportionate share of the total water and sewage bill for the entire building based upon the ratio of the number of square feet demised herein to the total square footage contained in the entire building as set forth hereinabove Paragraph 1. It is expressly agreed that all water and sewage charges are considered as rent as defined in this Lease. ~~Should any of the above described charges herein provided for at any time remain due and unpaid for a period of five (5) days after the same shall have become due, Lessor may, at its option, consider Lessee a tenant at sufferance, and immediately re-enter upon the Premises, and the entire rental for the rental period shall at once be due and payable and may forthwith be collected by distress or otherwise.~~ **Notwithstanding any other provision contained herein to the contrary, Lessor acknowledges and agrees that in the event utility services to the Premises are interrupted as a result of the negligence of Lessor, its agents or contractors for a period in excess of two days, then, from and after such time, Lessee shall be entitled to an abatement of all rental amounts due hereunder until such time as such interrupted utility service is restored. Furthermore, in the event such interruption continues for a period in excess of 20 consecutive days, then, in such event, Lessee shall be entitled to terminate this Lease by providing written notice of such election to Lessor.** If the Premises consist of an entire building, Lessee shall pay the full cost of water and sewage charges applicable to said building directly to the utility providing the same. In the event Lessee's use of any utilities on a common meter is irregular or disproportionate, either Lessor or Lessee shall have the option as to future charges to have installed at its expense separate meters for the utilities in question.

8. ~~**RELOCATION:** In the event Lessor determines to utilize the Premises for other purposes during the term of this Lease, Lessee agrees to relocate to other space in the building and/or project designated by Lessor, provided such other space is of equal or larger size than the Premises and has at least the same number of windows. Lessor shall pay all out-of-pocket expenses of any such relocation, including the expenses of moving and reconstruction of all Lessee furnished and Lessor furnished improvements. In the event of such relocation, this Lease shall continue in full force and effect without any change in the terms or other conditions, but with the new location substituted for the old location set forth in Paragraph 1 of this Lease.~~

9. **REPAIRS AND MAINTENANCE:** (a) Unless otherwise expressly provided, Lessor shall not be required to make any improvements, replacements or repairs of any kind or character to the Premises during the term of this Lease. **Notwithstanding the foregoing, Lessor acknowledges and agrees that it shall be solely responsible for the repair and maintenance of all structural elements of the building, including, but not limited to the floor slab, exterior and all other load bearing walls and roof thereof as well as the underground components of all utility systems serving the Premises. In addition, Lessor acknowledges and agrees that it shall maintain such components of the building for which it is responsible hereunder and all Common Areas in accordance with the standards then applicable to other similarly situated first-class office buildings in the Durham, North Carolina area.** Lessor shall not be liable to Lessee, except as expressly provided in this Lease, for any damage or inconvenience, and Lessee shall not be entitled to any abatement or deduction of rent by reason of any repairs, alterations or additions made by Lessee under this Lease, **provided same are conducted in such a manner so as to minimize any interference with Lessee's business operations.** Lessee will be required to maintain and repair all damage to each and every part of the Premises, **which are not the responsibility of Lessor hereunder** including without limitation, the water apparatus, HVAC, electric lights or any other fixtures, appliances or appurtenances of the Premises such as walls, doors, corridors, windows and other structures and equipment within and serving the Premises, unless the same are necessitated by Lessor's negligence **or the negligence of its agents or contractors (in which event Lessor shall be responsible for the repair thereof).** Lessee shall enter into and keep in force throughout the term of the Lease a maintenance/service contract with respect to the HVAC system and, at Lessor's request, shall submit proof of such contract. **Notwithstanding the foregoing, or any other provision contained herein to the contrary, Lessor acknowledges and agrees that Lessee's responsibility with respect to the HVAC system serving the Premises shall be limited to the maintenance of the required service contract and for repairs required thereto costing less than $750.00 per occurrence. Lessor acknowledges and agrees that it shall be solely responsible for any repairs or replacements required to the HVAC system costing in excess of $750.00 per occurrence.** Lessee agrees to keep the Premises trash-free and to pay the cost of trash and debris removal as related to Lessee's operation. Lessee agrees to use a trash removal service designated by Lessor **(provided same is competitively priced)** and Lessee shall be billed directly for such service. Lessee shall remove all liens of record that may result from Lessee's performance of any repairs or maintenance required under this Paragraph 9 and shall make all such repairs and perform all such maintenance in a good and workmanlike manner. Lessee agrees that all such repair and maintenance work shall be in compliance with federal, state and local law, including, but not limited to, the Americans with Disabilities Act **(the "ADA"). Notwithstanding any other provision contained herein to the contrary, Lessor represents and warrants to Lessee that as of the Commencement Date and for a period of sixty (60) days thereafter, all utility systems serving the Premises, including, but not limited to the HVAC system shall be in good working order. In addition, Lessor represents and warrants that as of the Commencement Date the building and Premises shall comply in all material respects with all laws, rules and regulations governing the same including, but not limited to the ADA. Furthermore, in addition to Lessor's obligations elsewhere in this Lease, Lessor shall at Lessor's sole cost and expense, and with reasonable diligence perform all the following repairs or improvements: (a) repairs which are required as a result of latent or hidden defects present in the Premises as of the Commencement Date, (b) any repairs or improvements which are necessary to comply with any law, ordinance, order or restriction now or hereafter imposed by any federal, state or local government or governmental body, exclusive of any repair or improvement made necessary solely as a result of Lessee's use of the Premises.**

(b) Lessee shall, at its own cost and expense, repair or replace any damage or injury to all or any part of the Premises caused by Lessee or Lessee's agents, employees, invitees, licensees or visitors; provided, however, if Lessee fails to make the repairs or replacements promptly **following its receipt of notice from Lessor,** Lessor may, at its option, make the repairs or replacements and Lessee shall pay Lessor the cost thereof plus an overhead charge equal to ten percent (10%) of the cost of such repairs or replacements; and payment of such cost and overhead shall be made on demand.

(c) Lessee shall not allow any damage to be committed on any portion of the Premises **by Lessee, its employees, agents, contractors or invitees,** and at the termination of this Lease, by lapse of time or otherwise, Lessee shall deliver the Premises to Lessor in as good condition as existed at the commencement date or completion date of this Lease, casualty ordinary wear and tear excepted. The cost and expense of any repairs necessary to restore the condition of the Premises shall be borne by Lessee, and if Lessor undertakes to restore the Premises, it shall have a right of reimbursement against Lessee.

(d) All requests for repairs or maintenance that are the responsibility of Lessor pursuant to any provision of this Lease must be made in writing to the Lessor at the address set forth below. **With respect to the foregoing, Lessor agrees to make all such repairs as are Lessor's responsibility hereunder with a commercially reasonable time frame following its receipt of notice of the need thereof and in a manner designed to minimize any interruption with Lessee's business operations.**

10. **COMPLIANCE WITH LAWS, RULES AND REGULATIONS:** Lessee, at Lessee's sole expense, shall comply with all laws, rules, orders, ordinances, directions, regulations and requirements of federal, state, county and municipal authorities now in force or which may hereafter be in force, **with respect to its use of the Premises**, and with any lawful direction of any public officer or officers, which shall impose any duty upon the Lessor or Lessee with respect to ~~the~~ **Lessee's** use, occupation or alteration of the Premises, including without limitation, all applicable federal, state and local laws, regulations or ordinances pertaining to air and water quality, Hazardous Materials (as hereinafter defined), waste disposal, air emissions and other environmental matters, all zoning and other land-use matters, and utility availability. Lessee **shall**, at Lessee's sole expense, ~~shall also~~ comply with any governmental authority imposed recorded covenants, conditions and restrictions, ~~regardless of when they become effective,~~ which shall impose such a duty upon Lessor or Lessee. Lessee shall use all reasonable efforts to fully comply with the ~~Americans with Disabilities Act.~~ **ADA; provided, however, in no event shall Lessee have any obligation to make any alterations, additions or improvements to the Premises unless same are required as a direct result of Lessee's use of the Premises. Lessor shall be required to make any alterations, additions or improvements to the Premises necessary to comply with the ADA to the extent same are not imposed as a direct result of Lessee's specific use of the Premises prior to commencement.** Lessee will comply with the rules of the building adopted by Lessor which

are set forth on a schedule attached to this Lease and with all **commercially reasonable** recommendations or requirements of Lessor's insurance carrier relating to prevention of fires or other hazardous conditions. Lessor shall have the right at all times to change the rules and regulations of the building or to amend them in any reasonable **non-discriminatory** manner as may be deemed advisable for the safety, care and cleanliness, and for the preservation of good order, of the Premises. All changes and amendments in the rules and regulations of the building will be sent by Lessor to Lessee in writing and shall thereafter be carried out and observed by Lessee.

11. **HAZARDOUS SUBSTANCES – GENERAL:** The term "Hazardous Substances", as used in the Lease, shall mean pollutants, contaminants, toxic or hazardous wastes, or any other substances the use and/or removal of which is required or the use of which is restricted, prohibited or penalized by any "Environmental Law", which term shall mean any federal, state or local law, ordinance or other statute of governmental or quasi-governmental authority relating to pollution or protection of the environment. The term "Hazardous Substances" as used in this Lease shall also mean any petroleum products or byproducts, including crude oil or any fraction thereof and any other liquid hydrocarbon, which are not specifically designated, defined, listed, or have no characteristics identified in, under or pursuant to any Environmental Law. Lessee hereby agrees that (i) no activity will be conducted on the Premises that will use or produce any Hazardous Substance, except for such activities that are part of the ordinary course of Lessee's business activities (the "Permitted Activities") provided said Permitted Activities are conducted in accordance with all Environmental Laws and have been approved in advance in writing by Lessor **which will not be unreasonably withheld or delayed**; Lessee shall be responsible for obtaining any required permits and paying any fees and providing any testing required by any governmental agency; (ii) the Premises will not be used in any manner for the storage of any Hazardous Substances, except for the temporary storage of such materials that are used in the ordinary course of Lessee's business (the "Permitted Materials") provided such Permitted Materials are properly stored in a manner and location meeting all Environmental Laws and approved in advance in writing by Lessor **which will not be unreasonably withheld or delayed;** Lessee shall be responsible for obtaining any required permits and paying any fees and providing any testing required by any governmental agency; (iii) no portion of the Premises will be used as a landfill or a dump; (iv) Lessee will not install any underground tanks of any type; (v) Lessee will not allow any surface or subsurface conditions to exist or come into existence that constitute, or with the passage of time may constitute, a public or private nuisance; (vi) Lessee will not permit any Hazardous Substances to be brought onto the Premises, except for Permitted Materials provided such Permitted Materials are properly handled in a manner meeting all Environmental Laws and approved in advance in writing by Lessor **which will not be unreasonably withheld or delayed**, and if so brought or found located thereon, the same shall be immediately removed by Lessee, with proper disposal, at Lessee's sold cost and expense, and all required cleanup procedures shall be diligently undertaken pursuant to all Environmental Laws. Lessor or Lessor's representative shall have the right but not the obligation to enter the Premises **after providing Lessee at least twenty-four (24) hours prior written notice** for the purpose of inspecting the storage, use and disposal of Permitted Materials to ensure compliance with all Environmental Laws. Should it be determined, in Lessor's ~~sole~~ **reasonable** opinion, that said Permitted Materials are at any time being improperly stored, used or disposed of, then Lessee shall immediately take such corrective action as requested by Lessor. Should Lessee fail to take such corrective action within 24 hours, Lessor shall have the right to perform such work and Lessee shall promptly reimburse Lessor for any and all costs associated with said work. Lessor shall use its best efforts to minimize interference with Lessee's business while performing such work but shall not be liable for any interference caused thereby. If at any time during or after the term of this Lease the Premises are found to be so contaminated or subject to said conditions, Lessee shall diligently institute proper and thorough cleanup procedures at Lessee's sole cost.

Upon the expiration or termination of this Lease, Lessee shall render the Premises in clean condition free and clear of any actual or threatened presence of, or contamination, pollution, damage or injury by, any Hazardous Substance **caused by Lessee, its employees, agents, contractors or invitees. Lessor hereby represents and warrants to Lessee, to the best Lessor's knowledge and belief, that as of the date of this Lease, there exists no violations of Environmental Laws with respect to the building or the Premises, nor are the Premises contaminated with toxic mold.** If any of the Permitted Activities involves storage, production or use of a Hazardous Substance or if Lessor has evidence that Lessee has stored, produced or used a Hazardous Substance on the Premises or has brought onto the Premises such a substance, then at the request of Lessor, Lessee shall provide to Lessor, at Lessee's sole cost and expense, a report (an "Environmental Report") conducted and prepared by a competent licensed environmental engineer or consultant acceptable to Lessor which affirms, based on reasonable, ~~rigorous and detailed~~ testing, that no adverse, detrimental or harmful condition occurred or is present in, at, on, under, about or surrounding the Premises or otherwise in connection with Lessee's (or others at Lessee's sufferance or with Lessee's permission) operations thereon or use or occupancy thereof and that the Premises are free and clear of any actual or threatened contamination, pollution, damage, injury or harm by any Hazardous Substance and any threat or risk to human health, safety and welfare attributable to Lessee's (or others at Lessee's sufferance or with Lessee's permission) operations thereon or use or occupancy thereof. Such Environmental Report shall be provided to Lessor **within sixty (60) days of request of Lessor or otherwise** ~~at least~~ four (4) weeks prior to the ~~expiration or sooner~~ termination of this Lease. **In the event such indicates that there is no such condition, Lessor shall reimburse the cost of obtaining such report to Lessee.** ~~with the investigation upon which such Environmental Report is based occurring no earlier than eight (8) weeks prior to the expiration or sooner termination of this Lease.~~

For the purposes of applying the covenants provided under this Paragraph 11, the Premises shall also mean, refer to and include the building, the project, the land on which the building or project is situated including all common areas (hereinafter, the "land"), and the soil, ground water, and surface water of the land. Lessee agrees to indemnify and hold Lessor harmless from and against any and all claims, demands, actions, liabilities or losses (including, without limitation, those arising from any diminution in value of the Premises, damages for the loss or restriction on use of rentable or usable space or of any amenity of the Premises, damages arising from any adverse impact on marketing, **selling, financing** or leasing of space, and sums paid in settlement of claims), costs, expenses (including, without limitation, attorneys' fees and environmental engineers' or consultants' fees), damages and obligations of any nature arising from or as result of the use of the Premises by Lessee. The foregoing indemnification and the responsibilities of Lessee under this Paragraph 11 shall survive the termination or expiration of this Lease.

12. **LESSOR IMPROVEMENTS:** ~~If construction to the Premises is to be performed by Lessor prior to Lessee's occupancy, Lessor will, at its expense, commence and/or complete the construction of improvements constituting the Premises in accordance with the floor plan (attached Exhibit A), attached work letter and specifications, which plan, letter and specifications shall be approved and signed by the parties upon execution of this Lease and are~~ **Lessor agrees to make improvements to the Premises (the "Lessor's Work") in accordance with the Work Letter attached hereto as Exhibit "D", which Work Letter is hereby** made a part hereof by this reference. Any changes or modifications to the approved plan and specifications shall be made and accepted by written change order signed by Lessor and Lessee and shall constitute and amendment to this Lease. Upon **substantial** completion of the **Lessor's Work in accordance with the Plans** ~~building and other improvements in accordance with the plans and specifications,~~ Lessee agrees to execute and deliver to Lessor a letter accepting delivery of the Premises, **subject only to latent defects** All Lessor's Work contemplated under this paragraph shall constitute improvements to the Premises which shall remain part of the Premises upon expiration of the term of this Lease. If no improvements are to be made or construction to be done to the Premises, Lessee hereby accepts the Premises in the condition they are in at the beginning of this Lease.

Lessor hereby reserves the right at any time and from time to time to make alterations or additions to, and build additions on the building in which the Premises are contained and to build adjoining the same, and to install, maintain, use and repair and replace pipes, ducts, conduits and wires leading through the Premises in locations serving other parts of the building ~~which~~ **provided such alterations or additions** will not **(i)** materially interfere with Lessee's use of the Premises. **or (ii) materially detract from the aesthetics of the Premises.** Lessor also reserves the right to construct other buildings or improvements from time to time and to make alterations thereof or additions thereto and to build additional stories on the building or on other buildings and to build adjoining same and to construct such parking facilities as may be necessary or desirable.

13. **ALTERATIONS AND IMPROVEMENTS**: Lessee at its own cost and expense shall fully equip the Premises with all ~~lighting fixtures~~, furniture, operating equipment, and any other equipment necessary for the proper operation of Lessee's business. All fixtures installed by Lessee shall be new or completely reconditioned. Lessee shall not do any alternations or construction work or install any equipment without first obtaining Lessor's written approval and consent, such consent not to be unreasonably withheld or delayed. Lessee shall present to Lessor plans and specifications for such work at the time approval is sought. Lessor reserves the right before approving such work to require Lessee to furnish Lessor with evidence satisfactory to Lessor of financial arrangements made by Lessee to promptly pay for any work Lessee causes to be done in or on the Premises. Lessor's approval of any plans, specifications or work drawings shall create no responsibility or liability on the part of the Lessor for their completeness, design sufficiency or compliance with all laws, rules and regulations of governmental agencies or authorities. **Lessee shall be entitled to make interior, non-structural alterations, additions or improvements to the Premises without Lessor's consent, provided such alterations, additions or improvements do not adversely affect the utility systems serving the Premises.** Lessee shall remove all liens of record that may result from the performance of any alternations or additions. Lessee agrees that all alternations, physical additions or improvements to the Premises made by Lessee shall be completed in a good and workmanlike manner and shall be in compliance with the ~~Americas with Disabilities Act (the "ADA")~~ **ADA** and, upon the request of Lessor, Lessee shall provide Lessor with evidence reasonably satisfactory to Lessor that such work was performed in compliance with the ADA.

Any alternations, physical additions or improvements to the Premises made by Lessee shall at once become the property of Lessor and shall be surrendered to Lessor upon the termination of this Lease, except that the forgoing shall not apply to moveable equipment or furniture owned by Lessee which may be removed by Lessee at **any time during the Lease term or** the end of the term of this Lease ~~if Lessee is not then in default and if such equipment and furniture is not then subject to any other rights, liens and interests of Lessor.~~ Lessor, at its option, may require Lessee to remove any physical additions and/or repair any alternations in order to restore the Premises to the condition existing at the time the Lessee took possession, all costs of removal and/or alternations to be borne by Lessee. **Notwithstanding the foregoing, under circumstances where Lessor has an approval right over the alterations or additions being made by Lessee hereunder and if Lessor has approved same, Lessee shall not be obligated to so remove any such alterations or additions unless and except under circumstances where Lessor advised Lessee of such removal requirement at the time of its approval of the subject alterations or additions.** If Lessee does not remove moveable equipment or furniture or other personal property not owned by Lessor from the Premises after Lessor's written request at the end of the term of the Lease, such property will be deemed abandoned by Lessee and Lessor may dispose of such property as Lessor sees fit and, if Lessor disposes of such property, Lessor shall recover its costs incurred for the removal and disposal thereof. The provisions of this Paragraph 13 shall survive the expiration or sooner termination of this Lease.

14. **CONDEMNATION:** (a) If, during the term (or any extension or renewal) of this Lease, all or a substantial part of the Premises or the building (other than the Premises) **or the Common Areas** is taken for any public or quasi—public use under any governmental law, ordinance or regulation, or by right of eminent domain or by purchase in lieu thereof, and the taking would prevent or materially interfere with the use of the Premises for the purpose for which they are then being used, this Lease shall terminate and the rent shall be abated during the unexpired portion of this Lease effective on the date physical possession is taken by the condemning authority. Lessee shall have no claim to the condemnation award. **Notwithstanding the foregoing, Lessee shall be permitted to maintain a separate action against the condemning authority for loss of business, moving expenses and unamortized cost of any improvements or trade fixtures made by Lessee to the Premises.** In no event shall Lessor be liable to Lessee for any business interruption or diminution in the use or the value of any unexpired term of this Lease.

(b) If possession of a portion of the Premises is taken or condemned by public authority for public use so as not to make the remaining portion of the Premises unusable for the purpose leased, this Lease will not be terminated but shall continue. In such case, the rent shall be equitably and fairly reduced or abated for the remainder of the term in proportion to the amount of the Premises taken. Lessee shall have no claim to the condemnation award. **Notwithstanding the foregoing, Lessee shall be permitted to maintain a separate action against the condemning authority for loss of business, moving expenses and unamortized cost of any improvements or trade fixtures made by Lessee to the Premises.** In no event shall Lessor be liable to Lessee for any business interruption or diminution in the use or the value of any unexpired term of this Lease.

15. **FIRE AND CASUALTY:** (a) If the Premises or a portion of the building other than the Premises should be totally destroyed by fire or other casualty, or if the Premises or a portion of the building other than the Premises should be so damaged so that rebuilding cannot reasonably be completed within one hundred and ~~twenty (120)~~ **fifty (150)** ~~working~~ days after the date of written notification by Lessee to Lessor of the destruction, this Lease shall terminate and the rent shall be abated for the unexpired portion of the Lease, effective as of the date of the written notification.

(b) If the Premises should be partially damaged by fire or other casualty, and rebuilding or repairs can reasonably be completed within one hundred ~~twenty (120) working~~ **fifty (150)** days from the date of written notification by Lessee to Lessor of the destruction, this Lease shall not terminate, but Lessor **shall** at its sole risk and expense proceed with reasonable diligence to rebuild or repair the building or other improvements (other than improvements which Lessor is not obligated to insure pursuant to Paragraph-18) to substantially the same condition w\in which they existed prior to the damage. If the Premises are to be rebuilt or repaired and are untenantable in whole or in part following the damage, ~~and the damage or destruction was not caused or contributed to by act or negligence of Lessee, its agents, employees, invitees or those for whom Lessee is responsible,~~ the rent payable under this Lease during the period for which the Premises are untenantable shall be adjusted to such an extent as may be fair and reasonable under the circumstances. In the event that Lessor fails to complete the necessary repairs or rebuilding within one hundred ~~twenty (120) working~~ **fifty (150)** days from the date of written notification by Lessee to Lessor of the destruction plus the number of days by which such repairs or rebuilding are delayed by reason of acts of God or force majeure, Lessee may at its option terminate this Lease by delivering written notice of termination to Lessor, whereupon all rights and obligations under this Lease shall cease to exist.

16. **INSURANCE BY LESSEE:** Lessee shall, during the term of the Lease, procure at its expense and keep in force the following insurance:

(a) Commercial general liability insurance naming the Lessor as an additional insured against any and all claims for bodily injury and property damage, occurring in or about the Premises, arising out of Lessee's use and occupancy of the Premises. Such insurance shall have a combined single limit of not less than One Million Dollars (1,000,000) per occurrence with a Two Million Dollar ($2,000,000) aggregate limit and excess umbrella liability insurance in the amount of Two Million Dollars ($2,000,000). If the Lessee has other locations that it owns or leases, the policy shall include an aggregate limit per location endorsement. Such liability insurance shall be primary and not contributing to any insurance available to Lessor and Lessor's insurance shall be in excess thereto. In no event shall the limits of such insurance be considered as limiting the liability of Lessee under this Lease.

(b) Personal property insurance insuring all equipment, trade fixtures, inventory, fixtures and personal property located on or in the Premises for perils covered by the causes of loss – special form (all risk) and in addition, coverage for flood, ~~earthquake~~ and boiler and machinery (if applicable). Such insurance shall be written on a replacement cost basis in an amount equal to one hundred percent (100%) of the full replacement value of the aggregate of the foregoing, **subject to a commercially reasonable deductible.**

(c) Worker's compensation insurance in accordance with statutory law and employers' liability insurance with a limit of not less than $100,000 per employee and $500, 000 per occurrence.

(d) Such other insurance as Lessor deems necessary and prudent **in its reasonable discretion or is reasonably** required by Lessor's beneficiaries or mortgages of any deed of trust or mortgage encumbering the Premises **and which are available at a commercially reasonable premium**.

The policies required to be maintained by Lessee shall be with companies rated A**VII** or better in the most current Issue of Best's Insurance Reports. Insurers shall be licensed to do business in the state in which the Premises are located and domiciled in the USA. Any deductible amounts under any insurance policies required hereunder shall not exceed ~~$1,000~~ **a commercially reasonable amount.** Certificates of Insurance (certified copies of the policies may be required) shall be delivered to Lessor prior to the commencement date and annually thereafter at least thirty (30) days prior to the expiration date of the old policy. Lessee shall have the right to provide insurance coverage, which it is obligated to carry pursuant to the terms hereof in a blanket policy, provided such blanket policy expressly affords coverage to the Premises and to Lessor as required by this Lease. Each policy of insurance shall provide notification to Lessor at least thirty (30) days prior to any cancellation or modification to reduce the insurance coverage.

17. **WAIVER OF SUBROGATION:** Lessor and Lessee hereby mutually waive their respective rights of recovery against each other for any loss of, or damage to, either party's property, to the extent that such loss or damage is insured by an insurance policy issued by its insurer ~~whereby the insurer waives its rights of subrogation against the other party. The provisions of this clause shall not apply in those instances in which waiver of subrogation would cause either party's insurance coverage to be voided or otherwise made uncollectable~~ **or is required to be insured hereunder. Lessor and Lessee will cause their respective insurance companies to endorse their respective insurance policies to permit a waiver of subrogation rights.**

18. **INSURANCE BY LESSOR:** Lessor shall, during the term of this Lease, procure and keep in force the following insurance, the cost of which shall be deemed as Additional Rent payable by Lessee pursuant to Paragraph 3 hereinabove:

(a) Property insurance insuring the building and improvements and rental value insurance for perils covered by the causes of loss – special form (all risk) and in addition, coverage for flood, earthquake and boiler and machinery (if applicable). Such coverage (except for flood and earthquake) shall be written on a replacement cost basis equal to ninety percent (90%) of the full insurable replacement value of the foregoing, **subject to a commercially reasonable deductible** and shall not cover Lessee's equipment, trade fixtures, inventory, fixtures or personal property located on or in the Premises.

(b) Commercial general liability insurance against any and all claims for bodily injury and property damage occurring in or about the building or the land. Such insurance shall have a combined single limit of not less than One Million Dollars ($1,000,000) per occurrence per location with a Two Million Dollar ($2,000,000) aggregate limit.

(c) Such other insurance as Lessor **in its reasonable discretion** deems necessary and prudent or is required by Lessor's beneficiaries or mortgages of any deed of trust or mortgage encumbering the Premises.

19. **INDEMNIFICATION:** The Lessee will indemnify and hold harmless the Lessor from and against any and all claims arising from or caused by (i) Lessee's occupancy of the Premises (including, by not limited to, statutory liability and liability under workers' compensation laws, (ii) any breach or default in the performance of any obligation on the Lessee's part to be performed under the terms of this Lease, (iii) **to the extent caused by Lessee, its employees, agents, contractors or invitees,** the buildings and improvements located on the Premises becoming out of repair, or the leakage of gas, oil, water or steam, or the occurrence of electricity emanating from the Premises, ~~or any cause whatsoever~~ and (iv) any act or negligence of the Lessee, or any officer, agent, employee, guest, or invitee of the Lessee. The Lessee will indemnify and hold harmless the Lessor from and against any and all costs, attorneys' fees, expenses and liabilities incurred with respect to any such claim or any case, action or proceeding brought against the Lessor by reason of any such claim. The Lessee upon notice from the Lessor will defend the same at the Lessee's expense by counsel approved in writing by the Lessor. **The Lessor will indemnify and hold harmless the Lessee from and against any and all claims arising from or caused by (i) any breach or default in the performance of any obligation on Lessor's part to be performed under the terms of this Lease and (ii) any act or negligence of Lessor, or its employees, agents, contractors or invitees. The Lessor will indemnify and hold harmless the Lessee from and against any all reasonable and necessary costs, attorney's fees, expenses and liabilities incurred with respect to any such claim or any case, action or proceeding brought against the Lessee by reason of any such claim. The Lessor upon notice from the Lessee will defend the same at Lessor's expense by counsel approved in writing by the Lessee.**

The Lessee, as a material part of the consideration to the Lessor, assumes all risk of damage to property or injury to persons, in, upon or about the Premises (except that the Lessee does not assume any risk of damage to the Lessee resulting from the willful misconduct of the Lessor or its authorized representatives) from any cause whatsoever except that which is caused by **either (i)** the failure of the Lessor to observe any of the terms and conditions of the Lease if such failure has persisted for an unreasonable period of time after written notice of such failure **or (ii) the negligence of Lessor, its employees, agents, contractors or invitees.**

The Lessor is not liable for any claims, costs or liabilities arising out of or in connection with the acts or omissions of any other lessees in the building. The Lessee waives all of its claims in respect thereof against the Lessor.

20. **QUIET ENJOYMENT:** Lessor warrants that it has full right to execute and to perform this Lease and to grant the estate demised and that Lessee, upon payment of the required rents and performing the terms, conditions, covenants and agreements contained in this Lease shall peaceably and quietly have, hold and enjoy the Premises during the full term of this Lease as well as any extension or renewal thereof, subject to the provisions of this Lease. Lessor shall not be responsible for the acts or omissions of any other lessee or third party that may interfere with Lessee's use and enjoyment of the Premises. **Notwithstanding the foregoing, Lessor acknowledges and agrees that in the event any other tenant of Lessor defaults with respect to its obligations under such tenant's lease and such default materially adversely interferes with Lessee's use and enjoyment of the Premises, then, if requested by Lessee, Lessor shall, at no out-of-pocket cost or expense to Lessor, take such commercially reasonable actions as may be necessary to require the subject tenant to comply with the terms of its lease so as to eliminate such interference with Lessee's use and enjoyment of its Premises.**

21. **LESSOR'S RIGHT OF ENTRY:** Lessor shall have the right **upon providing 24 hours prior written notice to Lessee (except in the event of an emergency where no such prior notice shall be required),** at all reasonable hours, to enter the Premises for the following reasons: cleaning or making repairs; making alternations or additions as Lessor may deem necessary or desirable **provided same do not adversely affect Lessee's business operations or materially detract from the aesthetics of the Premises;** determining Lessee's use of the Premises, determining if an act of default under this Lease has occurred, or for the purpose of showing the Premises to prospective purchasers, mortgagees and, **during the last six (6) months of the Lease term only,** tenants. The right of entry shall likewise exist for the purpose of removing placards, signs, fixtures, alternations or additions that do not conform to this Lease or to the rules and regulations of the building. **In relation to the foregoing, Lessor acknowledges and agrees that all entries by Lessor or its agents or contractors into the Premises shall be conducted at such times and in such a manner so as to minimize any interference with Lessee's business operations.**

22. **ASSIGNMENT OR SUBLEASE:** Lessor shall have the right to transfer and assign, in whole or in part, its rights and obligations in the building and property that are the subject of this Lease. Lessee shall not assign this Lease or sublet all or any part of the Premises **without Lessor's prior written consent which consent will not be unreasonably withheld or delayed.** The transfer of a majority of shares, ~~or~~ partnership interests, **or any other beneficial interests in the Lessee** ~~in Lessee~~ will be deemed an assignment in violation of this Lease. ~~Without limiting the generality of the foregoing, Lessor shall have the option, upon receipt from Lessee of written request for Lessor's consent to subletting or assignment, setting forth the date that the requested subletting or assignment is to be effective, to cancel this Lease as of such date. The option shall be exercised, if at all, within fifteen (15) days following Lessor's receipt of such written request by delivery to Lessee of written notice of Lessor's intention to exercise the option.~~ **Notwithstanding the foregoing or any other provision contained herein to the contrary, Lessor acknowledges and agrees that Lessee may assign its interest under this Lease or sublet all or any portion of the Premises to any entity controlling or controlled by or under common control with Lessee or any successor to Lessee by purchase, merger, consolidation or reorganization (hereinafter, collectively referred to as a "Permitted Transfer"); provided (i) Lessee is not then in default under this Lease beyond any applicable notice and cure**

period, (ii) the Premises are not in any way adversely affected by the assignment or subletting. In the event of any assignment of subletting, Lessee shall nevertheless at all times remain fully responsible and liable for the payment of the rent and for compliance with all of its other obligations under the terms, provisions and covenants of this Lease. In the event of any sublease or assignment of all or any portion of the Premises where the rent in the sublease or assignment exceeds the rent or pro rate portion of the rent, as the case may be, for such space in the Lease, Lessee shall pay the Lessor monthly, as additional rent, at the same time as the monthly installments or rent hereunder, one-half (1/2) of the excess rent paid for the sublease or assignment over the rent in this Lease applicable to the subleased or assigned space. Lessor's approval of any subtenant or assignee is conditioned upon there being no additional compliance required with all laws, rules and regulations of any governmental authority required of either the Lessor or the Lessee and such approval shall create no responsibility or liability on the part of the Lessor for any non-compliance with laws, rules and regulations of any governmental authority. Upon the occurrence of an "event of default" as defined below, if all or any part of the Premises are then assigned or sublet, Lessor, in addition to any other remedies provided by this Lease or provided by law, may at its option, collect directly from the assignee or subtenants all rents becoming due to Lessee by reason of the assignment or sublease, and Lessor shall have a security interest in all properties on the Premises to secure payment of such sums. Any collection directly by Lessor from any assignee or subtenant shall not be construed to constitute a novation or a release of Lessee from the further performance of its obligations under this Lease.

23. **LANDLORD'S LIEN:** ~~As security for payment of rent, damages and all other payments required to be made by this Lease, Lessee hereby grants to Lessor a lien upon all property of Lessee now or subsequently located upon the Premises. If Lessee abandons or vacates any substantial portion of the Premises or is in default in the payment of any rentals, damages or other payments required to be made by this Lease or is in default of any other provision of this Lease. Lessor may enter upon the Premises, by picking or changing locks if necessary, and take possession of all or any part of the personal property, and may, on behalf of Lessee, sell all or any part of the personal property at a public or private sate, in one or successive sales, with or without notice, to the highest bidder for cash, delivering to the highest bidder all of Lessee's title and interest in the personal property sold to him. The proceeds of the sale of the personal property shall be applied by Lessor toward the reasonable costs and expenses of the sale, including attorney's fees, and then toward the payment of all sums then due by Lessee to Lessor under the terms of this Lease; any excess remaining shall be paid to Lessee or any other person entitled thereto by law.~~ **Lessor acknowledges and agrees that Lessee shall have the right at any time to encumber all or any portion of its interest in and to any furniture, trade fixtures or equipment located in the Premises with a lien to secure financing, and Lessor agrees to execute such Lessor's lien waiver or other agreement as Lessee's lender may reasonably require in connection with such financing.**

24. **UNIFORM COMMERCIAL CODE:** ~~This Lease is intended as and constitutes a security agreement within the meaning of the Uniform Commercial Code of the state in which the Premises are situated and, Lessor, in addition to the rights prescribed in this Lease, shall have all of the rights, titles, liens and interests in and to Lessee's property now or hereafter located upon the Premises which are granted a secured party, as that term is defined under the Uniform Commercial Code, to secure the payment to Lessor of the various amounts provided in this Lease. Lessee will on request execute and deliver to Lessor a financing statement for the purpose of perfecting Lessor's security interest under this Lease or Lessor may file this Lease or a copy thereof as a financing statement.~~

25. **DEFAULT BY LESSEE:** The following shall be deemed to be events of default by Lessee under this Lease:

(a) Lessee shall fail to pay when due any installment of rent or any other payment required pursuant to this Lease; **within ten days of the due date and any such failure to pay shall continue for a period of at least five (5) days after the date Lessor provides Lessee written notice of such failure to timely pay such amounts due (however, Lessor shall not be required to send written notice more than two (2) times in any one calendar year and in such, no notice shall be required).**

(b) ~~Lessee shall abandon any substantial portion of the Premises~~;

(c) Lessee shall fail to comply with any term, provision or covenant of this Lease, other than the payment of rent, and the failure is not cured within ~~five (5) days after written notice to Lessee;~~ **fifteen (15) days after written notice to Lessee; provided, however, if any such failure by Lessee to comply with this Lease cannot reasonably be corrected within such fifteen (15) day period as a result of non-financial circumstances outside of Lessee's control, and if Lessee has commenced substantial corrective actions within such fifteen (15) day period and is diligently pursuing such corrective actions, such fifteen (15) day period shall be extended for such additional time as reasonably necessary to allow completion of actions to correct Lessee's noncompliance.**

(d) Lessee shall file a petition or be adjudged bankrupt or insolvent under federal bankruptcy law or any similar law or statue of the United States or any state; or a receiver or trustee shall be appointed for all or substantially all of the assets of Lessee or Lessee shall make a transfer in fraud of creditors or shall make an assignment for the benefit of creditors; or

(e) Lessee shall do or permit to be done any act, which results in a lien being filed against the Premises or the building and/or project of which the Premises are a part **and such lien is not released or bonded off within fifteen (15) days of the date Lessee is notified of the filing of such lien.**

26. **REMEDIES FOR LESSEE'S DEFAULT:** Upon the occurrence of any event of default set forth in this Lease, Lessor shall have the option to pursue any one or more of the following remedies without any notice or demand:

(a) Terminate this Lease, in which event Lessee shall immediately surrender the Premises to Lessor, and if Lessee fails to surrender the Premises, Lessor may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises, by picking or changing locks if necessary, and lock out, expel, or remove Lessee and any other person who may be occupying all or any part of the Premises without being liable for prosecution of any claim for damages. Lessee agrees to pay on demand the amount of all loss and damage which Lessor may suffer by reason of the termination of the Lease under this subparagraph, whether through inability to relet the Premises on satisfactory terms or otherwise.

(b) Enter upon and take possession of the Premises, by picking or changing locks if necessary, and lock out, expel or remove Lessee and any other person who may be occupying all or any part of the Premises without being liable for any claim for damages, and relet the Premises on behalf of Lessee and receive directly the rent by reason of the reletting. Lessee agrees to pay Lessor on demand any deficiency that may arise by reason of any reletting of the Premises; further, Lessee agrees to reimburse Lessor for any **commercially reasonable** expenditures made by it for remodeling or repairing in order to relet the Premises.

(c) Enter upon the Premises, by picking or changing locks if necessary, without being liable for prosecution of any claim for damages, and do whatever Lessee is obligated to do under the terms of this Lease. Lessee agrees to reimburse Lessor on demand for any expenses which Lessor may incur in effecting compliance with Lessee's obligation under this Lease; further, Lessee agrees that Lessor shall not be liable for any damages caused by the negligence of Lessor or otherwise resulting to Lessee from effecting compliance with Lessee's obligations under this subparagraph.

Notwithstanding any other provision contained herein to the contrary, Lessor acknowledges and agrees that in the event of a Lessee default hereunder; Lessor shall use commercially reasonable efforts to mitigate its damages.

27. **WAIVER OF DEFAULT OR REMEDY:** Failure of ~~Lessor~~ **either party hereunder** to declare an event of default immediately upon its occurrence, or delay in taking any action in connection with an event of default, shall not constitute a waiver of the default, but ~~Lessor~~ **such non-defaulting party** shall have the right to declare the default at any time and take such action as is lawful or authorized under this Lease. Pursuit of anyone or more of the remedies set forth in ~~Paragraph 26 above~~ **any section of this Lease** shall not preclude pursuit of any one or more of the other remedies provided elsewhere in this Lease or provided by law, nor shall pursuit of any remedy provided constitute forfeiture or waiver of any rent or damages accruing to ~~Lessor~~ **the non-defaulting party** by reason of the violation of any of the terms, provisions or covenants of this Lease. Failure by ~~Lessor~~ **either party** to enforce one or more of the remedies provided upon an event of default shall not be deemed or construed to constitute a waiver of the default or of any other violation or breach of any of the terms, provisions and covenants contained in this Lease.

28. **LESSOR'S LIABILITY:** In the event of any liability of Lessor, Lessee agrees to look solely to Lessor's interest in the building or the project, the leases of the building or of the project, and the Premises for the satisfaction of any right or remedy of Lessee including the collection of a judgment (or other judicial process) requiring the payment of money by Lessor, and no other property or assets of Lessor shall be subject to levy, execution, attachment or other enforcement procedure for the satisfaction of Lessee's remedies under or with respect to the Lease, the relationship of Lessor and Lessee hereunder, or Lessee's use and occupancy of the demised premises, or any other liability of Lessor to Lessee.

29. **ELECTION OF ARBITRATION:** Lessor shall have the right to elect that any controversy or claim arising out of or relating to this Lease, or the breach thereof, be settled by arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered in such an arbitration may be entered in any court having jurisdiction thereof.

30. **ACTS OF GOD:** ~~Lessor shall not be required to perform any covenant or obligation in this Lease, or~~ **Neither party shall** be liable in damages to ~~Lessee~~ **the other party,** so long as the performance or non-performance of the covenant or obligation is delayed, caused by or prevented by an Act of God or force majeure; **provided, however, in no event shall an Act of God or force majeure be deemed to excuse the failure of the payment of sums of money by one party to the other party due hereunder.**

31. **ATTORNEY'S FEES:** In the event ~~Lessee~~ **either party** defaults in the performance of any of the terms, covenants, agreements or conditions contained in this Lease and ~~Lessor~~ **the non-defaulting party** places in the hands of an attorney the enforcement of all or any part of this Lease or the collection of any rent due or to become due or recovery of the possession of the Premises, then in any of such events, ~~Lessee~~ **the defaulting party** agrees to pay ~~Lessor~~ reasonable attorney's fees **actually incurred** for the services of the attorney, whether suit is actually filed or not. ~~In no event shall the attorney's fees be less than fifteen percent of the outstanding balance owed by Lessee to Lessor.~~

32. **HOLDING OVER:** In the event of holding over by Lessee after the expiration or termination of this Lease, the hold over shall be as a tenant at will and all of the terms and provisions of this Lease shall be applicable during that period except that Lessee shall pay Lessor as rental for the period of such hold over an amount equal to one and one ~~half~~ **fourth** the rent which would have been payable by Lessee had the hold over period been a part of the original term of this Lease. Lessee agrees to vacate and deliver the Premises to Lessor upon Lessee's receipt of notice from Lessor to vacate. The rental payable during the hold over period shall be payable to Lessor on demand. No holding over by Lessee, whether with or without consent of Lessor, shall operate to extend this Lease except as otherwise expressly provided.

33. **RIGHTS OF FIRST MORTGAGEE:** This Lease is and shall be subject and subordinate to all ground or underlying leases which may now or hereafter affect the building and to all mortgages and deeds of trust which may now or hereafter affect such leases or the building, and to all renewals, refinancings, modifications, replacements and extensions thereof (each, a 'superior instrument'), and to any lien created thereby. Lessee shall promptly execute and deliver any certificate that the holder of a superior instrument (the "Holder") may reasonably request to confirm the subordination ~~and Lessor is hereby irrevocably designated as attorney-in-fact for Lessee to deliver any such certificate to the Holder in the name, place and stead of Lessee.~~ **. Notwithstanding the foregoing, Lessor shall use reasonable efforts in obtaining from the holder any or future mortgage an agreement in writing reasonably satisfactory to Lessee providing that for so long as the Lessee is not in default under this Lease**

beyond any applicable notice and cure period, the Holder of such superior instrument shall not disturb Lessee's use and occupancy of the Premises. In the event the Holder succeeds to the interest of Lessor under this Lease, it shall not (i) have any liability for refusal or failure to perform or complete any work required to be done by Lessor under this Lease or any work letter attached hereto, to prepare the Premises for Lessee's occupancy, or otherwise to prepare the Premises for occupancy in accordance with the provisions of this Lease, or have any liability under any guaranty of indemnification with respect to such work, (ii) be liable for any act, omission or default of any prior Lessor under this Lease **provided, however, the foregoing shall not be deemed to release such party from any obligation it might otherwise have to cure defaults of a continuing nature,** (iii) be subject to any offsets, claims or defenses which shall have theretofore accrued to Lessee against any prior Lessor, (iv) be bound by any rent or additional rent which Lessee might have paid to any prior Lessor for more than one month in advance, (v) be bound by any modification, amendment, abridgment, cancellation or surrender of this Lease to which the Holder shall not have consented in writing. In the case of any foreclosure or conveyance by deed in lieu of foreclosure under any superior instrument, the rights and remedies of Lessee in respect of any obligations of any successor Lessor under this Lease shall be nonrecourse as to any assets of such successor Lessor other than its equity in the building. In the event the Holder shall succeed to the interest of Lessor under this lease, whether through possessory or foreclosure action or deed in lieu of foreclosure, this Lease shall, ~~at the option of the Holder,~~ not be terminated or affected by such foreclosure or any of such proceedings and Lessee shall attorn to and recognize the Holder as its Lessor upon the terms, covenants, conditions and agreements contained in this Lease to the same extent and in the same manner as if this Lease was a direct lease between the Holder and Lessee, except as otherwise provided above.

34. **ESTOPPEL CERTIFICATES:** Lessee agrees to furnish promptly, from time to time, upon request of Lessor or any mortgagee, an estoppel certificate to Lessor, any person designated or any mortgagee, in the form attached hereto as Exhibit B, **with such modifications thereto as are required to make the same true and correct. Likewise, Lessor agrees that upon written request by Lessee, Lessor shall deliver to Lessee an estoppel certificate covering such matters of fact with respect to the Lease as are reasonably requested by Lessee.**

35. **FINANCIAL INFORMATION: If then requested by Lessor,** Lessee agrees to submit to Lessor, within **160** days from Lessee's fiscal year end, audited annual financial statements of its parent company for the previous fiscal year. If Lessee does not have annual financial statements which are audited, Lessee agrees to submit to Lessor unaudited annual financial statements within the same time frame. **With respect to the foregoing, if requested by Lessee, Lessor shall execute and deliver such commercially reasonable form of confidentially agreement as Lessee may require as a condition to its release of any financial statements, which are not otherwise publicly available.**

36. ~~**COST OF LIVING INCREASE:** At the end of each calendar year of the term hereof, the monthly rent to be paid by Lessee for the upcoming calendar year will increase in accordance with the cost of living, as follows:~~

~~An estimate of the cost of living will be made by calculating the percentage of variation of the current year from the previous calendar year, as indicated by the Consumer Price Index – U.S. City Average – Clerical and Wage Earner (1967 = 100), published by the Bureau of Labor Statistics from September to September. Said percentage will be multiplied by the existing monthly rent, as illustrated in the sample formula below:~~

$$\frac{\text{2005 CPI} - \text{2004 CPI}}{\text{2004 CPI}} \times \text{2004 monthly rent} = \text{estimated adjustment in 2005 rent}$$

~~The resulting figure will be the amount of increase in the upcoming year's monthly rent. In no event shall the rent ever be reduced by reason of this Paragraph 36 and in no event be less than three percent.~~

~~Within 90 days after the first day of the new calendar year, Lessor shall provide Lessee with a notice of actual rental adjustment for the previous year, as indicated by the CPI for that year. If said notice is above the amount prepaid by Lessee, the remainder shall be due and payable with the next month's rent.~~

~~In the event that (A) the Consumer Price Index ceases to use the 1967 base of 100, or (B) a substantial change is made in the number of items used in determining the Consumer Price Index such that Lessor and Lessee agree that the Consumer Price Index does not accurately reflect the purchasing power of the dollar, or (C) the Consumer Price Index shall be discontinued for any reason, Lessor shall reasonably designate a new index or base that measures the cost of living, with appropriate adjustment in such base or index to make the same comparable to CPI (1967) – U.S. City Average – All Items – Urban Wage Earners and Clerical Workers.~~

37. **SUCCESSORS:** This Lease shall be binding upon and inure to the benefit of Lessor and Lessee and their respective heirs, personal representatives, successors and assigns. It is hereby covenanted and agreed that should Lessor's interest in the Premises cease to exist for any reason during the term of this Lease, then notwithstanding the happening of such event this Lease nevertheless shall remain unimpaired and in full force and effect and Lessee hereunder aggress to attorn to the owner of the Premises.

38. **RENT TAX:** If applicable in the jurisdiction where the Premises are situated, Lessee shall pay and be liable for all rental, sales and use taxes or other similar taxes, if any, levied or imposed by any city, state, county or other governmental body having authority, such payments to be in addition to all other payments required to be paid to Lessor by Lessee under the terms of this Lease. Any such payment shall be paid concurrently with the payment of the rent upon which the tax is based as set forth above.

39. **DEFINITIONS:** The following definitions apply to the terms set forth below as used in this Lease:

(a) "Abandon" means the vacating of all or a substantial portion of the Premises by Lessee, whether or not Lessee is in default of the rental payments due under this Lease.

(b) An "act of God" or "force majeure" is defined for purposes of this Lease as strikes, lockouts, sit-downs, material or labor restrictions by any governmental authority, unusual transportation delays, riots, floods, washouts, expulsions, earthquakes, fire, storms, weather (including wet grounds or inclement weather which prevents construction), acts of the public enemy, wars, insurrections and any other cause not reasonably within the control of ~~Lessor~~ **the applicable party** and which by the exercise of due diligence ~~Lessor~~ **of the applicable party** is unable, wholly or in part, to prevent or overcome.

(c) The "commencement date" shall be the date set forth in Paragraph 2. The "commencement date" shall constitute the commencement of this Lease for all purposes, whether or not Lessee has taken possession.

(d) ~~Subject to the provisions of Paragraph 4(d) of the Work Letter Agreement attached hereto, the "completion date" shall be the date on which the improvements erected and to be erected upon the Premises shall have been substantially completed in accordance with the plans and specifications described in Paragraph 12. Lessor shall use its reasonable efforts to establish the "completion date" as the date set forth in Paragraph 2. In the event that the improvements have not in fact been completed as of that date, Lessee shall notify Lessor in writing of its objections. Lessor shall have a reasonable time after delivery of the notice in which to take such corrective action as may be necessary, and shall notify Lessee in writing as soon as it deems such corrective action has been completed so that the improvements are completed and ready for occupancy.~~ Taking of possession by Lessee shall be deemed to establish conclusively that the ~~improvements have~~ **Lessor's Work has** been substantially completed and that the Premises are in good and satisfactory condition, as of the date possession was so taken by Lessee, except for latent defects **and incomplete punch list items**, if any.

(e) "Real property tax" means all school, city, state and county taxes and assessments, including special district taxes or assessments.

(f) "Square feet" or "square foot" as used in this Lease includes the area contained within the space occupied by Lessee together with a common area percentage factor of Lessee's space proportionate to the total building area.

(g) "Lessor" as used in this Lease means only the owner, or the Mortgagee in possession, for the time being of the building or the land on which the building is situated (the "land") (or the owner of a lease of the building or of the land and the building), so that in the event of any transfer of title to said land and building or said lease, or in the event of a lease of the building, or of the land and building, upon notification to Lessee of such transfer or lease the said transferor Lessor shall be and hereby is entirely freed and relieved of all existing or future covenants, obligations and liabilities of Lessor hereunder.

40. **MISCELLANEOUS:** The captions appearing in this Lease are inserted only as a matter of convenience and in no way define, limit, construe or describe the scope or intent of such paragraph. If any provision of this Lease shall ever be held to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision of this Lease, and such other provisions shall continue in full force and effect.

41. **NOTICE:** (a) All rent and other payments required to be made by Lessee shall be payable to Lessor at the address set forth below.

(b) All payments required to be made by Lessor to Lessee shall be payable to Lessee shall be payable at the address set forth below, or at any other address within the United States as Lessee may specify from time to time by written notice.

(c) Any notice or document required or permitted to be delivered by this Lease shall be deemed to be delivered (whether or not actually received) **five (5) days after the date being** deposited in the United States Mail, ~~or hand delivered~~, postage prepaid, certified mail, return receipt requested, **at the time of delivery if hand delivered or one (1) day following the day same is deposited with a reputable overnight courier service for next day delivery**, addressed to the parties at the respective addresses set out below:

Lessor:	Lessee:
Realmark-Commercial LLC c/o Realmark Properties, Inc. 2350 N. Forest Road Getzville, NY 14068	Adherex, Inc. 2300 Englert Dr., Suite G Durham, NC 27713 Att: Legal Department

42. **ENTIRE AGREEMENT AND LIMITATION OF WARRANTIES: IT IS EXPRESSLY AGREED BY LESSEE, AS A MATERIAL CONSIDERATION FOR THE EXECUTION OF THIS LEASE, THAT THIS LEASE, WITH THE SPECIFIC REFERENCES TO WRITTEN EXTRINSIC DOCUMENTS, IS THE ENTIRE AGREEMENT OF THE PARTIES; THAT THERE ARE AND WERE NO VERBAL REPRESENTATIONS, WARRANTIES, UNDERSTANDINGS, STIPULATIONS, AGREEMENTS OR PROMISES PERTAINING TO THIS LEASE OR THE EXPRESSLY MENTIONED WRITTEN EXTRINSIC DOCUMENTS NOT INCORPORATED IN WRITING IN THIS LEASE. LESSOR AND LESSEE EXPRESSLY AGREE THAT THERE ARE AND SHALL BE NO IMPLIED WARRANTIES, UNDERSTANDINGS, STIPULATIONS, AGREEMENTS OR PROMISES PERTAINING TO THIS LEASE OR THE EXPRESSLY MENTIONED WRITTEN EXTRINSIC DOCUMENTS NOT INCORPORATED IN WRITING IN THIS LEASE. LESSOR AND LESSEE EXPRESSLY AGREE THAT THERE ARE AND SHALL BE NO IMPLIED WARRANTIES OF MERCHANTABILITY, HABITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER KIND ARISING OUT OF THIS LEASE AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSLY SET FORTH IN THIS LEASE. IT IS LIKEWISE**

AGREED THAT THIS LEASE MAY NOT BE ALTERED, WAIVED, AMENDED OR EXTENDED EXCEPT BY AN INSTRUMENT IN WRITING SIGNED BY BOTH LESSOR AND LESSEE. THE FOLLOWING DOCUMENTS ARE ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCES:

43. **OTHER PROVISIONS:** "See attached Exhibit C."

Signed at _____, this 1st day of April, 2004.

Lessor: **REALMARK – COMMERCIAL, LLC**	Lessee: **ADHEREX, INC.**
/s/ David Shipston	/s/ William P. Peters
By: (Name and Title) David Shipston, Vice President	By: William P. Peters, Chief Executive Officer
Attest:	Attest:

Exhibit A

Floor Plan

Exhibit B

Form of Estoppel Certificate

The undersigned _____ ("Lessee"), in consideration of One Dollar ($1.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby certifies to _____ ("Lessor"), [the holder or prospective holder of any mortgage or deed of trust covering the property] (the "Mortgagee") and [the vendee under any contract of sale with respect to the Property] (the "Purchaser") as follows:

1. Lessee executed and exchanged with Lessor a certain lease (the "Lease"), dated _____, 20____, covering the _____ floor shown attached on the plan annexed hereto as Exhibit A (the "leased premises") in the building located in the _____ known as and by the street number _____ (the "Property"), for a term to commence (or which commenced) on _____, 20____, and to expire on _____.
2. The Lease is in full force and effect and has not been modified, changed, altered or amended in any respect.
3. Lessee has accepted and is now in possession of the leased premises and is paying the full rental under the Lease.
4. The base rental payable under the Lease is $_____ per month. The base rental and all additional rent and other charges required to be paid under the Lease have been paid for the period up to and including _____.
5. No rent under the Lease has been paid for more than thirty (30) days in advance of its due date.
6. All work required under the Lease to be performed by Lessor has been completed to the full satisfaction of Lessee.
7. ~~There~~ **To Lessee's current actual knowledge, there** are no defaults existing under the Lease on the part of either Lessor or Lessee.
8. ~~There~~ **To Lessee's current actual knowledge, there** is no existing basis for Lessee to cancel or terminate the Lease.
9. As of the date hereof, there exists no valid defense, offsets, credits, deductions in rent or claims against the enforcement of any of the agreements, terms, covenants or conditions of the Lease.
10. Lessee affirms that any disputes with Lessor giving rise to a claim against Lessor is a claim under the Lease only ~~and is subordinate to the rights of the holder of all mortgages or deeds of trust of the fee or leasehold of the building and shall be subject to all the terms, conditions and provisions thereof. Any such claims are not offsets to or defense against enforcement of the Lease.~~
11. ~~Lessee affirms that any dispute with Lessor giving rise to a claim against Lessor is a claim under the Lease only and is subordinate to the rights of the Purchaser pursuant to any contract of sale. Any such claims are not offsets to or defense against enforcement of the Lease.~~
12. Lessee affirms that any claims pertaining to matters in existence at the time Lessee took possession and which are known to or which were then readily ascertainable by Lessee shall be enforced solely by money judgment and/or specific performance against Lessor named in the Lease and **except as otherwise specifically set forth in the Lease,** may not be enforced as an offset to or defense against enforcement of the Lease.
13. There are no actions, whether voluntary or otherwise, pending against Lessee under the bankruptcy laws of the United States or any state thereof.
14. ~~There has been no material adverse change in Lessee's financial condition between the date hereof and the date of execution and delivery of the Lease.~~
15. Lessee acknowledges that Lessor has informed Lessee that an assignment of Lessor's interest in the Lease has been or will be made to the Mortgagee and that no modifications, revision or cancellation of the Lease or amendments thereto shall be effective unless a written consent thereto of the Mortgagee is first obtained, and that until further notice payments under the Lease may continue as heretofore.
16. Lessee acknowledges that Lessor has informed Lessee that Lessor has entered into a contract to sell the Property to Purchaser and that no modification, revision or cancellation of the Lease or amendments thereto shall be effective unless a written consent thereto of the Purchaser has been obtained.
17. This certification is made to induce Purchaser to consummate a purchase of the Property and to induce Mortgagee to make and maintain a mortgage loan secured by the Property and/or to disburse additional funds to Lessor under the terms of its agreement with Lessor, knowing that said Purchaser and Mortgagee rely upon the truth of this certification in making and/or maintaining such purchase or mortgage or disbursing such funds, as applicable.
18. Except as modified herein, all other provisions of the Lease are hereby ratified and confirmed.

By: _____

Lessee

_____

Date

Exhibit C

Other Provisions

1. **RENEWAL OPTION. (a) Provided the Lessee is not then in uncured default under this Lease beyond applicable notice and cure periods, Lessee shall have the option to renew this Lease as to the entire Premises for one (1) successive three (3) year terms, each of such terms commencing upon the expiration of the then current term hereof (the "Renewal Options"). If Lessee exercises a Renewal Option, Lessee agrees to pay rent during the respective Renewal Option period at the Fair Market Rental Rate (as hereinafter determined and defined) per month under the same terms and conditions as set forth in the Lease.**

   (b) As used in this Lease, the term "Fair Market Rental Rate" shall mean the then prevailing monthly rental rate per square foot of space comparable in use, area and location to the space for which the Fair Market Rental Rate is being determined and being leased for a duration comparable for which such space is leased for periods commencing on or about the commencement of the term of such space. The Fair Market Rental Rate shall be determined by taking into consideration comparable fact situations during the prior 12-month period or any more recent relevant period in comparable buildings in Durham, North Carolina.

   (c) Lessor shall notify Lessee of Lessor's determination of the Fair Market Rental Rate within fifteen (15) days after receipt of Lessee's written request therefore (which shall be made by Lessee no later than one hundred eighty (180) days prior to the expiration of the Term or any previous Renewal Option term exercised by Lessee). If Lessee agrees with Lessor's determination of the Fair Market Rental Rate, then, Lessee may exercise its Renewal Option by providing Lessor written notice thereof within fifteen (15) days of its receipt of Lessor's notice of determination of the Fair Market Rental Rate. If Lessee disagrees with Lessor's determination of the Fair Market Rental Rate, Lessee shall notify Lessor of Lessee's disagreement within fifteen (15) days after Lessee's receipt of Lessor's notice of its determination of the Fair Market Rental Rate. If Lessee so notifies Lessor, that Lessor's determination of the Fair Market Rental Rate is not acceptable to Lessee, Lessor and Lessee shall, during the fifteen (15) day period after Lessee's notice, attempt to agree on the Fair Market Rental Rate. If Lessor and Lessee are unable to agree, then the Fair Market Rental Rate shall be determined as provided below: Lessor and Lessee shall each select an expert (as hereinafter described) within fifteen (15) days after the expiration of the aforementioned fifteen (15) day period. Such expert shall be independent and experienced in leasing similar-class space in the Durham, North Carolina, and shall be instructed to form their opinions based on the criteria specified above. Both experts so selected shall within ten (10) days after their selection, select a third (3rd) expert who shall also meet the same qualifications. The three (3) experts so selected shall within fifteen (15) days after the selection of the third (3rd) expert each independently formulate their opinion of the Fair Market Rental Rate for the space and period in question. The three (3) opinions shall then be averaged and such average shall be the Fair Market Rental Rate; provided, however, that if any experts opinion is more than ten percent (10%) greater or less than the middle opinion, then such greater or lesser opinion (or both if each is more a variance from the middle opinion than ten percent (10%)), shall be disregarded and the remaining number of opinions shall be added together with the sum thereof divided by the remaining number of opinions and the quotient thereof shall be the Fair Market Rental Rate. The determination of the Fair Market Rental Rate by the three (3) experts (or such lesser number of experts as may be applicable in accordance with the above provisions) shall be binding upon Lessor and Lessee; Lessor and Lessee shall each pay for the services of its expert and shall share equally in the cost of the third expert. In the event Lessee fails to timely exercise its Renewal Option, the Renewal Option of Lessee shall lapse unexercised.

2. **RIGHT OF FIRST REFUSAL ON ADJACENT SPACE. Lessee shall have a right of first refusal to rent all or any portion of the building lying adjacent to the Premises (the "Adjacent Space") subject to the terms of this Section 2. Accordingly, provided no uncured event of default then exists with respect to Lessee, Lessor will provide Lessee written notice (the "Adjacent Space Notice"), in the event Lessor either issues a proposal to a third party to lease space within the building which includes all or any portion of the Adjacent Space or in the event Lessor receives a written third party proposal acceptable to Lessor for lease of any space which includes all or any portion of the Adjacent Space. Such Adjacent Space Notice shall set forth the terms of the subject third (3rd) party proposal. The party to whom Lessor issues the subject proposal to lease or from whom Lessor has received a proposal to lease which is acceptable to Lessor shall be referred to herein as the "Proposed Adjacent Space Lessee". Lessee shall have ten (10) days following its receipt of such Adjacent Space Notice to provide Lessor written notice of Lessee's acceptance or rejection to lease the area, which is the subject of the third (3rd) proposal (the "Adjacent Space Right of Refusal Space") in accordance with all the terms and provisions of the subject third (3rd) party proposal. In the event Lessee fails to provide Lessor notice of its election to lease the Adjacent Space Right of Refusal Space within said ten (10) day period, then, Lessor shall be free to execute a lease for the subject Adjacent Space Right of Refusal Space with the Proposed Adjacent Space Lessee under the terms set forth in the Adjacent Space Notice. In the event Lessee provided the Lessor timely notice of its election to lease the subject Adjacent Space Right of Refusal Space,**

then, in such event, Lessee shall enter into a lease with Lessor within fifteen (15) days thereafter upon the terms and conditions set forth in such third (3rd) party proposal. The form of such Lease shall be the same form of this Lease except to the extent inconsistent with the terms and conditions of the Adjacent Space Notice.

3. **EXPANSION OPTION. Lessee shall have a right at anytime during the term of the Lease to expand into any portion of the building lying adjacent to the Premises which is not then occupied and not subject to any lease or active lease proposal then being negotiated by Lessor and a prospective tenant ("Expansion Space"). Lessee's lease of such Expansion Space shall be upon the same terms and conditions as Lessee's lease of the original Premises hereunder, except that Lessee shall take such Expansion Space and it's then "as is" condition without any obligation on part of Lessor to make improvements thereto. In the event Lessee so desires to take any such Expansion Space, Lessee shall provide Lessor thirty (30) days prior written notice of its election to take such Expansion Space. Accordingly, the rent commencement for such Expansion Space shall be that date which thirty (30) days is following the date of Lessee's notice to Lessor of its election to take such Expansion Space. Upon Lessee's election to so take such Expansion Space, Lessor and Lessee shall enter into an amendment to this Lease acknowledging the incorporation of the subject Expansion Space into the Premises. Following such time as Lessor and Lessee enter into such amendment acknowledging the incorporation of the Expansion Space into the Premises, Lessor shall make the Expansion Space available to Lessee for its build out of such Expansion Space. Lessee's lease of the Expansion Space shall be coterminous with the lease of the original Premises.**

4. **LIMITED SELF HELP RIGHT. Notwithstanding any other language contained herein to the contrary, Lessor acknowledges and agrees that in the event either (i) Lessor fails to perform any of its maintenance obligations under this Lease within thirty (30) days of its receipt of notice from Lessee, or (ii) Lessor, after commencing such performance, thereafter fails to diligently and continuously pursue the completion of same, then, in either such event, Lessee shall have the right to cure Lessor's nonperformance and charge Lessor for Lessee's reasonable actual out of pocket cost thereof. Furthermore, in addition to the rights set forth above, in the event emergency repairs are needed to elements of the Premises for which Lessor is responsible under the Lease in order to prevent imminent damage to Lessee's property or business operations, then, under such circumstances, if Lessor has failed to commence and thereafter diligently pursue such repairs within a reasonable period following its receipt of Lessee's notice of the need thereof (the reasonableness of said period to be determined based upon the attendant facts and circumstances), Lessee shall have the right to cure Lessor's nonperformance and charge Lessor Lessee's reasonable actual out of pocket cost thereof. In relation to the foregoing, Lessee acknowledges and agrees that even as to emergency repairs; Lessee's notice to Lessor shall be in writing.**

EXHIBIT D
Work Letter

1. The "Plans" consist of the following described items, which are hereby approved by Lessee and Lessor:

A. The floor plan attached hereto as Exhibit D-1 showing Lessor's required build out of the Premises.

B. the list of improvements attached hereto as Exhibit D-2, which is to be made as part of Lessor's required build out of the Premises.

2. Lessor shall promptly begin construction of the improvements described and shown in the Plans (the "Lessor's Work"), and shall pursue such construction with reasonable diligence to completion. Construction of Lessor's Work shall be accomplished by contractors selected and employed by Lessor.

3. Lessor shall be solely responsible for all costs and expenses incurred in connection with the construction of Lessor's Work in accordance with the Plans.

4. Lessor acknowledges and agrees that Lessee shall have the right to change the scope of Lessor's Work in accordance with the provisions of this Section 4 with the approval of the Lessor which approval will not be unreasonablely withheld or delayed. In the event Lessee requests any changes to the scope of Lessor's Work, Lessee shall submit revised drawings and/or revised specifications, as applicable, to Lessor for approval. Upon its receipt thereof, Lessor shall incorporate such changes into the Plans and they shall thereafter become a part of Lessor's Work. However, Lessee acknowledges and agrees that Lessee shall be solely responsible for any and all increases in cost incurred in completing the Lessor's Work which are attributable to Lessee'srequested changes in the scope of the Lessor's Work. With respect thereto, Lessor acknowledges and agrees that Lessee shall have a right to amortize up to $28,500.00 of any such increases in costs over the term of the Lease by an increase in the monthly base rental amounts due hereunder as necessary to so amortize such excess over the term of the Lease at an interest rate of six percent (6%). An example of the foregoing would be where Lessee requests change orders to the scope of Lessor's Work which have the effect of increasing the cost of Lessor's Work by $35,000.00, Lessee would be responsible to pay $6,500.00 of such cost to Lessor on or before the Commencement Date and would have the right to amortize the remaining $28,500.00 of such cost over the initial six (6) year term of the Lease at said six percent (6%) interest rate, which would result in each monthly base rental payment of Lessee hereunder during the initial six (6) year term being increased by $472.34.

5. Substantial completion of Lessor's Work shall be deemed to occur on the earlier of (i) the date the Lessor's Work is substantially completed in all material respects in substantial compliance with the Plans (including any Lessee requested changes thereto) excepting only minor finish and touch-up work that does not interfere in any material respect with the occupancy of the Premises by Lessee (ii) the issuance of a Certificate of Occupancy or, (iii) the issuance of a Temporary Certificate of Occupancy. After the date of substantial completion, Lessor shall proceed with reasonable promptness to complete any minor finish and touch-up work and any other work required to finally complete the Lessor's Work.

6. Lessor acknowledges and agrees that Lessee shall be entitled to access the Premises for purposes of installation of its trade fixtures and wiring for a two (2) week period prior to the date Lessor achieves substantial completion of the Lessor's Work. Accordingly, Lessor shall provide Lessee written notice of its target substantial completion date approximately three (3) weeks prior to the date it anticipates substantial completion shall be achieved to enable Lessee to schedule such fixturing and wiring activities. Further related thereto, Lessor acknowledges and agrees that it shall provide Lessee temporary storage space for the full thirty (30) day period proceeding the date it substantially completes the Lessor's Work for purposes of storage by Lessee of trade fixtures and/or equipment.

EXHIBIT D-2

-**Paint seven (7) poles around entrance on perimeter of building**

-**Entrance:** general touch-ups at suite entry

-**Repair** cracked soffit

-**Cove** base - carpet throughout

-**Microscope** room

-**Flip** door to server/phone room to swing out to open instead of in

-**Add** vent to server/phone room

-**Wallpaper** with building standard ($8.00 per sq. yd. Including installation): conference room, reception area, hallway, and first three offices to left of reception area (shown on plan)

-**Chair** rail: conference room, reception area, hallway, and first three offices to left of reception area (shown on plan)

-**Conference** room to have two (2) sets of can lights, on separate dimmers [lights over table separate from perimeter lights]

-**Building** standard carpet borders for conference room, reception area, hallway, and first three offices to left of reception area (shown on plan)

-**New** carpet with building standard and rubber base board ($14.00 per sq. yd including installation and rubber base board) throughout, except as stated above

-**New** paint throughout

-**New** building standard VCT throughout

-**Restrooms** within suite (Men's room with toilet and urinal; Women's with one toilet, where shown on plan)

-**Hoods** - repaired and in operating condition

-**Fix** all blinds (all matching)

-**Replace** all ceiling tiles (other than in the lab) with Armstrong Ultima acoustic ceiling tiles

-**Refinish** doors as required

-**Replace**/refinish hardware as required

-**Electrical:** five (5) 220 volt electrical outlets, location TBD

-**Storage** as shown on drawing

-**Fix** sidewalk

-**Signage** - Landlord shall provide exterior building signage agreed upon by Landlord and Tenant

-**Replace** upper and lower cabinets in kitchenette as shown on plan

-**New** wall with door in kitchenette/proposed conference room area, as shown on plan

-**Convert** lab area to area for cubes; carpet, paint, electrical for cubes with building standards

-**Take** wall out between offices as shown on plan

-**Create** one large conference room as shown on plan

-**Remove** sink as shown on plan

-**Provide** a 1 1/2 ton dedicated HVAC unit of which the tenant allowance is $6,000.00

Exhibit C

Rent Schedule

Monthly Lease Payments

1 – 6	$1,007.63
7 – 12	$4,868.75
13 – 24	$5,014.81
25 – 36	$5,165.26
37 – 42	$5,320.21
43 – 60	$5,479.82
61 – 72	$5,644.22

Rules and Regulations

1. Lessor agrees to Lessee ~~two~~ **twenty-five (25)** keys without charge. Additional keys will be furnished at a nominal charge.
2. Lessee will refer all contractors, contractor's representatives and installation technicians rendering any service on or to the leased premises for Lessee, to Lessor for Lessor's approval and supervision before performance of any contractual service. This provision shall apply to all work performed on or about the leased premises or project, including installation of telephones, telegraph equipment, electrical devices and attachments and installations of any nature affecting floors, walls, woodwork, trim, windows, ceilings and equipment or any other physical portion of the premises or project. Lessor may charge a supervisory fee equal to ten percent (10%) of the cost of all such ~~services~~ **contractual services under circumstances where the total cost of the contractual service is in excess of $10,000.00.**
3. Lessee shall not at any time occupy any part of the leased premises or project as sleeping or lodging quarters.
4. **Except to the extent necessary for the conducting of Lessee's business operations,** Lessee shall not place, install or operate on the leased premises or in any part of the building, any engine, stove or machinery, or conduct mechanical operations or cook thereon or therein, or place or use in or about the leased premises or project any explosives, gasoline, kerosene, oil, acids, caustics, or any flammable, explosive or hazardous material without written consent of Lessor. **Notwithstanding the foregoing, Lessee shall be entitled to utilize microwave ovens in the Premises.**
5. Lessor will not be responsible for lost or stolen personal property, equipment, money or jewelry from the leased premises or the project regardless of whether such loss occurs when the area is locked against entry or not.
6. No dogs, cats, fowl or other animals shall be brought into or kept in or about the leased premises or project.
7. Employees of Lessor shall not receive or carry messages for or to any Lessee or other person, not contract with or render free or paid services to any Lessee or Lessee's agents, employees or invitees.
8. None of the parking, plaza, recreation or lawn areas, entries, passages, doors, elevators, hallways or stairways shall be blocked or obstructed, or any rubbish, litter, trash or material of any nature will be placed, emptied or thrown into these areas or such area be used by Lessee's agents, employees or invitees at any time for purposes inconsistent with their **reasonable** designation by Lessor.
9. The water closets and other water fixtures shall not be used for any purpose other than those for which they were constructed, and any damage resulting to them from misuse, or by the defacing or injury of any part of the building shall be borne by the person who shall occasion it. No person shall waste water by interfering with the faucets or otherwise.
10. No person shall disturb occupants of the building by the use of any radios, record players, tape recorders, musical instruments, the making of unseemly noises, or any unreasonable use.
11. Nothing shall be thrown out of the windows of the building or down the stairways or other passages.
12. Lessee shall notify the Building Manager when safes or other heavy equipment are to be taken into or out of the Building. Moving of such items shall be done under the supervision of the Building Manager, after receiving written permission from him. Lessor agrees that there will be no charge for such supervision if such moving occurs during normal working hours.
13. Lessor shall have the power to prescribe the weight and position of safes or other heavy equipment, which may overstress the floor. All damage done to the Building by the improper placing of heavy items that overstress the floor will be repaired at the sole expense of Lessee.
14. No additional locks shall be placed upon any doors without the prior written consent of Lessor. All necessary keys shall be furnished by Lessor, and the same shall be surrendered upon termination of this Lease, and Lessee shall then give Lessor or his agent an explanation of the combination of all locks on the doors or vaults.
15. Corridor doors, when not in use, shall be kept closed.
16. Lessee shall comply with **reasonable** parking rules and regulations as may be posted and distributed from time to time.
17. Vending machines or dispensing machines of any kind will not be placed in the leased premises by Lessee unless prior written approval has been obtained from Lessor.
18. Prior written approval, which shall be at Lessor's sole discretion, must be obtained for installations of any solar system material, window shades, blinds, drapes, awnings, window ventilators, or other similar equipment and any window treatment of any kind whatsoever. Lessor will control all internal lighting that may be visible from the exterior of the Building and shall have the right to change any unapproved lighting, without notice to the Lessor, at Lessee's expense.
19. Lessee shall be required to furnish and install a chair mat for each desk chair in the leased premises.
20. The building shall be closed for the following legal holidays: New Year's Day, the Fourth of July, Labor Day, Thanksgiving Day and Christmas Day, **however, Lessee shall still be entitled to access and utilize the Premises on such dates.**

It is Lessor's desire to maintain in the building or project the highest standard of dignity and good taste consistent with comfort and convenience for Lessees. Any action or condition not meeting this high standard should be reported directly to Lessor. Your cooperation will be mutually beneficial and sincerely appreciated. Lessor reserves the right to make such other and further reasonable rules and regulations as in its judgment may from time to time be necessary, for the safety, care and cleanliness of the leased premises, and for the preservation of good order therein.

GUARANTY OF LEASE

LESSOR: Realmark – Commercial LLC

LESSEE: Adherex, Inc.

LEASE DATED: _____

GUARANTOR: Adherex Technologies, Inc

_____

_____

_____

GUARANTY DATE: _____

Lessee wishes to enter into a lease with Lessor. Lessor is unwilling to enter into the Lease unless Guarantor assures Lessor of the full performance of Lessee's obligations under the Lease. Guarantor is willing to do so.

Accordingly, in order to induce Lessor to enter into the Lease with Lessee and for good and valuable consideration, the receipt and adequacy of which are acknowledged by Guarantor:

1. Guarantor unconditionally guarantees to Lessor, its successors and assigns, Lessee's full and punctual performance of Lessee's obligations under the Lease, including without limitation payment of rent and all other charges due under the Lease. Guarantor waives notice of any breach or default by Lessee under the Lease. If Lessee defaults in the performance of its obligations, upon Lessor's demand, Guarantor will perform Lessee's obligation under the Lease.
2. Any act of Lessor, its successors and assigns, consisting of a waiver of any of the terms and conditions of the Lease, or the giving of consent to any matter related to or thing related to the Lease, or granting of any indulgences or extensions of time to Lessee, may be done without notice to Guarantor and without affecting the obligations of Guarantor under this guaranty.
3. The obligations of Guarantor under this guaranty will not be affected by Lessor's receipt, application, or release of security given for the performance of Lessee's obligations under the Lease nor by any modification of the Lease including without limitation, the alteration, enlargement or change of the premises described in the Lease except in the case of any modification, the liability of Guarantor will be deemed modified in accordance with the terms of such modification.
4. The liability of Guarantor under this guaranty will not be affected by:

(a) release or discharge of Lessee from its obligations under the Lease in any creditors' receivership, bankruptcy or other proceedings, or the commencement or pendency of such proceedings;

(b) the impairment, limitation of the liability of Lessee or the estate of Lessee in bankruptcy, or any remedy for the enforcement of Lessee's liability under the Lease resulting from the operation of any future bankruptcy code or other statute or from the decision of any court;

(c) the rejection or disaffirmance of the Lease in any such proceedings;

(d) the assignment or transfer of the Lease or sublease of all or part of the premises described in the Lease by Lessee;

(e) any disability or defense of Lessee;

(f) the cessation from any cause whatsoever of the liability of Lessee under the Lease.

5. Until all of the Lessee's obligations under the Lease are fully performed, Guarantor:

(a) waives any right of subrogation against Lessee by reason of any payments or acts of performance by Guarantor in compliance with the obligations of Guarantor under this guaranty;

(b) waives any other right that Guarantor may have against Lessee by reason of any one or more payments or acts in compliance with obligations of Guarantor under this guaranty; and

(c) subordinates any liability or indebtedness of Lessee held by Guarantor to the obligations of Lessee to Lessor under this Lease.

6. The guaranty will apply to the Lease, any extensions or renewal of such Lease and any holdover term following the term of the Lease or any such extension or renewal.

7. This guaranty may not be changed, modified, discharged or terminated orally or in any manner other than by written agreement signed by Guarantor and Lessor.

8. Guarantor is directly obligated under the Lease. Lessor may at its option, proceed against Guarantor without proceeding against Lessee or anyone else obligated under the Lease or against any security for any of Lessee's or Guarantor's obligations.

9. Guarantor will pay on demand the reasonable attorney's fees and costs incurred by Lessor, its successors or assigns, in connection with the enforcement of this guaranty.

10. Guarantor irrevocably appoints Lessee as its agent for service of process related to this guarantee.

11. Guarantor agrees to provide Lessor with the same information and on the same terms as required of Lessee under Section 35 of the Lease.

_____

Guarantor, Adherex Technologies, Inc.

by _____

EXHIBIT 4.9

REGISTRATION RIGHTS AGREEMENT

This Agreement is made as of December 19, 2003.

BETWEEN:

Adherex Technologies Inc. (the "Company"), a company existing under the laws of Canada

- and -

HBM BioVentures (Cayman) Ltd. (the "Investor")

RECITALS:

A. On the date hereof, the Company and the Investor entered into a subscription agreement (the "Subscription Agreement") in connection with the issuance and sale by the Company of Common Shares and Warrants (each as hereinafter defined) to the Investor.

B. In order to induce the Investor to enter into the Subscription Agreement, the Company has agreed to enter into this Agreement.

THEREFORE, the parties agree as follows:

ARTICLE 1
REGISTRATION RIGHTS

1.1 Definitions

In this Agreement:

(a) "1933 Act" means the United States Securities Act of 1933, as amended;

(b) "1934 Act" means the United States Securities Exchange Act of 1934, as amended;

(c) "Affiliate" is defined in Rule 12b-2 of the General Rules and Regulations under the 1934 Act;

(d) "Business Day" means a day that is not a Saturday, Sunday or a statutory or legal holiday in Ottawa, Ontario or New York, New York;

(e) "Canadian Public Offering" means a public offering of Common Shares by the Company pursuant to a prospectus filed with any applicable securities regulatory authority in Canada;

(f) "Canadian Securities Laws" means all applicable securities laws, the respective regulations, rules and orders made thereunder, and all applicable policies and notices issued by the securities regulatory authorities in the Qualifying Jurisdictions;

(g) "Common Shares" means the common shares in the capital of the Company;

(h) “Form S-1”, “Form F-1”, “Form S-3”, “Form F-3”, “Form S-4”, “Form F-4”, “Form S-8”, “Form F-8”, “Form F-10” and “Form F-80” mean such respective forms under the 1933 Act, as in effect on the date of this Agreement or any successor registration forms to such forms under the 1933 Act subsequently adopted by the SEC;

(i) “Holder” means the Investor or any assignee to whom Registrable Securities (or securities or rights convertible into Registrable Securities) are assigned in accordance with section 11.1;

(j) “Initiating Holders” means Holders making a request to the Company for registration or qualification of Registrable Securities pursuant to sections 2.1, 4.1 or 5.1, where such Holders hold 30% or more of the Registrable Securities outstanding at that time;

(k) “Investor” is defined on the first page of this Agreement;

(l) “Notes” means, at any given time, the then outstanding notes convertible into Common Shares pursuant to the subscription agreement dated December 3, 2003;

(m) “Qualifying Jurisdictions” means the province of Ontario and each of the other provinces of Canada;

(n) “Permitted Transferee” means, with respect to any Holder, (i) any transferee or assignee of Registrable Securities which controls, is controlled by or is under common control with such Holder within the meaning of the 1933 Act and the 1934 Act, (ii) any transferee of not less than 30% of the Registrable Securities (as appropriately adjusted from time to time for stock splits and the like), or (iii) any other transferee or assignee of all Registrable Securities held by such Holder if transferred to a single entity and with the prior written consent of the Company; provided that such transfer may otherwise be effected in accordance with applicable securities laws; and provided further, that the Company is given written notice by such Holder at the time of or within a reasonable time after such transfer, stating the name and address of such transferee or assignee and identifying the securities with respect to which such registration rights are being assigned;

(o) “Recognized Stock Exchange” means the Toronto Stock Exchange, the New York Stock Exchange, the American Stock Exchange or the Nasdaq National Market;

(p) “register”, “registered”, and “registration” refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the 1933 Act, and the automatic effectiveness or the declaration or ordering of effectiveness of such registration statement or document;

(q) “Registrable Securities” means:

(i) any Common Shares issued or issuable pursuant to the Subscription Agreement;

(ii) any Common Shares issued or issuable upon exercise of the Warrants or as a dividend or other distribution with respect to, in exchange for, or in replacement of the Warrants;

(iii) any Common Shares issued or issuable upon conversion of the Notes or as interest or other distribution with respect to, in exchange for, or in replacement of the Notes; and

(iv) any Common Shares issued as a dividend or other distribution with respect to, in exchange for, or in replacement of any of the Common Shares that are Registrable Securities pursuant to (i) or (ii) above;

but excludes:

(i) other than for purposes of Article 2, Common Shares registered pursuant to an effective registration statement and Common Shares that may be sold pursuant to Rule 144 of the 1933 Act if the Holder is able to sell under Rule 144(k) all of the remaining Registrable Securities issued or issuable to such Holder; and

(ii) any Common Shares held by Holders who are subject to applicable Canadian Securities Laws, if such Holders have the right (subject to any contractual commitments to the contrary) to freely sell such Common Shares without a prospectus or resort to a prospectus exemption under applicable Canadian Securities Laws (other than an exemption relating to a control block distribution) and without registration under the 1933 Act;

(r) "SEC" means the United States Securities and Exchange Commission;

(s) "U.S. IPO" means the Company's first public offering of Common Shares pursuant to a registration statement on Form S-1, Form F-1 or Form F-10 filed with the SEC; and

(t) "Warrants" means, at any given time, the then outstanding warrants to purchase Common Shares issued or issuable pursuant to the Subscription Agreement.

ARTICLE 2
CANADIAN QUALIFICATION RIGHTS

2.1 Demand Canadian Qualification Rights

At any time after the date hereof, if the Company receives a written request from Initiating Holders that the Company file a prospectus under Canadian Securities Laws qualifying for distribution all or part of the Registrable Securities held by such Initiating Holders, then the Company will, within 10 Business Days following receipt of the request, give written notice of the request to all Holders and will afford each Holder an opportunity to include in such prospectus all or any part of the Registrable Securities held by such Holder. Each Holder other than Initiating Holders that wishes to include in any such prospectus all or part of the Registrable Securities held by it must send a written notice to the Company within 15 days after receipt of the Company's notice, stating the number and intended manner of disposition of the Registrable Securities to be included in the prospectus. Following this 15-day period, the Company will, subject to the limitations of sections 2.2 and 2.3:

(a) as soon as practicable and in any event within 90 days of the end of such 15-day period, prepare and file in the Qualifying Jurisdictions a prospectus in order to qualify the distribution of all of the Registrable Securities of the Initiating Holders specified in the request from the Initiating Holders and all of the Registrable Securities of the Holders other than the Initiating Holders specified in the notices from the Holders other than the Initiating Holders;

(b) use its commercial best efforts to resolve any regulatory comments and satisfy any regulatory deficiencies in respect of the preliminary prospectus and, as soon as reasonably practicable after

such comments or deficiencies have been resolved or satisfied, will prepare and file, and use its commercial best efforts to obtain a receipt (or an equivalent document) in the Qualifying Jurisdictions for, the (final) prospectus, and will take all other steps and proceedings necessary in order to qualify the distribution of the Registrable Securities to the public as freely tradable securities in the Qualifying Jurisdictions;

(c) ensure that the prospectus contains the disclosure required by, and conforms in all material respects to the requirements of, the applicable provisions of Canadian Securities Laws;

(d) prepare and file with the securities regulatory authorities in the Qualifying Jurisdictions any amendments and supplements to the prospectus that may be necessary to comply with Canadian Securities Laws with respect to the distribution of all securities qualified by such prospectus;

(e) in the case of an underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering; and

(f) keep each Holder whose Registrable Securities are being qualified reasonably advised of the status of such qualification.

2.2 Number of Demand Qualifications

The Company is only obligated to file a number of prospectuses under section 2.1 equal to (x) three minus (y) the number of registrations previously effected pursuant to section 4.1 which were not effected in conjunction with a concurrent Canadian Public Offering in which Holders exercised their rights pursuant to section 2.1, but no filing pursuant to section 2.1 is deemed to be a filing for purposes of this section if:

(a) the number of Registrable Securities included in an underwriting of the Registrable Securities qualified under such prospectus is less than 50% of the number of Common Shares proposed by the Holders to be distributed through such underwriting**,** and the Holders pay all expenses of such filing, including those otherwise payable by the Company in accordance with section 8.1; or

(b) the registration is withdrawn in accordance with section 8.2, unless such registration was withdrawn at the request of the Holders in circumstances other than those described in section 8.2(b).

2.3 Exceptions

If the Company is requested to file a prospectus pursuant to section 2.1:

(a) the Company is not obligated to effect the filing of such prospectus if the number of Registrable Securities to be qualified comprises less than 20% of the Registrable Securities outstanding at that time;

(b) the Company is not obligated to effect the filing of such prospectus:

(i) for a period of up to 135 days after the date of a request for qualification pursuant to section 2.1 if:

(A) at the time of such request, the Company is engaged, or has fixed plans to engage, within 90 days of the time of such request, in a firm commitment underwritten public offering of Common Shares in which the Holders of Registrable Securities are entitled to include Registrable Securities pursuant to sections 3.1 or 3.3; or

(B) at the time of such request, the Company is currently engaged in a self-tender or exchange offer and the filing of a prospectus would cause a violation of the 1934 Act or applicable Canadian Securities Laws;

(ii) during the 90-day period following the completion by the Company of a firm commitment underwritten public offering of Common Shares in which the Holders of Registrable Securities were entitled (subject to underwriter cutbacks) to include Registrable Securities pursuant to sections 3.1 or 3.3;

(iii) if the anticipated aggregate net proceeds of the offering to such Holders is less than U.S.$7,500,000 in the case of a long-form prospectus or U.S.$1,000,000 in the case of a short-form prospectus;

(iv) if the Company, in connection with a previously completed Canadian Public Offering, filed a prospectus qualifying all of the Registrable Securities including those issuable upon exercise of the Warrants and conversion of the Notes, and such prospectus is effective to qualify the distribution of the Registrable Securities for which qualification is otherwise requested pursuant to Section 2.1, at the time such Registrable Securities are intended to be distributed; or

(v) in the case of a request for the filing of a short-form prospectus, if the Company has already effected the filing of a prospectus pursuant to section 2.1 within the previous nine-month period;

(c) the Company may defer such filing for a period of not more than 90 days, but only if:

(i) the Company furnishes to the Holders requesting the filing of such prospectus a certificate signed by the President and Chief Executive Officer of the Company stating that, in the good faith judgment of the Board of Directors, effecting the filing would materially impede the ability of the Company to consummate a significant transaction (the 90-day deferral period beginning on the date that such certificate is sent to the Holders); and

(ii) the Company has not deferred a filing in reliance on this section 2.3(c) during the previous 12-month period; and

(d) the Company may defer such filing if the Company determines that such filing would require the disclosure of material information that the Company has a bona fide business purpose for preserving as confidential, until the earlier of:

(i) 5 days following the date upon which such material information is disclosed to the public or ceases to be material; and

(ii) 60 days after the Company makes such determination.

ARTICLE 3
SECONDARY OFFERING RIGHTS

3.1 Company Registration

If the Company proposes to file a preliminary prospectus under any Canadian Securities Laws in connection with a Canadian Public Offering, the Company will give each Holder written notice of the proposed filing at least 45 days prior to such filing. If the Company receives a written request from one or more Holders within 30 days of the Company's notice specifying the number of Registrable Securities the Holder or Holders wish to sell in a secondary offering, the Company will use its commercial best efforts to cause the Registrable Securities so specified to be included in and sold pursuant to the prospectus. The Company's obligations under this section are subject to the provisions of section 9.1. The Company is not required to include any Holder's Registrable Securities in such secondary offering if and to the extent that such inclusion prevents the Company from receiving sufficient proceeds from the Canadian Public Offering for its own needs (in the opinion of the Board of Directors of the Company, acting reasonably), but no Registrable Securities will be excluded from the secondary offering unless all Common Shares, other than Registrable Securities and Common Shares to be issued and sold by the Company, are also excluded. Any such secondary offering must be entirely underwritten on a firm commitment basis.

3.2 Secondary Offering on U.S. IPO

If the Company proposes to file a registration statement in connection with its U.S. IPO, the Company will give each Holder written notice of the proposed filing at least 45 days prior to such filing. If the Company receives a written request from one or more Holders within 30 days of the Company's notice specifying the number of Registrable Securities the Holder or Holders wish to sell in a secondary offering, the Company will use its commercial best efforts to cause the Registrable Securities so specified to be included in and sold pursuant to the registration statement. The Company's obligations under this section are subject to the provisions of section 9.1. The Company is not required to include any Holder's Registrable Securities in such secondary offering if and to the extent that such inclusion prevents the Company from receiving sufficient proceeds from the U.S. IPO for its own needs (in the opinion of the Board of Directors of the Company, acting reasonably), but no Registrable Securities will be excluded from the secondary offering unless all Common Shares, other than Registrable Securities and Common Shares to be issued and sold by the Company, are also excluded. Any such secondary offering must be entirely underwritten on a firm-commitment basis.

3.3 Company Registration

If the Company proposes to register, on a date that is 180 or more days following a U.S. IPO (including for this purpose a registration effected by the Company for shareholders other than the Holders), any of its Common Shares or other equity securities (or securities convertible into equity securities) under the 1933 Act in connection with the public offering of such securities solely for cash (other than a registration on Form S-8, Form S-4, Form F-4, Form F-8 or Form F-80), the Company will, at all such times, promptly give each Holder written notice of such proposed registration. Upon the written request of any Holder, given within 20 days after mailing of such notice by the Company, the Company will, subject to the provisions of section 9.1, use its commercial best efforts to cause a registration statement covering all of the Registrable Securities that each such Holder has requested to be registered to become effective under the 1933 Act.

3.4 No Obligation to Complete Offering

The Company is under no obligation to complete any offering of its securities it proposes to make and will incur no liability to any Holder for its failure to do so.

ARTICLE 4
REQUEST FOR REGISTRATION

4.1 Demand Registration

At any time after the date that is 180 days after the closing of a U.S. IPO, if the Company receives a written request from Initiating Holders that the Company file a registration statement under the 1933 Act covering the registration of all or part of the Registrable Securities held by such Initiating Holders, then the Company will, within 10 Business Days following receipt of the request, give written notice of the request to all Holders and will afford each Holder an opportunity to include in such registration statement all or any part of the Registrable Securities held by such Holder. Each Holder other than Initiating Holders that wishes to include in any such registration statement all or part of the Registrable Securities held by it must send a written notice to the Company within 15 days after receipt of the Company's notice, stating the number and intended manner of disposition of the Registrable Securities to be included in the registration statement. Following this 15-day period, the Company will, subject to the limitations of this Article 4, use its commercial best efforts to effect such a registration as soon as practicable and in any event to file within 90 days of the end of such 15-day period, a registration statement under the 1933 Act covering all the Registrable Securities that the Holders request in writing to be registered and to use its commercial best efforts to have such registration statement become effective.

4.2 Number of Demand Registrations

The Company is only obligated to effect a number of registrations pursuant to section 4.1 on Form S-1, Form F-1 or Form F-10 (in the case of a long-form Canadian prospectus) equal to (x) three minus (y) the number of prospectuses previously filed pursuant to section 2.1 which were not filed in conjunction with a concurrent U.S. public offering in which Holders exercised their rights pursuant to section 4.1, but no registration pursuant to section 4.1 is deemed to be a registration for purposes of this section if:

(a) the number of Registrable Securities included in an underwriting of the Registrable Securities distributed under such registration is less than 50% of the number of Registrable Securities proposed by the Holders to be distributed through such underwriting, and the Holders pay all expenses of such registration, including those otherwise payable by the Company in accordance with section 8.1; or

(b) the registration is withdrawn in accordance with section 8.2, unless such registration was withdrawn at the request of the Holders in circumstances other than those described in section 8.2(b).

4.3 Exceptions

If the Company is requested to file a registration statement pursuant to section 4.1:

(a) the Company is not obligated to effect the filing of such registration statement if:

(i) the number of Registrable Securities to be registered comprises less than 20% of the Registrable Securities outstanding at that time; or

(ii) the Registrable Securities that the Initiating Holders wish to have registered may be immediately registered on Form S-3, Form F-3 or Form F-10 pursuant to a request made under Article 5;

(b) the Company is not obligated to effect the filing of such registration statement:

(i) for a period of up to 135 days after the date of a request for registration pursuant to section 4.1 if:

(A) at the time of such request, the Company is engaged, or has fixed plans to engage, within 90 days of the time of such request, in a firm commitment underwritten public offering of Common Shares in which the Holders of Registrable Securities are entitled to include Registrable Securities pursuant to sections 3.1 or 3.3; or

(B) at the time of such request, the Company is currently engaged in a self-tender or exchange offer and the filing of a registration statement would cause a violation of the 1934 Act or applicable Canadian Securities Laws;

(ii) during the 90-day period following the completion by the Company of a firm commitment underwritten public offering of Common Shares in which the Holders of Registrable Securities were entitled to include Registrable Securities pursuant to sections 3.1 or 3.3; or

(iii) the anticipated aggregate net proceeds of the offering to such Holders is less than **[U.S.$7,500,000]**;

(c) the Company may defer such filing for a period of not more than 90 days, but only if:

(i) the Company furnishes to the Holders requesting such registration statement a certificate signed by the President and Chief Executive Officer of the Company stating that, in the good faith judgment of the Board of Directors, effecting the registration would materially impede the ability of the Company to consummate a significant transaction (the 90-day deferral period beginning on the date that such certificate is sent to the Holders); and

(ii) the Company has not deferred a filing in reliance on this section 4.3(c) during the previous 12-month period; and

(d) the Company may defer such filing if the Company determines that such filing would require the disclosure of material information that the Company has a bona fide business purpose for preserving as confidential, until the earlier of:

(i) 5 days following the date upon which such material information is disclosed to the public or ceases to be material; and

(ii) 60 days after the Company makes such determination.

ARTICLE 5
FORM S-3, FORM F-3 OR FORM F-10 REGISTRATION

5.1 Form S-3, Form F-3 or Form F-10 Registration

If the Company receives a written request from Initiating Holders that the Company file a registration statement on Form S-3, Form F-3 or Form F-10 (in the case of a short-form Canadian prospectus) (and any related qualification or compliance) covering the registration of all or part of the Registrable Securities held by such Initiating Holders, then the Company will, within 10 Business Days following receipt of the request, give written notice of the request to all Holders (and any related qualification or compliance) and will afford each Holder an opportunity to include in such registration statement all or any part of the Registrable Securities held by such Holder. Each Holder other than Initiating Holders that wishes to include in any such registration statement all or part of the Registrable Securities held by it must send a written notice to the Company within 15 days after receipt of the Company's notice, stating the number and intended manner of disposition of the Registrable Securities to be included in the registration statement. Following this 15-day period, the Company will use its commercial best efforts to effect, as soon as practicable, a registration on, at the Company's option, Form S-3, Form F-3 or Form F-10 (in the case of a short-form Canadian prospectus) (and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, to keep such registration effective for the lesser of six months and such earlier time at which all Registrable Securities covered by such registration statement have been sold) and such qualification or compliance as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of the Registrable Securities as specified by the Holders.

5.2 Exceptions

If the Company is requested to effect any registration, qualification or compliance pursuant to section 5.1:

(a) the Company is not obligated to effect any such registration, qualification or compliance if:

  (i) none of Form S-3, Form F-3 or Form F-10 is available for such offering by the Holders;

  (ii) the aggregate net offering price (after deduction of underwriting discounts and commissions) of the Registrable Securities specified in such request is less than **[U.S.$1,000,000]**; or

  (iii) the Company has already effected (i) a registration on Form S-3, Form F-3 or Form F-10 pursuant to section 5.1 or (ii) a registration on Form S-1, Form F-1 or Form F-10 pursuant to section 4.1 within the previous nine-month period;

(b) the Company may defer any such registration pursuant to section 5.1 for a period of not more than 90 days after receipt of the request of the Holder or Holders under section 5.1 if:

  (i) the Company furnishes to the Holders requesting such registration statement a certificate signed by the President and Chief Executive Officer of the Company stating that, in the good faith judgement of the Board of Directors, effecting the registration, qualification or compliance would materially impede the ability of the Company to consummate a significant transaction (the 90-day deferral period beginning on the date that such certificate is sent to the Holders); and

(ii) the Company has not deferred a filing in reliance on this section 5.2(b) during the previous 12-month period; and

(c) the Company may defer any such filing pursuant to section 5.1 if the Company determines that such filing, qualification or compliance would require the disclosure of material information that the Company has a bona fide business purpose for preserving as confidential, until the earlier of:

(i) 5 days following the date upon which such material information is disclosed to the public or ceases to be material; and

(ii) 60 days after the Company makes such determination.

ARTICLE 6
REPORTS UNDER SECURITIES EXCHANGE ACT OF 1934

6.1 Resales Under Rule 144

With a view to making available to the Holders the benefits of Rule 144 promulgated under the 1933 Act ("Rule 144") and any other rule or regulation of the SEC that may at any time permit a Holder to sell Common Shares of the Company to the public without registration, and with a view to making it possible for Holders to have the resale of the Registrable Securities registered pursuant to a registration statement on Form S-3 or Form F-3, the Company will:

(a) use its commercial best efforts to make and keep adequate current public information available, as such term is understood and defined in Rule 144, at all times after 90 days following the effective date of the first registration statement filed by the Company under the 1933 Act for the offering of its Common Shares to the general public;

(b) use its commercial best efforts, after a U.S. IPO, to file with the SEC in a timely manner all reports and other documents required of the Company under the 1933 Act and the 1934 Act; and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request:

(i) a written statement by the Company as to its compliance with the reporting requirements of Rule 144 (at any time after 90 days following the effective date of the first registration statement filed by the Company under the 1933 Act for the offering of the Common Shares to the general public), the 1933 Act and the 1934 Act (at any time after it has become subject to such reporting requirements), or as to its qualification as a registrant whose securities may be resold pursuant to Form S-3, Form F-3 or Form F-10 (at any time after it so qualifies);

(ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company with the SEC; and

(iii) such other documents as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such Common Shares without registration or pursuant to such form.

ARTICLE 7
OBLIGATIONS OF THE COMPANY

7.1 Effecting a Registration

If the Company is required under this Agreement to use its commercial best efforts to effect the registration of any Registrable Securities, the Company will, as expeditiously as reasonably possible, prepare and file with the SEC a registration statement with respect to such Registrable Securities and use, subject to the other provisions of this Agreement, its commercial best efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for the lesser of (x) 6 months (in the case of a short-form registration statement) or 90 days (in the case of a long-form registration statement) and (y) such earlier time at which all Registrable Securities covered by such registration statement have been sold (such period, the "Effectiveness Period"). Before filing such registration statement, or any amendment or supplement thereto, the Company shall provide counsel selected by Holders holding a majority of the Registrable Securities ("Holders Counsel") being registered in such registration with an adequate and appropriate opportunity to review and comment on such registration statement and any prospectus included therein (and any amendment or supplement thereto).

7.2 Additional Obligations for Registrations

In addition to its obligations under section 7.1, if the Company is required under this Agreement to use its commercial best efforts to effect the registration of any Registrable Securities, the Company will:

(a) prepare and file with the SEC such amendments and supplements to the registration statement and the prospectus used in connection with such registration statement, and use its commercial best efforts to cause each such amendment and supplement to become effective, as may be necessary to comply with the provisions of the 1933 Act with respect to the disposition of all Common Shares covered by such registration statement during the Effectiveness Period;

(b) furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the 1933 Act, and such other documents, including a copy of any filed registration statement, as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them;

(c) use its commercial best efforts to register or qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such United States states and jurisdictions as are reasonably requested by the Holders, except that the Company is not required in connection therewith or as a condition thereto to qualify to do business, subject itself to taxation or file a general consent to service of process in any such state or jurisdiction;

(d) upon any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the lead underwriter(s) of such offering. Each Holder participating in such underwriting will also enter into and perform its obligations under such an underwriting agreement, including furnishing an opinion of counsel and entering into a lockup agreement in accordance with Article 13;

(e) in the case of an underwritten offering, furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Agreement, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Agreement, if such securities are being sold through underwriters, or, if such securities are

not being sold through underwriters, on the date that the registration statement with respect to such securities becomes effective:

(i) an opinion or opinions, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given by company counsel to the underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities; and

(ii) a letter dated such date, from the auditors of the Company, in form and substance as is customarily given by auditors to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities, provided that such Holders have made such representations and furnished such undertakings as such accountants may reasonably require therefor;

(f) apply for listing and use its commercial best efforts to list the Registrable Securities being registered on any securities exchange on which a class of the Company's equity securities is listed or, if the Company does not have a class of equity securities listed on a national securities exchange, apply for qualification and use its commercial best efforts to qualify the Registrable Securities being registered for inclusion on the Nasdaq National Market;

(g) without in any way limiting the types of registrations to which this Agreement applies, if the Company effects a "shelf registration" on Form S-1, Form S-3, Form F-1 or Form F-3 under Rule 415 promulgated under the 1933 Act, take all necessary action, including the filing of post-effective amendments, to permit the Holders to include their Registrable Securities in such registration in accordance with the terms of this Agreement;

(h) comply with all applicable rules and regulations of the SEC, and make available to its security holders, as soon as reasonably practicable but not later than 15 months after the effective date of the registration statement, an earnings statement covering a period of 12 months beginning after the effective date of the registration statement, in a manner which satisfies the provisions of Section 11(a) of the 1933 Act and Rule 158 thereunder;

(i) keep Holders Counsel advised in writing as to the initiation and progress of any registration pursuant to this Agreement;

(j) notify Holders Counsel and each seller of Registrable Securities of any stop order issued or threatened by the SEC and take all action necessary to prevent the entry of such stop order or to remove it if entered;

(k) make available at reasonable times for inspection by any seller of Registrable Securities, any lead underwriter participating in any disposition of such Registrable Securities pursuant to a registration statement, Holders Counsel and any attorney, accountant or other agent retained by any such seller or any managing underwriter, all financial and other records, pertinent corporate documents and properties of the Company and its subsidiaries as shall be reasonably necessary to enable them to exercise their due diligence responsibility, and cause the Company's and its subsidiaries' officers, directors and employees, and its external auditors, to supply all information reasonably requested by any such person in connection with such registration statement;

(l) cooperate with each seller of Registrable Securities and each underwriter participating in the disposition of such Registrable Securities and their respective counsel in connection with any filings required to be made with the National Association of Securities Dealers, Inc.; and

(m) take all other steps reasonably necessary to effect the registration of the Registrable Securities contemplated hereby.

7.3 Furnish Information

The obligations of the Company to take any action pursuant to this Agreement in respect of the Registrable Securities of any selling Holder is conditional upon such selling Holder furnishing to the Company such information regarding itself, the Registrable Securities and the intended method of disposition of such securities, as is required to effect the registration or qualification of its Registrable Securities.

ARTICLE 8
EXPENSES

8.1 Expenses of Demand Registration

Subject to section 8.2 and section 8.4, all reasonable expenses relating to Registrable Securities incurred in connection with (x) the first three filings of a prospectus pursuant to section 2.1 or the first three registrations, filings or qualifications on Form S-1, Form F-1 or Form F-10 pursuant to section 4.1 or (y) any registration filing or qualification on Form S-3, Form F-3 or Form F-10 pursuant to section 5.1, including reasonable legal fees and expenses of counsel to the Holders (up to U.S.$75,000 per registration or qualification, for the Holders' counsel), all registration, filing and qualification fees and printing and accounting fees will be borne by the Company.

8.2 Limitation on Expenses

The Company is not required to pay for any expenses pursuant to section 8.1 of any filing of a prospectus begun under section 2.1 or any registration begun pursuant to section 4.1, if the registration or filing request is subsequently withdrawn at any time at the request of the Holders of a majority in interest of the Registrable Securities to be registered or qualified (in which case all participating Holders will bear such expenses), unless:

(a) the Holders of a majority in interest of the Registrable Securities agree to forfeit their right to one demand registration or one qualification right pursuant to the section under which the registration or qualification was initiated; or

(b) at the time of any such withdrawal, the Holders have learned of a material adverse change in the condition, business or prospects of the Company (other than a change in market demand for its Common Shares or in the market price thereof) from that known to the Holders of a majority of the Registrable Securities then outstanding at the time of their request that makes the proposed offering unreasonable or impracticable in the good faith judgement of a majority in interest of the Holders of the Registrable Securities to be registered or qualified (in which case the qualification right pursuant to section 2.1 or the right to one demand registration pursuant to section 4.1, as the case may be, is not forfeited).

8.3 Expenses of Company Registration

Subject to section 8.4, the Company will bear and pay all reasonable expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to any registration pursuant to section 3.2 or 3.3 and any qualification of Registrable Securities pursuant to section 3.1 for each Holder including, without limitation, reasonable legal fees and expenses of counsel to the Holders (up to U.S.$75,000 per registration, for the Holders' counsel), all registration, filing and qualification fees and printing and accounting fees.

8.4 Underwriting Discounts and Commissions

All underwriting discounts and selling commissions relating to Registrable Securities included in any registration or qualification effected pursuant to this Agreement will be borne and paid ratably by the Holders of such Registrable Securities.

ARTICLE 9
UNDERWRITING

9.1 Underwriting Requirements

(a) In connection with any offering pursuant to section 2.1, section 4.1 or Article 3 involving an underwriting of Common Shares being issued by the Company, the Company:

  (i) is not required to include any of the Holders' Registrable Securities in such underwriting unless such Holders accept the terms of the underwriting as agreed upon between the Company, the Holders and the underwriters; and

  (ii) is only required to include such quantity as in the opinion of the underwriters, marketing factors allow.

(b) In connection with any offering pursuant to sections 3.1 and 3.3, the Company shall select and retain the lead underwriter(s) thereof, provided that such selection shall also be approved by the Initiating Holders, such approval not to be unreasonably withheld. In connection with any offering pursuant to sections 2.1 and 4.1 the Holders shall select and retain the lead underwriter(s) thereof, provided that such selection shall also be approved by the Company, such approval not to be unreasonably withheld.

(c) If the lead underwriter(s) for the offering pursuant to section 2.1 or section 4.1 advises the Company in writing that the total amount of Common Shares requested to be included therein (including Registrable Securities requested by Holders to be included in such offering) exceeds the amount of Common Shares to be sold other than by the Company that marketing factors allow, then the Company is required to include in the offering only that number of such Common Shares (including Registrable Securities) that the lead underwriter(s) believes marketing factors allow.

9.2 Allocation of Cutback

(a) If the amount of Common Shares to be included in a registration or secondary offering, as applicable, is to be reduced in accordance with section 9.1, the Common Shares that would otherwise be included will be reduced in the following order:

(i) all Common Shares that shareholders other than the Company and the Holders seek to include in the offering will be excluded from the offering to the extent limitation on the number of Common Shares included in the underwriting is required; and

(ii) if further limitation on the number of Common Shares to be included in the underwriting is required, then the number of Common Shares held by the Holders that may be included in the underwriting will be reduced so that the number of Common Shares included in the underwriting are pro rata in accordance with the number of Registrable Securities held by each such Holder.

(b) For purposes of section 9.1(a), for any selling shareholder that is a Holder of Registrable Securities and is a partnership, a limited liability company or a corporation, the partners, retired partners, members, retired members and shareholders of such Holder, or the estates and family members of such partners, retired partners, members and retired members and any trusts for the benefit of any of the foregoing persons are collectively deemed to be a "selling Holder", and any pro rata reduction with respect to such "selling Holder" is based upon the aggregate amount of Common Shares carrying registration rights owned by all entities and individuals included in such "selling Holder".

ARTICLE 10
INDEMNIFICATION

10.1 Indemnification by Company

(a) If any Registrable Securities are included in a registration statement or prospectus under this Agreement, the Company will indemnify and hold harmless each Holder, the officers, directors, partners, members, agents and employees of each Holder, any underwriter (as defined in the 1933 Act or applicable Canadian Securities Laws) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the 1933 Act or the 1934 Act or applicable Canadian Securities Laws, against any losses (other than loss of profit), claims, damages or liabilities (joint or several) to which they may become subject under the 1933 Act, the 1934 Act, Canadian Securities Laws or any other U.S. or Canadian federal, state or provincial law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (each a "Violation"):

(i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement (including any preliminary prospectus or final prospectus contained therein) or prospectus or any amendments or supplements thereto;

(ii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading; or

(iii) any violation or alleged violation by the Company of the 1933 Act, the 1934 Act, any state securities law or any rule or regulation promulgated under the 1933 Act, the 1934 Act, any state securities law or any applicable Canadian Securities Laws in connection with the offering covered by such registration statement or prospectus.

(b) The Company will reimburse each such Holder, officer, director, partner, member, agent, employee, underwriter or controlling person for any legal or other out-of-pocket expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action.

(c) The Company is not liable under the indemnity contained in this section 10.1:

(i) in respect of amounts paid in settlement of any loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent will not be unreasonably withheld);

(ii) to the extent that it arises out of or is based upon a Violation that occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration or prospectus by or on behalf of such Holder, underwriter or controlling person; or

(iii) in the case of a sale effected directly by a Holder of Registrable Securities (including a sale of such Registrable Securities through any underwriter retained by such Holder engaging in a distribution solely on behalf of such Holder), where:

(A) such untrue statement or alleged untrue statement or omission or alleged omission was contained in a preliminary prospectus and corrected in a final or amended prospectus; and

(B) such Holder failed to deliver a copy of the final or amended prospectus at or prior to the confirmation of the sale of the Registrable Securities to the person asserting any such loss, claim, damage or liability in any case in which such delivery is required by the 1933 Act or applicable Canadian Securities Laws.

10.2 Indemnification by Holder

(a) Each Holder that includes any Registrable Securities in any registration statement or prospectus will indemnify and hold harmless the Company, each of its directors and each of its officers and directors who have signed the registration statement or prospectus, each person, if any, who controls the Company within the meaning of the 1933 Act or applicable Canadian Securities Laws, each employee, agent, and any underwriter for the Company, and any other Holder or other shareholder selling securities in such registration statement or prospectus or any of its directors, officers, partners, members, agents or employees or any person who controls such Holder or such other shareholder or such underwriter within the meaning of the 1933 Act or the 1934 Act or applicable Canadian Securities Laws, against any losses, claims, damages, or liabilities (joint or several) to which the Company or any such director, officer, controlling person, employee, agent, or underwriter or controlling person, or other such Holder, shareholder, director, officer or controlling person may become subject, under the 1933 Act, the 1934 Act, Canadian Securities Laws or any other U.S. or Canadian federal, state or provincial law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case only to the extent that such Violation occurs in reliance upon and in conformity with written information furnished by or on behalf of such Holder expressly for use in connection with such registration or prospectus.

(b) Each such Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, agent or underwriter or controlling

person, other Holder or other shareholder, officer, director, partner, member, agent, employee, or controlling person in connection with investigating or defending any such loss, claim, damage, liability or action.

(c) The liability of any Holder under this indemnity is limited to the amount of net proceeds (after deduction of all underwriters' discounts and commissions paid by such Holder in connection with the registration or prospectus in question) received by such Holder in the offering giving rise to the Violation.

(d) A Holder is not liable under the indemnity contained in this section 10.2:

(i) in respect of amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder (which consent will not be unreasonably withheld or delayed);

(ii) in the case of a sale effected directly by the Company of its Common Shares (including a sale of such Common Shares through any underwriter retained by the Company to engage in a distribution solely on behalf of the Company), where:

(A) such untrue statement or alleged untrue statement or omission or alleged omission was contained in a preliminary prospectus and corrected in a final or amended prospectus; and

(B) the Company failed to deliver a copy of the final or amended prospectus at or prior to the confirmation of the sale of the securities to the person asserting any such loss, claim, damage or liability in any case in which such delivery is required by the 1933 Act or applicable Canadian Securities Laws.

(e) The obligations of the Holders under this indemnity are several, not joint or joint and several.

10.3 Indemnification Procedure

(a) Promptly after receipt by an indemnified party under this Article 10 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Article 10, deliver to the indemnifying party a written notice of the commencement thereof, and the indemnifying party may participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, assume and control the defense thereof with counsel mutually satisfactory to the parties.

(b) An indemnified party may retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests, as reasonably determined by either party, between such indemnified party and any other party represented by such counsel in such proceeding; provided however that the indemnifying party shall only be able to pay the fees and disbursements of one firm of separate counsel in any one jurisdiction for all indemnified parties.

(c) The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if prejudicial to its ability to defend such action, will relieve such indemnifying party of any liability to the indemnified party under this Article 10 to the

extent of such prejudice, but the omission to deliver written notice to the indemnifying party does not relieve it of any liability that it may have to any indemnified party otherwise than under this Article 10.

(i) No indemnifying party shall, without the consent of an indemnified party, effect any settlement of any pending or threatened proceeding in respect of which such indemnified party is a party and indemnity has been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such proceeding.

10.4 Contribution

If the indemnification provided for in this Article 10 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage or expense referred to herein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, will contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage or expense, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party is determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; provided that the liability of any Holder hereunder is limited to the amount of net proceeds (after deduction of all underwriters' discounts and commissions paid by such Holder in connection with the registration or prospectus in question) received by the Holder in the applicable offering.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this section 10.4 were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

10.5 Survival of Indemnities

The obligations of the Company and the Holders under this Article 10 shall survive the exercise, if any, of the Warrants, the conversion, if any, of the Notes, and the completion of any offering of Registrable Securities in a registration statement or prospectus whether under this Agreement or otherwise.

ARTICLE 11
ASSIGNMENT OF REGISTRATION RIGHTS

11.1 Assignment

The rights of the Holders under this Agreement may be assigned by any Holder to a Permitted Transferee, and by such Permitted Transferee to a subsequent Permitted Transferee upon notice to the Company and in accordance with this Agreement.

11.2 Conditions to Transfer

Any transferee to whom rights under this Agreement are transferred:

(a) as a condition to such transfer, will promptly deliver to the Company a written instrument by which such transferee agrees to be bound by the obligations imposed upon Holders under this Agreement to the same extent as if such transferee were a Holder under this Agreement; and

(b) is deemed to be a Holder under this Agreement.

ARTICLE 12
MISCELLANEOUS PROVISIONS

12.1 Limitations on Subsequent Registration Rights

From and after the date of this Agreement, the Company will not, without the prior written consent of the Holders of a majority in interest of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company relating to registration rights unless such agreement includes:

(a) to the extent such agreement would allow such holder or prospective holder to include such securities in any prospectus or registration statement filed under Articles 2, 3, 4, 5 or 6 of this Agreement, a provision that such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of its securities will not reduce the amount of the Registrable Securities of the Holders that would otherwise be included;

(b) no provision that would allow such holder or prospective holder to make a demand registration or qualification that could result in such registration statement being declared effective, or a receipt being issued for such prospectus, prior to the date that is 180 days following a U.S. IPO or a Canadian Public Offering;

(c) a provision that permits the Holders to include in such registration and in any underwriting involved therewith, Registrable Securities pro rata with the sellers of securities in such registration based on the number of equivalent shares of Common Shares held by each person (where an equivalent share is either a Common Share held directly or the number of Common Shares receivable upon conversion or exercise of securities held directly); and

(d) a provision requiring that any such registration of securities is subject to the underwriting requirements described in Article 9 of this Agreement.

12.2 Procedures for Amending or Supplementing Registration Statements

Whenever a registration statement or prospectus covering Registrable Securities pursuant to any section of this Agreement is effective and the Company determines that, based upon advice of counsel, such registration statement requires amendment or supplementing, including without limitation upon discovery that, or upon the happening of any event as a result of which, the registration statement or prospectus contains an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the Company will notify all Holders of such fact and will as expeditiously as possible cause such registration statement or prospectus to be amended or supplemented, as the case may be, as

required pursuant to section 7.2(a) and will notify all Holders when such amendment or supplement has been filed and, as to any such amendment, declared effective. Upon receipt of the former notice, Holders will not sell any Registrable Securities until such latter notice is provided and such Holders have received copies of such supplemented or amended registration statement or prospectus. If so directed by the Company, Holders shall deliver to the Company (at the Company's expense) all copies other than permanent file copies then in such Holders' possession, of the registration statement or prospectus covering such Registrable Securities which is current at the time of receipt of such former notice. If the board of directors of the Company determines in its reasonable discretion that it would not be in the best interests of the Company to so amend or supplement the registration statement or prospectus at such time, the Company is entitled to delay the filing of such amendment or supplement for a period not to exceed 60 days. The Effectiveness Period shall be extended for any period that the Holders are unable to sell Registrable Securities in accordance with this section.

12.3 Termination of Registration Rights

The registration and qualification obligations of the Company pursuant to this Agreement terminate, with respect to any Holder, on the earlier of:

(a) the date that such Holder (together with its Affiliates, partners, members and former partners and former members) is able to sell under Rule 144(k) all of the remaining Registrable Securities issued or issuable to such Holder (without a prospectus or resort to a prospectus exemption under applicable Canadian Securities Laws);

(b) if such Holder is a resident of Canada and subject to applicable Canadian Securities Laws, the date on which such Holder is able to freely sell (subject to any contractual commitments to the contrary) all of such Holder's Common Shares without a prospectus or resort to a prospectus exemption under the 1933 Act or applicable Canadian Securities Laws (other than an exemption relating to a control person distribution);

(c) the date on which counsel to the Company provides the Holder with an opinion, in a form reasonably acceptable to the Holder, that a sale of the Registrable Securities of the Holder would not be a distribution under the 1933 Act (and such Holder is able to freely sell all of such Holder's Common Shares on a Recognized Stock Exchange without a prospectus or resort to a prospectus exemption under applicable Canadian Securities Laws); or

(d) the date on which such Holder no longer holds Registrable Securities.

12.4 Merger, Etc.

Upon any merger, amalgamation, consolidation, arrangement or other reorganization involving the Company in which Holders receive, in exchange for their Registrable Securities, securities of any entity that are not freely tradable, the rights of the Holders under this Agreement remain in effect except that such rights relate to the securities received by the Holders upon such exchange.

ARTICLE 13
LOCK-UP AGREEMENT

13.1 Lock-up Agreement

To the extent (i) requested (A) by the Company or the Initiating Holders, as the case may be, in the case of a non-underwritten public offering and (B) by the lead underwriter(s) or the Company, as the case may be, in the case of an underwritten public offering, and (ii) all of the Company's officers, directors and holders in excess of one percent (1%) of its outstanding share capital executed agreements the same in all material respects to those referred to in this section 13.1, each Holder of Registrable Securities agrees (x) not to effect any public sale or distribution of any Registrable Securities or of any securities convertible into or exchangeable or exercisable for such Registrable Securities, including a sale pursuant to Rule 144 under the 1933 Act, and (y) not to make any request for a demand registration or qualification pursuant to section 2.1 or 4.1 under this Agreement during the 180-day period (in the case of a US IPO) or the 90-day period (in the case of all other offerings) or such shorter period, if any, mutually agreed upon by such Holder and the requesting party beginning on the effective date of such registration statement (except as part of such registration). No Holder of Registrable Securities subject to this section 13.1 shall be released from any obligation under any agreement, arrangement or understanding entered into pursuant to this section 13.1 unless all other Holders of Registrable Securities subject to the same obligations are also released.

Article 14
GENERAL

14.1 Notices

All notices, requests, consents and demands must be in writing and must be personally delivered (effective upon receipt), faxed (effective upon receipt of the fax in complete, readable form), or sent via a reputable overnight courier service (effective the following business day),

(a) to the Company at:

ADHEREX TECHNOLOGIES INC.
600 Peter Morand Crescent
Ottawa, ON K1G 5Z3
Facsimile: (613) 738-9060
Attention: General Counsel

(b) to the Investor at:

HBM BIOVENTURES (CAYMAN) LTD.
Eucalyptus Building, Crewe Road
Grand Cayman, Cayman Islands
Facsimile: (345) 946-8003

or, in any case, as notified in writing to the other parties to this Agreement.

14.2 Entire Agreement

This Agreement, the Subscription Agreement and the documents contemplated in the Subscription Agreement constitute the entire understanding of the parties with respect to the subject matter of this Agreement and thereof and supersede any and all prior understandings and agreements, whether written or oral, with respect to such subject matter.

14.3 Amendments, Waivers and Consents

Modifications or amendments to this Agreement may be made, and compliance with any covenant or provision of this Agreement may be omitted or waived, if the Company agrees thereto and the Company:

(a) obtains the consent in writing from persons holding or having the right to acquire in the aggregate two-thirds in interest of the Registrable Securities then outstanding; and

(b) in each such case, deliver copies of such consent in writing to any Holders who did not execute the consent,

but only if no Holder, without its consent, is adversely affected by any such modification, amendment or waiver in any manner in which the other Holders are not likewise adversely affected.

14.4 Binding Effect; Assignment

This Agreement is binding upon and enures to the benefit of the personal representatives, successors and permitted assigns of the respective parties to this Agreement. The Company may not assign its obligations under this Agreement or any interest in this Agreement without obtaining the prior written consent (obtained in accordance with section 14.3) of the Holders holding or having the right to acquire in the aggregate two-thirds of the Registrable Securities then outstanding.

14.5 General

The headings contained in this Agreement are for reference purposes only and do not affect the meaning or interpretation of this Agreement. In this Agreement the singular includes the plural, the plural includes the singular, and the masculine gender includes the neuter, masculine and feminine genders. This Agreement is governed by and is to be construed in accordance with the laws of Ontario and the laws of Canada applicable in Ontario.

14.6 Severability

If any provision of this Agreement is found by any court of competent jurisdiction to be invalid or unenforceable, the parties hereby waive such provision to the extent that it is found to be invalid or unenforceable. Such provision may, to the maximum extent allowable by law, be modified by such court so that it becomes enforceable, and, as modified, will be enforced as any other provision of this Agreement, all the other provisions of this Agreement continuing in full force and effect.

14.7 Counterparts

This Agreement may be signed and delivered in separate counterparts by fax or otherwise, each of which when so signed and delivered is deemed an original, and all such counterparts together constitute one instrument.

14.8 Specific Performance

The Company recognizes that the rights of the Holders under this Agreement are unique, and, accordingly, the Holders will, in addition to such other remedies available to them at law or in equity, have the right to enforce their rights under this Agreement by actions for injunctive relief and specific performance to the extent permitted by law. This Agreement is not intended to limit or abridge any rights of the Holders that exist apart from this Agreement.

[THE NEXT PAGE IS THE SIGNING PAGE.]

IN WITNESS WHEREOF, the parties have duly executed this Agreement.

HBM BIOVENTURES (CAYMAN) LTD.

Per: /s/ John Arnold

ADHEREX TECHNOLOGIES INC.

Per: /s/ D. Scott Murray

Adherex Technologies Inc. Personal and Confidential

December 12, 2001

Dr. Robin J. Norris, MD
2966 Castle Peak Avenue
Superior, CO
80027
Dear Robin:

Re: Offer of Employment

Further to our discussions, this will confirm an offer of employment to you as the **Executive Vice President of Research and Development and Chief Operating Officer** with Adherex Technologies Inc., conditional on your meeting Canadian immigration requirements. This appointment will commence on January 2, 2002 under the following terms and conditions:

1. Remuneration

   You will be paid an annual base salary of Cdn $225,000 less all applicable statutory deductions.

2. Equity Participation

   As a member of the Executive Management Team, and reflective of your position as Chief Operating Officer, you will receive 600,000 share purchase options, vesting in amounts of 200,000 shares each of January 1, 2003, January 1, 2004 and January 1, 2005. These options will have a seven year term and an exercise price of Cdn $.33 per share.

3. Relocation and Temporary Accommodation

   a. Relocation Allowance. You will be provided reasonable relocation expenses and moving costs. This will also include six trips to Colorado to facilitate transition issues.

   b. Temporary Accommodation Allowance. You will be provided with three months of temporary accommodation in a furnished apartment and other reasonable expenses in the City of Ottawa while seeking a permanent residence.

4. Term

   a. You shall be appointed a full-time employee of Adherex Technologies Inc. on an indeterminate basis, subject to earlier termination as provided hereafter.

   b. In the event that you wish to resign your position, you must provide three months notice of resignation in writing to the Chief Executive Officer. This notice may be reduced by mutual agreement.

5. Group Health and Benefits

   As a member of our firm you will participate in our group benefit plan coverage involving life insurance, hospitalization, major medical, dental, disability and other benefits of Adherex Technologies Inc. as defined in our Benefit Booklet. Costs of the benefits, other than long term disability, are paid for by Adherex.

6. Vacation and Statutory Holidays

   You are eligible for vacation in accordance with our policy. On joining our firm, you will begin accruing a vacation entitlement equivalent to four weeks per annun. In addition, you will be entitled to be paid for all public holidays in accordance with the provisions of the Employment Standards Act of Ontario and company policy.

7. Confidential Information

You will be required to sign the Adherex Confidentiality and Intellectual Property Agreement as a condition of your employment. A copy of this Agreement is attached.

8. Conflict of Interest

You shall be subject to conflict of interest requirements and shall be responsible to recognize and to avoid circumstances that may give rise to or give the appearance of a conflict of interest situation.

9. Termination

a. Termination Without Cause

Your employment may be terminated in the absence of cause at any time and for any reason upon the provision of 1 month of pay, at your regular rate of pay within the first three months of employment; provision of 6 months of pay, at your regular rate within 3 to 12 months of employment; and 1 year of pay, at your regular rate of pay after the first year of employment, in lieu of notice and severance pay.

b. Termination for Cause

Your employment may be terminated at any time and for any reason for cause without notice or payment in lieu of notice or severance pay, except payment of wages and vacation pay earned to the date of termination.

If the contents of this letter are acceptable to you, please confirm by signing the Acceptance of Offer and return to me.

Robin, I am very pleased to offer you the position of Executive Vice President Research and Development and Chief Operating Office, and on behalf of the other members of our team, welcome you to Adherex Technologies Inc.

Sincerely,

ADHEREX TECHNOLOGIES INC

By: /s/ John Brooks
John Brooks
Chief Executive Officer

ACCEPTANCE OF EMPLOYMENT OFFER

I hereby fully accept the Offer of Employment extended to me on January 2, 2002 to join Adherex Technologies Inc., in Ottawa, as their Executive Vice President of Research and Development and Chief Operating Officer, and agree to all of the terms and conditions as stated therein.

By: /s/ Robin J. Norris Date: December 18, 2001
Robin J. Norris

CONFIDENTIALTY & INTELLECTUAL PROPERTY AGREEMENT

THIS AGREEMENT dated the 18th day of December, 2001 is made between Adherex Technologies Inc. (the “Company”) and the undersigned employee (“Employee”).

We agree that it may be necessary for the Company to disclose to you from time to time certain confidential and proprietary information concerning the products and processes and technology developed by Company and/or affiliates or subsidiaries which the Company wishes to protect along with its trade secrets, technical expertise, business knowledge, procedures and systems and all other confidential and proprietary information, together with proprietary and other information of a confidential nature provided by third parties all of which is not generally available to the public, the unauthorized disclosure of which would cause irreparable harm to the Company.

In consideration of my employment by the Company, the undersigned and the Company agree as follows:

1. For the purposes of this Agreement, “Information” shall include, without limitation, all unpublished know-how, technical data, techniques, records, formulae, process, designs, sketches, photographs, plans, drawings, specifications, samples, reports, studies, findings, inventions and ideas whether patentable or not, whether they be trade secrets or not and whether they be in written, graphic or oral form, that are now or hereafter owned or acquired by Company, all of which are of a confidential and/or proprietary nature concerning the development, testing, production and marketing of and consulting in the area of products and processes and technology developed by Company and/or its affiliates or subsidiaries.
2. The Employee agrees to hold in trust and confidence all Information and to use and communicate any Information only in the performance of his work for the Company to such authorized employees, subcontractors and others as are required by their duties to have knowledge thereof or for such other purposes and to such persons as are authorized by the Company in writing.
3. Any Information which is communicated to any person shall be stamped with the words “PROTECTED” or “CONFIDENTIAL” or other such identifying mark prior to its disclosure to such person.
4. All improvements, inventions, know-how and discoveries, all Information and technology, and all patents arising out of or relating to the Information whether developed by the Employee or not during the term of the Employee’s employment are the exclusive property of Company. The Company alone shall have the right to apply for, prosecute and obtain patents, copyrights, trademarks or industrial design protection in any or all countries of the world in respect of any and all such improvements, inventions, know-how and discoveries and the Employee agrees to disclose, deliver and assign to the Company all such improvements, inventions, know-how and discoveries whether patentable or not and agrees at any time to execute when requested any, applications, transfers, assignments and other documents as necessary for the purpose of confirming the Company’s title to any such improvements, inventions, know-how and discoveries, or for applying for prosecution and obtaining patents in any country with respect thereto. The Employee agrees to cooperate and assist fully in the prosecution of any such application. Any copyrightable materials generated or developed by the Employee while employed by the Company, including but not limited to, computer programs and related documentation belonging to the Company and the Employee hereby assigns to the Company all interest and ownership in such copyright as and when created.
5. The Employee will notify the Company of any default that comes to the Employee’s attention and agrees to indemnify the Company for any costs, losses or damages suffered as a result for the Employee’s failure to comply with the Agreement. As well, the Employee acknowledges that a failure to comply with the terms of this Agreement constitute grounds for dismissal with cause without notice.

6. The Employee will devote his full working time and attention to his employment. The Employee will not, during the term of that employment, perform work or services for a material competitor of the Company. The Employee will not during employment with the Company compete directly or indirectly with it. The obligations of confidentially and non-disclosure contained in this Agreement will continue in effect notwithstanding termination of employment and the Employee must continue to observe these obligations when seeking new employment.

7. The Employee will immediately on demand return to the Company any Information in his possession and during the term of employment will allow the Company to inspect any documents or work produced relating to the Information which are in the possession or control of the Employee. The Employee will not copy the information. On termination of his employment, all Information will be immediately returned to the Company.

8. The Employee hereby advises the Company that except to the extent of those agreements listed on Schedule “A” attached, he is not bound by any other confidentially or disclosure agreements and agrees that he will not become a party to any such agreement with others during his employment. The Employee further advises the Company that there are no patents, patent applications or other inventions made by the Employee prior to his employment with the Company except those specifically listed in Schedule “B”. If no Schedules are attached to this Agreement, then there are no agreements or patents outstanding.

9. We agree that this Agreement is to be interpreted and governed by the laws of the Province of Ontario. For ease of interpretation, this Agreement is to be read with all changes in gender and number as the circumstances require and the Agreement is binding upon and available to the benefit of both parties, their personal representatives, successors, affiliates, subsidiaries and assigns. Any notice under this Agreement should be delivered to the Company’s head office and the Employee at his home address.

10. Because the nature of the information is such that disclosure cannot be adequately remedied by damages, the parties agree that in addition to any other remedies available injunctive relief may be an appropriate remedy to prevent or restrict any disclosure or further disclosure. A failure by the Company to enforce any provision of the Agreement does not constitute a waiver of any of its rights and does not release the Employee of any responsibility for performance under the Agreement.

11. The Company agrees that all the obligations of confidentiality and non-disclosure terminate when the Employee can establish with documentary proof that all the Information:

    (a) was in the public domain at the time of the disclosure to the Employee by the Company,

    (b) entered the public domain through no fault of the Employee,

    (c) was in the Employee’s possession free of any obligation of confidentiality before disclosure by the Company to the Employee, or

    (d) was disclosed to Employee in good faith by a third party which has the right to make such disclosure,

    provided that the Employee notifies the Company in writing within 10 days of receipt of the Information where the exemptions under (c) and (d) apply.

12. Those parts of this Agreement relating to the disclosure of Information shall continue in full force and effect after the termination of the employment of the Employee and shall cease to have full force and effect only when and in respect of such Information as becomes part of the public domain.

13. The various sections of this Agreement are severable and the invalidity of one does not affect the enforceability of the other provisions of this Agreement

14. Toutes les parties ont exigé que cet Accord soit rédigé en anglais.

All parties have requested that this Agreement be drawn up in English.

IN WITNESS WHEREOF the parties have executed this agreement on the day and year first written above.

ADHEREX TECHNOLOGIES INC.

Per: /s/ John Brooks
John Brooks
Chief Executive Officer

Witness /s/

/s/ Robin Norris
Robin Norris

EXHIBIT 4.11

Adherex Technologies Inc

D. Scott Murray
37 Fielding Avenue
Toronto, ON
M4J IR4

Dear Mr. Murray,

We are pleased to offer you the position of General Counsel and Corporate Secretary at Adherex Technologies, Inc.

Reporting to John Brooks, Chief Executive Officer, you will be responsible for legal and regulatory filing requirements, corporate compliance for securities related matters, facilitating intellectual property development, maintenance of corporate records and other corporate secretary duties, and for providing general legal counsel and services as required.

In the corporate compliance aspect of the position, specific responsibilities are expected to include ensuring regulatory compliance with all securities matters; playing a significant role in corporate fundraising activities; participating in presenting strategic, business and financial plans; and managing relationships with senior management, outside auditors, Board of Directors, external counsel, and financial institutions. In this role you may also lead the financial review aspects of due diligence analysis in conjunction with the review of new business acquisitions, divestitures, and downsizing initiatives as needed. Additionally you will fulfill the role of Adherex Corporate Secretary.

In the area concerning intellectual property, examples of specific responsibilities include advising on the considerations related to the protection and dissemination of intellectual property; representing the organization in all phases of intellectual property activities, including opportunities for licensing and research collaboration; coordinating the workflow of patent lawyers in filing patent applications, dealing with inventors, and assisting with litigation work.

As General Counsel, you will be responsible for a variety of corporate legal tasks such as assisting the negotiation of corporate transactions including licenses and material transfer agreements; analyzing contracts, product acquisition agreements, and commercial leases from other firms for conformity and the negotiation of optimal terms; identifying risk exposure; advising executive management on contractual obligations and issues; establishing and maintaining document control management procedures; keeping current on legislative issues, statutes, decisions, and ordinances of judicial bodies; examining legal data to determine advisability of defending or prosecuting lawsuit; providing legal guidance to staff and acting as agent of the corporation in various business transactions.

Over time, responsibilities and/or reporting relationships may be added or changed, as business requires.

We offer an annual salary of C$150,000. You will become eligible for company-sponsored benefits, including life insurance, supplemental medical/dental coverage and three weeks paid vacation per year. In addition, you will receive paid time off during our holiday shutdown period between Christmas and New Years. As a member of the Executive Management Team, and reflective of your position as General Counsel and Corporate Secretary, you will qualify for participation in the Adherex Technologies Stock Option Plan, as administered and granted by the Board of Directors. Our recommendation to the board will be for 150,000 share options vesting equally over a three-year period, in accordance with the Adherex Stock Option Plan.

You will be reimbursed up to C$10,000 to cover reasonable relocation expenses and moving costs. Reasonable relocation expenses include trips between Ottawa and Toronto to facilitate transition issues, costs related to the physical move of belongings, and temporary accommodation. Costs not outlined here must be pre-approved to be eligible for reimbursement. Additionally, receipts must be provided for all expenses.

For your information, a list of our benefits programs and the appropriate qualifying dates are shown in the attached Pay and Benefit Program Outline. As a standard employee policy, Adherex reimburses employees for periodic professional association fees or dues required to maintain professional status. As per this policy, the cost of your professional fees, both legal and pharmacy, will be reimbursed by Adherex. Additionally, it is our understanding that you will be eligible for professional liability insurance through our standard Director and Officer Insurance program.

Within your first three months of employment, your employment may be terminated in the absence of cause at any time and for any reason upon the provision of 3 months severance pay at your regular rate. Subsequent to completion of this period, your employment may be similarly terminated with receipt of 3 months notice and 3 months severance pay. In the event that you wish to resign your position, you must provide one month notice of resignation in writing to the Chief Executive Officer. This notice may be reduced by mutual agreement. Termination provisions will be reviewable as part of the annual pay review process. However, unless new termination provisions are agreed upon at such time, the termination provisions herein will remain in effect.

This offer (and the attachments to it) constitute all the terms and conditions of your employment. If there have been any discussions or correspondence with respect to your employment, this offer supercedes such discussions or correspondence.

Your contribution to the success of Adherex is important to us. We look forward to seeing you on your first day at work, which is expected to be February 3rd, 2003. If this offer is acceptable to you, please sign below and return one original to my office. If we do not receive a signed copy of this letter on or before January 30`", 2003, this offer is void and withdrawn.

Please accept our congratulations on your successful candidacy for this opportunity. We look forward to working with you.

Sincerely,

/s/ John Brooks

John Brooks, CFA
Chief Executive Officer

Agreed and accepted this 27th day of January, 2003.

/s/ Scott Murray

Scott Murray

Pay and Benefit Program Outling

Employee: Scott Murray		**Job Title:** Corporate Counsel	
Start Date:	**Pay Rate:**	**First Pay:**	**Pay Review Date:**
February 1, 2003	$150,000/ Year	February 15, 2003	January 1, 2004

Vacation Entitlement

Vacation entitle is as follows:

Year 1 thru 2	Three weeks (15 days)
Year 3 thru 5	Four weeks (20 days)
Year 6 and thereafter	Four weeks (20 days)

In the first year and the years of transition to increased vacation entitlement, vacation entitlement will be pro rated annually.

Employee Benefit Programs

The effective dates shown assume successful completion of your Probationary Period.

		Cost Sharing	
Benefit Program	**Effective Date**	**Employer**	**Employee**
Basic Group Life Insurance	May 1, 2003	100%	
Basic A. D. & D Insurance	May 1, 2003	100%	
Long Term Disability	May 1, 2003		100%
Dental Insurance	May 1, 2003	100%	
Extended health Care Insurance	May 1, 2003	100%	
Stock Options	February 1, 04-05-06		

Terms and conditions of Benefit Programs are governed by the Insurer's Master Contract and are subject to change. Where the terms of the Insurer's Master Contract conflict with what is provided herein, the terms of the master Contract govern.

1.01.1 **Eligibility for Employment**

In compliance with federal legislation, new employees, if requested, and as a condition of employment, must present documentation establishing their identity and their eligibility to legally work in Canada. A valid Social Insurance Number, landed immigrant papers, employment visa, or temporary work permit is deemed sufficient for this purpose. Failure to prove eligibility for employment in Canada constitutes just cause for immediate dismissal, without notice or compensation in lieu of notice.

1.02 **Employment Application**

Any misrepresentations, falsifications, or material omissions in any data requested during the employment application process or data requested during the hiring documentation process shall result in the exclusion of the individual from further consideration for employment or, if the person has been hired, termination of employment for cause, without notice or compensation in lieu of notice.

1.03 **Employment Reference Checks**

Adherex Technologies Inc. checks the employment references of all final candidates for employment. Offers of employment are contingent upon obtaining satisfactory reference checks. In order to protect an applicant’s privacy and so as not to jeopardize his or her current employment reference checks with a candidate’s current employer are not made unless the candidate’s permission is obtained. Reference checks from current employers are requested only after a conditional offer of employment is accepted.

1.04 **Probationary Period**

All newly hired employees are required to serve a Probationary Period during the first three (3) months after their date of hire. Significant absences during the Probationary Period will automatically extend the period by the length of the absence. The employee is classified as Probationary during this period and is ineligible for employee benefits during this time.

1.05 **Confidentiality and Inventions Agreement**

All employees are required to sign a non-disclosure agreement titled the Confidentiality and Inventions Agreement. Employees who improperly use or disclose inventions, trade secrets and/or other confidential business information will be subject to appropriate disciplinary action, up to and including termination of employment, and possibly legal action, even if they do not actually benefit from the disclosed information. The obligations under the Confidentiality and Inventions Agreement survive termination of employment and form part of the contract of employment between the employee and Adherex Technologies Inc.

1.06 Employees are required to observe and adhere to Adherex Technologies Inc.’s polices and practices at all times.

The conditions in this Statement of Terms and Conditions shall be outlined to each prospective employee either during the selection process and/or when an employment offer is extended and forms part of the offer of employment.

Exhibit 4.12

Mark C. Rogers, MD MBA
Chairman of the Board of Directors

February 19, 2003

William P. Peters MD, PhD
2872 Chestnut Run Drive
Bloomfield Hills, Michigan 48302

Dear Dr. Peters:

As Chairman of the Board of Directors of Adherex Technologies Inc and its US subsidiary Adherex, Inc. and on behalf on the Compensation Committee of the Board, it is my pleasure to offer you ("you" or 'Peters') the position of Chief Executive Officer and Vice Chairman of Adherex Technologies Inc ('Corporation', 'Company' or 'Adherex') on the terms contained herein.

1. Position and Obligations Description:

- You will be appointed Chief Executive Officer and Vice Chairman effective March 12, 2003 for a five year term ending March 11, 2008, unless terminated earlier pursuant to the terms hereof. As Chief Executive Officer and Vice Chairman you shall have, subject always to the general direction, approval, and control of the Board of Directors of the Corporation ('Board'), the power and authority to manage and direct the business and affairs of the Corporation (except only the matters and duties: (i) as by law or by the rules and policies of any stock exchange on which the Company's shares are listed must be transacted or performed by the Board or by the shareholders of the Corporation in a general or special meeting; or (ii) that, by the Company's policies respecting corporate governance as established by the Board, must be transacted or performed by the Board or a committee thereof), including setting strategic direction, the power and authority to enter into contracts, engagements or commitments of every nature or kind in the name of and on behalf of the Corporation, for formulating and administering policies, for personnel decisions concerning hiring and/or retention, and other usual authorities and responsibilities of the Chief Executive Officer.
- In the role of Chief Executive Officer and Vice Chairman, you will faithfully serve the Corporation and its subsidiaries and use your best efforts to promote the interests thereof, conform to all lawful instructions and directions given to you by the Board and obey and carry out the by-laws of the Corporation, and devote your full time and attention to perform the duties of the position. Notwithstanding the foregoing, you may request in writing to the Chairman of the Board any other material, executive level, duties in either not-for-profit or for-profit organizations not related to the Corporation and secure the approval of the Board of Directors prior to undertaking any such duties.

- You will continue your position as a director of the Corporation as approved on November 5, 2002 at the annual and special meeting of the shareholders of the Corporation.

2. Compensation:

- Salary: You will receive a salary in the amount of $350,000US per year for performance of the Chief Executive Officer services specified in this Agreement in the first year. For subsequent years, you shall receive such increases, if any, as may be agreed to by the Board. All salary payments will be subject to applicable statutory deductions.
- Signing Bonus: The Company will pay you a signing bonus totaling $200,000US to be paid as $40,000US at time of signing and $80,000US on July 1, 2003, and $80,000US on September 1, 2003. All signing bonus payments will be subject to applicable statutory deductions.
- Annual Bonus: Subject to the satisfactory achievement of agreed upon goals (as set forth in the attached Exhibit C), you will receive an annual bonus of up to 50% of your annual salary and additional stock options as determined in the sole discretion of Board. All annual bonus payments will be subject to applicable statutory deductions.
- Initial Incentive Bonus: In addition, the Company will grant to you additional stock options to be determined upon the completion by the Company of a financing through the sale of equity securities of at least US$ 3.75 million or a contract with a strategic partner which invests US$ 3.75 million with the Company.
- Long Term Incentive (LTI): At the time of signing of this Agreement, you will be granted an option to purchase 3.75 million Adherex common stock (CUSIP # 00686R) exercisable at market price (‘LTI Options’). The market price will be as defined in the Corporation’s Employee Stock Option Plan (‘ESOP’) and the options will be granted pursuant to the ESOP.
    - Option term: The duration of the LTI Options and the Initial Incentive Bonus options will be seven (7) years.
    - Lock-out period: You will be restricted from selling any common stock of the Corporation during the Lockout Term as defined in that certain agreement between you and the Corporation dated November 14, 2002 and during any “blackout periods” that apply, at the time of such sale, to all insiders of the Company. You may further be required to comply with other restrictions on the sale of Company stock which the Board may impose on all insiders of the Company.
    - Vesting: One third of the LTI Options shall vest immediately upon granting of the said options to you. Another third of the LTI Options shall vest on the next day following the one year anniversary of the granting of

the said options to you. The last third of the LTI Options shall vest on the next day following the two year anniversary of the granting of the said options to you.

- The total of the LTI Options and the Initial Incentive Bonus stock options shall be equal to 5% of the fully diluted outstanding common stock of the Corporation immediately following the closing of the US $3.75 million transaction referenced above. To the extent required by the rules and policies of the Toronto Stock Exchange, the Initial Incentive Bonus stock option grant shall be subject to and conditional upon regulatory and shareholder approval. Adherex shall seek any shareholder approval at the next meeting of shareholders and otherwise apply to any regulatory agency and take such further reasonable steps to support such application or obtain such shareholder approval.
- All other terms of the LTI Options and the Initial Incentive Bonus stock options will be as set out in the ESOP and Stock Option Agreement which shall be executed in the form set out in the ESOP .
- The Company shall cause its US wholly owned subsidiary Adherex Inc. to directly employ you in order to enable the continuation of your current status as a US resident and taxpayer and the orderly remittance of statutory deductions directly to the appropriate US taxing authorities.

- Benefits:
  - You and your immediate family will be provided with comprehensive medical and prescription plans, dental, and disability insurance pursuant to the benefit plans which the Corporation provides to its executives from time to time in Canada and the United States, including medical/hospital and extended care benefits and life insurance. During the first year of your employment, the Corporation will reimburse you for continuation of your current comprehensive medical, dental and prescription plan as provided under COBRA. You will be entitled to five weeks paid vacation, up to 2 weeks of which may be accrued into the next year if not completely utilized in the current year. The Corporation will pay your malpractice insurance premium up to $10,000 per year.
  - Relocation: The Board will consider relocation of the Corporation’s headquarters to the US in the first year of your term as Chief Executive Officer. In order to mitigate the inconvenience and expense of two relocations, and pending this relocation discussion and its resolution by the Board, you will be entitled to reimbursement for all reasonable pre-approved transportation expenses between your residences in Michigan or Florida to Adherex’s offices in Ottawa, and associated hotel/apartment and ground transportation costs until Adherex relocates its headquarters to its new, presently undesignated, location. Following the Relocation, Adherex will provide you with pre-approved relocation assistance as described in Exhibit “A” to this Agreement.

- Expense account: You will be entitled to reimbursement for all reasonable business expenses incurred in the performance of your duties upon presentation of a voucher indicating the amount and business purpose.

3. Termination and/or Change of Control Provisions

In the event that Adherex terminates you without Cause or you terminate your employment for Good Reason or a Change of Control, you shall be paid an amount equal to 24 months of the then current Salary plus earned vacation pay, earned bonus, COBRA and earned benefits due as of the termination date. This sum is to be paid within 30 days following said termination and will be subject to all statutory deductions. For purposes of this Agreement the terms “Cause”, “Change of Control” and “Good Reason” are defined in Exhibit “B” to this Agreement. At the time of payment by the Company of the required amount under this paragraph the parties shall exchange full and final mutual releases in a form acceptable to the parties.

If your employment is terminated by reason of your death, your estate shall be entitled to receive benefits in a manner consistent with and at least equal in amount to those provided by the Corporation and its subsidiaries to surviving families of the senior executives of the Corporation and its subsidiaries under such plans, programs and policies relating to family death benefits, if any, as are in effect at the date of your death.

If your employment is terminated by the Board for Cause, then the Company shall pay you your base Salary through the date of your termination and you shall have no further entitlement to any other compensation or benefits from the Company. All stock options that have not vested as of the date of termination shall expire pursuant to the ESOP plan.

The Company shall cause you to be elected as a member of its Board throughout the Term and shall include you in the management slate for election as a director at every shareholders’ meeting during the Term at which your term as a director would otherwise expire. You agree to accept election, and to serve during the Term, as director of the Company, without any additional compensation beyond that specified in this Agreement.

The term of this agreement will automatically renew for a period of two years from the last day of the then current term if you are not advised in writing to the contrary by the Company on or before the beginning of the last year of the then current term (which shall be March 11, 2007 with respect to this first term), and if you are so advised that this agreement will not be renewed, you will continue to receive the salary, bonuses and benefits payable to you in the ordinary course under this Agreement during and until the end of such last year of the then current term, and no more.

4. Non-compete and Confidentiality

You will not, either individually or in partnership or jointly or in conjunction with any person or persons, firm, association, syndicate, company or corporation, as principal, agent, shareholder or in any other manner, engage in the commercial drug development of chemoprotectants and/or chemoenhancers and/or cadherin antagonists for a period of six months if your voluntarily cease your employment, you cease employment for Good Reason or Change of Control, or if the Company terminates you without Cause, or for a period of 24 months if you are terminated by the Company for Cause (the applicable period, the "Restricted Period"). Nothing herein shall restrict or prevent you from owning as a passive investor less than 5% of any class of securities of a corporation or entity which is a competitor of the Corporation's whose securities are trading in the public market, or less than 5% of any class of securities of a corporation or entity which is not a direct competitor of any of the Corporation, whether or not such corporation's or entity's securities are trading in the public market. You will not at any time within the Restricted Period, directly or indirectly, approach or solicit any employee of the Corporation.

You agree to keep confidential certain information of the Company as set out in Exhibit D to this agreement.

By signing this Agreement, you represent and warrant to the Company that neither the execution or delivery of this Agreement nor the performance by you of your duties and other obligations hereunder: (i) constitute a violation or default under any order or judgment against you; (ii) conflict with or constitute a default or breach of any covenant or obligation (whether immediately, upon the giving of notice or lapse of time or both) under any prior employment agreement, contract, or other instrument to which you are a party or by which you are bound; or (iii) require you to obtain any approval or consent of any third party.

5. General Provisions

A. Validity. If a court of competent jurisdiction deems any provision of this Agreement invalid, such provision shall be deemed not to be a part of this Agreement, and shall not affect the validity or enforceability of the remaining provisions;

B. Assignment. Peters acknowledges that his services are unique and personal. Accordingly, Peters may not assign his rights or delegate his duties hereunder. Adherex's rights and obligations under this Agreement shall inure to the benefit of, and shall be binding upon, Adherex's successors and assigns.

C. Notices. Any notice required or desired to be given under this Agreement shall be deemed given only if in writing and sent by certified mail, return receipt requested, to Peters' residence or to Adherex's principle office, as the case may be.

D. Headings. Headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

E. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

F. Governing Law. This Agreement shall be governed by and construed under the laws of the State of Michigan and the United States of America until such time as the Company re-locates to the United States, at which time, upon our mutual agreement, this Agreement may be governed by and construed under the laws of the state in which the Company is headquartered.

G. Arm's Length. This Agreement has been negotiated at arms length and each party has been represented by legal counsel or has had the opportunity to be represented by legal counsel. Accordingly, the rule of law or legal decision that would require the interpretation of any ambiguities in this Agreement against the party drafting it is not applicable and is, therefore, waived.

H. Amendment and Waiver. No supplement, modification, amendment or waiver of this Agreement shall be binding unless executed in writing by both parties. No waiver of any of the provisions of this Agreement shall constitute a waiver of any other provision (whether or not similar) nor shall such waiver constitute a continuing waiver unless otherwise expressly provided.

I. Survival. Notwithstanding the termination of this Agreement, (a) neither party shall be released from any obligation that accrued prior to the date of termination; and (b) each party shall remain bound by the provisions of this Agreement which by their terms impose obligations upon that party that extend beyond the termination of this Agreement.

If you are willing to accept the position of Chief Executive Officer and Vice Chairman of Adherex under the terms and conditions described in this letter, acknowledge this by signing both copies of the letter, returning one copy to me by certified mail.

Sincerely yours,

/s/ Mark C. Rogers

Mark C. Rogers, MD, MBA
Chairman of the Board
Adherex Technologies Inc.

Acknowledged and accepted:

/s/ William P. Peters

William P. Peters, MD PhD Date: 2/19/03

Witnesses: /s/ Leslie M. Trumble

Date: 2/19/03

Exhibit A: Relocation Assistance

Adherex will provide Peters with the following relocation assistance. This assistance is to minimize the inconvenience Peters and his family may experience as a result of moving from their present home to a new community.

In connection with Peters' relocation, Adherex will reimburse Peters for the following:

1. Usual and customary expenses incurred if Peters sells his home himself or through a broker; however, reimbursement for the broker's commission may not exceed the lower of (a) a six (6) percent broker's commission on the sale of the property and (b) the actual broker's commission.

2. Reasonable expenses incurred in moving furniture, normal household goods and autos, academic office and personal belongings to the new location.

3. Reasonable expenses incurred while house hunting, including two (2) trips to the new location with Peters' spouse.

4. Reasonable and customary closing costs incurred in buying the new home; however, the amount to be reimbursed shall not exceed Five Thousand 00/100 Dollars ($5,000)US.

5. Reasonable temporary living expenses incurred while awaiting occupancy of the new residence to the extent Peters' present residence is sold, leased, or otherwise unable to be occupied.

6. Incidental expenses related to a move which are not addressed elsewhere in this Exhibit; however, the amount to be reimbursed shall not exceed Two Thousand 00/100 Dollars ($2,000)US.

Exhibit B: Definitions of Key Terms

(i) “Cause” shall mean:

(a) Your conviction of (i) any felony or (ii) any misdemeanor involving sexual misconduct, fraud, or embezzlement (other than a traffic infraction);

(b) Your willful misconduct with regard to your duties and responsibilities; or

(c) Gross negligence (other than as a result of physical or mental impairment) with regard to his duties.

(d) Your material breach of this agreement.

(e) In the case of (b) and/or (c) and/or (d) above, Cause shall not be established unless and until Peters fails to cure such misconduct, breach, or negligence (if capable of being cured) within a period of twenty (20) days from receiving written notice from Adherex of its intent to terminate Peters’ employment for Cause as a result of such circumstances, which notice describes such circumstance with sufficient particularity to give Peters a reasonable opportunity to resolve or cure any such misconduct, breach, or negligence (if capable of being cured).

“Good Reason” shall include, without limitation, the occurrence of any of the following without Peters’ written consent:

(i) a change (other than those that are clearly consistent with a promotion) in Peters’ position or duties (including any position or duties as a director of the Corporation), responsibilities (including, without limitation, to whom Peters reports and who reports to Peters), title or office, which includes any removal of Peters from or any failure to re-elect or re-appoint Peters to any such position or offices;

(ii) a reduction by the Corporation or any of its subsidiaries of Peters’ Salary, Benefits or any change in the basis upon which Peters’ Salary or Benefits payable by the Corporation or its subsidiaries is determined which is not consented to by Peters and which does not apply equally to all employees of the Corporation;

(iii) any breach by the Corporation of any provision of this Agreement;

(iv) after a Change of Control: (a) The Board repeatedly overrides, supersedes, or disregards reasonable decisions by you or recommendations made by you to the Board, such that the Board materially interferes with your ability to effectively function as the Chief Executive Officer, or (b) the Board otherwise takes actions that constructively represent a lack of confidence in your ability to perform your duties and responsibilities;

provided, that in all cases, such action or breach is not resolved or cured within thirty (30) days following your written notice to Adherex of the event that you assert is the basis for Good Reason, and which event or behavior Adherex does not resolve or cure during such thirty (30) day period.

"Change of Control" shall mean the acquisition (at one time or over a period of time) of shares of the Corporation or of securities ("Convertible Securities") convertible into, exchangeable for or representing the right to acquire shares of the Corporation as a result of which a person, group of persons or persons acting jointly or in a concert, or persons associated or affiliated within the meaning of the Business Corporation Act (Ontario) with any such person, group of persons or persons acting jointly or in concert (collectively, the "Acquirors"), beneficially own shares of the Corporation and/or Convertible Securities that would entitle the holders thereof to cast more than 50% of the votes attaching to all shares in the capital of the Corporation that may cast to elect directors of the Corporation (assuming the conversion, exchange or exercise of Convertible Securities beneficially owned by the Acquirors). For the avoidance of doubt, a Change of Control shall not include a reverse takeover or other reorganization whereby the holders of shares and Convertible Securities of the Corporation immediately prior to such transaction beneficially own, following the completion of the transaction, shares of the parent or surviving corporation that would entitle the holders thereof to cast more than 50% of the votes attaching to all shares in the capital of such parent or surviving corporation that may cast to elect directors of such parent or surviving corporation.

Exhibit C: Objectives for Annual Incentive Bonus

2003: Objectives: Maximum annual bonus in 2003 is 50% of base salary ($175,000); each of the following will be considered as independent criterion in establishing short term incentive bonus.

Objective	Bonus Amount
Initiate US Phase I Exherin Trial	$ 20,000
Initiate Phase I/II Mesna Trial	$ 15,000
Initiate Phase III STS Trial	$ 15,000
Achieve Board approval for product development strategy	$ 25,000
Submit Orphan Drug Application for STS	$ 15,000
Evaluate and achieve Board approval for US location	$ 10,000
Finish Canadian Phase I Exherin Trial	$ 20,000
Secure second $3.75 million in financing	$ 20,000
Stock price exceeds $1 for at least one day (3x current price)	$ 25,000
Other board objectives and assessment of performance	$ 75,000

2004 Objectives: Maximum annual bonus in 2004 is 50% of base salary ($175,000)

Objective	Bonus Amount
Complete US Phase I Exherin Trial	$ 20,000
Complete Phase I/II Mesna Trial	$ 10,000
Complete Phase III STS Trial	$ 20,000
Meet requirements for NASDAQ listing of AHX stock	$ 10,000
Presentations of AHX results at ASCO meetings ($10 K each up to 3 maximum)	$ 30,000
Submit NDA for STS	$ 40,000
Initiate Phase II trial for Exherin	$ 10,000
Complete phase II trial for Exherin	$ 30,000
Initiate phase III trial for Exherin	$ 30,000
Achievement of major financing in excess of $10 M	$ 50,000
Stock price exceeds 3x 2003 year end price for at least one day	$ 25,000
Other board objectives and assessment of performance	$ 75,000

Objectives for each subsequent year will be established by November of the year and agreed to in writing.

Confidential

Exhibit 4.13

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (the "Agreement") dated as of this 26th day of April 2004 (the "Effective Date"), by and between Adherex, Inc. (the "Company"), a wholly owned subsidiary of Adherex Technologies Inc. ("AHX"), and James A. Klein, Jr., an individual residing at the address set forth on the signature page hereof ("Employee").

1. **Duties**. While employed by the Company, Employee will be employed in the position of Chief Financial Officer of the Company and of AHX ("CFO"), and, as such, Employee agrees to faithfully perform the duties of the position of CFO and to perform such other duties of an executive, managerial or administrative nature as shall be specified and designated from time to time by the Chief Executive Officer of the Company. In addition, Employee will be responsible for periodically reporting to the Board of Directors and Audit Committee of AHX (the "Board"). Employee agrees to perform his duties and responsibilities at the Company diligently and to the best of his ability, and further agrees to devote all of his business time and efforts to the performance of duties hereunder. Employee further agrees not to be employed by any entity or other third party while employed by the Company without first obtaining the advance written consent of the Company.

2. **Compensation**. In consideration of his services to the Company, Employee will be compensated as follows:

(a) Base Salary. Employee will be paid an annual base salary of One Hundred Sixty Thousand Dollars (USD $160.000.00), less any withholdings required by law or properly requested by Employee (the "Base Salary"). The Company will pay Employee the Base Salary on its regularly scheduled paydays, in accordance with its regular payroll practices and procedures.

(b) Signing Bonus. After Employee has executed this Agreement and any other required agreement(s), Employee will be paid a one-time lump sum signing bonus of Fifteen Thousand Dollars (USD $15,000.00) (the "Signing Bonus"). The Signing Bonus is subject to any withholdings required by law and/or properly requested by Employee.

(c) Discretionary Bonus. In addition to the Base Salary and Signing Bonus, the Company in its sole discretion may award Employee an annual bonus of no more than Fifty Thousand Dollars (USD S50,000.00) annually (the "Annual Bonus"). The Company will have the sole discretion and authority to determine Employee's eligibility for and the amount of the Annual Bonus. The Annual Bonus is subject to any withholdings required by law and/or properly requested by Employee.

(d) Stock Option Grant. Subject to the approval of its Board of Director (the "Board"), AHX further agrees to grant Employee an option to purchase up to One Million shares of AHX's common stock (the "Option"). The Option will be subject to the terms and conditions of the AHX Stock Option Plan (the "Plan") and a separate stock option agreement between the Company and Employee. Shares subject to the Option will have an exercise price equal to the fair market value on the date of grant, as determined by the Board. One-fourth of the shares subject to the Option will vest and be fully exercisable immediately after Employee has been

employed with the Company for ninety consecutive days. Thereafter, the remaining unvested shares will vest annually in equal one-third installments over the next three years on the anniversary of your hire date for so long as Employee remains employed by the Company. As further detailed in the stock option agreement between the Company and Employee, if Employee's employment terminates due to a change in control of the Company (as defined in the stock option agreement), any then-remaining unvested shares shall immediately vest and be fully exercisable.

(e) Business Expenses. The Company will reimburse Employee for all reasonable expenses incurred by Employee that are directly related to the business of the Company, provided that Employee complies with the Company's policies and procedures for reimbursement or the advance of business expenses.

3. **Benefits**. While employed by the Company, Employee will receive such other benefits as are provided from time to time to other similarly-situated employees of the Company. All such benefits are subject the terms and conditions of the plan documents by which such benefits are provided, and are subject to change by the Company at any time, with or without advance notice.

4. **Vacation and Paid Holidays**. You will be eligible for vacation in accordance with the Company's vacation policy. You will be entitled to take twenty (20) days of paid vacation annually. In addition, Employee will be entitled to be paid for all holidays recognized by in accordance with Company policy.

5. **Confidential Information and Restrictive Covenants**. As a condition of Employee's employment with the Company, Employee is required to sign the Confidentiality and intellectual Property Agreement attached hereto as Exhibit A hereto (the "IP Agreement"), which includes Employee's agreement to refrain from disclosing the Company's confidential information and to refrain from engaging in certain competitive activities after any termination of employment with the Company. The IP Agreement is fully incorporated into this Agreement by reference, and a breach of the IP Agreement will be construed as a breach of this Agreement.

6. **Conflicts of Interest**. You are subject to the Company's conflict of interest requirements and policies, and are responsible for recognizing and avoiding any and all circumstances that may give rise to an actual conflict of interest or give the appearance of a conflict of interest situation.

7. **Termination of Employment**. Employee's employment With the Company is at-will, meaning that either Employee or the Company can terminate the employment relationship at any time, for any or no reason, subject to the following provisions:

(a) Termination for Cause. Employee's employment with the Company may be terminated for "Cause" at any time and without advance notice. If terminated for Cause, Employee will only be entitled to receive payment of any wages and vacation pay earned or accrued to the date of termination. For purposes of this Agreement, "Cause" means Employee's: (I) material breach of the terms of this Agreement or the IP Agreement; (2) failure to diligently and properly perform his duties and responsibilities, or to comply with any policies and

directives of the Company or the Board; (3) dishonest or illegal action (including, without limitation, embezzlement) or any other action whether or not dishonest or illegal by Employee that is materially detrimental to the interest and well-being of the Company, including ‘without limitation, harm to its reputation; (4) failure to fully disclose any material conflict of interest he may have with the Company in a transaction involving the Company which conflict is materially detrimental to the interest of the Company; or (5) your conviction of (i) any felony or (ii) any misdemeanor or other crime of moral turpitude (other than a minor traffic offense).

(b) Termination upon Death or Disability. Employee’s employment with the Company will terminate immediately in the event of his death or permanent disability. For purposes of this Agreement, permanently disability means that Employee is unable to perform the essential functions of his position, with or without a reasonable accommodation, for more than sixty (60) consecutive days or ninety (90) days in any 12-month period. if terminated pursuant to this Section 7(b), Employee or his successor(s) will only be entitled to receive payment of any wages and vacation pay earned or accrued to the date of termination.

(c) Resignation by Employee. Employee may resign employment with the Company upon thirty (30) days’ advance written notice. If Employee fails to provide at least thirty (30) days advance notice of resignation, Employee will forfeit payment for any accrued, unused vacation pay. The Company reserves the right in its sole discretion to pay Employee’s then-current Base Salary for all or a part of such notice period, in lieu of Employee’s continued employment during the notice period. If Employee resigns his employment with the Company, Employee will be entitled to receive payment of any wages earned through the termination date.

(d) Termination by the Company Without Cause. Employee’s employment with the Company may be terminated at any time without Cause. The termination of Employee’s employment by the Company will be deemed to be “Without Cause” if Employee is terminated for any reason other than Sections 7(a) through (c) of this Agreement.

8. **Payments upon Termination.**

(a) Accrued Compensation. If Employee’s employment with the company is terminated by either party for any reason, Employee will receive payment of any wages and vacation pay earned or accrued to the date of termination; provided, however, that if Employee resigns his employment with the Company, he must provide the notice specified in Section 7(c) hereof in order to receive payment for any accrued, unused vacation time.

(b) Severance Benefits. In addition to any accrued compensation, if Employee’s employment is terminated by the Company Without Cause, the Company will provide Employee with the following severance benefits, subject to the conditions described below.

(1) If Employee is terminated by the Company Without Cause, the Company will continue paying Employee’s then-current Base Salary for a period of six (6) months after the termination of Employee’s employment.

(2) In order to receive any portion of the severance benefits described in this Section 8(b), Employee will be required to first execute a release of all claims against the

Company, in form acceptable to the Company. In addition, to continue receiving the severance benefits, Employee must also comply with any post-termination obligations to the Company as a result of the IP Agreement.

9. **Notices**. Any notice or other communication required or permitted hereunder must be made in writing and shall be delivered personally, sent by facsimile transmission or sent by certified, registered or express mail, postage prepaid. Any such notice shall be deemed given when so delivered personally, sent by facsimile transmission or, if mailed, five days after the date of deposit in the United States mail as follows:

If to the Company, to:

Adherex, Inc.
2530 Meridian Parkway, Suite 200
Durham, North Carolina 27713
Attention: D. Scott Murray, Esq., General Counsel

with a copy to:

Wyrick Robbins Yates & Ponton, LLP
4101 Lake Boone Trail, Suite 300
Raleigh, North Carolina 27607
Attention: Donald R. Reynolds, Esq.

If to the Employee, at the address set forth on the signature page hereof.

Any party may by notice given in accordance with this Section 9 to the other parties hereto designate another address or person for receipt by such person of notices hereunder.

10. **Entire Agreement**. This Agreement (including any exhibits attached hereto) contains the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements, written or oral, with respect thereto, including without limitation any agreements that may have been entered into between the Company and Employee.

11. **Waivers and Amendments**. This Agreement may only be amended, superseded, canceled, renewed or extended, and the terms hereof, may be waived, with a writing signed by all parties hereto, or, in the case of a waiver, by the party waiving compliance. No delay on the part of any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any waiver on the part of any party of any such right, power or privilege nor any single or partial exercise of any such right, power or privilege, preclude any other or further exercise thereof or the exercise of any other such right, power or privilege.

12. **Governing Law; Venue**. This Agreement will be governed by and construed in accordance with the laws of the state of North Carolina, without regard to conflicts of law principles. The parties further agree that the state or federal courts sitting in Wake County, North Carolina shall have the sole and exclusive jurisdiction to hear any dispute(s) arising out of this Agreement (including any exhibits attached hereto).

13. **Assignment**. This Agreement, and Employee's rights and obligations hereunder, may not be assigned by Employee; any purported assignment by Employee in violation hereof shall be null and void. In the event of any sale, transfer or other disposition of all or substantially all of the Company's assets or business, whether by merger, consolidation or otherwise, Employee agrees that the Company may assign this Agreement and its rights and obligations hereunder to a successor in interest.

14. **Binding Effect**. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns, heirs, executors and legal representatives.

15. **Counterparts**. This Agreement may be executed by the parties hereto in separate counterparts, each of which when so executed and delivered shall be an original but all such counterparts together shall constitute one and the same instrument. Each counterpart may consist of two copies hereof each signed by one of the parties hereto.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement as of the day and year first above written.

ADHEREX, INC.

By: /s/ Dr. William P. Peters

Dr. William P. Peters, MD PhD MBA
Chief Executive Officer

EMPLOYEE

/s/

Witness

/s/ James A. Klein, Jr.

Employee: James A. Klein, Jr.
320 Swans Mill Crossing
Raleigh, North Carolina 27614

EXHIBIT A

CONFIDENTIALITY, INTELLECTUAL PROPERTY AND NONCOMPETITION AGREEMENT

THIS CONFIDENTIALITY, INTELLECTUAL PROPERTY AND NONCOMPETITION AGREEMENT (the "Agreement") dated this 26th day of April 2004 is made between Adherex, Inc. (the "Company") and James A. Klein, Jr. ("Employee").

The parties hereto agree that it may be necessary for the Company to disclose to Employee from time to time certain confidential and proprietary information concerning the products arid processes and technology developed by the Company and/or its affiliates or subsidiaries which the Company wishes to protect along with its trade secrets, technical expertise, business knowledge, procedures and systems and all other confidential and proprietary information, together with proprietary and other information of a confidential nature provided by third parties, all of which is not generally available to the public, the unauthorized disclosure of which would cause irreparable harm to the Company, its parent Adherex Technologies Inc., its affiliates or subsidiaries.

In consideration of my employment by the Company the undersigned and the Company agree as follows:

1. **Definition of "Information"**. For the purposes of this Agreement, "Information" shall include, without limitation all or any part of the corporate, strategic or marketing plans, financial information, product information customer information, and other information relating to the business of the Company its affiliates or subsidiaries, all research and development activities, all unpublished know-how, technical data, techniques, records, formulae, process, designs, sketches, photographs, plans, drawings, specifications, samples, reports, studies, findings, inventions and ideas, whether patentable or not, whether they be trade secrets or not and whether they be in written, graphic or oral form, that are now or hereafter owned or acquired by Company, all of which are of a confidential and/or proprietary nature concerning the development, testing, production and marketing of, and consulting in the area of products and processes and technology developed by Company, its affiliates or subsidiaries. Any Information which is communicated to any person shall be stamped with the words "PROTECTED" or "CONFIDENTIAL" or other such identifying mark prior to its disclosure to such person.

2. **Nondisclosure**. Employee agrees to hold in trust and confidence all Information and to use and communicate any Information only in the performance of his work for the Company to such authorized employees, subcontractors and others as are required by their duties to have knowledge thereof or for such other purposes and to such persons as are authorized by the Company in writing.

3. **Assignment of Intellectual Property Rights**. All improvements, inventions, know-how and discoveries, all Information and technology, and all patents or patent applications

arising out of or relating to the Information whether developed by the Employee or not during the term of the Employee's employment are the exclusive property of Company, its affiliates or subsidiaries. The Company, its affiliates or subsidiaries alone shall have the right to apply for, prosecute and obtain patents, copyrights, trademarks or industrial design protection in any or all countries of the world in respect of any and all such improvements, inventions, know-how and discoveries and the Employee agrees to disclose, deliver and assign to the Company, its affiliates or subsidiaries, as the case may be, all such improvements, inventions, know-how and discoveries whether patentable or not and agrees at any time to execute when requested any applications, transfers, assignments and other documents as necessary for the purpose of confirming the Company's, its affiliates' or subsidiairies' title, as the case may be, to any such improvements, inventions, know-how and discoveries, or for applying for prosecution and obtaining patents in any country with respect thereto. Employee agrees to cooperate and assist fully in the prosecution of any such application. Any copyrightable materials generated or developed by Employee while employed by the Company, including but not limited to, computer programs and related documentation, belong to the Company and Employee hereby assigns to the Company all interest and ownership in such copyright as and when created.

4. **Restrictive Covenants.**

(a) Noncompetition; Nonsolicitation. While employed by the Company and for six months after the termination of his employment with the Company by either party, for any reason whatsoever, Employee will not, without the prior written consent of the Company:

(1) provide financial-related services to, manage, control, or participate in the management or control of any direct competitor of the Company that is located in the Restricted Territory (as defined below) and is engaged in the Company's Business (as defined below);

(2) solicit or attempt to solicit for the purpose of selling products comparable to or in competition with those products sold by the Company to any customers or clients of the Company with whom Employee had business contacts on behalf of the Company during his employment with the Company;

(3) interfere or attempt to interfere with any contracts or agreements that the Company has with any customers, vendors or suppliers; and/or

(4) solicit any employees of the Company (i) to resign their employment with the Company; (ii) to violate any duties owed to the Company; or (iii) breach any agreements with the Company.

Employee agrees not to engage in any of the foregoing activities set out in this Section 4(a) directly or indirectly acting alone or as a director, employee, agent, consultant, member of a partnership, firm, company or other entity or as a holder of or investor in more than 2% of any security of any class of any company or other business entity.

(b) Restricted Territory. For purposes of this Agreement, the "Restricted Territory" shall mean the greater metropolitan areas of:

(i) Boston, MA;

(ii) New York, NY;
(iii) Philadelphia, PA;
(iv) Princeton, NJ;
(v) Indianapolis, IN;
(vi) Groton, CT;
(vii) Chicago, IL;
(viii) Seattle, WA; and
(ix) any locality within a thirty-five mile radius of Raleigh/Durham, North Carolina and/or Bethesda, MD.

(c) Company's "Business". The parties hereto agree that the Company's Business" is researching, developing, marketing and selling pharmaceutical products and therapies related to the tumor vascular targeting platform.

(d) Enforceability. The parties hereto agree that in the event that the length of time, the geographic area or prohibited activities set forth in this Section 4 shall be deemed too restrictive in any court proceeding, that the court shall reduce such restrictions to those which it deems reasonable and enforceable under the circumstances.

5. **Return of Company Property**. Upon demand by the Company or no later than the termination of his employment, Employee agrees to immediately return to the Company any Information or other Company property in his possession. Such Information and any other Company property will be returned to the Company in the same condition as when provided to Employee, reasonable wear and tear excepted. Employee further agrees to allow the Company to inspect any documents or work produced relating to the Information that are in the possession or control of the Employee. The Employee agrees that unless authorized by the Company or as necessary in performing his job duties and responsibilities, he will not copy the information.

6. **Injunctive Relief**. In the event that Employee breached the provisions of Section 1 through 5 of this Agreement, the parties hereto agree that such breach could not be adequately remedied by monetary damages. Therefore, the parties agree that in addition to any other remedies available for such breach, the Company will be entitled to injunctive relief for Employee's breach or threatened breach of Sections 1 through 5 of this Agreement in order to prevent or restrict any further breach or threatened breach. A failure by the Company to enforce any provision of this Agreement does not constitute a waiver of any of its rights and does not release the Employee of any responsibility for performance under this Agreement.

7. **Limitations**. The Company agrees that all the obligations of confidentiality and non-disclosure terminate when the Employee can establish with documentary proof that all the Information:

(a) was in the public domain at the time of the disclosure to the Employee by the Company, its affiliates or subsidiaries,

(b) entered the public domain through no fault of the Employee,

(c) was in the Employee's possession free of any obligation of confidentiality before disclosure by the Company, its affiliates or subsidiaries to the Employee, or

(d) was disclosed to Employee in good faith by a third party which has the right to make such disclosure,

provided that the Employee notifies the Company in writing within 10 days of receipt of the Information where the exemptions under (c) and (d) apply.

8. **Survival**. The obligations of Employee pursuant to Sections 1 through 5 of this Agreement will continue in full force and effect notwithstanding termination of the employment of the Employee.

9. **No Other Agreements**. Employee hereby advises the Company that unless described in writing on Schedule "A" attached hereto, he is not bound by any other confidentiality, non-disclosure, noncompetition or non-solicitation agreements. Employee further agrees not to become a party to any such agreement with others during his employment. The Employee further advises the Company that there are no patents, patent applications or other inventions made by the Employee prior to his employment with the Company unless any are specifically listed on Schedule "B" hereto. If no Schedules are attached to this Agreement, then there are no such agreements or patents outstanding.

10. **Governing Law; Venue**. The parties hereto agree that this Agreement is to be interpreted and governed by the laws of the state of North Carolina. The parties further agree that the state or federal courts sitting in Wake County, North Carolina shall have the sole and exclusive jurisdiction to hear any dispute(s) arising out of this Agreement.

11. **Severability**. The various sections of this Agreement are severable and the invalidity of one does not affect the enforceability of the other provisions of this Agreement.

12. **Miscellaneous**. For ease of interpretation, this Agreement is to be read with all changes in gender and number as the circumstances require and the Agreement is binding upon and available to the benefit of both parties, their personal representatives, successors, affiliates, subsidiaries and assigns. Employee expressly agrees that the Company may assign its rights and obligations hereunder to any successor in interest. Any notice under this Agreement should be delivered to the Company's head office and the Employee at his home address.

[Signature page follows]

IN WITNESS WHEREOF the parties have executed this Confidentiality and Intellectual Property on the day and year first written above.

ADHEREX, INC.

By: /s/ Dr. William P. Peters

Dr. William P. Peters
Chief Executive Officer

/s/

Witness

Employee: /s/ James A. Klein, Jr.

James A. Klein, Jr.

Exhibit 4.14

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (the "Agreement") dated as of this 9th day of August 2004 (the "Effective Date"), by and between Adherex, Inc. (the "Company"), a wholly owned subsidiary of Adherex Technologies Inc. ("AHX"), and Rajesh K. Malik, an individual residing at the address set forth on the signature page hereof ("Employee").

1. **Duties.** While employed by the Company, Employee will be employed in the position of Chief Medical Officer of the Company and of AHX ("CMO"), and, as such, Employee agrees to faithfully perform the duties of the position of CMO and to perform such other duties of an executive, managerial or administrative nature as shall be specified and designated from time to time by the Chief Executive Officer of the Company. Employee agrees to perform his duties and responsibilities at the Company diligently and to the best of his ability, and further agrees to devote all of his business time and efforts to the performance of duties hereunder. Employee further agrees not to be employed by any entity or other third party while employed by the Company without first obtaining the advance written consent of the Company.

2. **Compensation**. In consideration of his services to the Company, Employee will be compensated as follows:

(a) Base Salary. Employee will be paid an annual base salary of One Hundred Eighty Five Thousand Dollars (USD $185,000.00), less any withholdings required by law or properly requested by Employee (the "Base Salary"). With satisfactory performance as determined by the Company, in January, 2005, the annual base salary will be adjusted to Two Hundred and Twenty Thousand Dollars (USD $220,000). Again, with satisfactory performance as determined by the Company, on or about July 1, 2005, the annual base salary will be Two Hundred and Fifty Thousand Dollars (USD $250,000). The Company will pay Employee the Base Salary on its regularly scheduled paydays, in accordance with its regular payroll practices and procedures.

(b) Signing Bonus. After Employee has executed this Agreement and any other required agreement(s), Employee will be paid a one-time lump sum signing bonus of Thirty-five Thousand Dollars (USD $35,000.00) (the "Signing Bonus"). The Signing Bonus is subject to any withholdings required by law and/or properly requested by Employee. If for any reason you do not complete one year of employment at AHX, you will be responsible to repay to AHX the signing bonus.

(c) Discretionary Bonus. In addition to the Base Salary and Signing Bonus, the Company in its sole discretion may award Employee an annual bonus of no more than 25% of the base annual salary (the "Annual Bonus"). For FY 2004, with acceptable performance as determined by the Company, the Company will award Employee a bonus of Forty Thousand Dollars ($40,000). The Company will have the sole discretion and authority to determine Employee's eligibility for and the

amount of the Annual Bonus and the award of such bonus will be dependent upon performance objectives established by the Chief Executive Officer. The Annual Bonus is subject to any withholdings required by law and/or properly requested by Employee.

(d) Stock Option Grant. Subject to the approval of its Board of Directors (the "Board"), and, if necessary, its stockholders, AHX further agrees to grant Employee an option to purchase up to 750,000 shares of AHX's common stock (the "Option"). The Option will be subject to the terms and conditions of the AHX Stock Option Plan (the "Plan") and a separate stock option agreement between the Company and Employee. Shares subject to the Option will have an exercise price equal to the fair market value on the date of grant, as determined by the Board. One-fourth of the shares subject to the Option will vest and be fully exercisable immediately after Employee has been employed with the Company for ninety consecutive days. Thereafter, the remaining unvested shares will vest annually in equal one-third installments over the next three years on the anniversary of your hire date for so long as Employee remains employed by the Company. As further detailed in the stock option agreement between the Company and Employee, if Employee's employment terminates due to a change in control of the Company (as defined in the stock option agreement), any then-remaining unvested shares shall immediately vest and be fully exercisable.

(e) Business Expenses. The Company will reimburse Employee for all reasonable expenses incurred by Employee that are directly related to the business of the Company, provided that Employee complies with the Company's policies and procedures for reimbursement or the advance of business expenses.

3. Benefits. While employed by the Company, Employee will receive such other benefits as are provided from time to time to other similarly-situated employees of the Company. All such benefits are subject the terms and conditions of the plan documents by which such benefits are provided, and are subject to change by the Company at any time, with or without advance notice.

4. Vacation and Paid Holidays. You will be eligible for vacation in accordance with the Company's vacation policy. You will be entitled to take twenty (20) days of paid vacation annually. In addition, Employee will be entitled to be paid for all holidays recognized by in accordance with Company policy.

5. Confidential Information and Restrictive Covenants. As a condition of Employee's employment with the Company, Employee is required to sign the Confidentiality and Intellectual Property Agreement attached hereto as Exhibit A hereto (the "IP Agreement"), which includes Employee's agreement to refrain from disclosing the Company's confidential information and to refrain from engaging in certain competitive activities after any termination of employment with the Company. The IP Agreement is fully incorporated into this Agreement by reference, and a breach of the IP Agreement will be construed as a breach of this Agreement.

6. Conflicts of Interest. You are subject to the Company's conflict of interest requirements and policies, and are responsible for recognizing and avoiding any and all circumstances that may give rise to an actual conflict of interest or give the appearance of a conflict of interest situation.

7. Termination of Employment. Employee's employment with the Company is at-will, meaning that either Employee or the Company can terminate the employment relationship at any time, for any or no reason, subject to the following provisions:

(a) Termination for Cause. Employee's employment with the Company may be terminated for "Cause" at any time and without advance notice. If terminated for Cause, Employee will only be entitled to receive payment of any wages and vacation pay earned or accrued to the date of termination. For purposes of this Agreement, "Cause" means Employee's: (1) material breach of the terms of this Agreement or the IP Agreement; (2) failure to diligently and properly perform his duties and responsibilities, or to comply with any policies and directives of the Company or the Board; (3) dishonest or illegal action (including, without limitation, embezzlement) or any other action whether or not dishonest or illegal by Employee that is materially detrimental to the interest and well-being of the Company, including, without limitation, harm to its reputation; (4) failure to fully disclose any material conflict of interest he may have with the Company in a transaction involving the Company which conflict is materially detrimental to the interest of the Company; or (5) your conviction of (i) any felony or (ii) any misdemeanor or other crime of moral turpitude (other than a minor traffic offense).

(b) Termination upon Death or Disability. Employee's employment with the Company will terminate immediately in the event of his death or permanent disability. For purposes of this Agreement, permanently disability means that Employee is unable to perform the essential functions of his position, with or without a reasonable accommodation, for more than sixty (60) consecutive days or ninety (90) days in any 12-month period. If terminated pursuant to this Section 7(b), Employee or his successor(s) will only be entitled to receive payment of any wages and vacation pay earned or accrued to the date of termination.

(c) Resignation by Employee. Employee may resign employment with the Company upon thirty (30) days' advance written notice. If Employee fails to provide at least thirty (30) days advance notice of resignation, Employee will forfeit payment for any accrued, unused vacation pay. The Company reserves the right in its sole discretion to pay Employee's then-current Base Salary for all or a part of such notice period, in lieu of Employee's continued employment during the notice period. If Employee resigns his employment with the Company, Employee will be entitled to receive payment of any wages earned through the termination date.

(d) Termination by the Company Without Cause. Employee's employment with the Company may be terminated at any time without Cause. The termination of Employee's employment by the Company will be deemed to be "Without Cause" if Employee is terminated for any reason other than Sections 7(a) through (c) of this Agreement.

8. Payments upon Termination.

(a) Accrued Compensation. If Employee's employment with the Company is terminated by either party for any reason, Employee will receive payment of any wages and vacation pay earned or accrued to the date of termination; provided, however, that if Employee resigns his employment with the Company, he must provide the notice specified in Section 7(c) hereof in order to receive payment for any accrued, unused vacation time.

(b) Severance Benefits. In addition to any accrued compensation, if Employee's employment is terminated by the Company Without Cause, the Company will provide Employee with the following severance benefits, subject to the conditions described below.

(1) If Employee is terminated by the Company Without Cause, the Company will continue paying Employee's then-current Base Salary and health insurance benefits for the lesser of (i) a period of six (6) months after the termination of Employee's employment; or (ii) until the employee has accepted alternative employment (the "Benefits Period"). If the Company cannot allow Employee to continue his participation in its health insurance benefit plans during the Benefits Period, the Company agrees to reimburse Employee for his COBRA premiums during the Benefits Period (at a level of coverage equivalent to that in effect immediately prior to the termination).

(2) In order to receive any portion of the severance benefits described in this Section 8(b), Employee will be required to first execute a release of all claims against the Company, in form acceptable to the Company. In addition, to continue receiving the severance benefits, Employee must also comply with any post-termination obligations to the Company as a result of the IP Agreement.

9. Notices. Any notice or other communication required or permitted hereunder must be made in writing and shall be delivered personally, sent by facsimile transmission or sent by certified, registered or express mail, postage prepaid. Any such notice shall be deemed given when so delivered personally, sent by facsimile transmission or, if mailed, five days after the date of deposit in the United States mail as follows:

If to the Company, to:

Adherex, Inc.
2530 Meridian Parkway, Suite 200
Durham, North Carolina 27713
Attention: D. Scott Murray, Esq., General Counsel

with a copy to:

Wyrick Robbins Yates & Ponton, LLP
4101 Lake Boone Trail, Suite 300
Raleigh, North Carolina 27607
Attention: Donald R. Reynolds, Esq.

If to the Employee, at the address set forth on the signature page hereof.

Any party may by notice given in accordance with this Section 9 to the other parties hereto designate another address or person for receipt by such person of notices hereunder.

10. Entire Agreement. This Agreement (including any exhibits attached hereto) contains the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements, written or oral, with respect thereto, including without limitation any agreements that may have been entered into between the Company and Employee.

11. Waivers and Amendments. This Agreement may only be amended, superseded, canceled, renewed or extended, and the terms hereof may be waived, with a writing signed by all parties hereto, or, in the case of a waiver, by the party waiving compliance. No delay on the part of any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of any party of any such right, power or privilege nor any single or partial exercise of any such right, power or privilege, preclude any other or further exercise thereof or the exercise of any other such right, power or privilege.

12. Governing Law; Venue. This Agreement will be governed by and construed in accordance with the laws of the state of North Carolina, without regard to conflicts of law principles. The parties further agree that the state or federal courts sitting in Durham County, North Carolina shall have the sole and exclusive jurisdiction to hear any dispute(s) arising out of this Agreement (including any exhibits attached hereto).

13. Assignment. This Agreement, and Employee's rights and obligations hereunder, may not be assigned by Employee; any purported assignment by Employee in violation hereof shall be null and void. In the event of any sale, transfer or other disposition of all or substantially all of the Company's assets or business, whether by merger, consolidation or otherwise, Employee agrees that the Company may assign this Agreement and its rights and obligations hereunder to a successor in interest.

14. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns, heirs, executors and legal representatives.

15. Counterparts. This Agreement may be executed by the parties hereto in separate counterparts, each of which when so executed and delivered shall be an original but all such counterparts together shall constitute one and the same instrument. Each counterpart may consist of two copies hereof each signed by one of the parties hereto.

[*Signature page follows]*

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement as of the day and year first above written.

ADHEREX, INC.

By: /s/ William P. Peters

Dr. William P. Peters, MD PhD MBA
Chief Executive Officer

EMPLOYEE:

/s/ Rajesh K. Malik

Witness

Employee: Rajesh K. Malik, M.B., Ch.B
201 Chesley Lane
Chapel Hill, NC 27514

EXHIBIT A

CONFIDENTIALITY, INTELLECTUAL PROPERTY AND NONCOMPETITION AGREEMENT

THIS CONFIDENTIALITY, INTELLECTUAL PROPERTY AND NONCOMPETITION AGREEMENT (the "Agreement") dated this 26th day of April 2004 is made between Adherex, Inc. (the "Company") and Rajesh K. Malik ("Employee").

The parties hereto agree that it may be necessary for the Company to disclose to Employee from time to time certain confidential and proprietary information concerning the products and processes and technology developed by the Company and/or its affiliates or subsidiaries which the Company wishes to protect along with its trade secrets, technical expertise, business knowledge, procedures and systems and all other confidential and proprietary information, together with proprietary and other information of a confidential nature provided by third parties, all of which is not generally available to the public, the unauthorized disclosure of which would cause irreparable harm to the Company, its parent Adherex Technologies Inc., its affiliates or subsidiaries.

In consideration of my employment by the Company, the undersigned and the Company agree as follows:

1. Definition of "Information". For the purposes of this Agreement, "Information" shall include, without limitation, all or any part of the corporate, strategic or marketing plans, financial information, product information, customer information, and other information relating to the business of the Company, its affiliates or subsidiaries, all research and development activities, all unpublished know-how, technical data, techniques, records, formulae, process, designs, sketches, photographs, plans, drawings, specifications, samples, reports, studies, findings, inventions and ideas, whether patentable or not, whether they be trade secrets or not and whether they be in written, graphic or oral form, that are now or hereafter owned or acquired by Company, all of which are of a confidential and/or proprietary nature concerning the development, testing, production and marketing of, and consulting in the area of products and processes and technology developed by Company, its affiliates or subsidiaries. Any Information which is communicated to any person shall be stamped with the words "PROTECTED" or "CONFIDENTIAL" or other such identifying mark prior to its disclosure to such person.

2. Nondisclosure. Employee agrees to hold in trust and confidence all Information and to use and communicate any Information only in the performance of his work for the Company to such authorized employees, subcontractors and others as are required by their duties to have knowledge thereof or for such other purposes and to such persons as are authorized by the Company in writing.

3. Assignment of Intellectual Property Rights. All improvements, inventions, know-how and discoveries, all Information and technology, and all patents or patent applications arising out of or relating to the Information whether developed by the Employee

or not during the term of the Employee's employment are the exclusive property of Company, its affiliates or subsidiaries. The Company, its affiliates or subsidiaries alone shall have the right to apply for, prosecute and obtain patents, copyrights, trademarks or industrial design protection in any or all countries of the world in respect of any and all such improvements, inventions, know-how and discoveries and the Employee agrees to disclose, deliver and assign to the Company, its affiliates or subsidiaries, as the case may be, all such improvements, inventions, know-how and discoveries whether patentable or not and agrees at any time to execute when requested any applications, transfers, assignments and other documents as necessary for the purpose of confirming the Company's, its affiliates' or subsidiairies' title, as the case may be, to any such improvements, inventions, know-how and discoveries, or for applying for prosecution and obtaining patents in any country with respect thereto. Employee agrees to cooperate and assist fully in the prosecution of any such application. Any copyrightable materials generated or developed by Employee while employed by the Company, including but not limited to, computer programs and related documentation, belong to the Company and Employee hereby assigns to the Company all interest and ownership in such copyright as and when created.

4. Restrictive Covenants.

(a) Noncompetition; Nonsolicitation. While employed by the Company and for six months after the termination of his employment with the Company by either party, for any reason whatsoever, Employee will not, without the prior written consent of the Company:

(1) provide services to, manage, control, or participate in the management or control of any direct competitor of the Company that is located in the Restricted Territory (as defined below) and is engaged in the Company's Business (as defined below);

(2) solicit or attempt to solicit for the purpose of selling products comparable to or in competition with those products sold by the Company to any customers or clients of the Company with whom Employee had business contacts on behalf of the Company during his employment with the Company;

(3) interfere or attempt to interfere with any contracts or agreements that the Company has with any customers, vendors or suppliers; and/or

(4) solicit any employees of the Company (i) to resign their employment with the Company; (ii) to violate any duties owed to the Company; or (iii) breach any agreements with the Company.

Employee agrees not to engage in any of the foregoing activities set out in this Section 4(a) directly or indirectly, acting alone or as a director, employee, agent, consultant, member of a partnership, firm, company or other entity or as a holder of or investor in more than 2% of any security of any class of any company or other business entity.

(b) Restricted Territory. For purposes of this Agreement, the "Restricted Territory" shall mean the greater metropolitan areas of:

(i) Boston, MA;
(ii) New York, NY;
(iii) Philadelphia, PA;
(iv) Princeton, NJ;
(v) Indianapolis, IN;
(vi) Groton, CT;
(vii) Chicago, IL;
(viii) Seattle, WA; and
(ix) any locality within a thirty-five mile radius of Raleigh/Durham, North Carolina and/or Bethesda, MD.

(c) Company's "Business." The parties hereto agree that the Company's "Business" is researching, developing, marketing and selling pharmaceutical products and therapies related to targeting the cadherins.

(d) Enforceability. The parties hereto agree that in the event that the length of time, the geographic area or prohibited activities set forth in this Section 4 shall be deemed too restrictive in any court proceeding, that the court shall reduce such restrictions to those which it deems reasonable and enforceable under the circumstances.

5. Return of Company Property. Upon demand by the Company or no later than the termination of his employment, Employee agrees to immediately return to the Company any Information or other Company property in his possession. Such Information and any other Company property will be returned to the Company in the same condition as when provided to Employee, reasonable wear and tear excepted. Employee further agrees to allow the Company to inspect any documents or work produced relating to the Information that are in the possession or control of the Employee. The Employee agrees that unless authorized by the Company or as necessary in performing his job duties and responsibilities, he will not copy the information.

6. Injunctive Relief. In the event that Employee breached the provisions of Section 1 through 5 of this Agreement, the parties hereto agree that such breach could not be adequately remedied by monetary damages. Therefore, the parties agree that in addition to any other remedies available for such breach, the Company will be entitled to injunctive relief for Employee's breach or threatened breach of Sections 1 through 5 of this Agreement in order to prevent or restrict any further breach or threatened breach. A failure by the Company to enforce any provision of this Agreement does not constitute a waiver of any of its rights and does not release the Employee of any responsibility for performance under this Agreement.

7. Limitations. The Company agrees that all the obligations of confidentiality and non-disclosure terminate when the Employee can establish with documentary proof that all the Information:

(a) was in the public domain at the time of the disclosure to the Employee by the Company, its affiliates or subsidiaries,

(b) entered the public domain through no fault of the Employee,

(c) was in the Employee's possession free of any obligation of confidentiality before disclosure by the Company, its affiliates or subsidiaries to the Employee, or

(d) was disclosed to Employee in good faith by a third party which has the right to make such disclosure,

provided that the Employee notifies the Company in writing within 10 days of receipt of the Information where the exemptions under (c) and (d) apply.

8. Survival. The obligations of Employee pursuant to Sections 1 through 5 of this Agreement will continue in full force and effect notwithstanding termination of the employment of the Employee.

9. No Other Agreements. Employee hereby advises the Company that unless described in writing on Schedule "A" attached hereto, he is not bound by any other confidentiality, non-disclosure, noncompetition, or non-solicitation agreements. Employee further agrees not to become a party to any such agreement with others during his employment. The Employee further advises the Company that there are no patents, patent applications or other inventions made by the Employee prior to his employment with the Company unless any are specifically listed on Schedule "B" hereto. If no Schedules are attached to this Agreement, then there are no such agreements or patents outstanding.

10. Governing Law; Venue. The parties hereto agree that this Agreement is to be interpreted and governed by the laws of the state of North Carolina. The parties further agree that the state or federal courts sitting in Durham County, North Carolina shall have the sole and exclusive jurisdiction to hear any dispute(s) arising out of this Agreement.

11. Severability. The various sections of this Agreement are severable and the invalidity of one does not affect the enforceability of the other provisions of this Agreement.

12. Miscellaneous. For ease of interpretation, this Agreement is to be read with all changes in gender and number as the circumstances require and the Agreement is binding upon and available to the benefit of both parties, their personal representatives, successors, affiliates, subsidiaries and assigns. Employee expressly agrees that the Company may assign its rights and obligations hereunder to any successor in interest. Any notice under this Agreement should be delivered to the Company's head office and the Employee at his home address.

[*Signature page follows*]

IN WITNESS WHEREOF the parties have executed this Confidentiality and Intellectual Property on the day and year first written above.

ADHEREX, INC.

By: _____

William P. Peters, MD PhD
Chief Executive Officer

_____ _____

Witness Employee: Rajesh K. Malik

EXHIBIT 4.15

The Warrant and the securities issuable upon exercise of this Warrant (the "Securities") have not been registered under the United States Securities Act of 1933, as amended (the "US Securities Act") or under any state securities or Blue Sky laws ("Blue Sky Laws"). No transfer, sale, assignment, pledge, hypothecation or other disposition of this Warrant or the Securities or any interest therein may be made except (a) pursuant to an effective registration statement under the US Securities Act and any applicable Blue Sky Laws or (b) if the Company has been furnished with both an opinion of counsel for the holder, which opinion and counsel shall be reasonably satisfactory to the Company, to the effect that no registration is required because of the availability of an exemption from registration under the US Securities Act and applicable Blue Sky Laws, and assurances that the transfer, sale, assignment, pledge, hypothecation or other disposition will be made only in compliance with the conditions of any such registration or exemption.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

Warrant No. B-1

Ottawa, Ontario
November 20, 2002

This certifies that, for value received, Paramount Capital Inc., or its successors or assigns (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the Canada Business Corporations Act (the "Company"), eight hundred and forty eight thousand (848,000) fully paid and nonassessable common shares (the "Common Shares") in the capital of the Company's, at an exercise price of CAN $0.41 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or after the date hereof; *provided*, *however*, that, Holder shall in no event have the right to exercise this Warrant or any portion thereof later than November 20, 2005 (the "Expiry Date") after which date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time from the date hereof until the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have and are deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear a legend substantially similar to that which is contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of the Warrant on the date that the Warrant shall have been

surrendered (determined by subtracting the aggregate exercise price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the Securities Act of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under the US Securities Act.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved free of preemptive or other rights for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in any such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than CAN $.05 per share, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than CAN $.05 per share.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company within thirty (30) days thereafter shall give written notice thereof, by first class mail, postage prepaid, addressed to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer. In any such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter

be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger or transfer unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Registration Rights. If at any time the Company shall propose to file any registration statement (other than any registration on Form S-4, S-8 or any other similarly inappropriate form, or any successor forms thereto) under the US Securities Act covering a public offering of the Company's Common Stock (the "Registration Statement"), it will notify the Holder hereof at least thirty (30) days prior to each such filing (the "Registration Notice") and will use its best efforts to include in the Registration Statement (to the extent permitted by applicable regulation), the Shares purchased or purchasable by the Holder upon the exercise of the Warrant to the extent requested by the Holder hereof within twenty (20) days after receipt of notice of such filing (which request shall specify the interest in this Warrant or the Shares intended to be sold or disposed of by such Holder and describe the nature of any proposed sale or other disposition thereof); *provided, however*, that if a greater number of Shares is offered for participation in the proposed offering than in the reasonable opinion of the managing underwriter of the proposed offering can be accommodated without adversely affecting the proposed offering, then the amount of Shares proposed to be offered by such Holder for registration, as well as the number of securities of any other selling shareholders participating in the registration, shall be proportionately reduced to a number deemed satisfactory by the managing underwriter. The Company shall bear all expenses and fees incurred in connection with the preparation, filing, and amendment of the Registration Statement with the Commission, except that the Holder shall pay all fees, disbursements and expenses of any counsel or expert retained by the Holder and all underwriting discounts and commissions, filing fees and any transfer or other taxes relating to the Shares included in the Registration Statement. The Holder of this Warrant agrees to cooperate with the Company in the preparation and filing of any Registration Statement, and in the furnishing of information concerning the Holder for inclusion therein, or in any efforts by the Company to establish that the proposed sale is exempt under the US Securities Act as to any proposed distribution. The Holder understands that if the Company has not received such information requested by the Company in the Registration Notice within 20 days after Holder's receipt thereof, the Company shall have no obligation to include any of Holder's Shares in the Registration Statement.

7. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada.

8. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waiver or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

9. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telefaxed and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telefaxed and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its:

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CAN $_____ therefor in cash, certified check or bank draft and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.16

The Warrant and the securities issuable upon exercise of this Warrant (the "Securities") have not been registered under the United States Securities Act of 1933, as amended (the "US Securities Act") or under any state securities or Blue Sky laws ("Blue Sky Laws"). No transfer, sale, assignment, pledge, hypothecation or other disposition of this Warrant or the Securities or any interest therein may be made except (a) pursuant to an effective registration statement under the US Securities Act and any applicable Blue Sky Laws or (b) if the Company has been furnished with both an opinion of counsel for the holder, which opinion and counsel shall be reasonably satisfactory to the Company, to the effect that no registration is required because of the availability of an exemption from registration under the US Securities Act and applicable Blue Sky Laws, and assurances that the transfer, sale, assignment, pledge, hypothecation or other disposition will be made only in compliance with the conditions of any such registration or exemption.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

Warrant No. [ ]

Ottawa, Ontario
November 20, 2002

This certifies that, for value received, **[_____]**, or his successors or assigns (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the Canada Business Corporations Act (the "Company"), [_____] ([_____]) fully paid and nonassessable common shares (the "Common Shares") in the capital of the Company's, at an exercise price of CAN $0.717 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or after May 20, 2003 (the "Vesting Date"); *provided*, *however*, that, Holder shall in no event have the right to exercise this Warrant or any portion thereof later than May 20, 2007 (the "Expiry Date") after which date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time between the Vesting Date and the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have and are deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear a legend substantially similar to that which is contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of the Warrant on the date that the Warrant shall have been

surrendered (determined by subtracting the aggregate exercise price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the Securities Act of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under the US Securities Act.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved free of preemptive or other rights for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in any such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than CAN $.05 per share, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than CAN $.05 per share.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company within thirty (30) days thereafter shall give written notice thereof, by first class mail, postage prepaid, addressed to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer. In any such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter

be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger or transfer unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Registration Rights. If at any time the Company shall propose to file any registration statement (other than any registration on Form S-4, S-8 or any other similarly inappropriate form, or any successor forms thereto) under the US Securities Act covering a public offering of the Company's Common Stock (the "Registration Statement"), it will notify the Holder hereof at least thirty (30) days prior to each such filing (the "Registration Notice") and will use its best efforts to include in the Registration Statement (to the extent permitted by applicable regulation), the Shares purchased or purchasable by the Holder upon the exercise of the Warrant to the extent requested by the Holder hereof within twenty (20) days after receipt of notice of such filing (which request shall specify the interest in this Warrant or the Shares intended to be sold or disposed of by such Holder and describe the nature of any proposed sale or other disposition thereof); *provided, however*, that if a greater number of Shares is offered for participation in the proposed offering than in the reasonable opinion of the managing underwriter of the proposed offering can be accommodated without adversely affecting the proposed offering, then the amount of Shares proposed to be offered by such Holder for registration, as well as the number of securities of any other selling shareholders participating in the registration, shall be proportionately reduced to a number deemed satisfactory by the managing underwriter. The Company shall bear all expenses and fees incurred in connection with the preparation, filing, and amendment of the Registration Statement with the Commission, except that the Holder shall pay all fees, disbursements and expenses of any counsel or expert retained by the Holder and all underwriting discounts and commissions, filing fees and any transfer or other taxes relating to the Shares included in the Registration Statement. The Holder of this Warrant agrees to cooperate with the Company in the preparation and filing of any Registration Statement, and in the furnishing of information concerning the Holder for inclusion therein, or in any efforts by the Company to establish that the proposed sale is exempt under the US Securities Act as to any proposed distribution. The Holder understands that if the Company has not received such information requested by the Company in the Registration Notice within 20 days after Holder's receipt thereof, the Company shall have no obligation to include any of Holder's Shares in the Registration Statement.

7. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada.

8. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waiver or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

9. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telefaxed and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telefaxed and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its:

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CAN $_____ therefor in cash, certified check or bank draft and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THE SECURITIES SHALL NOT TRADE THE SECURITIES BEFORE OCTOBER 23, 2003.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

(amalgamated under the *Canada Business Corporations Act*)

Warrant No. 1

Ottawa, Ontario
June 23, 2003

This certifies that, for value received, **[_____]** (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [_____] ([_____]) fully paid and nonassessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.47 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before June 23, 2005 (the "Expiry Date") after which Exercise Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the

Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares) by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the *Securities Act* of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved free of preemptive or other rights for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in each such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than CDN $0.05 per share, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than CDN $0.05 per share.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company within thirty (30) days thereafter shall give written notice thereof, by first class mail, postage prepaid, addressed to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer. In any

such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger or transfer unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada.

7. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waiver or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

8. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telefaxed and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telefaxed and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

9. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: _____

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check or bank draft and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.18

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THE SECURITIES SHALL NOT TRADE THE SECURITIES BEFORE OCTOBER 23, 2003.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.
(amalgamated under the *Canada Business Corporations Act*)

Warrant No. 1

Ottawa, Ontario
June 23, 2003

This certifies that, for value received, **[_____]** (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [_____] ([_____]) fully paid and nonassessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.55 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before June 23, 2007 (the "Expiry Date") after which Exercise Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the

Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares) by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the *Securities Act* of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved free of preemptive or other rights for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in each such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than CDN $0.05 per share, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than CDN $0.05 per share.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company within thirty (30) days thereafter shall give written notice thereof, by first class mail, postage prepaid, addressed to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer. In any

such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger or transfer unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada.

7. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waiver or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

8. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telefaxed and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telefaxed and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

9. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: _____

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check or bank draft and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.19

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THE SECURITIES SHALL NOT TRADE THE SECURITIES BEFORE OCTOBER 23, 2003.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.
(amalgamated under the *Canada Business Corporations Act*)

Warrant No. R__

Ottawa, Ontario
June 23, 2003

This certifies that, for value received, **[_____]** (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [_____] ([_____]) fully paid and nonassessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before June 23, 2007 (the "Expiry Date") after which Exercise Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the

Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares) by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the *Securities Act* of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved free of preemptive or other rights for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in each such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than CDN $0.05 per share, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than CDN $0.05 per share.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company within thirty (30) days thereafter shall give written notice thereof, by first class mail, postage prepaid, addressed to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer. In any

such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger or transfer unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada.

7. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waiver or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

8. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telefaxed and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telefaxed and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

9. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: VICE-PRESIDENT, GENERAL COUNSEL AND CORPORATE SECRETARY

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check or bank draft and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.20

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER APPLICABLE SECURITIES LEGISLATION, THE HOLDER OF THE WARRANT OR OF ANY SECURITIES WHICH MAY BE OBTAINED ON EXERCISE OF THE WARRANT SHALL NOT TRADE SUCH SECURITIES BEFORE APRIL 4, 2004.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

(amalgamated under the *Canada Business Corporations Act*)

Warrant No. D[ ]

Ottawa, Ontario
December 3, 2003

This certifies that, for value received, [ ] (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [ ] ( ) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before December 3, 2005 (the "Expiry Date") after which Exercise Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft, wire transfer or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares) by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the *Securities Act* of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in each such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than 1% of the Exercise Price then in effect, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than 1% of the Exercise Price then in effect.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company shall, as soon as practicable (and in any event within seven days) after the occurrence of any event which requires an adjustment pursuant to this Section 4, give written notice thereof to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the

corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution. In any such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

7. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

8. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

9. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: _____

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____ , the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.21

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER APPLICABLE SECURITIES LEGISLATION, THE HOLDER OF THE WARRANT OR OF ANY SECURITIES WHICH MAY BE OBTAINED ON EXERCISE OF THE WARRANT SHALL NOT TRADE SUCH SECURITIES BEFORE APRIL 4, 2004.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

(amalgamated under the *Canada Business Corporations Act*)

Warrant No. D[ ]

Ottawa, Ontario
December 3, 2003

This certifies that, for value received, [ ] (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [ ] ( ) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before December 3, 2007 (the "Expiry Date") after which Exercise Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft, wire transfer or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares) by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the *Securities Act* of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in each such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than 1% of the Exercise Price then in effect, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than 1% of the Exercise Price then in effect.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company shall, as soon as practicable (and in any event within seven days) after the occurrence of any event which requires an adjustment pursuant to this Section 4, give written notice thereof to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the

corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution. In any such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

7. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

8. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

9. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: _____

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.22

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS. THE SECURITIES ARE NOT OFFERED OR SOLD IN THE UNITED STATES OR TO A UNITED STATES PERSON.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.
(amalgamated under the *Canada Business Corporations Act*)

Warrant No.: D14

Ottawa, Ontario
December 3, 2003

This certifies that, for value received, HBM BioVentures (Cayman) Ltd. (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to five hundred and thirty five thousand, seven hundred and fourteen (535,714) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before December 3, 2007 (the "Expiry Date") after which Exercise Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified check, bank draft, wire transfer or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Fair Market Value (hereinafter defined) for the Common Shares) by (y) the Fair Market Value of one Common Share. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised. "Fair Market Value" for purposes of this Section (b) shall mean the average of the Common Share closing prices reported by the Toronto Stock Exchange ("TSX") or such other principal exchange or automated quotation systems on which

the Common Shares are traded or quoted, as the case may be, for the ten (10) trading days immediately preceding the Exercise Date or, in the event no public market shall exist for the Common Shares at the time of such cashless exercise, Fair Market Value shall mean the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company (the "Board"), after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the *Securities Act* of the Province of Ontario, the United States Securities Act of 1933, as amended (the "US Securities Act"), and all other applicable provincial, state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither this issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price and number of Common Shares which may be purchased pursuant to the rights represented by this Warrant are subject to the following adjustments:

(a) Adjustment of Exercise Price for Stock Dividend, Stock Split or Stock Combination. In the event that (i) any dividends on any class of shares of the Company payable in Common Shares or securities convertible into or exercisable for Common Shares ("Common Share Equivalents") shall be paid by

the Company, (ii) the Company shall subdivide its then outstanding Common Shares into a greater number of shares, or (iii) the Company shall combine its outstanding Common Shares, by reclassification or otherwise, then, in each such event, the Exercise Price in effect immediately prior to such event shall (until adjusted again pursuant hereto) be adjusted immediately after such event to a price (calculated to the nearest full cent) determined by dividing (a) the number of Common Shares outstanding immediately prior to such event, multiplied by the then existing Exercise Price, by (b) the total number of Common Shares outstanding immediately after such event, and the resulting quotient shall be the adjusted Exercise Price per share. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than 1% of the Exercise Price then in effect, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment or adjustments so carried forward, shall amount to not less than 1% of the Exercise Price then in effect.

(b) Adjustment of Number of Shares Purchasable on Exercise of Warrants. Upon each adjustment of the Exercise Price pursuant to this Section, the Holder shall thereafter (until another such adjustment) be entitled to purchase at the adjusted Exercise Price the number of Common Shares, calculated to the nearest full share, obtained by multiplying the number of Common Shares specified in such Warrant (as adjusted as a result of all adjustments in the Exercise Price in effect prior to such adjustment) by the Exercise Price in effect prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.

(c) Notice as to Adjustment. Upon any adjustment of the Exercise Price and any increase or decrease in the number of Common Shares purchasable upon the exercise of the Warrant, then, and in each such case, the Company shall, as soon as practicable (and in any event within seven days) after the occurrence of any event which requires an adjustment pursuant to this Section 4, give written notice thereof to each Holder as shown on the books of the Company, which notice shall state the adjusted Exercise Price and the increased or decreased number of Common Shares purchasable upon the exercise of the Warrants, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

(d) Effect of Reorganization, Reclassification, Merger, etc. If at any time while this Warrant is outstanding there should be (i) any capital reorganization of the Company (other than the issuance of any Common Shares in subdivision of outstanding Common Shares by reclassification or otherwise and other than a combination of shares provided for in Section 4(a) hereof), (ii) any consolidation or merger of the Company with another corporation, or any sale, conveyance, lease or other transfer by the Company of all or substantially all of its property to any other corporation, which is effected in such a manner that the holders of Common Shares shall be entitled to receive cash, shares, securities, or assets with respect to or in exchange for Common Shares, or (iii) any dividend or any other distribution upon any class of shares of the Company payable in shares of the Company of a different class, other securities of the Company, or other property of the Company (other than cash), then, as a part of such transaction, lawful provision shall be made so that Holder shall have the right thereafter to receive, upon the exercise hereof, the number of shares or other securities or property of the Company, or of the successor corporation resulting from such consolidation or merger, or of the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred, as the case may be, which the Holder would have been entitled to receive upon such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, if this Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or

other transfer, or dividend payment or other distribution. In any such case, appropriate adjustments (as determined by the Board) shall be made in the application of the provisions set forth in this Warrant (including the adjustment of the Exercise Price and the number of Common Shares issuable upon the exercise of the Warrant) to the end that the provisions set forth herein shall thereafter be applicable, as near as reasonably may be, in relation to any shares or other property thereafter deliverable upon the exercise of the Warrant as if the Warrant had been exercised immediately prior to such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution and the Holder had carried out the terms of the exchange as provided for by such capital reorganization, consolidation or merger. The Company shall not effect any such capital reorganization, consolidation, merger, sale, conveyance, lease or other transfer, or dividend payment or other distribution unless, upon or prior to the consummation thereof, the successor corporation or the corporation to which the property of the Company has been sold, conveyed, leased or otherwise transferred shall assume by written instrument the obligation to deliver to the Holder such shares, securities, cash or property as in accordance with the foregoing provisions such Holder shall be entitled to purchase.

5. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

6. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

7. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

8. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

9. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: _____

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

UNLESS PERMITTED UNDER APPLICABLE SECURITIES LEGISLATION, THE HOLDER OF THE WARRANT OR OF THE COMMON SHARES WHICH MAY BE OBTAINED ON EXERCISE OF THE WARRANT SHALL NOT TRADE SUCH SECURITIES BEFORE APRIL 19, 2004

COMPENSATION WARRANTS TO PURCHASE COMMON SHARES OF

ADHEREX TECHNOLOGIES INC.

THIS CERTIFIES that, for value received, **[ ]** (the "Agent") is the registered holder of one million four hundred thirty-three thousand four hundred and sixty-nine **( )** warrants (the "Compensation Warrants") which entitle the holder, subject to the terms and conditions set forth in this Compensation Warrant Certificate, to purchase from Adherex Technologies Inc. (the "Company") up to one million four hundred thirty-three thousand four hundred and sixty-nine **( )** fully paid and non-assessable common shares of the Company (the "Compensation Shares"), at any time commencing on the date hereof and continuing up to 5:00 p.m. Ottawa time on December 19, 2005 (the "Time of Expiry") on payment of CDN$0.43 per Compensation Share (the "Exercise Price"). The number of Compensation Shares which the Agent is entitled to acquire upon exercise of the Compensation Warrants and the Exercise Price are subject to adjustment as hereinafter provided.

1. Exercise of Compensation Warrants

(a) Election to Purchase. The rights evidenced by this certificate may be exercised by the Agent in whole or in part in accordance with the provisions hereof by delivery of an Election to Purchase in substantially the form attached hereto as Schedule "I", properly completed and executed, together with payment of the Exercise Price for the number of Compensation Shares specified in the Election to Purchase at the principal office of the Company at 600 Peter Morand Crescent, Ottawa, Ontario K1G 5Z3, or such other address in Canada as may be notified in writing by the Company. In the event that the rights evidenced by this certificate are exercised in part, the Company shall, contemporaneously with the issuance of the Compensation Shares issuable on the exercise of the Compensation Warrants so exercised, issue to the Agent a Warrant Certificate, dated as of December 19, 2003, on identical terms in respect of that number of Compensation Shares in respect of which the Agent has not exercised the rights evidenced by this certificate, provided that the Company shall not be so required if the Election to Purchase is received after the Time of Expiry.

(b) Exercise. The Company shall, on the day following the date it receives a duly executed Election to Purchase and the Exercise Price for the number of Compensation Shares specified in the Election to Purchase (the "Exercise Date"), issue that number of Compensation Shares specified in the Election to Purchase as fully paid and non-assessable common shares ("Common Shares") in the capital of the Company.

(c) Share Certificates. As promptly as practicable after the Exercise Date, the Company shall issue and deliver to the Agent, registered in such name or names as the Agent may direct or if no such direction has been given, in the name of the Agent, a certificate or certificates for the number of Compensation Shares specified in the Election to Purchase. To the extent permitted by law, such exercise shall be deemed to have been effected as of the close of business on the Exercise Date, and at such time the rights of the Agent with respect to the number of Compensation Warrants which have been exercised as such shall cease, and the person or persons in whose name or names any certificate or certificates

for Compensation Shares shall then be issuable upon such exercise shall be deemed to have become the holder or holders of record of the Compensation Shares represented thereby.

(d) Fractional Shares. No fractional Compensation Shares shall be issued upon exercise of any Compensation Warrants and no payments or adjustment shall be made upon any exercise on account of any cash dividends on the Compensation Shares issued upon such exercise. If any fractional interest in a Compensation Share would, except for the provisions of the first sentence of this Section 1(d), be deliverable upon the exercise of a Compensation Warrant, the Company shall, in lieu of delivering the fractional share therefor, pay to the Agent an amount in cash equal to the Fair Market Value (as hereinafter defined) of such fractional interest.

(e) Corporate Changes.

(i) Subject to paragraph 1(e)(ii) hereof, if the Company shall be a party to any reorganization, merger, dissolution or sale of all or substantially all of its assets, whether or not the Company is the surviving entity, the number of Compensation Warrants evidenced by this certificate shall be adjusted so as to apply to the securities to which the holder of that number of Compensation Shares of the Company subject to the unexercised Compensation Warrants would have been entitled by reason of such reorganization, merger, dissolution or sale of all or substantially all of its assets (the "Event"), and the Exercise Price shall be adjusted to be the amount determined by multiplying the Exercise Price in effect immediately prior to the Event by the number of Compensation Shares subject to the unexercised Compensation Warrants immediately prior to the Event, and dividing the product thereof by the number of securities to which the holder of that number of Compensation Shares subject to the unexercised Compensation Warrants would have been entitled to by reason of such Event.

(ii) If the Company is unable to deliver securities to the Agent pursuant to the proper exercise of a Compensation Warrant, the Company may satisfy such obligations to the Agent hereunder by paying to the Agent in cash the difference between the Exercise Price of all unexercised Compensation Warrants granted hereunder and the Fair Market Value of the securities to which the Agent would be entitled to upon exercise of all unexercised Compensation Warrants. Adjustments under this subparagraph (e) or (subject to subparagraph (o)) any determinations as to the Fair Market Value of any securities shall be made by the board of directors of the Company, or any committee thereof specifically designated by the board of directors to be responsible therefor, and any reasonable determination made by such board or committee thereof shall be binding and conclusive, subject only to any disputes being resolved by the Company's auditors, whose determination shall be binding and conclusive.

(f) Subdivision or Consolidation of Shares

(i) In the event that the Company shall subdivide its outstanding Common Shares into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision shall be proportionately reduced, and conversely, in case the outstanding Common Shares of the Company shall be consolidated into a smaller number of shares, the Exercise Price in effect immediately prior to such consolidation shall be proportionately increased.

(ii) Upon each adjustment of the Exercise Price as provided herein, the Agent shall thereafter be entitled to acquire, at the Exercise Price resulting from such adjustment, the number of Compensation Shares (calculated to the nearest tenth of a Compensation Share) obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Compensation Shares which may be acquired hereunder immediately prior to such adjustment and dividing the product thereof by the Exercise Price resulting from such adjustment.

(g) Change or Reclassification of Shares. In the event the Company shall change or reclassify its outstanding Common Shares into a different class of securities, the rights evidenced by the Compensation Warrants shall be adjusted as follows so as to apply to the successor class of securities:

(i) the number of the successor class of securities which the Agent shall be entitled to acquire shall be that number of the successor class of securities which a holder of that number of Compensation Shares subject to the unexercised Compensation Warrants immediately prior to the change or reclassification would have been entitled to by reason of such change or reclassification; and

(ii) the Exercise Price shall be determined by multiplying the Exercise Price in effect immediately prior to the change or reclassification by the number of Compensation Shares subject to the unexercised Compensation Warrants immediately prior to the change or reclassification, and dividing the product thereof by the number of shares determined in paragraph 1(g)(i) hereof.

(h) Offering to Shareholders. If and whenever at any time prior to the Time of Expiry, the Company shall fix a record date or if a date of entitlement to receive is otherwise established (any such date being hereinafter referred to in this Subsection 1(h) as the “record date”) for the issuance of rights, options or warrants to all or substantially all the holders of the outstanding Common Shares of the Company entitling them, for a period expiring not more than forty-five (45) days after such record date, to subscribe for or purchase Common Shares of the Company or securities convertible into or exchangeable for Common Shares at a price per share or, as the case may be, having a conversion or exchange price per share less than 95% of the Fair Market Value (as hereinafter defined) on such record date, the Exercise Price shall be adjusted immediately after such record date so that it shall equal the price determined by multiplying the Exercise Price in effect on such record date by a fraction, of which the numerator shall be the total number of Common Shares outstanding on such record date plus a number equal to the number arrived at by dividing the aggregate subscription or purchase price of the total number of additional Common Shares offered for subscription or purchase or, as the case may be, the aggregate conversion or exchange price of the convertible or exchangeable securities so offered by such Fair Market Value, and of which the denominator shall be the total number of Common Shares outstanding on such record date plus the total number of additional Common Shares so offered (or into which the convertible or exchangeable securities so offered are convertible or exchangeable); Common Shares owned by or held for the account of the Company or any subsidiary of the Company shall be deemed not to be outstanding for the purpose of any such computation; such adjustment shall be made

successively whenever such a record date is fixed; to the extent that any rights or warrants are not so issued or any such rights or warrants are not exercised prior to the expiration thereof, the Exercise Price shall then be readjusted to the Exercise Price which would then be in effect if such record date had not been fixed or to the Exercise Price which would then be in effect based upon the number of Common Shares or conversion exchange rights contained in convertible or exchangeable securities actually issued upon the exercise of such rights or warrants, as the case may be.

(i) Carry Over of Adjustments. No adjustment of the Exercise Price shall be made if the amount of such adjustment shall be less than one percent (1%) of the Exercise Price in effect immediately prior to the event giving rise to the adjustment, provided, however, that in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time of and together with the next subsequent adjustment which, together with any adjustment so carried forward, shall amount to at least one percent (1%) of the Exercise Price.

(j) Notice of Adjustment. Upon any adjustment of the number of Compensation Shares and upon any adjustment of the Exercise Price, then and in each such case the Company shall give written notice thereto to the Agent, which notice shall state the Exercise Price and the number of Compensation Shares or other securities subject to the unexercised Compensation Warrants resulting from such adjustment, and shall set forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Upon the request of the Agent there shall be transmitted promptly to the Agent a statement of the firm of independent chartered accountants retained to audit the financial statements of the Company to the effect that such firm concurs in the Company's calculation of the change.

(k) Other Notices. In case at any time:

(i) the Company shall declare any dividend upon its Common Shares payable in Common Shares;

(ii) the Company shall offer for subscription *pro rata* to the holders of its Common Shares any additional shares of any class or other rights;

(iii) there shall be any capital reorganization or reclassification of the capital stock of the Company, or consolidation, amalgamation or merger of the Company with, or sale of all or substantially all of its assets to, another corporation; or

(iv) there shall be a voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, in any one or more of such cases, the Company shall give to the Agent: (A) at least ten (10) days' prior written notice of the date on which a record shall be taken for such dividend, distribution or subscription rights or for determining rights to vote in respect of any such reorganization, reclassification, consolidation, merger, amalgamation, sale, dissolution, liquidation or winding-up; and (B) in the case of any such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up, at least ten (10) days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause (A) shall also specify, in the case of any such dividend, distribution or subscription rights, the date on which the holders of

Common Shares shall be entitled thereto, and such notice in accordance with the foregoing clause (B) shall also specify the date on which the holders of Common Shares shall be entitled to exchange their Common Shares for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, amalgamation, sale, dissolution, liquidation or winding-up, as the case may be.

(l) Shares to be Reserved. The Company will at all times keep available, and reserve if necessary under Canadian law, out of its authorized Common Shares, solely for the purpose of issue upon the exercise of the Compensation Warrants, such number of Compensation Shares as shall then be issuable upon the exercise of the Compensation Warrants. The Company covenants and agrees that all Compensation Shares which shall be so issuable will, upon issuance, be duly authorized and issued as fully paid and non-assessable. The Company will take all such actions as may be necessary to ensure that all such Compensation Shares may be so issued without violation of any applicable requirements of any exchange upon which the Common Shares of the Company may be listed. The Company will take all such actions as are within its power to ensure that all such Compensation Shares may be so issued without violation of any applicable law.

(m) Issue Tax. The issuance of certificates for Compensation Shares upon the exercise of Compensation Warrants shall be made without charge to the Agent for any issuance tax in respect thereto, provided that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than that of the Agent.

(n) Listing. The Company will, at its expense and as expeditiously as possible, use its best efforts to cause all Compensation Shares issuable upon the exercise of the Compensation Warrants to be duly listed on any applicable exchange prior to the issuance of such Compensation Shares.

(o) Fair Market Value. For the purposes of any computation hereunder, the “Fair Market Value” at any date shall be the weighted average sale price per share for the Common Shares of the Company for the 20 consecutive trading days immediately before such date on the Toronto Stock Exchange, or, if the shares in respect of which a determination of Fair Market Value is being made are not listed on any stock exchange, the Fair Market Value shall be determined by the directors, which determination shall be conclusive. The weighted average price shall be determined by dividing the aggregate sale price of all such shares sold on the said exchange during the said 20 consecutive trading days by the total number of such shares so sold.

2. Replacement

Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Compensation Warrant Certificate and, if requested by the Company, upon delivery of a bond of indemnity satisfactory to the Company (or, in the case of mutilation, upon surrender of this Compensation Warrant Certificate), the Company will issue to the Agent a replacement certificate (containing the same terms and conditions as this Compensation Warrant Certificate).

3. Expiry Date

The Compensation Warrants shall expire and all rights to purchase Compensation Shares hereunder shall cease and become null and void at the Time of Expiry.

4. Covenant

So long as any Compensation Warrants remain outstanding the Company covenants that it shall do or cause to be done all things reasonably necessary to maintain its status as a reporting issuer not in default in the Province of Ontario.

5. Inability to Deliver Compensation Shares

If for any reason, other than the failure or default of the Agent, the Company is unable to issue and deliver the Compensation Shares or other securities as contemplated herein to the Agent upon the proper exercise by the Agent of the right to purchase any of the Compensation Shares covered by this Compensation Warrant Certificate, the Company may pay, at its option and in complete satisfaction of its obligations hereunder, to the Agent, in cash, an amount equal to the difference between the Exercise Price and the Fair Market Value of such Compensation Shares or other securities on the Exercise Date.

6. Governing Law

The laws of the Province of Ontario and the laws of Canada applicable therein shall govern the Compensation Warrants.

7. Successors

This Compensation Warrant Certificate shall enure to the benefit of and shall be binding upon the Agent and the Company and their respective successors.

IN WITNESS WHEREOF the Company has caused this Compensation Warrant Certificate to be signed by its duly authorized officer.

DATED as of December 19, 2003.

ADHEREX TECHNOLOGIES INC.

per: _____

SCHEDULE "I"

ELECTION TO EXERCISE

The undersigned hereby irrevocably elects to exercise the number of Compensation Warrants of Adherex Technologies Inc. set out below for the number of Compensation Shares as set forth below:

(a) Number of Compensation Warrants to be Exercised: _____

(b) Number of Compensation Shares to be acquired: _____

(c) Exercise Price per Share: _____

(d) Aggregate Purchase Price [(b) multiplied by (c)]: _____

and hereby tenders a certified cheque, bank draft or cash for such aggregate purchase price and directs such Compensation Shares to be registered and a certificate therefor to be issued as directed below.

DATED this _____ day of _____, 200_.

per: _____

Direction as to Registration

Name of Registered Holder: _____

Address of Registered Holder: _____

_____

_____

EXHIBIT 4.24

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER APPLICABLE SECURITIES LEGISLATION, THE HOLDER OF THE WARRANT OR OF ANY SECURITIES WHICH MAY BE OBTAINED ON EXERCISE OF THE WARRANT SHALL NOT TRADE SUCH SECURITIES BEFORE APRIL 20, 2004.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

(amalgamated under the *Canada Business Corporations Act*)

Warrant No.: __

Ottawa, Ontario
December 19, 2003

This certifies that, for value received, [_____] (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [_____] ([_____]) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before 5:00 pm (Ottawa time) (the "Expiry Time") on December 19, 2008 (the "Expiry Date") after which Exercise Date (as hereinafter defined) all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Time on the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified cheque, bank draft, wire transfer or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Current Market Price (as defined in section 5(g)) for the Common Shares) by (y) the Current Market Price. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Common Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, to persons in the United States or to U.S. Persons (as that term is defined in Regulation S under the *United States Securities Act of 1933*, as amended (the "US Securities Act") without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the US Securities Act, and all other applicable state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither the issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price (and the number of Common Shares purchasable upon exercise in the case of paragraphs 4(a) and 4(b)), shall be subject to adjustment from time to time in the events and in the manner provided as follows:

(a) Common Share Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall:

(i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then outstanding Common Shares by way of stock dividend or other distribution other than an issue of Common Shares to holders of Common Shares who exercise an option to receive dividends in shares in lieu of receiving dividends paid in the ordinary course, or

(ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or

(iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares,

(any of such events in subparagraphs 4(a)(i), 4(a)(ii)and 4(a)(iii) being a "Common Share Reorganization"), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date immediately before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date immediately after giving effect to such Common Share Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares are distributed, the number of Common Shares that would have been outstanding had such securities been fully exchanged for or converted into Common Shares on such record date or effective date). From and after any adjustment of the Exercise Price pursuant to this paragraph 4(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

(b) Rights Offering. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than 45 days after the record date for such issue ("Rights Period"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder of less than 95% of the Current Market Price (as defined in paragraph 5(g) below) for the Common Shares on such record date (any of such events being called a "Rights Offering"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:

(i) the numerator of which shall be the aggregate of:

(1) the number of Common Shares outstanding as of the record date for the Rights Offering, and

(2) a number determined by dividing either

(A) the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered,

or, as the case may be,

(B) the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period,

by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and

(ii) the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the Holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the Holder shall, in addition to the Common Shares to which the Holder is otherwise entitled upon such exercise of the Warrant herein, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b) from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such Holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b); provided that the provisions of clause 8 shall be applicable to any fractional interest in a Common Share to which such Holder might otherwise be entitled under the foregoing provisions of this paragraph 4(b). Such additional Common Shares shall be deemed to have been issued to the Holder immediately following the end of the Rights Period and a certificate for such additional Common Shares shall be delivered to such Holder within ten Business Days following the end of the Rights Period.

(c) Special Distribution. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:

(i) securities of the Company including rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or property or assets and including evidences of its indebtedness, or

(ii) any property or other assets,

and if such issuance or distribution does not constitute dividends paid in the ordinary course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "Special Distribution"), the number of Common Shares to be issued by the

Company under the Warrants shall, at the time of exercise, be appropriately adjusted and the Holder shall receive, in lieu of the number of Common Shares in respect of which the right is then being exercised, the aggregate number of Common Shares or other securities or property that the Holder would have been entitled to receive as a result of such event if, on the record date therefor, the Holder had been the registered holder of the number of Common Shares to which the Holder was theretofore entitled upon the exercise of the Warrants.

(d) Capital Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date there shall be a reclassification of Common Shares at any time outstanding or a change of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement, merger or take over of the Company with, into or by any other corporation or other entity (other than a consolidation, amalgamation, arrangement, merger or take over which does not result in any reclassification of the outstanding Common Shares or a change of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the Holder, where he has not exercised the right of subscription and purchase under this Warrant prior to the effective date of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the Holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the Principal Exchange (as hereinafter defined) on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions set forth in this clause 4 with respect to the rights and interests thereafter of the Holder to the end that the provisions set forth in this clause 4 shall thereafter correspondingly be made applicable as nearly as may reasonably be in relation to any shares, other securities or other property thereafter deliverable upon the exercise of any Warrant. Any such adjustments shall be made by and set forth in terms and conditions supplemental hereto approved by the board of directors of the Company, acting reasonably and in good faith.

(e) If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date, the Company takes any action affecting its Common Shares to which the foregoing provisions of this clause 4, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the Holder hereunder, then the Company shall execute and deliver to the Holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company may determine to be equitable in the circumstances, acting reasonably and in good faith. The failure of the taking of action by the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the circumstances.

5. Calculation Rules and Procedures. The following rules and procedures shall be applicable to the adjustments made pursuant to clause 4:

(a) The adjustments provided for in clause 4 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this clause 4.

(b) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of this Warrant unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this paragraph 5(b) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.

(c) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in clause 4, other than the events referred to in subparagraphs 4(a)(ii) and 4(a)(iii), if the Holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if he had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the Holders in such event shall be subject to the prior written approval of the Principal Exchange.

(d) Notwithstanding any other provision hereof, no adjustment in the Exercise Price shall be made pursuant to this clause 5 in respect of the issue from time to time:

(i) of Common Shares purchasable on exercise of the Warrants represented by this Warrant;

(ii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, as dividends paid in the ordinary course to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of such Principal Exchange and applicable securities laws; or

(iii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, pursuant to any stock option, stock option plan, stock purchase plan or other benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the Principal Exchange and applicable securities laws, and such other benefit plans as may be adopted by the Company in accordance with the requirements of the Principal Exchange on which the Common Shares are then listed or quoted for trading and applicable securities laws; and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

(e) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or subscription or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.

(f) As a condition precedent to the taking of any action which would require any adjustment in any of the rights pursuant to this Warrant, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take any corporate action which may be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the holder of such Warrant is entitled to receive on the full exercise thereof in accordance with the provisions hereof.

(g) For the purposes of this Warrant Certificate:

"Additional Stock Exchange" means, at any time, each stock exchange in Canada or the United States of America (other than the TSX) on which the Common Shares are listed for trading and on which at least 10% of the total volume of all Common Shares traded in the six months immediately preceding such time have been traded as determined by a nationally or internationally recognized independent investment dealer or investment banker selected by the board of directors of the Company for such purpose, acting reasonably;

"Alternative Trading System" means any trading or quotation system other than the TSX or an Additional Stock Exchange in respect of which trading prices and volumes are publicly accessible for Common Shares;

"Current Market Price" of a Common Share at any date shall be calculated as the price per share equal to the weighted average price at which the Common Shares have traded on the Principal Exchange on which the Common Shares are then listed or posted for trading during the 10 consecutive trading days immediately prior to such date as reported by such Principal Exchange. If the Common Shares are not then traded on a Principal Exchange, the Current Market Price of the Common Shares shall be the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company, after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or price per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office. For purposes of this definition, prices on any Additional Stock Exchange or Alternative Trading System (if such exchange or system is quoted in U.S. dollars) on any particular day will be converted to Canadian dollars on the basis of noon spot buying rates for wire transfers in U.S. dollars as announced by the Bank of Canada.

"Principal Exchange" means the TSX or, if the Common Shares are not then listed on the TSX, means the Additional Stock Echange on which the greatest number of Common Shares were traded in the immediately preceding six months, or, if Common Shares are not then listed on any Additional Stock Exchange, means the Alternative Trading System on which the greatest number of Common Share were traded in the immediately preceding six months;

"TSX" means the Toronto Stock Exchange Inc. operating as the TSX.

(h) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subparagraph 4(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.

(i) Any question that at any time or from time to time arises with respect to the amount of any adjustment to the Exercise Price or other adjustments pursuant to clause 0 shall be conclusively determined by a firm of independent chartered accountants, appointed by the Company and acceptable to the Holder, and shall be binding upon the Company and the Holder. Notwithstanding the foregoing, such determination shall be subject to the prior written approval of the Principal Exchange on which the Common Shares are then listed or quoted for trading. In the event that any such determination is made, the Company shall notify the Holder in the manner contemplated in clause 7 describing such determination.

6. Idem. On the happening of each and every such event set out in clause 4, the applicable provisions of this Warrant, including the Exercise Price, shall, *ipso facto*, be deemed to be amended accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended. In any case in which clause 4 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

(a) issuing to the holder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and

(b) delivering to such holder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such holder, an appropriate instrument evidencing such holder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

7. Notice. At least 7 Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, or such longer period of notice as the Company shall be required to provide holders of Common Shares in respect of any such event, the Company shall notify the Holder of the particulars of such event and, if determinable, the required adjustment and the computation of such adjustment. In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable notify the Holder of the adjustment and the computation of such adjustment.

The Company shall obtain all necessary orders, consents or approvals for the issue and listing of the Common Shares to be issued upon the exercise of the Warrants represented hereby on the stock exchange or stock exchanges, if more than one, on which the Common Shares are then listed.

8. No Fractional Shares. The Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this clause 8, be deliverable upon the exercise of a Warrant, the Company shall in lieu of delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the holder of such Warrant of an amount in cash equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date.

9. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

10. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

11. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

12. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

13. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

14. Currency. Unless otherwise specified, references to dollar amounts herein are to Canadian dollars.

15. Language. The parties hereto have expressly required that this agreement and all documents, agreements and notices related hereto be drafted in the English language. Les parties aux présentes ont expressément exigé que le présent contrat et tous les autres documents, conventions ou avis qui y sont afférents soient rédigés en langue anglaise.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: VICE-PRESIDENT, GENERAL COUNSEL AND CORPORATE SECRETARY

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

EXHIBIT 4.25

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

UNLESS PERMITTED UNDER APPLICABLE SECURITIES LEGISLATION, THE HOLDER OF THE WARRANT OR OF ANY SECURITIES WHICH MAY BE OBTAINED ON EXERCISE OF THE WARRANT SHALL NOT TRADE SUCH SECURITIES BEFORE APRIL 20, 2004.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.
(amalgamated under the *Canada Business Corporations Act*)

Warrant No.: 16

Ottawa, Ontario
December 19, 2003

This certifies that, for value received, The Vengrowth Advanced Life Sciences Fund Inc. ("Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to SEVEN MILLION, ONE HUNDRED AND FORTY-TWO THOUSAND, EIGHT HUNDRED AND FIFTY-SEVEN (7,142,857) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before 5:00 pm (Ottawa time) (the "Expiry Time") on December 19, 2008 (the "Expiry Date") after which Exercise Date (as hereinafter defined) all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Time on the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon (i) payment to it by certified cheque, bank draft, wire transfer or cash of the purchase price for such Common Shares or (ii) delivery to it of a notice of cashless exercise pursuant to section 1(b). The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and consideration received for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Current Market Price (as defined in section 5(g)) for the Common Shares) by (y) the Current Market Price. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Common Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, to persons in the United States or to U.S. Persons (as that term is defined in Regulation S under the *United States Securities Act of 1933*, as amended (the "US Securities Act") without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the US Securities Act, and all other applicable state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither the issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price (and the number of Common Shares purchasable upon exercise in the case of paragraphs 4(a) and 4(b)), shall be subject to adjustment from time to time in the events and in the manner provided as follows:

(a) Common Share Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall:

(i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then outstanding Common Shares by way of stock dividend or other distribution other than an issue of Common Shares to holders of Common Shares who exercise an option to receive dividends in shares in lieu of receiving dividends paid in the ordinary course, or

(ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or

(iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares,

(any of such events in subparagraphs 4(a)(i), 4(a)(ii)and 4(a)(iii) being a "Common Share Reorganization"), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date immediately before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date immediately after giving effect to such Common Share Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares are distributed, the number of Common Shares that would have been outstanding had such securities been fully exchanged for or converted into Common Shares on such record date or effective date). From and after any adjustment of the Exercise Price pursuant to this paragraph 4(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

(b) Rights Offering. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than 45 days after the record date for such issue ("Rights Period"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder of less than 95% of the Current Market Price (as defined in paragraph 5(g) below) for the Common Shares on such record date (any of such events being called a "Rights Offering"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:

(i) the numerator of which shall be the aggregate of:

(1) the number of Common Shares outstanding as of the record date for the Rights Offering, and

(2) a number determined by dividing either

(A) the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered,

or, as the case may be,

(B) the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period,

by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and

(ii) the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the Holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the Holder shall, in addition to the Common Shares to which the Holder is otherwise entitled upon such exercise of the Warrant herein, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b) from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such Holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b); provided that the provisions of clause 8 shall be applicable to any fractional interest in a Common Share to which such Holder might otherwise be entitled under the foregoing provisions of this paragraph 4(b). Such additional Common Shares shall be deemed to have been issued to the Holder immediately following the end of the Rights Period and a certificate for such additional Common Shares shall be delivered to such Holder within ten Business Days following the end of the Rights Period.

(c) Special Distribution. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:

(i) securities of the Company including rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or property or assets and including evidences of its indebtedness, or

(ii) any property or other assets,

and if such issuance or distribution does not constitute dividends paid in the ordinary course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "Special Distribution"), the number of Common Shares to be issued by the

Company under the Warrants shall, at the time of exercise, be appropriately adjusted and the Holder shall receive, in lieu of the number of Common Shares in respect of which the right is then being exercised, the aggregate number of Common Shares or other securities or property that the Holder would have been entitled to receive as a result of such event if, on the record date therefor, the Holder had been the registered holder of the number of Common Shares to which the Holder was theretofore entitled upon the exercise of the Warrants.

(d) Capital Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date there shall be a reclassification of Common Shares at any time outstanding or a change of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement, merger or take over of the Company with, into or by any other corporation or other entity (other than a consolidation, amalgamation, arrangement, merger or take over which does not result in any reclassification of the outstanding Common Shares or a change of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the Holder, where he has not exercised the right of subscription and purchase under this Warrant prior to the effective date of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the Holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the Principal Exchange (as hereinafter defined) on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions set forth in this clause 4 with respect to the rights and interests thereafter of the Holder to the end that the provisions set forth in this clause 4 shall thereafter correspondingly be made applicable as nearly as may reasonably be in relation to any shares, other securities or other property thereafter deliverable upon the exercise of any Warrant. Any such adjustments shall be made by and set forth in terms and conditions supplemental hereto approved by the board of directors of the Company, acting reasonably and in good faith.

(e) If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date, the Company takes any action affecting its Common Shares to which the foregoing provisions of this clause 4, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the Holder hereunder, then the Company shall execute and deliver to the Holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company may determine to be equitable in the circumstances, acting reasonably and in good faith. The failure of the taking of action by the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the circumstances.

5. Calculation Rules and Procedures. The following rules and procedures shall be applicable to the adjustments made pursuant to clause 4:

(a) The adjustments provided for in clause 4 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this clause 4.

(b) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of this Warrant unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this paragraph 5(b) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.

(c) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in clause 4, other than the events referred to in subparagraphs 4(a)(ii) and 4(a)(iii), if the Holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if he had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the Holders in such event shall be subject to the prior written approval of the Principal Exchange.

(d) Notwithstanding any other provision hereof, no adjustment in the Exercise Price shall be made pursuant to this clause 5 in respect of the issue from time to time:

(i) of Common Shares purchasable on exercise of the Warrants represented by this Warrant;

(ii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, as dividends paid in the ordinary course to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of such Principal Exchange and applicable securities laws; or

(iii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, pursuant to any stock option, stock option plan, stock purchase plan or other benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the Principal Exchange and applicable securities laws, and such other benefit plans as may be adopted by the Company in accordance with the requirements of the Principal Exchange on which the Common Shares are then listed or quoted for trading and applicable securities laws; and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

(e) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or subscription or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.

(f) As a condition precedent to the taking of any action which would require any adjustment in any of the rights pursuant to this Warrant, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take any corporate action which may be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the holder of such Warrant is entitled to receive on the full exercise thereof in accordance with the provisions hereof.

(g) For the purposes of this Warrant Certificate:

"Additional Stock Exchange" means, at any time, each stock exchange in Canada or the United States of America (other than the TSX) on which the Common Shares are listed for trading and on which at least 10% of the total volume of all Common Shares traded in the six months immediately preceding such time have been traded as determined by a nationally or internationally recognized independent investment dealer or investment banker selected by the board of directors of the Company for such purpose, acting reasonably;

"Alternative Trading System" means any trading or quotation system other than the TSX or an Additional Stock Exchange in respect of which trading prices and volumes are publicly accessible for Common Shares;

"Current Market Price" of a Common Share at any date shall be calculated as the price per share equal to the weighted average price at which the Common Shares have traded on the Principal Exchange on which the Common Shares are then listed or posted for trading during the 10 consecutive trading days immediately prior to such date as reported by such Principal Exchange. If the Common Shares are not then traded on a Principal Exchange, the Current Market Price of the Common Shares shall be the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company, after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or price per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office. For purposes of this definition, prices on any Additional Stock Exchange or Alternative Trading System (if such exchange or system is quoted in U.S. dollars) on any particular day will be converted to Canadian dollars on the basis of noon spot buying rates for wire transfers in U.S. dollars as announced by the Bank of Canada.

"Principal Exchange" means the TSX or, if the Common Shares are not then listed on the TSX, means the Additional Stock Echange on which the greatest number of Common Shares were traded in the immediately preceding six months, or, if Common Shares are not then listed on any Additional Stock Exchange, means the Alternative Trading System on which the greatest number of Common Share were traded in the immediately preceding six months;

"TSX" means the Toronto Stock Exchange Inc. operating as the TSX.

(h) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subparagraph 4(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.

(i) Any question that at any time or from time to time arises with respect to the amount of any adjustment to the Exercise Price or other adjustments pursuant to clause 0 shall be conclusively determined by a firm of independent chartered accountants, appointed by the Company and acceptable to the Holder, and shall be binding upon the Company and the Holder. Notwithstanding the foregoing, such determination shall be subject to the prior written approval of the Principal Exchange on which the Common Shares are then listed or quoted for trading. In the event that any such determination is made, the Company shall notify the Holder in the manner contemplated in clause 7 describing such determination.

6. Idem. On the happening of each and every such event set out in clause 4, the applicable provisions of this Warrant, including the Exercise Price, shall, *ipso facto*, be deemed to be amended accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended. In any case in which clause 4 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

(a) issuing to the holder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and

(b) delivering to such holder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such holder, an appropriate instrument evidencing such holder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

7. Notice. At least 7 Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, or such longer period of notice as the Company shall be required to provide holders of Common Shares in respect of any such event, the Company shall notify the Holder of the particulars of such event and, if determinable, the required adjustment and the computation of such adjustment. In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable notify the Holder of the adjustment and the computation of such adjustment.

The Company shall obtain all necessary orders, consents or approvals for the issue and listing of the Common Shares to be issued upon the exercise of the Warrants represented hereby on the stock exchange or stock exchanges, if more than one, on which the Common Shares are then listed.

8. No Fractional Shares. The Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this clause 8, be deliverable upon the exercise of a Warrant, the Company shall in lieu of delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the holder of such Warrant of an amount in cash equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date.

9. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

10. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

11. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

12. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

13. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

14. Currency. Unless otherwise specified, references to dollar amounts herein are to Canadian dollars.

15. Language. The parties hereto have expressly required that this agreement and all documents, agreements and notices related hereto be drafted in the English language. Les parties aux présentes ont expressément exigé que le présent contrat et tous les autres documents, conventions ou avis qui y sont afférents soient rédigés en langue anglaise.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: VICE-PRESIDENT, GENERAL COUNSEL AND CORPORATE SECRETARY

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

THE WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (THE "SECURITIES") HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "US SECURITIES ACT") OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS ("BLUE SKY LAWS"). NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THIS WARRANT OR THE SECURITIES OR ANY INTEREST THEREIN MAY BE MADE EXCEPT (A) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE US SECURITIES ACT AND ANY APPLICABLE BLUE SKY LAWS OR (B) IF THE COMPANY HAS BEEN FURNISHED WITH BOTH AN OPINION OF COUNSEL FOR THE HOLDER, WHICH OPINION AND COUNSEL SHALL BE REASONABLY SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT NO REGISTRATION IS REQUIRED BECAUSE OF THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER THE US SECURITIES ACT AND APPLICABLE BLUE SKY LAWS, AND ASSURANCES THAT THE TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION WILL BE MADE ONLY IN COMPLIANCE WITH THE CONDITIONS OF ANY SUCH REGISTRATION OR EXEMPTION.

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.

(amalgamated under the *Canada Business Corporations Act*)

Warrant No.: 72

Ottawa, Ontario
December 19, 2003

This certifies that, for value received, HBM BioVentures (Cayman) Ltd. ("Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to FOUR MILLION, SIX HUNDRED AND FORTY-TWO THOUSAND, EIGHT HUNDRED AND FIFTY-EIGHT (4,642,858) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.43 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before 5:00 pm (Ottawa time) (the "Expiry Time") on December 19, 2008 (the "Expiry Date") after which Exercise Date (as hereinafter defined) all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Time on the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified cheque, bank draft, wire transfer or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding ten (10) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the

Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Current Market Price (as defined in section 5(g)) for the Common Shares) by (y) the Current Market Price. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Common Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

(c) The Warrant may not be transferred, and the Common Shares underlying this Warrant may not be transferred, to persons in the United States or to U.S. Persons (as that term is defined in Regulation S under the *United States Securities Act of 1933*, as amended (the "US Securities Act") without the Holder obtaining an opinion of legal counsel satisfactory in form and substance to the Company's legal counsel stating that the proposed transaction will not result in a prohibited transaction under the US Securities Act, and all other applicable state and federal securities laws, regulations and orders. By accepting this Warrant, the Holder agrees to act in accordance with any conditions reasonably imposed on such transfer by such opinion of legal counsel.

(d) Neither the issuance of this Warrant nor the issuance of the Common Shares underlying this Warrant have been registered under any Canadian provincial securities laws, the US Securities Act or any US state securities laws.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price (and the number of Common Shares purchasable upon exercise in the case of paragraphs 4(a) and 4(b)), shall be subject to adjustment from time to time in the events and in the manner provided as follows:

(a) Common Share Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall:

(i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then outstanding Common Shares by way of stock dividend or other distribution other than an issue of Common Shares to holders of Common Shares who exercise an option to receive dividends in shares in lieu of receiving dividends paid in the ordinary course, or

(ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or

(iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares,

(any of such events in subparagraphs 4(a)(i), 4(a)(ii) and 4(a)(iii) being a "Common Share Reorganization"), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date immediately before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date immediately after giving effect to such Common Share Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares are distributed, the number of Common Shares that would have been outstanding had such securities been fully exchanged for or converted into Common Shares on such record date or effective date). From and after any adjustment of the Exercise Price pursuant to this paragraph 4(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

(b) Rights Offering. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than 45 days after the record date for such issue ("Rights Period"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder of less than 95% of the Current Market Price (as defined in paragraph 5(g) below) for the Common Shares on such record date (any of such events being called a "Rights Offering"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:

(i) the numerator of which shall be the aggregate of:

(1) the number of Common Shares outstanding as of the record date for the Rights Offering, and

(2) a number determined by dividing either

(A) the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered, or, as the case may be,

(B) the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period,

by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and

(ii) the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the Holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the Holder shall, in addition to the Common Shares to which the Holder is otherwise entitled upon such exercise of the Warrant herein, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b) from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such Holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b); provided that the provisions of clause 8 shall be applicable to any fractional interest in a Common Share to which such Holder might otherwise be entitled under the foregoing provisions of this paragraph 4(b). Such additional Common Shares shall be deemed to have been issued to the Holder immediately following the end of the Rights Period and a certificate for such additional Common Shares shall be delivered to such Holder within ten Business Days following the end of the Rights Period.

(c) Special Distribution. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:

(i) securities of the Company including rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or property or assets and including evidences of its indebtedness, or

(ii) any property or other assets,

and if such issuance or distribution does not constitute dividends paid in the ordinary course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "Special Distribution"), the number of Common Shares to be issued by the Company under the Warrants shall, at the time of exercise, be appropriately adjusted and the Holder shall receive, in lieu of the number of Common Shares in respect of which the right is then being exercised, the aggregate number of Common Shares or other securities or property that the Holder would have been entitled to receive as a result of such event if, on the record date therefor, the Holder had been the registered holder of the number of Common Shares to which the Holder was theretofore entitled upon the exercise of the Warrants.

(d) Capital Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date there shall be a reclassification of Common Shares at any time outstanding or a change of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement, merger or take over of the Company with, into or by any other corporation or other entity (other than a consolidation, amalgamation, arrangement, merger or take over which does not result in any reclassification of the outstanding Common Shares or a change of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the Holder, where he has not exercised the right of subscription and purchase under this Warrant prior to the effective date of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the Holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the Principal Exchange (as hereinafter defined) on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions set forth in this clause 4 with respect to the rights and interests thereafter of the Holder to the end that the provisions set forth in this clause 4 shall thereafter correspondingly be made applicable as nearly as may reasonably be in relation to any shares, other securities or other property thereafter deliverable upon the exercise of any Warrant. Any such adjustments shall be made by and set forth in terms and conditions supplemental hereto approved by the board of directors of the Company, acting reasonably and in good faith.

(e) If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date, the Company takes any action affecting its Common Shares to which the foregoing provisions of this clause 4, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the Holder hereunder, then the Company shall execute and deliver to the Holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company may determine to be equitable in the circumstances, acting reasonably and in good faith. The failure of the taking of action by the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the circumstances.

5. Calculation Rules and Procedures. The following rules and procedures shall be applicable to the adjustments made pursuant to clause 4:

(a) The adjustments provided for in clause 4 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this clause 4.

(b) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of this Warrant unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this paragraph 5(b) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.

(c) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in clause 4, other than the events referred to in subparagraphs 4(a)(ii) and 4(a)(iii), if the Holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if he had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the Holders in such event shall be subject to the prior written approval of the Principal Exchange.

(d) Notwithstanding any other provision hereof, no adjustment in the Exercise Price shall be made pursuant to this clause 5 in respect of the issue from time to time:

(i) of Common Shares purchasable on exercise of the Warrants represented by this Warrant;

(ii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, as dividends paid in the ordinary course to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of such Principal Exchange and applicable securities laws; or

(iii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, pursuant to any stock option, stock option plan, stock purchase plan or other benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the Principal Exchange and applicable securities laws, and such other benefit plans as may be adopted by the Company in accordance with the requirements of the Principal Exchange on which the Common Shares are then listed or quoted for trading and applicable securities laws;

and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

(e) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or

purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or subscription or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.

(f) As a condition precedent to the taking of any action which would require any adjustment in any of the rights pursuant to this Warrant, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take any corporate action which may be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the holder of such Warrant is entitled to receive on the full exercise thereof in accordance with the provisions hereof.

(g) For the purposes of this Warrant Certificate:

"Additional Stock Exchange" means, at any time, each stock exchange in Canada or the United States of America (other than the TSX) on which the Common Shares are listed for trading and on which at least 10% of the total volume of all Common Shares traded in the six months immediately preceding such time have been traded as determined by a nationally or internationally recognized independent investment dealer or investment banker selected by the board of directors of the Company for such purpose, acting reasonably;

"Alternative Trading System" means any trading or quotation system other than the TSX or an Additional Stock Exchange in respect of which trading prices and volumes are publicly accessible for Common Shares;

"Current Market Price" of a Common Share at any date shall be calculated as the price per share equal to the weighted average price at which the Common Shares have traded on the Principal Exchange on which the Common Shares are then listed or posted for trading during the 10 consecutive trading days immediately prior to such date as reported by such Principal Exchange. If the Common Shares are not then traded on a Principal Exchange, the Current Market Price of the Common Shares shall be the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company, after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or price per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office. For purposes of this definition, prices on any Additional Stock Exchange or Alternative Trading System (if such exchange or system is quoted in U.S. dollars) on any particular day will be converted to Canadian dollars on the basis of noon spot buying rates for wire transfers in U.S. dollars as announced by the Bank of Canada.

"Principal Exchange" means the TSX or, if the Common Shares are not then listed on the TSX, means the Additional Stock Exchange on which the greatest number of Common Shares were traded in the immediately preceding six months, or, if Common Shares are not then listed on any Additional Stock Exchange, means the Alternative Trading System on which the greatest number of Common Share were traded in the immediately preceding six months;

"TSX" means the Toronto Stock Exchange Inc. operating as the TSX.

(h) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subparagraph 4(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.

(i) Any question that at any time or from time to time arises with respect to the amount of any adjustment to the Exercise Price or other adjustments pursuant to clause 0 shall be conclusively determined by a firm of independent chartered accountants, appointed by the Company and acceptable to the Holder, and shall be binding upon the Company and the Holder. Notwithstanding the foregoing, such determination shall be subject to the prior written approval of the Principal Exchange on which the Common Shares are then listed or quoted for trading. In the event that any such determination is made, the Company shall notify the Holder in the manner contemplated in clause 7 describing such determination.

6. Idem. On the happening of each and every such event set out in clause 4, the applicable provisions of this Warrant, including the Exercise Price, shall, *ipso facto*, be deemed to be amended accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended. In any case in which clause 4 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

(a) issuing to the holder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and

(b) delivering to such holder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such holder, an appropriate instrument evidencing such holder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

7. Notice. At least 7 Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, or such longer period of notice as the Company shall be required to provide holders of Common Shares in respect of any such event, the Company shall notify the Holder of the particulars of such event and, if determinable, the required adjustment and the computation of such adjustment. In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable notify the Holder of the adjustment and the computation of such adjustment. The Company shall obtain all necessary orders, consents or approvals for the issue and listing of the Common Shares to be issued upon the exercise of the Warrants represented hereby on the stock exchange or stock exchanges, if more than one, on which the Common Shares are then listed.

8. No Fractional Shares. The Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this clause 8, be deliverable upon the exercise of a Warrant, the Company shall in lieu of

delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the holder of such Warrant of an amount in cash equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date.

9. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

10. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

11. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

12. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

13. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

14. Currency. Unless otherwise specified, references to dollar amounts herein are to Canadian dollars.

15. Language. The parties hereto have expressly required that this agreement and all documents, agreements and notices related hereto be drafted in the English language. Les parties aux présentes ont expressément exigé que le présent contrat et tous les autres documents, conventions ou avis qui y sont afférents soient rédigés en langue anglaise.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer in the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: VICE-PRESIDENT, GENERAL COUNSEL AND CORPORATE SECRETARY

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified check, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

Exhibit 4.27

WARRANT TO PURCHASE COMMON SHARES IN THE CAPITAL OF ADHEREX TECHNOLOGIES INC.
(amalgamated under the *Canada Business Corporations Act*)

Warrant No.: W-__

Ottawa, Ontario
May 20, 2004

This certifies that, for value received, [_____] (the "Holder") is entitled to purchase from Adherex Technologies Inc., a corporation amalgamated under the *Canada Business Corporations Act* (the "Company"), up to [_____] ([_____]) fully paid and non-assessable common shares (the "Common Shares") in the capital of the Company at an exercise price of CDN $0.70 per Common Share (the "Exercise Price"), subject to adjustment as herein provided. This Warrant may be exercised by Holder at any time on or before 5:00 pm (Ottawa time) (the "Expiry Time") on May 20, 2007 (the "Expiry Date") after which Expiry Time on the Expiry Date all rights under this Warrant shall terminate and be of no further force or effect.

This Warrant is subject to the following provisions, terms and conditions:

1. Exercise of Warrant.

(a) Exercise for Cash. The rights represented by this Warrant may be exercised by the Holder, in whole or in part (but not as to a fractional Common Share), at any time prior to the Expiry Time on the Expiry Date, by the surrender of this Warrant (properly endorsed, if required, at the Company's principal office in Ottawa, Ontario, or such other office or agency of the Company as the Company may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Company at any time within the period above named), and upon payment to it by certified cheque, bank draft, wire transfer or cash of the purchase price for such Common Shares. The Company agrees that the Common Shares so purchased shall have been and are hereby deemed to be issued to the Holder as the record owner of such Common Shares as of the close of business on the date on which this Warrant shall have been surrendered and payment made for such Common Shares as aforesaid (the "Exercise Date"). Certificates for the Common Shares so purchased shall be delivered to the Holder within a reasonable time, not exceeding three (3) business days, after the rights represented by this Warrant shall have been so exercised, and, unless this Warrant has expired, a new Warrant representing the number of Common Shares, if any, with respect to which this Warrant shall not then have been exercised shall also be delivered to the Holder within such time. The Company may require that any such new Warrant or any certificate for Common Shares purchased upon the exercise hereof bear legends substantially similar to those, if any, contained on the face of this Warrant.

(b) Cashless Exercise. Upon receipt of a notice of cashless exercise, the Company shall deliver to the Holder (without payment by the Holder of any exercise price) that number of Common Shares that is equal to the quotient obtained by dividing (x) the value of that portion of the Warrant exercised on the date that the Warrant shall have been surrendered (determined by subtracting the aggregate Exercise Price for the Common Shares in effect on the Exercise Date from the aggregate Current Market Price (as defined in section 5(g)) for the Common Shares) by (y) the Current Market Price. A notice of "cashless exercise" shall state the number of Common Shares as to which the Warrant is being exercised.

2. Transferability of this Warrant. This Warrant is issued upon the following terms, to which the Holder consents and agrees:

(a) Until this Warrant is transferred on the books of the Company, the Company will, and shall be entitled to, treat the Holder of this Warrant registered as such on the books of the Company as the absolute owner hereof for all purposes without being affected by any notice to the contrary.

(b) This Warrant may not be exercised, and this Warrant and the Common Shares underlying this Warrant shall not be transferable, except in compliance with all applicable provincial, state and federal securities laws, regulations and orders, and with all other applicable laws, regulations and orders.

3. Certain Covenants of the Company. The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant, upon issuance and full payment for the Common Shares so purchased, will be duly authorized and issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issue hereof, except those that may be created by or imposed upon the Holder or its property. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, free of preemptive or other rights, for the exclusive purpose of issue upon exercise of the rights evidenced by this Warrant, a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Common Shares. The Exercise Price (and the number of Common Shares purchasable upon exercise in the case of paragraphs 4(a) and 4(b)), shall be subject to adjustment from time to time in the events and in the manner provided as follows:

(a) Common Share Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall:

(i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then outstanding Common Shares by way of stock dividend or other distribution other than an issue of Common Shares to holders of Common Shares who exercise an option to receive dividends in shares in lieu of receiving dividends paid in the ordinary course, or

(ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or

(iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares,

(any of such events in subparagraphs 4(a)(i), 4(a)(ii)and 4(a)(iii) being a "Common Share Reorganization"), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date immediately before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date immediately after giving effect to such Common Share Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares are distributed, the number of Common Shares that would have been outstanding had such securities been fully exchanged for or converted into Common Shares on such record date or effective date). From and after any adjustment of the Exercise Price pursuant to this paragraph 4(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted

contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

(b) Rights Offering. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than 45 days after the record date for such issue ("Rights Period"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder of less than 95% of the Current Market Price (as defined in paragraph 5(g) below) for the Common Shares on such record date (any of such events being called a "Rights Offering"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:

(i) the numerator of which shall be the aggregate of:

(1) the number of Common Shares outstanding as of the record date for the Rights Offering, and

(2) a number determined by dividing either

(A) the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered,

or, as the case may be,

(B) the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period,

by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and

(ii) the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the Holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the Holder shall, in addition to the Common Shares to which the Holder is otherwise entitled upon such exercise of the Warrant herein, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b)

from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such Holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this paragraph 4(b); provided that the provisions of clause 8 shall be applicable to any fractional interest in a Common Share to which such Holder might otherwise be entitled under the foregoing provisions of this paragraph 4(b). Such additional Common Shares shall be deemed to have been issued to the Holder immediately following the end of the Rights Period and a certificate for such additional Common Shares shall be delivered to such Holder within ten Business Days following the end of the Rights Period.

(c) Special Distribution. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:

(i) securities of the Company including rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or property or assets and including evidences of its indebtedness, or

(ii) any property or other assets,

and if such issuance or distribution does not constitute dividends paid in the ordinary course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "Special Distribution"), the number of Common Shares to be issued by the Company under the Warrants shall, at the time of exercise, be appropriately adjusted and the Holder shall receive, in lieu of the number of Common Shares in respect of which the right is then being exercised, the aggregate number of Common Shares or other securities or property that the Holder would have been entitled to receive as a result of such event if, on the record date therefor, the Holder had been the registered holder of the number of Common Shares to which the Holder was theretofore entitled upon the exercise of the Warrants.

(d) Capital Reorganization. If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date there shall be a reclassification of Common Shares at any time outstanding or a change of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement, merger or take-over of the Company with, into or by any other corporation or other entity (other than a consolidation, amalgamation, arrangement, merger or take-over which does not result in any reclassification of the outstanding Common Shares or a change of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the Holder, where he has not exercised the right of subscription and purchase under this Warrant prior to the effective date of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such Holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such Holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such Holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the

Holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the Principal Exchange (as hereinafter defined) on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions set forth in this clause 4 with respect to the rights and interests thereafter of the Holder to the end that the provisions set forth in this clause 4 shall thereafter correspondingly be made applicable as nearly as may reasonably be in relation to any shares, other securities or other property thereafter deliverable upon the exercise of any Warrant. Any such adjustments shall be made by and set forth in terms and conditions supplemental hereto approved by the board of directors of the Company, acting reasonably and in good faith.

(e) If and whenever at any time after the date hereof and prior to the Expiry Time on the Expiry Date, the Company takes any action affecting its Common Shares to which the foregoing provisions of this clause 4, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the Holder hereunder, then the Company shall execute and deliver to the Holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company may determine to be equitable in the circumstances, acting reasonably and in good faith. The failure of the taking of action by the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the circumstances.

5. Calculation Rules and Procedures. The following rules and procedures shall be applicable to the adjustments made pursuant to clause 4:

(a) The adjustments provided for in clause 4 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this clause 4.

(b) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of this Warrant unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this paragraph 5(b) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.

(c) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in clause 4, other than the events referred to in subparagraphs 4(a)(ii) and 4(a)(iii), if the Holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if the Holder had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the Holder in such event shall be subject to the prior written approval of the Principal Exchange.

(d) Notwithstanding any other provision hereof, no adjustment in the Exercise Price shall be made pursuant to this clause 5 in respect of the issue from time to time:

(i) of Common Shares purchasable on exercise of the Warrants represented by this Warrant;

(ii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, as dividends paid in the ordinary course to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of such Principal Exchange and applicable securities laws; or

(iii) of Common Shares, in the case where the Common Shares are listed or quoted for trading on the Principal Exchange, pursuant to any stock option, stock option plan, stock purchase plan or other benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the Principal Exchange and applicable securities laws, and such other benefit plans as may be adopted by the Company in accordance with the requirements of the Principal Exchange on which the Common Shares are then listed or quoted for trading and applicable securities laws;

and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

(e) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or subscription or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.

(f) As a condition precedent to the taking of any action which would require any adjustment in any of the rights pursuant to this Warrant, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take all corporate action which may be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the Holder of such Warrant is entitled to receive on the full exercise thereof in accordance with the provisions hereof.

(g) For the purposes of this Warrant Certificate:

"Additional Stock Exchange" means, at any time, each stock exchange in Canada or the United States of America (other than the TSX) on which the Common Shares are listed for trading and on which at least 10% of the total volume of all Common Shares traded in the six months immediately preceding such time have been traded as determined by a nationally or internationally recognized independent investment dealer or investment banker selected by the board of directors of the Company for such purpose, acting reasonably;

"Alternative Trading System" means any trading or quotation system other than the TSX or an Additional Stock Exchange in respect of which trading prices and volumes are publicly accessible for Common Shares;

"Current Market Price" of a Common Share at any date shall be calculated as the price per share equal to the weighted average price at which the Common Shares have traded on the Principal Exchange on which the Common Shares are then listed or posted for trading during the 10 consecutive trading days immediately prior to such date as reported by such Principal Exchange. If the Common Shares are not then traded on a Principal Exchange, the Current Market Price of the Common Shares shall be the fair market value of the Common Shares as the same shall be determined in the good faith discretion of the Board of Directors of the Company, after full consideration of all factors then deemed relevant by such Board in establishing such value, including by way of illustration and not limitation, the per share purchase price of Common Share or price per security convertible into one Common Share of the most recent sale of Common Shares or securities convertible into Common Shares by the Company after the date hereof, all as evidenced by the vote of a majority of the directors then in office. For purposes of this definition, prices on any Additional Stock Exchange or Alternative Trading System (if such exchange or system is quoted in U.S. dollars) on any particular day will be converted to Canadian dollars on the basis of noon spot buying rates for wire transfers in U.S. dollars as announced by the Bank of Canada;

"Principal Exchange" means the TSX; or if the Common Shares are then also listed on any Additional Stock Exchange, means, out of the TSX and any such Additional Stock Exchange, the stock exchange on which the greatest number of Common Shares were traded in the immediately preceding six months; or if the Common Shares are not then listed on the TSX, means the Additional Stock Exchange on which the gratest number of Common Shares were traded in the immediately preceding six months or, if Common Shares are not then listed on any Additional Stock Exchange, means the Alternative Trading System on which the greatest number of Common Share were traded in the immediately preceding six months;

"TSX" means the Toronto Stock Exchange Inc. operating as the TSX.

(h) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subparagraph 4(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.

(i) Any question that at any time or from time to time arises with respect to the amount of any adjustment to the Exercise Price or other adjustments pursuant to clause 4 shall be conclusively determined by a firm of independent chartered accountants, appointed by the Company and acceptable to the Holder, and shall be binding upon the Company and the Holder. Notwithstanding the foregoing, such determination shall be subject to the prior written approval of the Principal Exchange on which the Common Shares are then listed or quoted for trading. In the event that any such determination is made, the Company shall notify the Holder in the manner contemplated in clause 7 describing such determination.

6. Idem. On the happening of each and every such event set out in clause 4, the applicable provisions of this Warrant, including the Exercise Price, shall, *ipso facto*, be deemed to be amended

accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended. In any case in which clause 4 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

(a) issuing to the Holder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and

(b) delivering to such Holder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such Holder, an appropriate instrument evidencing such Holder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

7. Notice. At least 7 Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, or such longer period of notice as the Company shall be required to provide holders of Common Shares in respect of any such event, the Company shall notify the Holder of the particulars of such event and, if determinable, the required adjustment and the computation of such adjustment. In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable notify the Holder of the adjustment and the computation of such adjustment. The Company shall obtain all necessary orders, consents or approvals for the issue and listing of the Common Shares to be issued upon the exercise of the Warrants represented hereby on the stock exchange or stock exchanges, if more than one, on which the Common Shares are then listed.

8. No Fractional Shares. The Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this clause 8, be deliverable upon the exercise of a Warrant, the Company shall in lieu of delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the Holder of such Warrant of an amount in cash equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date.

9. No Rights as Shareholders. This Warrant shall not entitle the Holder as such to any voting rights or other rights as a shareholder of the Company.

10. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

11. Amendments and Waivers. The provisions of this Warrant may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the Company agrees in writing and has obtained the written consent of the Holder.

12. Notices. All notices or communications hereunder, except as herein otherwise specifically provided, shall be in writing and if sent to the Holder shall be mailed, delivered, or telecopied and confirmed to the Holder at his or her address set forth on the records of the Company; or if sent to the Company shall be mailed, delivered, or telecopied and confirmed to the head office of the Company, or to such other address as the Company or the Holder shall notify the other as provided in this Section.

13. Loss, etc., of Warrant. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Company, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant if mutilated, the Company shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

14. Currency. Unless otherwise specified, references to dollar amounts herein are to Canadian dollars.

15. Language. The parties hereto have expressly required that this agreement and all documents, agreements and notices related hereto be drafted in the English language. Les parties aux présentes ont expressément exigé que le présent contrat et tous les autres documents, conventions ou avis qui y sont afférents soient rédigés en langue anglaise.

16. Optional Purchases by the Corporation. Subject to compliance with applicable securities legislation, the Corporation may from time to time purchase by private contract or otherwise any of the Warrants. Any such purchase shall be made at the lowest price or prices at which, in the opinion of the directors, such Warrants are then obtainable, plus reasonable costs of purchase, and may be made in such manner, from such persons and on such other terms as the Corporation, in its sole discretion, may determine. Any Warrant Certificates representing the Warrants purchased pursuant to this section shall forthwith be delivered to and cancelled.

17. Meetings of Warrantholders

a) Right to Convene Meetings. The Corporation may at any time and from time to time, and shall on receipt of a written request of holders (the "Holders") entitled to acquire in the aggregate not less than 25% of the aggregate number of Common Shares which could be acquired pursuant to all Warrants then unexercised and outstanding (a "Warrantholders' Request"), convene a meeting of the Holders of Warrants.

b) Notice. At least fourteen (14) days' prior notice of any meeting of Holders shall be given to the Holders and a copy of such notice shall be sent by mail to the Corporation (unless the meeting has been called by the Corporation). Such notice shall state the time when and the place where the meeting is to be held, shall state briefly the general nature of the business to be transacted thereat and shall contain such information as is reasonably necessary to enable the Holders to make a reasoned decision on the matter, but it shall not be necessary for any such notice to set out the terms of any resolution to be proposed or any of the provisions of this Section.

c) Chairman. An individual (who need not be a Holder) designated in writing by the Corporation shall be chairman of the meeting and if no individual is so designated, or if the individual so designated is not present within fifteen (15) minutes from the time fixed for the holding of the meeting, the Holders present in person or by proxy shall choose some individual present to be chairman.

d) Quorum. Subject to the provisions of Section 17(k), at any meeting of the Holders a quorum shall consist of Holders present in person or by proxy and entitled to purchase at least 25% of the aggregate number of Common Shares which could be acquired pursuant to all the then outstanding Warrants, provided that at least two persons entitled to vote whether as a Holder or as proxy for one or more absent Holders thereat are personally present. If a quorum of the Holders shall not be present within

thirty (30) minutes from the time fixed for holding any meeting, the meeting shall be dissolved; but in any other case the meeting shall be adjourned to the same day in the next week (unless such day is not a business day, in which case it shall be adjourned to the next following business day) at the same time and place and a notice of the adjournment need be given. Any business may be brought before or dealt with at an adjourned meeting which might have been dealt with at the original meeting in accordance with the notice calling the same. No business shall be transacted at any meeting unless a quorum be present at the commencement of business. At the adjourned meeting the Holders present in person or by proxy shall form a quorum and may transact the business for which the meeting was originally convened, notwithstanding that they may not be entitled to acquire at least 25% of the aggregate number of Common Shares which may be acquired pursuant to all then unexercised and outstanding Warrants.

e) Power to Adjourn. The chairman of any meeting at which a quorum of the Holders is present may, with the consent of the meeting, adjourn any such meeting, and no notice of such adjournment need be given except such notice, if any, as the meeting may prescribe.

f) Show of Hands. Every question submitted to a meeting shall be decided in the first place by a majority of the votes given on a show of hands except that votes on an extraordinary resolution shall be given in the manner hereinafter provided. At any such meeting, unless a poll is duly demanded as herein provided, a declaration by the chairman that a resolution has been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority shall be conclusive evidence of the fact.

g) Poll and Voting. On every extraordinary resolution, and on any other question submitted to a meeting and after a vote by show of hands when demanded by the chairman or by one or more of the Holders, a poll shall be taken in such manner as the chairman shall direct. Questions other than those required to be determined by extraordinary resolution shall be decided by a majority of the votes cast on the poll. On a show of hands, every person who is present and entitled to vote, whether as a Holder or as proxy for one or more absent Holders, or both, shall have one vote. On a poll, each Holder present in person or represented by a proxy duly appointed by instrument in writing shall be entitled to one vote in respect of each whole Common Share which he is entitled to acquire pursuant to the Warrant or Warrants then held or represented by it. A proxy need not be a Holder. The chairman of any meeting shall be entitled, both on a show of hands and on a poll, to vote in respect of the Warrants, if any, held or represented by him.

h) Regulations. The Corporation may from time to time make and from time to time vary such regulations as it shall think fit for:

(i) the setting of the record date for a meeting for the purpose of determining Holders entitled to receive notice of and to vote at the meeting which record date is not more than 60 days before such meeting;

(ii) the deposit of voting certificates and instruments appointing proxies at such place and time as the Corporation or the Holders convening the meeting, as the case may be, may in the notice convening the meeting direct;

(iii) the deposit of voting certificates and instruments appointing proxies at some approved place or places other than the place at which the meeting is to be held and enabling particulars of such instruments appointing proxies to be mailed or telecopied before the meeting to the Corporation at the place where the same is to be held and for the voting of proxies so deposited as though the instruments themselves were produced at the meeting;

(iv) the form of the instrument of proxy; and

(v) generally for the calling of meetings of Holders and the conduct of business thereat.

Any regulations so made shall be binding and effective and the votes given in accordance therewith shall be valid and shall be counted. Save as such regulations may provide, the only persons who shall be recognized at any meeting as a Holder, or be entitled to vote or be present at the meeting in respect thereof (subject to Section 17(i)), shall be Holders or their counsel, or proxies of Holders.

(i) Corporation May be Represented. The Corporation, by their respective directors, officers and employees and the counsel for the Corporation may attend any meeting of the Holders, but shall have no vote as such unless in their capacity as a Holder.

(j) Powers Exercisable by Extraordinary Resolution. In addition to all other powers conferred upon them by any other provisions of this Certificate or by law, the Holders at a meeting shall, subject to the provisions of Section 17(k), have the power, exercisable from time to time by extraordinary resolution:

(vi) to agree to any modification, abrogation, alteration, compromise or arrangement of the rights of Holders hereunder or on behalf of the Holders against the Corporation whether such rights arise under the Warrant Certificates or otherwise;

(vii) to amend, alter or repeal any extraordinary resolution previously passed or sanctioned by the Holders;

(viii) to enforce any of the covenants on the part of the Corporation contained in the Warrant Certificates or to enforce any of the rights of the Holders in any manner specified in such extraordinary resolution or to refrain from enforcing any such covenant or right;

(ix) to waive any default on the part of the Corporation in complying with any provisions of the Warrant Certificates either unconditionally or upon any conditions specified in such extraordinary resolution;

(x) to restrain any Holder from taking or instituting any suit, action or proceeding against the Corporation for the enforcement of any of the covenants on the part of the Corporation in the Warrant Certificates or to enforce any of the rights of the Holders;

(xi) to direct any Holder who, as such, has brought any suit, action or proceeding to stay or to discontinue or otherwise to deal with the same upon payment of the costs, charges and expenses reasonably and properly incurred by such Holder in connection therewith;

(xii) to assent to any change in or omission from the provisions contained in the Warrant Certificates or any ancillary or supplemental instrument which may be agreed to by the Corporation; and

(xiii) to assent to any compromise or arrangement with any creditor or creditors or any class or classes of creditors, whether secured or otherwise, and with holders of any shares or other securities of the Corporation.

(k) Meaning of Extraordinary Resolution. The expression “extraordinary resolution” when used in this Certificate means a resolution passed at a meeting of the holders of Warrants at which there are holders of Warrants present in person or represented by proxy representing at least 50% of the

aggregate number of common shares which may be acquired pursuant to all the then unexercised and outstanding Warrants and passed by the affirmative vote of holders of Warrants representing not less than 66 2/3% of the aggregate number of Common Shares which may be acquired pursuant to all Warrants then unexercised and outstanding represented at the meeting, or rendered by instruments in writing signed by the holders entitled to purchase not less than 66 2/3% of the aggregate number of Common Shares which may be acquired pursuant to all Warrants then unexercised and outstanding.

(l) Powers Cumulative. Any one or more of the powers or any combination of the powers in this Warrant stated to be exercisable by the Holders by extraordinary resolution or otherwise may be exercised from time to time and the exercise of any one or more of such powers or any combination of powers from time to time shall not be deemed to exhaust the right of the Holders to exercise such power or powers or combination of powers then or thereafter from time to time.

(m) Instruments in Writing. All actions which may be taken and all powers that may be exercised by the Holders at a meeting held as provided in this Section may also be taken and exercised by Holders entitled to acquire at least 66 2/3% of the aggregate number of Common Shares which may be acquired pursuant to all the then unexercised and outstanding Warrants by an instrument in writing signed in one or more counterparts by such Holders in person or by attorney duly appointed in writing, and the expression “extraordinary resolution” when used in this Certificate shall include an instrument so signed.

(n) Binding Effect of Resolutions. Every resolution and every extraordinary resolution passed in accordance with the provisions of this Section at a meeting of Holders shall be binding upon all the Holders, whether present at or absent from such meeting, and every instrument in writing signed by Holders in accordance with Section 17(m) shall be binding upon all the Holders, whether signatories thereto or not, and each and every Holders shall be bound to give effect accordingly to every such resolution and instrument in writing.

18. Supplementary Certificates

a) Provision for Supplemental Certificate for Certain Purposes. From time to time the Corporation (when authorized by action of the directors), subject to the provisions hereof, and shall, when so directed in accordance with the provisions hereof, execute and deliver by their proper officers, indentures or instruments supplemental hereto, which thereafter shall form part hereof, for any one or more or all of the following purposes:

(i) setting forth any adjustments resulting from the application of the provisions of Section 4;

(ii) adding to the provisions hereof such additional covenants and enforcement provisions as, in the opinion of the Corporation’s counsel, are necessary or advisable in the premises, provided that, in Corporation’s counsel’s opinion, the same are not prejudicial to the interests of the Holders;

(iii) giving effect to any extraordinary resolution passed as provided in Section 17;

(iv) modifying any of the provisions of this Certificate, including relieving the Corporation from any of the obligations, conditions or restrictions herein contained, provided that such modification or relief shall be or become operative or effective only if, in the opinion of the Corporation’s counsel, such modification or relief in no way prejudices any of the rights of the Holders; and

(v) for any other purpose not inconsistent with the terms of this Certificate, including the correction or rectification of any ambiguities, defective or inconsistent provisions, errors, mistakes or omissions herein, provided that the rights of the Holders are in no way prejudiced thereby.

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IN WITNESS WHEREOF, Adherex Technologies Inc. has caused this Warrant to be signed by its duly authorized officer on the date set forth above.

ADHEREX TECHNOLOGIES INC.

By: _____

Its: VICE-PRESIDENT, GENERAL COUNSEL AND
Corporate Secretary

SUBSCRIPTION FORM

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates and herewith makes payment of CDN$_____ therefor in cash, certified cheque, bank draft or wire transfer and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

SUBSCRIPTION FORM FOR CASHLESS EXERCISE

To be signed only upon exercise of Warrant.

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ common shares in the capital of Adherex Technologies Inc. (the "Shares") to which such Warrant relates as determined pursuant to subsection (1)(b) of the Warrant and requests that a certificate evidencing the Shares be delivered to, _____, the address for whom is set forth below the signature of the undersigned:

Dated: _____

_____

(Signature)

_____

_____

(Address)

ASSIGNMENT FORM

To be signed only upon authorized transfer of Warrant.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto _____ the right to purchase common shares in the capital of Adherex Technologies Inc. to which the within Warrant relates and appoints _____ attorney, to transfer said right on the books of _____ with full power of substitution in the premises.

Dated: _____

_____

(Signature)

_____

_____

(Address)

Exhibit 8

Adherex Technologies, Inc.

Subsidiaries of the Company

Adherex, Inc., a Delaware corporation

Oxiquant, Inc., a Delaware corporation

Exhibit 14

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the use in this Registration Statement on Form 20-F of our report dated August 14, 2003, except for notes 8 and 9, which are as of December 19, 2003, and note 19, which is as of September 9, 2004, relating to the financial statements of Adherex Technologies Inc., which appear in such Registration Statement. We also consent to the references to us under the headings “Auditor” and “Statement by experts” in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
September 16, 2004