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

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

Dated: May 16 2006

Commission File Number 001-32295

ADHEREX TECHNOLOGIES INC.

(Translation of registrant's name into English)

4620 Creekstone Drive, Suite 200
Durham, North Carolina 27703
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101 (b)(7): ☐

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934. Yes ☐ No ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82 -_____.

Adherex Technologies Inc.

Form 6-K

On May 15, 2006, the Company issued a press release announcing its financial results for the first quarter ended March 31, 2006 and issued its interim financial statements for the quarter, as well as the related Management's Discussion and Analysis and CEO/CFO certifications. These materials are furnished as Exhibits 99.1-99.5 hereto and are incorporated herein by reference.

The information in this Form 6-K (including the exhibits attached hereto) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such a filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ADHEREX TECHNOLOGIES INC.
(Registrant)

Date May 16, 2006

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

EXHIBIT INDEX

Exhibit Number	Description
99.1	The Registrant's Press Release dated May 15, 2006
99.2	The Registrant's Financial Statements for the First Quarter Ended March 31, 2006
99.3	Management's Discussion and Analysis for the First Quarter Ended March 31, 2006
99.4	Certification of Interim Filings Period by Chief Executive Officer
99.5	Certification of Interim Filings Period by Chief Financial Officer

Exhibit 99.1

PRESS RELEASE

ADHEREX REPORTS FIRST QUARTER 2006 FINANCIAL RESULTS

Research Triangle Park, NC, May 15, 2006 — Adherex Technologies Inc. (AMEX:ADH, TSX: AHX), a biopharmaceutical company with a broad portfolio of oncology products under development, today reported its financial results for the first quarter ended March 31, 2006. Unless otherwise indicated, the amounts included in this press release are in U.S. dollars.

Financial Update

The net loss for the three-month period ended March 31, 2006 was $3.5 million, or $0.08 loss per share, compared to a net loss of $3.1 million, or $0.09 loss per share, for the three-month period ended March 31, 2005. Operating expenses totaled $3.9 million, an increase of 13% over the same period last year. These operating expenses primarily reflect increased research and development expenditures related to our expanding clinical trial program for ADH-1 and the initiation of two clinical studies for eniluracil.

Cash, cash equivalents and short-term investments totaled $10.0 million as of March 31, 2006, compared to $13.1 million as of December 31, 2005, with a corresponding decrease in working capital of $3.0 million. The decreased cash balance reflects spending during the quarter to fund operations. Subsequent to the quarter end, the Company received approximately $6.5 million in gross proceeds from a private placement offering of securities.

Corporate Update

During and subsequent to the quarter ended March 31, 2006, Adherex's accomplishments of note included:

- Initiation of the eniluracil clinical program, including: 1) a Phase I eniluracil + 5-FU study in solid tumors in Nashville, Tennessee to define the maximum tolerated dose of our proprietary combination of these drugs, and 2) a clinical proof-of-mechanism study at the University of Alabama at Birmingham to confirm the Adherex dosing schedule of eniluracil. Adherex plans to initiate a third Phase I study in hepatocellular (liver) cancer in Asia in the second quarter of 2006. In addition, Adherex has been working with investigators at the University of Alabama at Birmingham who have demonstrated in human cells that eniluracil can be a reversible, competitive inhibitor of enzymes involved in the activation of 5-FU into an anti-cancer agent. This finding is consistent with Adherex's explanation of the GSK trial results and the Company's new clinical development strategy.
- Completion of the Phase Ib component of the single agent Phase Ib/II ADH-1 trial in Europe. The Company is now expanding enrollment in this trial at a dose of 2400 mg/m^2 in patients with N-cadherin positive non-small cell lung cancer and ovarian cancer.

- Expansion of the single agent Phase II ADH-1 study to six centers in Canada, with plans for additional U.S. sites, and conversion of the dosing schedule to once every week from once every three weeks. The Company continues to expect this trial to complete in the second half of 2006.
- Execution of a Clinical Trial Agreement with the U.S. National Cancer Institute's Division of Cancer Treatment and Diagnosis, for non-clinical studies and clinical trials of ADH-1 in a variety of administration schedules and tumor types. The Company expects these NCI studies will complement its own single-agent and combination studies of ADH-1 and further its understanding of how best to use this drug.
- Receipt of orphan drug designation from the U.S. Food and Drug Administration for the use of eniluracil in combination with fluoropyrimidines, such as 5-FU, for the treatment of liver cancer.
- Presentation of three sets of data at the Annual Meeting of the American Association of Cancer Research (AACR) – two on its lead biotechnology compound, ADH-1, and one on its oral dihydropyrimidine dehydrogenase ("DPD") inhibitor, eniluracil. Of particular note, the eniluracil data presented demonstrated that in preclinical studies, Adherex's proprietary dose and schedule for the combination of eniluracil and 5-FU increased the potency, efficacy and therapeutic index of 5-FU.
- Receipt of acceptance for two presentations of data on ADH-1 at the 2006 American Society of Clinical Oncology Annual Meeting: 1) an oral presentation on the Phase I North American trial results, and 2) a poster discussion on data from the Phase Ib portion of the European Phase Ib/II trial.

Conference Call

Adherex will host a conference call at 10:00 a.m. ET on Wednesday, May 17, 2006 to review the financial results for the three-month period ended March 31, 2006 and provide a corporate update. This call will be webcast live via the Internet at www.adherex.com. The event will also be archived and available for telephone replay until midnight on Friday, May 19, 2006 and webcast replay through May 17, 2007.

Live Participant Dial In (Toll Free, Canadian and US callers): 888-695-0609
Live Participant Dial In (International): (719) 457-2660
Conference Passcode: 4653841
Replay Number (Toll Free): 888-203-1112
Replay Number (International): 719-457-0820
Replay Passcode: 4653841

About Adherex Technologies

Adherex Technologies Inc. is a biopharmaceutical company dedicated to the discovery and development of novel cancer therapeutics. We aim to be a leader in developing innovative treatments that address important unmet medical needs in cancer. We

currently have multiple products in the clinical stage of development, including ADH-1 (Exherin™), eniluracil and sodium thiosulfate (STS). ADH-1, our lead biotechnology compound, selectively targets N-cadherin, a protein present on certain tumor cells and established blood vessels that feed solid tumors. Eniluracil, an oral dihydropyrimidine dehydrogenase (DPD) inhibitor, was previously under development by GlaxoSmithKline for oncology indications. STS, a drug from our specialty pharmaceuticals pipeline, protects against the disabling hearing loss that can often result from treatment with platinum-based chemotherapy drugs. With a diversified portfolio of unique preclinical and clinical-stage cancer compounds and a management team with expertise in identifying, developing and commercializing novel cancer therapeutics, Adherex is emerging as a pioneering oncology company. For more information, please visit our website at www.adherex.com.

FINANCIAL CHARTS FOLLOW

Adherex Technologies Inc.
Selected Financial Data

(U.S. dollars in thousands except per share amounts)

	March 31, 2006 (unaudited)	December 31, 2005
Condensed Consolidated Balance Sheets:		
Assets:		
Cash and cash equivalents	$ 9,953	$ 13,144
Other current and long-term assets	1,105	1,147
Acquired intellectual property rights	13,610	14,154
Total assets	$ 24,668	$ 28,445
Liabilities and shareholders'equity:		
Accounts payable and accrued liabilities	$ 2,416	$ 2,664
Future income taxes	4,975	5,174
Other long-term liabilities	599	550
Total shareholders'equity	16,678	20,057
Total liabilities and shareholders'equity	$ 24,668	$ 28,445

	Three Months Ended March 31,	
	2006 (unaudited)	2005 (unaudited)
Condensed Consolidated Statements of Operations:		
Operating expenses:		
Research and development	$ 2,560	$ 2,018
General and administration	747	718
Amortization of acquired intellectual property rights	544	681
Loss from operations	(3,851)	(3,417)
Net interest income	130	49
Recovery of future income taxes	199	249
Net loss	$ (3,522)	$ (3,119)
Net loss per share of common stock, basic and diluted	$ (0.08)	$ (0.09)

This press release contains forward-looking statements that involve significant risks and uncertainties. The actual results, performance or achievements of the Company might differ materially from the results, performance or achievements of the Company expressed or implied by such forward-looking statements. Such forward-looking statements include, without limitation, those regarding the development plans of the Company and the expected timing and results of such development. We can provide no assurance that such development will proceed as currently anticipated or that the expected timing or results of such development will be realized. We are subject to various risks, including the uncertainties of clinical trials, drug development and regulatory review, other risks inherent in the biopharmaceutical industry, the early stage of our product candidates, our reliance on collaborative partners, our need for additional capital to fund our operations, and our history of losses. For a more detailed discussion of related risk factors, please refer to our public filings available at www.sedar.com and www.sec.gov.

— END —

For further information, please contact:

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Adherex Technologies Inc.
T: (919) 484-8484
matsonm@adherex.com

Exhibit 99.2

Quarterly Report

For the quarter ended
March 31, 2006

Adherex Technologies Inc.
(a development stage company)
Consolidated Balance Sheets
U.S. dollars and shares in thousands, except per share information

	March 31, 2006 (unaudited)	December 31, 2005
Assets		
Current assets		
Cash and cash equivalents	$ 9,509	$ 11,916
Cash pledged as collateral	53	53
Short-term investments	391	1,175
Accounts receivable	15	15
Investment tax credits recoverable	129	129
Prepaid expense	50	59
Other current assets	52	52
Total current assets	10,199	13,399
Capital assets	360	374
Leasehold inducements	499	518
Acquired intellectual property rights	13,610	14,154
Total assets	**$ 24,668**	**$ 28,445**
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$ 1,085	$ 1,385
Accrued liabilities	1,331	1,279
Total current liabilities	2,416	2,664
Deferred lease inducement	559	537
Future income taxes	4,975	5,174
Other long-term liabilities	40	13
Total liabilities	**7,990**	**8,388**
Commitments and contingencies		
Shareholders' equity		
Common stock, no par value; unlimited shares authorized; 42,629 shares issued and outstanding	41,268	41,268
Contributed surplus	25,481	25,338
Cumulative translation adjustment	5,850	5,850
Deficit accumulated during development stage	(55,921)	(52,399)
Total shareholders' equity	**16,678**	**20,057**
Total liabilities and shareholders' equity	**$ 24,668**	**$ 28,445**

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

Adherex Technologies Inc.
(a development stage company)
Consolidated Statements of Operations
U.S. dollars and shares in thousands, except per share information
Unaudited

	Three Months Ended March 31,	
	2006	2005
Revenue	$ —	$ —
Operating expenses:		
Research and development	2,560	2,018
General and administration	747	718
Amortization of acquired intellectual property rights	544	681
Loss from operations	(3,851)	(3,417)
Interest expense	(1)	(4)
Interest income	131	53
Total other income and (expense)	130	49
Loss before income taxes	(3,721)	(3,368)
Recovery of future income taxes	199	249
Net loss	**$ (3,522)**	**$ (3,119)**
Accumulated deficit- Beginning of period	(52,399)	(33,154)
Accumulated deficit – End of period	**$ (55,921)**	**$ (36,273)**
Net loss per share of common stock, basic and diluted	**$ (0.08)**	**$ (0.09)**
Weighted-average number of shares of common stock outstanding, basic and diluted	**42,629**	**36,535**

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

Adherex Technologies Inc.

(a development stage company)

Consolidated Statements of Cash Flows

U.S. dollars and shares in thousands, except per share information

Unaudited

	Three Months Ended March 31,	
	2006	**2005**
Cash flows from (used in):		
Operating activities:		
Net loss	$ (3,522)	$ (3,119)
Adjustments for non-cash items:		
Amortization of capital assets	19	88
Amortization of acquired intellectual property rights	544	681
Recovery of future income taxes	(199)	(249)
Amortization of leasehold inducements	41	—
Stock options issued to employees	143	188
Changes in operating assets and liabilities	(239)	(176)
Net cash used in operating activities	(3,213)	(2,587)
Investing activities:		
Redemption of short-term investments	784	—
Purchase of capital assets	(5)	(19)
Net cash provided (used) in investing activities	779	(19)
Financing activities:		
Security deposits received	40	—
Issue costs	—	(145)
Other liability repayments	(13)	(18)
Net cash provided (used) in financing activities	27	(163)
Net change in cash and cash equivalents	**(2,407)**	**(2,769)**
Cash and cash equivalents - Beginning of period	**11,916**	**17,472**
Cash and cash equivalents - End of period	**$ 9,509**	**$ 14,703**

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

1. Nature of Operations

Adherex Technologies Inc. (“Adherex”), together with its wholly-owned subsidiaries Oxiquant, Inc. (“Oxiquant”) and Adherex, Inc., both Delaware corporations, and Cadherin Biomedical Inc. (“CBI”), a wholly-owned Canadian subsidiary, 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 unaudited interim consolidated financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles (“GAAP”) and include the accounts of Adherex Technologies Inc. and its wholly-owned subsidiaries. The accounting policies used in the preparation of these interim financial statements conform to those used in the Company’s annual financial statements. These interim financial statements do not include all of the disclosures included in the annual financial statements. Accordingly, these interim financial statements should be read in conjunction with the Company’s audited financial statements and notes for the year ended December 31, 2005.

Use of estimates

The preparation of financial statements in conformity with Canadian GAAP requires management to make estimates and assumptions that impact the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of 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.

3. Acquired Intellectual Property

On November 20, 2002 Adherex acquired certain intellectual property rights directed to therapeutics with a focus in chemoprotection and chemoenhancement. The intellectual property rights reside in Oxiquant, a holding company with no active business.

The acquired intellectual property rights are being amortized over their estimated useful lives of 10 years. The amortization of the acquired intellectual property rights totaled $544 and $681 for the three-month periods ended March 31, 2006 and 2005, respectively.

4. Shareholders’ Equity

Stock-based Compensation

Stock-based compensation expense relating to employees totaled $143 for the three-months ended March 31, 2006 and $188 for the three-months ended March 31, 2005. In estimating the value of each stock option grant, the Black-Scholes option pricing model was used with the following calculation assumptions for the periods ended March 31, 2006 and 2005: expected dividend of 0%, risk free interest rate of 4%, expected volatility of 70% and expected life of 7 years.

There was no stock-based compensation expense relating to external consultants for the three-month periods ended March 31, 2006 and 2005.

5. Subsequent Event

May 2006 Private Placement

On May 8, 2006 the Company closed a private placement offering of units for $6,512 in gross proceeds. Each unit consisted of one common share and 0.30 of a common share purchase warrant. The Company issued 7,753 units at a price of $0.84 per unit. Each whole warrant is exercisable for four years from closing at an exercise price of $0.97 per share.

Exhibit 99.3

Management's Discussion and Analysis

For the quarter ended
March 31, 2006

Basis of Presentation

Management's discussion and analysis should be read in conjunction with our March 31, 2006 interim consolidated financial statements and the accompanying notes, which are prepared in accordance with Canadian generally accepted accounting principles ("GAAP"). This report should also be read in conjunction with the management's discussion and analysis of operating results and the fiscal year end financial statements contained in the Company's fiscal annual report for the period ended December 31, 2005.

Forward-Looking Statements

The following discussion contains forward-looking statements regarding our financial condition and the results of operations that involve 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 and development, 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, our need for future capital, potential competitors, our ability to attract and maintain collaborative partners, dependence on key personnel, and the ability to successfully market our drug compounds. Our actual results could differ materially from those expressed or implied in these forward-looking statements. For further information regarding such risks, please refer to our public filings available at www.sedar.com and www.sec.gov.

2006 Key Company Accomplishments

- Initiation of the eniluracil clinical program, including: (i) a Phase I eniluracil plus 5-flurouracil ("5-FU") study in solid tumors in Nashville, Tennessee to define the maximum tolerated dose of our proprietary combination of these drugs and (ii) a clinical proof-of-mechanism study at the University of Alabama at Birmingham ("UAB") to confirm our dosing schedule of eniluracil. We plan to initiate a third Phase I study in hepatocellular (liver) cancer in Asia in the second quarter of 2006. In addition, we have been working with investigators at UAB who have demonstrated in human cells that eniluracil can be a reversible, competitive inhibitor of enzymes involved in the activation of 5-FU into an anti-cancer agent. This finding is consistent with our explanation of the GSK trial results and our new clinical development strategy.
- Completion of the Phase Ib component of the single agent Phase Ib/II European ADH-1 trial in Europe. We are now expanding enrollment in this trial at a dose of 2,400 mg/m² in patients with N-cadherin positive non-small cell lung cancer and ovarian cancer.
- Expansion of the single agent Phase II ADH-1 study to six centers in Canada, with plans for additional U.S. sites, and conversion of the dosing schedule to once every week from once every three weeks. We continue to expect to complete this trial in the second half of 2006.
- Execution of a Clinical Trial Agreement with the U.S. National Cancer Institute's ("NCI") Division of Cancer Treatment and Diagnosis for non-clinical studies and clinical trials of ADH-1 in a variety of administration schedules and tumor types. We expect these NCI studies will complement our own single-agent and combination studies of ADH-1 and further our understanding of how best to use this drug.
- Receipt of orphan drug designation from the U.S. Food and Drug Administration ("FDA") for the use of eniluracil in combination with fluoropyrimidines, such as 5-FU, for the treatment of liver cancer.
- Presentation of three sets of data at the Annual Meeting of the American Association of Cancer Research two on our lead biotechnology compound, ADH-1, and one on our oral dihydropyrimidine

dehydrogenase (“DPD”) inhibitor, eniluracil. Of particular note, the eniluracil data presented demonstrated that in preclinical studies, our proprietary dose and schedule for the combination of eniluracil and 5-FU increased the potency, efficacy and therapeutic index of 5-FU.

- Receipt of acceptance for two presentations of data on ADH-1 at the 2006 American Society of Clinical Oncology Annual Meeting: (i) an oral presentation on the Phase I North American trial results, and (ii) a poster discussion on data from the Phase Ib portion of the European Phase Ib/II trial.

Overview

We are a biopharmaceutical company focused on cancer therapeutics with a preclinical and clinical portfolio. The following product candidates are in clinical development:

- ADH-1 (Exherin™) is a molecularly targeted anti-cancer drug currently in Phase Ib/II and Phase II clinical studies. ADH-1 is a small peptide that selectively targets N-cadherin, a protein that plays a major role in holding together and stabilizing cells that make up blood vessels and certain tumor cells. A single agent Phase III program for ADH-1 could begin as early as 2007.
- Eniluracil is a DPD inhibitor that was previously under development by GlaxoSmithKline (“GSK”) for the treatment of cancer. Eniluracil is being developed to enhance the therapeutic value and effectiveness of 5-FU, one of the world’s most widely-used oncology agents which is often first or second-line therapy for a variety of cancers including colorectal, breast, gastric, ovarian, basal cell, and head and neck. We have implemented an accelerated development program to support the initiation of a Phase III clinical program as early as 2007.
- Sodium Thiosulfate (“STS”) is a chemoprotectant which has been shown in Phase I and Phase II clinical studies conducted by investigators at Oregon Health & Science University (“OHSU”) to reduce the disabling loss of hearing in patients, both adults and children, treated with platinum-based anti-cancer agents. We continue to work with the Children’s Oncology Group to initiate a randomized STS trial in children.
- N-Acetylcysteine (“NAC”) is a bone marrow protectant that is the subject of ongoing investigator-initiated Phase I clinical trials at OHSU studying its use as a bone marrow protectant with platinum-based chemotherapy.

We also have a preclinical program which includes (i) backup peptides and small chemical molecule successors to ADH-1, (ii) molecules targeted to inhibiting the metastatic spread of some cancers, and (iii) peptides that combine both angiolytic and antiangiogenic properties. We have synthesized peptide antagonists and agonists for a wide array of cadherin adhesion molecules, which will facilitate our efforts to select other drug candidates to move into clinical development, particularly in the following three areas:

- Small molecule N-cadherin antagonists. We have identified a series of small chemical molecules that, in our preliminary studies, have displayed potent N-cadherin antagonism activity. Unlike ADH-1, these molecules are not peptides and are smaller and simpler in structure. Small chemical molecules are often (i) active after oral administration, (ii) more stable, and (iii) have different potency and toxicity profiles than peptides. In 2006, we plan to advance our lead candidate from this program through the preclinical development and toxicology studies required for an Investigational New Drug Submission (“IND”), which we expect to file with the FDA in the first half of 2007.
- OB-cadherins. Another member of the cadherin family, OB-cadherin is reported to be involved in the metastatic spread of certain cancers. Metastatic disease is a major determinant of both a patient’s survival and quality-of-life. We are developing OB-cadherin peptide and small molecule antagonists to reduce or slow down the metastatic spread of tumors, such as breast and prostate cancers.

- 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 preclinical investigation as vascular targeting agents in cancer. We believe that the development of VE-cadherin antagonists may be synergistic with N-cadherin antagonists.

In addition to our own development efforts, we intend to continue to pursue collaborations with other pharmaceutical companies, governmental agencies and/or corporate collaborators with respect to these and other cadherin agonist and antagonist molecules. Our drug discovery and development efforts are supported by more than 40 issued U.S. patents and more than 50 pending patents worldwide that we either own or have exclusively licensed.

We have not received any revenues to date through the sale of products 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 receive funding through established or future collaborations, such as licensing fees, upfront payments, milestone payments, royalties or otherwise. As of March 31, 2006, our deficit accumulated during development stage was $55.9 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, manufacturing of drug substance, employee compensation, research contracts, toxicology studies, and internal and outsourced laboratory activities, will be dependent on the results of our drug development efforts. General and administration ("G&A") expenses include expenses associated with headcount and facilities, recruitment of staff, insurance and other administrative matters associated with our facilities in Research Triangle Park, N.C. ("RTP") in support of our drug development programs. The amortization of acquired intellectual property rights relates to the intellectual property acquired through our acquisition of Oxiquant, Inc. ("Oxiquant") in November 2002.

Drug development timelines and expenses are variable and collaborative arrangement milestone payments occur only when the relevant milestone is achieved. 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.

GlaxoSmithKline Relationship

On July 14, 2005, we entered into a development and license agreement with GSK. The agreement included the in-license by Adherex of GSK's oncology product, eniluracil, and an option for GSK to license ADH-1. As part of the transaction, GSK invested $3.0 million in our July 2005 Private Placement. Under the terms of the agreement relating to eniluracil, we received an exclusive license to develop eniluracil for all indications and GSK retained options to buy-back and assume development of the compound at various points in time. If GSK exercises an option to buy-back eniluracil, we could receive upfront payments, development milestone payments and sales milestone payments of up to $120 million in aggregate, plus up to double-digit royalties on annual net sales, dependent upon when in the compound's development the option is exercised. In addition, if GSK elects to buy-back eniluracil, GSK would become responsible for all further development and associated expenses. If GSK does not exercise any of its buy-back options, we would be free to develop eniluracil alone or with other partners and would be required to pay GSK development and sales milestones and double-digit royalties.

Under the agreement, Adherex also granted GSK an option to receive a worldwide, exclusive license for ADH-1 for all indications. If the ADH-1 option is exercised, a series of upfront payments, development milestone payments and sales milestone payments to Adherex would be triggered of up to approximately $100 million in aggregate plus double-digit royalties on annual net sales. In addition, if GSK exercises the ADH-1 option, GSK would become responsible for all further development and associated expenses of the ADH-1 development program.

May 2006 Private Placement

On May 8, 2006, we closed a private placement offering of units for $6.5 million gross proceeds. Each unit consisted of one common share and 0.30 of a common share purchase warrant. We issued approximately 7.8 million units at a price of $0.84 per unit. Each whole warrant is exercisable for four years from closing at an exercise price of $0.97 per share.

Results of Operations

(In U.S. dollars)

Three Month Periods Ended March 31, 2006 and 2005

Interest Income

Interest income for the three-month period ended March 31, 2006 was $0.1 million, compared to $0.1 million for the same period in 2005 due to similar cash balances.

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 receive funding through established or future collaborations, such as licensing fees, upfront payments, royalties, milestone payments or otherwise.

Research and Development Expenses

R&D expenses for the three-month period ended March 31, 2006 totaled $2.6 million as compared to $2.0 million for the same period in 2005. R&D expenses consisted primarily of clinical and preclinical activities to support ADH-1 and eniluracil. The 30% increase in R&D expense over the same period in 2005 relates to our expanding clinical trial program for ADH-1 and the initiation of two clinical studies for eniluracil. The expansion of R&D will involve increased outsourcing throughout 2006.

We expect our R&D expenses to increase in future quarters due to the expansion and advancement of our clinical and preclinical programs. As a result of the progression of our clinical development programs, we expect R&D expenses, as a percentage of total operating expenses, to increase in future periods.

General and Administration Expenses

G&A expenses totaled $0.7 million for the three-month periods ended both March 31, 2006 and 2005 due to similar levels of activity for the two periods.

G&A expenses for the three-month period ended March 31, 2006 include $0.1 million of non-cash stock-based compensation expense. Stock-based compensation was $0.2 million for the quarter ended March 31, 2005.

While we do expect G&A expenses to increase in future quarters, we expect this growth rate to be significantly lower than the growth rate in R&D expense.

Amortization of Acquired Intellectual Property Rights

The expense associated with the amortization of intellectual property rights was $0.5 million for the three-month period ended March 31, 2006 and $0.7 million for the three-month period ended March 31, 2005. The expense relates to the value of intellectual property rights acquired in the acquisition of Oxiquant in November 2002 that is being amortized on a straight-line basis over a 10-year period. The decrease in the amortization is due to the recording of an impairment charge relating to Mesna during the year ended December 31, 2005.

Recovery of Future Income Taxes

Future taxes recovered totaled $0.2 million for the three-month periods ended March 31, 2006 and 2005. The recovery of future taxes, as recognized on the balance sheet, relates to the intellectual property acquired in the acquisition of Oxiquant in November 2002. These rights have no tax basis and give rise to a future tax liability that will be realized in income over the useful life of the assets through a recovery of future income taxes charged to earnings. At this time Oxiquant, the entity that holds the acquired intellectual property, has no other material activity and the future tax assets of our 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.

Quarterly Information

The following table presents selected consolidated financial data for each of the last eight quarters through March 31, 2006 (dollars in thousands, except per share information):

Period	Net Loss for the Period	Basic and Diluted Net Loss per Common Share
June 30, 2004	$ (2,681)	$ (0.08)
September 30, 2004	$ (2,756)	$ (0.08)
December 31, 2004	$ (5,309)	$ (0.15)
March 31, 2005	$ (3,119)	$ (0.09)
June 30, 2005	$ (4,622)	$ (0.13)
September 30, 2005	$ (4,404)	$ (0.11)
December 31, 2005	$ (7,100)	$ (0.17)
March 31, 2006	$ (3,522)	$ (0.08)

The net loss for the quarter ended March 31, 2006 is lower than previous quarters for several reasons. Most significantly, the quarter ended December 31, 2005 included a $3.5 million non-cash impairment charge of intellectual property associated with the mesna compound. Additionally, R&D expenses have increased during the periods from June 30, 2005 through December 31, 2005 as a result of the execution of the clinical development plans for ADH-1. Our improved liquidity from the completion of financings in December 2003, May 2004 and July 2005 has allowed for these increased R&D activities to occur.

During the quarter ended December 31, 2004, we incurred a charge of $1.3 million associated with the acquisition of Cadherin Biomedical Inc. (“CBI”), which consisted of $1.2 million in common stock and $0.1 million in cash for transaction-related expenses. The acquisition was charged to expense on the Statement of Operations as the Settlement of CBI litigation.

Liquidity and Capital Resources

We have financed our operations since inception on September 3, 1996 through the sale of equity and debt securities and have raised gross proceeds totaling $61.0 million, including the financing completed in May 2006. We have incurred net losses and negative cash flow from operations each year, and we had a deficit accumulated during development stage of $55.9 million as of March 31, 2006. 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 receive funding through established or future collaborations, such as licensing fees, upfront payments, royalties, milestone payments or otherwise.

The net cash flow used in operating activities during the three months ended March 31, 2006 was $3.2 million or an average of slightly over $1.0 million per month, as compared to $2.6 million for the same period in 2005. The increase in the net cash flow used is due to our expanding drug development activities associated with ADH-1 and the addition of eniluracil in July 2005, hence there were no eniluracil expenses during the three month period ended March 31, 2005.

As of March 31, 2006, our consolidated cash, cash equivalents and short-term investments were $10.0 million, as compared to $13.1 million at December 31, 2005. This $3.1 million decrease reflects the continued funding of our corporate operations, including the development and advancement of our product candidates. Working capital at March 31, 2006 and December 31, 2005 were approximately $7.8 million and $10.7 million, respectively representing an approximate $3.0 decrease as compared to December 31, 2005.

On May 8, 2006, subsequent to the quarter end, we closed a private placement offering of units for $6.5 million in gross proceeds ("May 2006 Private Placement"). Each unit consisted of one common share and 0.30 of a common share purchase warrant. We issued 7.8 million units at a price of $0.84 per unit. Each whole warrant is exercisable for four years from closing at an exercise price of $0.97 per share.

We believe our cash, cash equivalents and short-term investments of $10.0 million at March 31, 2006 and the net proceeds of approximately $6.1 million from our May 2006 Private Placement will be sufficient to satisfy our anticipated capital requirements into April 2007. However, any projections of future capital requirements are subject to substantial uncertainty. Our working capital requirements may fluctuate in future periods depending upon numerous factors, including: results of our research and development activities; progress or lack of progress in our preclinical studies or clinical trials; our drug substance requirements to support clinical programs; our ability to establish or maintain corporate collaborations and licensing arrangements; changes in the focus, direction, or costs of our research and development programs; changes in the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing our patent claims; competitive and technological advances; the potential need to develop, acquire or license new technologies and products; costs associated with the establishment of marketing and sales capabilities or our business development activities; new regulatory requirements implemented by regulatory authorities; the timing and outcome of any regulatory review process; or our commercialization activities, if any.

We will need to raise substantial additional funds through the sale of additional equity, debt financings or collaborative arrangements with corporate partners or from other sources. There can be no assurance that 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 technology 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 capital to further develop and potentially commercialize our product candidates. In addition to our in-house development efforts, we will outsource many aspects of our drug development programs, which will involve substantial 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.

Financial Instruments

Our financial instruments consist primarily of short-term investments. These investments will ultimately be liquidated to support our ongoing operations.

Our investment policy is to manage investments to achieve, in the order of importance, the financial objectives of preservation of principal, liquidity and return on investment. Investments may be made in

U.S. or Canadian obligations and bank securities, commercial paper of U.S. or Canadian industrial companies, utilities, financial institutions and consumer loan companies, and securities of foreign banks provided the obligations are guaranteed or carry ratings appropriate to the policy. Securities must have a minimum Dun & Bradstreet rating of A for bonds or R1 low for commercial paper. The policy also provides for investment limits on concentrations of securities by issuer and maximum-weighted average time to maturity of twelve months. This policy applies to all of our financial resources.

The policy risks primarily include the opportunity cost of the conservative nature of the allowable investments. Our main purpose is research and development and we have chosen to avoid investments of a trade or speculative nature.

Investments with original maturities on the date of purchase beyond three months, and which mature at or less than twelve months from the balance sheet date, are classified as current. Investments are carried at book value plus accrued interest with unrealized gains and losses recognized as investment income. At March 31, 2006, short-term investments of $0.4 million consisted of corporate commercial paper with maturity at acquisition of 175 days. Short-term investments were $1.2 million at December 31, 2005. The market value of the investments at March 31, 2006 and 2005 approximated their respective book values.

Contractual Obligations

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 expenditures as of March 31, 2006.

The following table represents our contractual obligations and commitments at March 31, 2006 (in thousands of U.S. dollars):

	Less than 1 year	1-3 years	4-5 years	More than 5 years	Total
Englert Lease (1)	$ 81	$ 224	$ 205	$ —	$ 510
Maplewood Lease (2)	104	584	755	663	2,106
McGill License (3)	311	344	381	489	1,525
OHSU License (4)	—	—	—	—	—
Rutgers License (4)	25	100	100	—	225
Total	$521	$1,252	$1,441	$1,152	$4,366

(1) In April 2004, we entered into a lease for facilities in RTP. Amounts shown assume the maximum amounts due under the lease. This facility has now been subleased to another company that is responsible for payments until March 31, 2008; however, in the event of their default, we would become responsible for the obligation. In addition, we are contractually obligated under the lease until August 31, 2010.

(2) In August 2005, we entered into a lease for new office and laboratory facilities in RTP. Amounts shown assume the maximum amounts due under the lease. We received lease and capital inducements to enter into the lease, including a 50 percent discount for the first 24 months of the 84-month lease term and capital inducements with a fair market value of $0.5 million.

(3) Research obligations shown. Royalty payments, which are contingent on sales, are not included. Penalties for failure to achieve clinical trial progress milestones are also not included.

(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.

In connection with the OHSU License Agreement and the Rutgers, The State University of New Jersey ("Rutgers") License Agreement, we are required to pay specified amounts in the event that we achieve certain Adherex-initiated clinical trial milestones. A potential milestone payment to OHSU of up to $0.5 million may be required if we complete a planned clinical trial with STS, which has not yet commenced. There can be no assurance that we will commence or complete that clinical trial when anticipated, if at all.

Under the terms of the development and license agreement with GSK, should GSK not exercise any of its options to buy back eniluracil, we would be free to develop eniluracil alone or with other partners. If we file a New Drug Application ("NDA") with the FDA, we may be required to pay development milestones of $5.0 million to GSK. Depending upon whether the NDA is approved by the FDA and whether eniluracil becomes a commercial success, we may be required to pay up to an additional $70.0 million in development and sales milestones for the initially approved indication, plus double digit royalties based on annual net sales. If we pursue other indications, we may be required to pay up to an additional $15.0 million to GSK per FDA-approved indication.

Research and Development

Our research and development efforts have been focused on the development of cancer therapeutics and our cadherin targeting technology platform and include ADH-1, eniluracil, STS, NAC, mesna and various cadherin technology-based preclinical programs.

We have established relationships with contract research organizations, universities and other institutions which we utilize to perform many of the day-to-day activities associated with our 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 Scientific Officer, other members of our executive management and our supporting scientific staff. Major development issues are presented to the members of our Scientific and Clinical Advisory Board for discussion and review.

Research and development expenses totaled $2.6 million and $2.0 million for the three-months ended March 31, 2006 and 2005, respectively.

ADH-1 is a molecularly-targeted anti-cancer drug currently in Phase Ib/II and Phase II clinical studies. We incurred $1.5 million of internal and external expenses for this compound during the three-month period ended March 31, 2006. ADH-1 is a small peptide molecule that selectively targets N-cadherin, a protein that plays a major role in holding together and stabilizing cells that make up tumor blood vessels and certain tumor cells.

Eniluracil, which we acquired as part of the development and license agreement with GSK, is a DPD inhibitor that was previously under development by GSK for oncology indications. During the three-month period ended March 31, 2006, we incurred $0.7 million of internal and external expenditures for eniluracil, primarily to commence Phase I clinical programs. Eniluracil is being developed to enhance the therapeutic value and effectiveness of 5-FU, one of the world's most widely-used oncology agents and is often first-or second-line therapy for a variety of cancers including colorectal, breast, gastric, ovarian, basal cell, and head and neck. We have generated new proprietary data regarding the optimal method of administration of eniluracil in combination with 5-FU, which formed the basis of a patent application filed by us. We have implemented an accelerated development program to support the initiation of a Phase III clinical program as early as 2007; however, there can be no assurance that we will commence or complete that clinical trial when planned, if at all.

STS is a chemoprotectant that has been shown in Phase I and Phase II clinical studies conducted by investigators at OHSU to reduce hearing loss in patients, both adults and children, treated with platinum-based agents. We continue to work with the Children's Oncology Group to initiate a randomized STS trial in children.

NAC is being developed as a bone marrow protectant to prevent the bone marrow toxicity caused by certain anti-cancer drugs. Upon the completion of ongoing investigator-sponsored Phase I clinical studies at OHSU, we plan to re-evaluate the commercial potential of NAC.

Mesna was under development as a chemoenhancer directed at reducing the development of resistance by cancer cells to certain chemotherapeutics agents. Although we continue to have rights to mesna under our license agreement with Rutgers, we do not currently have any further development plans for this compound. Should conditions warrant, we may elect to re-commence further development of this compound in the future.

Our preclinical pipeline includes back-up peptides and small chemical molecule successors to ADH-1, molecules being developed to inhibit the metastatic spread of some cancers and peptides that combine both angiolytic and antiangiogenic properties.

Operating and Business Risks

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 inherent in the biopharmaceutical industry, including:

- a history of significant losses and no revenues to date; our product candidates are at an early stage of development, and we may never successfully develop or commercialize our product candidates;
- the possibility of delayed or unsuccessful human clinical trials with our product candidates could result in an increase to our development costs;
- the need to raise additional capital to fund operations;
- the ability to maintain or enter into new collaborations might adversely impact the development of our drug candidates;
- GSK might not exercise any of their options under our development and license agreement which might hinder development of two of our most important drug candidates;
- the Children’s Oncology Group may not conduct clinical trials with STS as planned;
- we may experience difficulties in managing our growth as we expand;
- we may expand our business through new acquisitions that could disrupt our business, harm our financial condition and dilute current stockholders’ ownership;
- we may lose key personnel or be unable to attract and retain additional personnel, which might adversely impact the development of our drug candidates;
- if our licenses to proprietary technology owned by others terminate or expire, we may not be able to successfully develop our product candidates;
- the enforcement and protection of our patents and licenses related to our product candidates, the possible infringement of the rights of others and potential off-label use or sale of our product candidates by competitors might harm our financial condition;
- the reliance on third-party contract manufacturers to produce drug substance;
- we conduct business internationally and are subject to laws and regulations of several countries, which may affect our ability to access regulatory agencies and the enforceability of our licenses;
- exchange rate fluctuations;
- the ability to obtain regulatory approval of our drug candidates;
- the uncertainty of market acceptance of our products, the competitive environment, pricing and reimbursement of our product candidates, if and when they are commercialized;
- the potential for product liability lawsuits in clinical trials or from commercial activities;
- the use of hazardous materials and chemicals in our research and development;

- new accounting or regulatory pronouncements may impact our future financial results;
- the fact we are a foreign investment company under U.S. tax law which has an adverse tax consequence for our U.S. shareholders;
- the volatile nature of our common stock price;
- the large number of common stock to be issued, through future financings, under currently issued warrants and stock options and warrants and stock options that may be issued in the future could substantially dilute our shareholders; and
- if we lose our foreign private issuer status, we will likely incur additional expenses to comply with U.S. securities law.

Our financial results will fluctuate from period to period and therefore are not necessarily meaningful and should not be relied upon as an indication of future financial performance. Such fluctuations in quarterly results or other factors beyond our control could affect the market price of our common stock. These factors include changes in earnings estimates by analysts, market conditions in our industry, announcements by competitors, changes in pharmaceutical and biotechnology industries, and general economic conditions. Any effect on our common stock could be unrelated to our longer-term operating performance. For a more detailed discussion of our risk factors, please refer to refer to our public filings available at www.sedar.com and www.sec.gov.

Exhibit 99.4

Form 52-109F2 - Certification of Interim Filings

I, William P. Peters, Chief Executive Officer of Adherex Technologies Inc., certify that:

1. I have reviewed the interim filings (as this term is defined in Multilateral Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*) of Adherex Technologies Inc. (the "Issuer") for the interim period ending March 31, 2006;

2. Based on my knowledge, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings;

3. Based on my knowledge, the interim financial statements together with the other financial information included in the interim filings fairly present in all material respects the financial condition, results of operations and cash flows of the Issuer, as of the date and for the periods presented in the interim filings; and

4. The Issuer's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures for the Issuer, and we have:

   (a) designed such disclosure controls and procedures, or caused them to be designed under our supervision, to provide reasonable assurance that material information relating to the Issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which the interim filings are being prepared.

Date: May 15, 2006

/s/ William P. Peters

William P. Peters
Chief Executive Officer

Exhibit 99.5

Form 52-109F2 - Certification of Interim Filings

I, Jame A. Klein, Jr., Chief Financial Officer of Adherex Technologies Inc., certify that:

1. I have reviewed the interim filings (as this term is defined in Multilateral Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*) of Adherex Technologies Inc. (the "Issuer") for the interim period ending March 31, 2006;

2. Based on my knowledge, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings;

3. Based on my knowledge, the interim financial statements together with the other financial information included in the interim filings fairly present in all material respects the financial condition, results of operations and cash flows of the Issuer, as of the date and for the periods presented in the interim filings;

4. The Issuer's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures for the Issuer, and we have:

   (a) designed such disclosure controls and procedures, or caused them to be designed under our supervision, to provide reasonable assurance that material information relating to the Issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which the interim filings are being prepared.

Date: May 15, 2006

/s/ James A. Klein, Jr

James A. Klein, Jr.
Chief Financial Officer