

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14A
Proxy Statement Pursuant to Section 14(a)
of the Securities and Exchange Act of 1934
(Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box

Preliminary Proxy Statement

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

ADHEREX TECHNOLOGIES INC.
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box)

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

Title of each class of securities to which the transaction applies:

Aggregate number of securities to which the transaction applies:

Per unit price or other underlying value of the transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

Proposed Maximum aggregate value of the transaction:

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Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of the filing.

Amount Previously Paid:

Form, Schedule or Registrant Statement No.:

Filing Party:

Date Filed:



**ADHEREX TECHNOLOGIES INC.
NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS
TO BE HELD ON June 24, 2010**

NOTICE IS HEREBY GIVEN that the annual and special meeting (the “**Meeting**”) of the holders of common shares (“**Common Shares**”) in the capital of Adherex Technologies Inc. (“**Adherex**” or the “**Corporation**”) will be held at the Sofitel Montreal Golden Mile, Montreal, Quebec, Canada at 10:00 a.m. ET on June 24, 2010 for the following purposes:

1. to receive the consolidated financial statements of the Corporation for the year ended December 31, 2009, together with the report of the auditors thereon;
2. to elect directors;
3. to appoint auditors and to authorize the directors of the Corporation to fix the auditors’ remuneration;
4. to consider and, if deemed advisable, pass an ordinary resolution in the form set out in Appendix “A” to the Management Proxy Circular authorizing an increase in the number of Common Shares issuable under the Corporation’s stock option plan (the “**Stock Option Plan Resolution**”); and
5. to transact such further or other business as may properly come before the Meeting or any adjournment thereof.

A copy of the Management Proxy Circular and a form of proxy accompanies this notice, as well as a copy of the Corporation’s annual report which contains the consolidated financial statements of the Corporation for the year ended December 31, 2009, together with the report of the auditors thereon and management’s discussion and analysis of financial condition and results of operations relating thereto.

The board of directors of Adherex has fixed 5:00 p.m. ET on May 25, 2010 (the “**Record Date**”), as the record date for determining the holders of record of Common Shares who are entitled to receive notice of the Meeting and to attend and vote at the Meeting and any adjournment or postponement thereof.

Shareholders who are unable to attend the Meeting in person are requested to date and sign the enclosed form of proxy and return it to Olympia Transfer Services Inc., 120 Adelaide Street West, Suite 920, Toronto, Ontario, M5H 1T1, no later than 10:00 a.m. ET on June 22, 2010, or if the Meeting is adjourned or postponed, no later than 48 hours, excluding any day which is not a business day in Montreal preceding the reconvened Meeting. Proxies may also be deposited with the scrutineers of the Meeting, to the attention of the Chair of the Meeting at and immediately prior to the commencement of the Meeting or any adjournments or postponements thereof. In order to be represented by proxy, you must complete and submit the enclosed form of proxy or other appropriate form of proxy.

Important Notice Regarding the Availability of Proxy Materials for the Meeting:

This Notice, Management Proxy Circular and the Corporation’s Annual Report on Form 10-K are available to you on the Internet at www.sec.gov and www.sedar.com. We encourage you to access and review all of the important information contained in these materials before voting.

DATED at Chapel Hill, North Carolina this 24th day of May, 2010.

By Order of the Board of Directors of Adherex

ss/ Rostislav Raykov
Rostislav Raykov
Chief Executive Officer and Board Member



**ADHEREX TECHNOLOGIES INC.
MANAGEMENT PROXY CIRCULAR**

Unless otherwise stated, information contained in this management proxy circular (the "Circular") is given as of May 24, 2010. Except as otherwise indicated, all amounts are expressed in United States dollars.

Solicitation and Appointment of Proxies

This Circular is furnished in connection with the solicitation of proxies by management of Adherex Technologies Inc. ("Adherex" or the "Corporation") for use at the annual and special meeting (the "Meeting") of the shareholders of Adherex to be held at 10:00 a.m. ET on June 24, 2010 at the Sofitel Montreal Golden Mile, Montreal, Quebec, Canada, and at any adjournment thereof, for the purposes set forth in the accompanying notice of annual general meeting (the "Notice of Meeting"). This Circular was first mailed to stockholders on or about June 1, 2010.

The persons named in the form of proxy accompanying this Circular are officers and/or directors of Adherex. A holder of Common Shares (a "Shareholder") has the right to appoint a person, other than the persons named in the form of proxy accompanying this Circular, as nominee to attend and act for and on behalf of such Shareholder at the Meeting, and may exercise such right by inserting the name of such person in the blank space provided on the form of proxy, or by executing a proxy in a form similar to the form of proxy accompanying this Circular. If a Shareholder appoints one of the persons named in the form of proxy accompanying this Circular as the nominee of the Shareholder and does not direct such nominee to vote either for or against or withhold from voting on a matter or matters with respect to which an opportunity to specify how the Common Shares registered in the name of such Shareholder are to be voted, the proxy shall be voted FOR the matter or matters set forth on such proxy and in the discretion of the person appointed on all other matters (if any) upon which the Shareholder is entitled to cast a vote. A proxy nominee need not be a Shareholder. If the Shareholder is a corporation, the proxy must be executed by an officer or properly appointed attorney.

In order for a proxy to be effective at the Meeting, it must be addressed to the Chief Executive Officer of Adherex and be mailed to or deposited by hand with Olympia Transfer Services Inc., 120 Adelaide Street West, Suite 920, Toronto, Ontario M5H 1T1, not later than 10:00 a.m. ET on June 22, 2010 or, if the Meeting is adjourned or postponed, not later than 48 hours (excluding any day which is not a business day in Toronto) before the time of the reconvened Meeting. Proxies may also be deposited with the scrutineers of the Meeting, to the attention of the Chair of the Meeting, at or immediately prior to the commencement of the Meeting, or any adjournment or postponement thereof. An undated but executed proxy will be deemed to be dated the date of this Circular.

The solicitation of proxies for the Meeting will be primarily by mail, but proxies may also be solicited personally or by telephone by employees or agents of Adherex. Employees of Adherex will not receive any extra compensation for such activities. Adherex will pay brokers or other persons holding Common Shares in their own names, or in the names of nominees, for their reasonable expenses for sending proxies and proxy material to beneficial owners of Common Shares and requesting authority to execute proxies in respect of such Common Shares. **The solicitation of proxies by this Circular is being made by or on behalf of the management of Adherex and its board of directors (the "Board") and the total cost of this solicitation will be borne by Adherex.**

Voting of Proxies

The Common Shares represented by a proxy at the Meeting will be voted for or withheld from voting in each of the election of directors and appointment of auditors and authorizing the Board to fix the auditors remuneration (together, the “**Ordinary Matters**”) and voted for or against the Stock Option Plan Resolution (the “**Special Matter**”) in accordance with the instructions of the Shareholder. **If no choice is specified in the proxy or the instructions are not certain, the persons named in the form of proxy accompanying this Circular will vote FOR all of the matters proposed by management at the Meeting and described in the Notice of Meeting and in the discretion of the person appointed on all other matters (if any) upon which the Shareholder appointing the proxy is entitled to cast a vote.**

The form of proxy accompanying this Circular, when properly completed and executed, confers discretionary authority upon the persons named therein with respect to any amendment or variation to the matters identified in the Notice of Meeting and with respect to other matters which may properly come before the Meeting. Management of Adherex and the Board knows of no matters to come before the Meeting other than those referred to in the Notice of Meeting. However, if any other matters that are not now known to management of Adherex or the Board should properly come before the Meeting, the Common Shares represented by proxies given in favour of the persons named in the form of proxy accompanying this Circular will be voted on such matters in accordance with the discretion of such person.

Revocation of Proxies

A Shareholder may revoke a previously given proxy by:

- (i) completing and signing a proxy bearing a later date and depositing it with Olympia Transfer Services Inc. as described above;
- (ii) depositing an instrument in writing signed by the Shareholder or an attorney authorized by a document signed in writing or by electronic signature (if the Shareholder is a corporation, under its corporate seal by an officer or attorney thereof properly authorized, indicating the capacity under which such officer or attorney is signing), or by transmitting, by telephonic or electronic means, a revocation signed by electronic signature, or by any other manner permitted by law, which must be received either (A) with Olympia Transfer Services Inc., 120 Adelaide Street West, Suite 920, Toronto, Ontario M5H 1T1, not later than 10:00 a.m. ET on June 22, 2010, or (B) with the scrutineers of the Meeting to the attention of the Chair of the Meeting on the day of the Meeting, or any adjournment thereof, prior to the taking of the vote to which such proxy relates; or
- (iii) in any other manner permitted by law.

Advice to Beneficial Holders of Common Shares

This section applies to beneficial holders of Common Shares who are not registered holders. The information set forth in this section is of significant importance to many holders of Common Shares, as a substantial number of Shareholders do not hold Common Shares in their own name.

The Notice of Meeting, the proxy and this Circular are being sent to both registered and non-registered owners of Common Shares. Only registered holders of Common Shares, or the persons that they appoint as proxies, are permitted to attend and vote at the Meeting. In many cases, Common Shares are beneficially owned by a shareholder and are registered in the name of an intermediary such as a bank, broker or other nominee.

The Corporation has distributed copies of the Notice of Meeting, the proxy and this Circular (collectively, the “**Meeting Materials**”) to all of the intermediaries for delivery to beneficial holders. Intermediaries are required to forward the Meeting Materials to beneficial holders unless a beneficial holder has waived the right to receive them. This permits beneficial holders to direct the voting of the Common Shares that they beneficially own. If a beneficial holder wishes to attend and vote at the Meeting in person (or have another person attend and vote on behalf of the beneficial holder), the beneficial holder should strike out the names of the persons named in the proxy and insert the beneficial holder’s (or such other person’s) name in the blank space provided. **In any case, beneficial holders should carefully follow the instructions of the intermediaries, including those regarding when and where the proxy or proxy authorization form is to be delivered.**

Record Date and Entitlement to Vote

The Record Date for the purpose of determining Shareholders entitled to receive the Circular and to vote at the Meeting has been fixed as 5:00 p.m. ET on May 25, 2010 (the “**Record Date**”). Each Shareholder at the close of business (5:00 p.m. ET) on the Record Date is entitled to attend the Meeting in person or by proxy and to cast one (1) vote for each Common Share held by such Shareholder on the Record Date.

Quorum

According to the Corporation’s by-laws, the quorum for the transaction of business at any meeting of Shareholders shall be two or more persons present in person or represented by proxy holding not less than 33 1/3% of the then issued and outstanding Common Shares.

Voting Securities and Principal Holders of Voting Securities

As at May 24, 2010, there were 368,293,451 Common Shares issued and outstanding. Each Common Share carries the right to one vote at the Meeting.

Beneficial ownership of the Common Stock in the following tables is determined in accordance with the rules and regulations of the U.S. Securities Exchange Commission (the “**SEC**”). Under these rules, a person is deemed to beneficially own a share of Common Stock if that person has or shares voting power or investment power with respect to that share, or has the right to acquire beneficial ownership of that share within 60 days, including through the exercise of any option, warrant or other right or the conversion or any other security. Shares issuable under stock options and warrants are deemed outstanding for computing the percentage of the person holding options or warrants but are not outstanding for computing the percentage of any other person.

To the knowledge of the directors and senior officers of Adherex, as of the close of trading on the date of this Circular, Southpoint Capital Advisors LP and Mr. George W. Haywood each beneficially own, directly or indirectly, or exercise control or direction over, voting securities of Adherex carrying more than 5% of the voting rights attached to all of the outstanding Common Shares as follows:

<u>Name and Address of Beneficial Owner</u>	<u>Amount of Ownership</u>	<u>Percent of Class</u>
Southpoint Capital Advisors LP(1) 623 Fifth Avenue, Suite 2503 New York, New York 10022	441,504,000(1)	77.7%
George W. Haywood (2) c/o Moomjian, Waite, Wactlar & Coleman, LLP 100 Jericho Quadrangle, Suite 225 Jericho, New York 11753	19,450,000(2)	5.2%

(1) Includes a warrant to purchase 200,000,000 shares of common stock at an exercise price of \$0.08, expiring on April 30, 2015. As per the subscription agreement for the private placement, the warrant isn’t exercisable until October 31, 2010.

(2) Includes 800,000 shares for which there exist shared voting and dispositive power with Mr. Haywood’s spouse, which spouse would have the right to receipt of dividends from, and proceeds for the sale of such shares. Also includes a warrant for 3,400,000 shares of common stock at an exercise price of \$0.08, expiring on April 30, 2015. As per the subscription agreement for the private placement, the warrant isn’t exercisable until October 31, 2010.

As at May 24, 2010, the directors and senior officers of Adherex and, to the knowledge of the directors and senior officers of Adherex, after reasonable enquiry, their respective associates, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 3,147,781 Common Shares (approximately 0.9% of all outstanding Common Shares on such date) and options and warrants to purchase 4,088,623 Common Shares (approximately 1.0% of the aggregate of all outstanding Common Shares and all Common Shares subject to outstanding options and warrants to purchase Common Shares on such date).

The following table sets forth the number of shares of Common Stock beneficially owned as of May 24, 2010 by (1) each director and executive officer, and (2) all directors and executive officers as a group. The percentage of beneficial ownership for the following table is based upon 368,293,451 shares of Common Stock outstanding as of May 24, 2010. Except as indicated below, the security holders listed possess sole voting and investment power with respect to the shares beneficially owned by that person. The address for each listed shareholder is c/o Adherex Technologies Inc., 501 Eastowne Drive, Suite 140, Chapel Hill, North Carolina 27514.

Name and Address of Beneficial Owner	Amount of Ownership	Percent of Class
Robert Andrade	780,100	*
William G. Breen ⁽¹⁾	1,617,781	*
Claudio F. Bussandri ⁽²⁾	250,000	*
Arthur T. Porter ⁽³⁾	370,742	*
Rostislav Raykov	1,000,000	*
Robert Butts	Nil	Nil
Thomas Spector ⁽⁴⁾	70,000	*
Directors and executive officers as a group (seven persons)	4,088,623	1.0%

* Less than 1%.

(1) Includes 250,000 shares of common stock subject to options that are exercisable within 60 days of May 24, 2010.

(2) Includes 250,000 shares of common stock subject to options that are exercisable within 60 days of May 24, 2010.

(3) Includes 370,742 shares of common stock subject to options that are exercisable within 60 days of May 24, 2010.

(4) Includes 70,000 shares of common stock subject to options that are exercisable within 60 days of May 24, 2010.

Approval Requirements and Eligible Voting Shares

Each of the Ordinary Matters must be approved by a simple majority of the votes cast by Shareholders, present in person or by proxy at the Meeting. The Stock Option Plan Resolution must be approved by a simple majority of the votes cast by Shareholders, present in person or by proxy at the Meeting, other than votes attaching to common shares beneficially held by insiders to whom options may be granted under the Stock Option Plan, and associates of such insiders. For these purposes, any spoiled votes, illegible votes, defective votes and abstentions will not be considered votes cast.

Other Business

Other than the Ordinary Matters discussed elsewhere in this Circular, management of Adherex does not intend to present and does not have any reason to believe that others will present, at the Meeting, any item of business other than those set forth in this Circular. If, however, any other business is properly presented at the Meeting and may properly be considered and acted upon, proxies will be voted by those named in the applicable form of proxy in their sole discretion, including with respect to any amendments or variations to the matters identified herein.

ORDINARY MATTERS

Election of Directors

The number of directors of Adherex to be elected at the Meeting is seven (7). The following are the names of the persons for whom it is intended that votes will be cast for their election as directors of the Corporation pursuant to the proxy which is hereby solicited, unless the Shareholder directs therein that such Shareholder's Common Shares be withheld from voting in the election of directors:

Mr. Robert W. Butts
Mr. Robert C. Andrade
Mr. William G. Breen
Mr. Claudio F. Bussandri
Mr. David Lieberman
Dr. Arthur T. Porter
Mr. Rostislav Raykov

The term of office for each such person will be until Adherex's next annual meeting of Shareholders or until such person's successor is elected or duly appointed. **In the event that prior to the Meeting any vacancies occur in the slate of nominees submitted above, it is intended that discretionary authority shall be exercised to vote the proxy hereby solicited (unless otherwise directed as aforesaid) for the election of any other person or persons as directors. Adherex management is not now aware that any of such nominees would be unwilling to serve as a director if elected.**

The following table sets forth the name of each person proposed at the date hereof to be nominated by management for election to the Board, such person's principal occupation or employment, all other positions with Adherex and any significant affiliate thereof now held by such person, if any, the year in which such person became a director of Adherex and such person's age.

The Corporation has an Audit Committee, a Compensation Committee, and a Governance Committee. The current members of such committees are noted below:

Name and Province/State and Country of Residence, Position	Current Principal Occupation and Principal Occupation For Previous Five Years	Director Since	Age
Robert W. Butts ⁽¹⁾⁽²⁾⁽³⁾ Tennessee, USA Chairman of Board	Immediate past Co-Founder and Portfolio Manager, Southpoint Capital Advisors LP; previously Analyst, Greenlight Capital	April 2007	35
Robert Andrade New York, USA Chief Financial Officer, Director	Co-Founder and Manager, DCML LLC; previously Portfolio Manager Millennium Partners; previously analyst Caxton Associates	July 2009	35
William G. Breen ⁽¹⁾⁽²⁾⁽³⁾ Ontario, Canada Director	President of William G. Breen and Associates; previously, Chairman of Simware Inc.	April 2007	64
Claudio F. Bussandri, B.Eng, MBA ⁽¹⁾⁽²⁾⁽³⁾ Quebec, Canada Director	Immediate past CEO of McKesson Canada; previously President of Lantic Sugar Limited	April 2007	62

Name and Province/State and Country of Residence, Position	Current Principal Occupation and Principal Occupation For Previous Five Years	Director Since	Age
David Lieberman New York, USA Director	Analyst Southpoint Capital Advisors LP; previously analyst TiedemannInvestment Group.	-	34
Hon. Arthur T. Porter, PC, MD, MBA ⁽¹⁾ Quebec, Canada Director	Director General and Chief Executive Officer, McGill University Health Centre; previously, President and CEO, Detroit Medical Center	Feb 2004	53
Rostislav Raykov ⁽³⁾ New Jersey, USA Chief Executive Officer, Director	Co-Founder and Manager, DCML LLC; previously Portfolio Manager Alchem Partners; previously Portfolio Manager John Levin & Associates	July 2009	34

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

Robert W. Butts

Mr. Butts has served as a director of Adherex since April 2007. Mr. Butts is the immediate past Co-Founder and Portfolio Manager of Southpoint Capital Advisors LP, a private investment partnership with more than \$1 billion in assets under management. Prior to Southpoint, Mr. Butts was an analyst for Greenlight Capital, a value-oriented hedge fund. He began his career as a financial analyst in the mergers and acquisitions group at Merrill Lynch. Mr. Butts graduated from Amherst College, where he earned a Bachelor of Science degree with a triple major in mathematics, physics and chemistry.

Robert C. Andrade

Mr. Andrade has served as a director of Adherex since July 2009 and Chief Financial Officer since September 2009. Mr. Andrade is a General Partner at DCML, a private investment partnership. Prior to DCML, Mr. Andrade was a portfolio manager for Millennium Partners and a securities analyst for Caxton Associates. He began his career as a financial analyst at Bear Stearns. Mr. Andrade graduated from University of Southern California, where he earned a Masters of Arts degree and Bachelor of Arts degree in economics.

William G. Breen

Mr. Breen has served as a director of Adherex since April 2007. Mr. Breen has served as President of William G. Breen and Associates since 1999. From 1988 to 1999, he held various positions at Simware Inc., a producer of internetworking and connectivity software, including Chairman, President and Chief Executive Officer. Prior to Simware, Mr. Breen was Senior Vice President, Operations at Cognos Inc. and Vice President, Operations at Computel Systems Ltd. Mr. Breen has served on numerous Boards of Directors and began his career at IBM in 1966 following graduation from the University of Waterloo in Science.

Claudio F. Bussandri, B.Eng, MBA

Mr. Bussandri has served as a director of Adherex since April 2007. Mr. Bussandri is the immediate past CEO of McKesson Canada, a leading provider of logistics and products and services in the Canadian health care marketplace. Prior to his tenure at McKesson, Mr. Bussandri was President of Lantic Sugar Limited and has held senior executive positions at Nabisco Brands Limited of Canada and Coffee Club Companies. Mr. Bussandri graduated from McGill University with a Bachelor of Engineering (Mechanical), and subsequently obtained an MBA. Mr. Bussandri is a member of the Board of Directors of the McGill University Health Centre (MUHC), of the Executive Committee of the MUHC Foundation and of the Canadian Council of Chief Executives (CCCE). He is past Chairman of the Board of the Montreal Children Hospital Foundation, former Chairman of CAPDM and of the Food and Consumer Products Manufacturers of Canada.

David Lieberman

Mr. Lieberman is an analyst at Southpoint Capital Advisors LP, a private investment partnership with more than \$1 billion in assets under management. Prior to Southpoint, Mr. Lieberman was an analyst for Tiedemann Investment Group. Mr. Lieberman graduated from University of Pennsylvania, The Wharton School, where he earned a Bachelor of Science degree in economics.

Rostislav Raykov

Mr. Raykov has served as a director of Adherex since July 2009 and Chief Executive Officer since July 2009. Mr. Raykov is a General Partner at DCML, a private investment partnership. Prior to DCML, Mr. Raykov was a portfolio manager for Alchem Investment Partners and John Levin & Co. He began his career as a financial analyst at Bear Stearns. Mr. Raykov graduated from University of North Carolina at Chapel Hill, where he earned a Bachelor of Science degree in business administration.

Honourable Arthur T. Porter, P.C., MD, MBA

Dr. Porter has served as a director of Adherex since February 2004. Dr. Porter has served as the Director General and Chief Executive Officer of the McGill University Health Centre since January 2004, is a Councilor of the Privy Council for Canada and a member of the Security Intelligence Review Committee (SIRC) for Canada. 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 serves as a director of Munder Funds and Air Canada.

Appointment of Auditors

The persons named in the accompanying form of proxy intend to vote for the re-appointment of Deloitte & Touche LLP as Adherex's auditors to hold office until the next annual meeting of Shareholders and to authorize the Board to fix the remuneration of the auditors, unless the Shareholder has specified in the form of proxy that the shares represented by such form of proxy are to be withheld from voting in respect thereof. Deloitte & Touche LLP was first appointed the Corporation's auditors on September 23, 2009.

SPECIAL MATTERS

Stock Option Plan Resolution

At the Meeting, Shareholders will be asked to approve an amendment to the Corporation's Stock Option Plan (the "**Stock Option Plan**") that were approved by the Board on May 13, 2010 (the "**Plan Maximum Amendment**"), as are set out in Appendix A. The Plan Maximum Amendment relates to changing the maximum number of Common Shares issuable under the Stock Option Plan from a fixed number of 20,000,000 to the number of Common Shares that represent twenty five percent (25%) of the total number of all issued and outstanding Common Shares from time to time.

The following is a summary of the Plan Maximum Amendment. The strategic use of incentive stock options is an important component of the Corporation's overall compensation plan for its executives, employees and advisors and continues to be one of the Corporation's primary tools for attracting, motivating and retaining qualified executives, employees and advisors, which is critical to the Corporation's success. On May 24, 2010, the Board approved, subject to shareholder and regulatory approval, a proposed amendment to the Stock Option Plan to change the maximum number of Common Shares that may be issued under the Stock Option Plan from the current fixed maximum number of 20,000,000 Common Shares to the number of Common Shares representing 25.0% of the total number of all issued and outstanding Common Shares from time to time. If the Plan Maximum Amendment is approved, any increase in the issued and outstanding Common Shares will result in an increase in the available number of Shares that may be issued pursuant to options granted under the Stock Option Plan, any Common Shares subject to an option that expires or terminates without having been fully exercised may be made the subject of a further Option and any exercises of Options will make new grants available under the Stock Option Plan, effectively resulting in a re-loading of the number of options available to grant under the Stock Option Plan.

In making the decision to recommend the Plan Maximum Amendment, the Board considered a number of factors, including the number of options currently outstanding under the Stock Option Plan, the number of options currently available for grant under the Stock Option Plan, the Corporation's current and anticipated human resource requirements. Further, in light of the recent private placement by the Corporation and the issuance of units thereunder in April 2010, the Board has determined that it is in the best interests of the Corporation that the size of the stock option pool be increased. Of the currently authorized 20,000,000 Common Shares, 15,123,674 are currently reserved for issuance upon the exercise of outstanding options (not including 700,000 options granted to the previous CEO outside the Stock Option Plan and approved by shareholders on December 16, 2003). As of the date hereof, the Corporation has available a total of 4,693,326 Common Shares to be issued pursuant to the exercise of options to be granted under the Stock Option Plan. The Corporation believes that the proposed increase in the maximum number of Common Shares that may be issued under the Stock Option Plan will ensure that a reasonable number of Common Shares remain available for the grant of options in the future. The Corporation plans to request the conditional listing of additional Common Shares on the TSX and to be listed as reserved for issuance under the Stock Option Plan. No options have been granted to any director or Named Executive Officer out of the proposed Plan Maximum Amendment.

The Plan Maximum Amendment is subject to prior regulatory approval. The TSX has been asked to conditionally approve the Plan Maximum Amendment subject to ratification by the Shareholders at the Meeting as set forth herein. Accordingly, Shareholders will be asked to consider and, if deemed advisable, to approve, with or without amendment, the Stock Option Plan Resolution set out in Appendix "A" to this Circular. See "Other Information Regarding Management – Stock Option Plan" for a discussion of the material terms of the Stock Option Plan.

To become effective, the Stock Option Plan Resolution must be approved by a simple majority of the votes cast by the Shareholders voting in person or by proxy at the Meeting, other than the votes attaching to Common Shares beneficially held by insiders of the Corporation to whom options may be granted under the Stock Option Plan and associates of such insiders. To the knowledge of the directors and senior officers of Adherex, after reasonable enquiry, as of the date hereof such insiders and their respective associates, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 4,088,623 Common Shares.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

This discussion relates to the executive officers listed in the Summary Compensation Table below, who are referred to as Named Executive Officers.

Mandate of the Compensation Committee

It is the task of the Compensation Committee to periodically review Adherex's compensation structure with respect to its Named Executive Officers, including its Chief Executive Officer, to ensure that Adherex continues to attract and retain qualified and experienced individuals to its management team and to motivate these individuals to perform to the best of their ability and in Adherex's best interests. The Compensation Committee determines the compensation of the Named Executive Officers, evaluates and approves the compensation plans, policies and programs of the Corporation and recommends to the Board from time to time other incentive compensation plans that it determines should be considered.

In reviewing executive compensation, the Compensation Committee relies on the advice of the Chief Executive Officer regarding other executive officers and allows him to participate in the Committee's deliberations on those executive officers. The Chief Executive Officer, however, is not allowed to participate in the Committee's deliberations on his compensation. The Compensation Committee may not delegate any of its responsibilities to another entity or to an individual without the approval of the Board.

General Compensation Philosophy

The key components of executive officer compensation are salaries, cash incentive awards and stock options. Adherex's policy with respect to the compensation of Named Executive Officers is to establish annual goals with respect to corporate development and the individual areas of responsibility of each Named Executive Officers and then to review total compensation with respect to the achievement of these goals.

Salary and Non-Equity Incentive Awards

It is Adherex's policy that the base salaries paid to its Named Executive Officers reflect, in addition to the criteria set out above, the individual's responsibility, experience and achievements. Each year the Compensation Committee sets a series of objectives for each executive and for the executive team as a whole to determine the opportunity for cash incentive awards. These objectives are prioritized and assigned potential values in light of overall company objectives, including with respect to scientific, clinical, regulatory, intellectual property, business and corporate development, and financial objectives. The Compensation Committee reviews both base salaries and cash incentive awards on at least an annual basis to ensure that the relevant criteria are satisfied.

Stock Options

The annual compensation considerations also include the awarding of stock options. The granting of options to the Named Executive Officers under the Stock Option Plan serves three primary purposes: (1) to recognize significant performance during the past year; (2) to provide long-term incentives for future efforts, since the value of the options is directly dependent on the market valuation of the Corporation; and (3) to retain individuals, as the options typically vest over time. When determining whether and how many new option grants will be made, the Compensation Committee takes into account the amount and terms of any outstanding options. The Compensation Committee generally considers the granting of options twice annually to all eligible employees, including executive officers. The Committee, in its discretion, may grant options at other times during a fiscal year to a Named Executive Officer for performance or other reasons. Adherex does not require its Named Executive Officers to own a specific amount of Common Shares.

Analysis of Named Executive Officer Compensation

The Compensation Committee is charged with annually reviewing and approving corporate goals and objectives relevant to each of the Named Executive Officer's compensation, evaluating each officer's performance in light of those goals and objectives, and fixing and determining each Named Executive Officer's level of salary and award of cash incentive payments and options based on this evaluation. In determining the long-term incentive component of each Named Executive Officer's compensation, the Compensation Committee considers the Corporation's performance and relative shareholder return, the value of similar incentive awards to other similarly situated executive officers at companies in the comparator group, the awards given to the Named Executive Officer in past years, and such other factors as the Compensation Committee considers relevant. Specifically, the Compensation Committee's review and evaluation includes measurement of the following areas:

- the achievement of corporate objectives, such as financings, partnerships and other business development, and consideration of those achievements in light of budgetary constraints and other challenges facing the Corporation;
- the Corporation's financial condition;
- the Corporation's share price and market capitalization; and
- the advancement of our product candidates, both preclinical and clinical.

Options

In August 2009, in recognition of services provided to assist in the transition of the new corporate direction of the Corporation, the Board granted options to purchase Common Shares to the Named Executive Officers as follows:

Named Executive Officer	Grant Date	Number of Shares Subject to Options	Exercise Price	Vesting	Expiration Date
Robin Norris, previously Chief Operating Officer ⁽¹⁾	08/19/2009	200,000	\$ 0.06	08/19/2009	08/19/2016

(1) Dr. Norris' employment with the Corporation was concluded on December 31, 2009.

Compensation Committee Report

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis contained in this Circular with management and, based on that review and discussion, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Circular.

Submitted by: THE COMPENSATION COMMITTEE OF THE BOARD OF DIRECTORS
Claudio Bussandri, Chair
Robert W. Butts
William Breen

Compensation Committee Interlocks and Insider Participation

Claudio Bussandri, William Breen and Robert W. Butts are the current members of the Compensation Committee. None of these individuals was at any time during 2009 or at any other time an officer or employee of ours. No interlocking relationship exists between any member of our Compensation Committee and any member of any other company's board of directors or compensation committee.

The Board has determined that each member of the Compensation Committee is "independent" under applicable securities laws.

Summary Compensation Table

The following table sets out certain information respecting the compensation paid to the CEO and CFO as well as any executive officer of the Company whose salary and bonus for the financial year ended December 31, 2009 exceeded \$150,000.

Name and Principal Position	Year	Salary (\$)	Bonus \$(¹)	Option Awards \$(²)	Non-Equity Incentive Plan Compensation \$(³)	All Other Compen- sation \$(⁴)	Total (\$)
Rostislav Raykov, Chief Executive Officer ⁽⁵⁾	2009	\$ 11,572	-	-	-	-	\$ 11,572
Robert Andrade, Chief Financial Officer ⁽⁶⁾	2009	\$ 11,572	-	-	-	-	11,572
Dr. William P. Peters Former Chief Executive Officer and Chairman ⁽⁷⁾	2009	298,623	115,000	-	-	-	413,623
James A. Klein, Jr. Previously Chief Financial Officer ⁽⁸⁾	2009	180,934	35,000	-	-	-	215,934
Dr. Robin J. Norris Previously President and Chief Operating Officer ⁽⁹⁾	2009	208,000	35,000	9,000	-	-	252,000
D. Scott Murray, Previously Senior Vice President, General Counsel and Secretary ⁽¹⁰⁾	2009	123,822	65,000	-	-	-	188,822

(1) Represents cash incentive awards in respect to fiscal 2008 and disbursed in the first quarter of 2009 as detailed in the Company's 2009 proxy.

(2) Represents the amounts recorded in the Corporation's financial statements for the relevant year in accordance with Financial Accounting Standards Board Statement of Financial Accounting Standards No. 123 (revised 2004) Share-based Payment, or SFAS 123(R), for stock option awards, without discounting of estimated forfeitures.

(3) The term "incentive plan" means any plan providing compensation intended to serve as incentive for performance to occur over a specified period, whether such performance is measured by reference to financial performance of the Corporation, the Corporation's stock price, or any other performance measure. An "equity incentive plan" is an incentive plan or portion of an incentive plan under which awards are granted that fall within the scope of SFAS 123 (R). A "non-equity incentive plan" is an incentive plan or portion of an incentive plan that is not an equity incentive plan.

(4) Consists of the taxable benefit for premiums paid for group term life insurance, long term disability and long term care insurance.

(5) Mr. Raykov joined the Corporation in July 2009.

(6) Mr. Andrade joined the Corporation in July 2009.

(7) Dr. Peters concluded his employment relationship with the Corporation effective July 2009.

(8) Mr. Klein resigned from the Corporation in September 2009.

(9) Dr. Norris' employment with the Corporation ended in December 2009.

(10) Mr. Murray's employment with the Corporation was terminated in July 2009.

Equity Grants, Exercises and Holdings

During the year ended December 31, 2009, the Board granted options to purchase an aggregate of 200,000 Common Shares to one of our previously Named Executive Officers as discussed above in “Compensation Discussion and Analysis”.

The following table sets forth information concerning the number and value of unexercised options held by current Executive Officers as of December 31, 2009.

Name	Outstanding Equity Awards at December 31, 2008			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$) (1)	Option Expiration Date
Dr. Thomas Spector	10,000 ⁽¹⁾	-	CAD\$2.20	09/24/2011
	70,000 ⁽³⁾	-	CAD\$1.35	7/1/2012

(1) 10,000 options were granted on: 09/24/2004

(2) 70,000 options were granted on: 07/01/2005

No Named Executive Officers exercised options in the year ended December 31, 2009.

Termination of Employment, Change in Responsibilities and Employment Contracts

Rostislav Raykov

Pursuant to an employment agreement dated May 3, 2010 between Rostislav Raykov and Adherex, Mr. Raykov is employed as Adherex’s Chief Executive Officer. Pursuant to this agreement, Mr. Raykov (a) receives an initial annual salary in the amount of \$140,000, (b) upon approval by shareholders of the amended Stock Option Plan will be granted options to purchase up to 5.0% of Adherex’s common shares outstanding estimated by the Company to be outstanding upon completion of the proposed rights offering announced by the Company on April 20, 2010, and (c) may receive annual bonuses at the sole discretion of the Board. If Mr. Raykov’s employment terminates due to a change of control of Adherex, any then remaining unvested shares under his options shall immediately vest and be fully exercisable. If Mr. Raykov is dismissed from employment by Adherex for any reason other than “cause,” Adherex is obligated to pay Mr. Raykov severance compensation equal to twelve (12) months of salary.

Robert Andrade

Pursuant to an employment agreement dated May 3, 2010 between Robert Andrade and Adherex, Mr. Andrade is employed as Adherex’s Chief Financial Officer. Pursuant to this agreement, Mr. Andrade (a) receives an initial annual salary in the amount of \$140,000, (b) upon approval by shareholders of the amended Stock Option Plan will be granted options to purchase up to 5.0% of Adherex’s common shares outstanding estimated by the Company to be outstanding upon completion of the proposed rights offering announced by the Company on April 20, 2010, and (c) may receive annual bonuses at the sole discretion of the Board. If Mr. Andrade’s employment terminates due to a change of control of Adherex, any then remaining unvested shares under his options shall immediately vest and be fully exercisable. If Mr. Andrade is dismissed from employment by Adherex for any reason other than “cause,” Adherex is obligated to pay Mr. Andrade severance compensation equal to twelve (12) months of salary.

Dr. Thomas Spector

Pursuant to an employment agreement dated May 3, 2010 between Dr. Thomas Spector and Adherex, Dr. Spector is employed as Adherex's Chief Scientific Officer. Pursuant to this agreement, Dr. Spector (a) receives an initial annual salary in the amount of \$150,000, (b) upon approval by shareholders of the amended Stock Option Plan will be granted options to purchase up to 5.0% of Adherex's common shares outstanding estimated by the Company to be outstanding upon completion of the proposed rights offering announced by the Company on April 20, 2010, and (c) may receive annual bonuses at the sole discretion of the Board. If Dr. Spector's employment terminates due to a change of control of Adherex, any then remaining unvested shares under his options shall immediately vest and be fully exercisable. If Dr. Spector is dismissed from employment by Adherex for any reason other than "cause," Adherex is obligated to pay Dr. Spector's severance compensation equal to twelve (12) months of salary.

William Peters

Pursuant to a separation and mutual release agreement dated July 2, 2010 between Dr. William P. Peters and Adherex, Dr. Peters concluded the employment relationship as Chief Executive Officer and Chairman of Adherex effective July 2, 2010. Pursuant to this agreement, Dr. Peters (a) received separation pay equal to one(1) month of his regular base salary, (b) received a \$5,640 equal to the estimated cost of securing equivalent health coverage, and (c) was granted three (3) years following the Termination Date to exercise any vested but unexpired and unexercised stock options.

Robin Norris

Pursuant to an amended and restated employment agreement dated August 19, 2009 between Dr. Robin Norris and Adherex, Dr. Norris continued as Adherex's Chief Operating Officer through December 31, 2009. Pursuant to his agreement, Dr. Norris (a) received an amended annual salary in the amount of \$120,000 (Dr. Norris' previous annual salary was \$255,000), (b) was granted options to purchase up to 200,000 Common Shares at a price per share of USD\$0.06 under the Stock Option Plan, and (c) was to be reimbursed for certain business expenses. Dr. Norris's employment with Adherex was concluded on December 31, 2009.

The Company terminated the employment of D. Scott Murray on July 10, 2009. D. Scott Murray, was previously employed as Adherex's General Counsel and Corporate Secretary.

James Klein, the Company's previous Chief Financial Officer, resigned on September 4, 2009.

In addition to such employment agreements, each of Dr. Spector and Messrs. Andrade and Raykov, is a party to a confidentiality and intellectual property agreement with Adherex.

In the agreements for each of Dr. Spector and Messrs. Andrade and Raykov "cause" is generally defined as (1) material breach of the terms of the employment or intellectual property agreements; (2) failure to perform the duties inherent in Employee's position in good faith and in a reasonable and appropriate manner; or (3) acts of fraud or embezzlement or other intentional misconduct which adversely affects the Company's business.

Estimated Termination Benefits

Name	Lump Sum Severance	Value of Benefits Per Month (# of months paid)		Value of Options that Would Vest(1)	Total
Rostislav Raykov	\$ 140,000	Nil	(Nil)	N/A	\$ 140,000
Robert Andrade	140,000	Nil	(Nil)	N/A	140,000
Dr. Thomas Spector	150,000	Nil	(Nil)	N/A	150,000

(1) Options have not yet been granted to Dr. Spector and Messrs. Andrade and Raykov as they are subject to approval of the amended option plan by shareholders.

COMPENSATION OF DIRECTORS

Beginning in the first quarter of the fiscal year December 31, 2009, the members of the Board of Directors agreed to continue to serve for the benefit of shareholders without cash compensation.

The annual compensation considerations for non-executive directors also include the awarding of stock options. The granting of options to the non-executive directors under the Stock Option Plan serves three primary purposes: (1) to recognize the significant time and effort commitments during the past year; (2) to provide long-term incentives for future efforts since the value of the options is directly dependent on the market valuation of the Corporation; and (3) to retain quality individuals as the options typically vest over time. When determining whether and how many new option grants will be made, the Compensation Committee takes into account the amount and terms of any outstanding options. Adherex does not require its non-executive directors to own a specific amount of Common Shares.

For the year ended December 31, 2009, the Board did not grant any further options to purchase Common Shares to the non-executive directors.

Pursuant to an Independent Director Agreement on May 3, 2010 for each Dr. Porter and Messrs. Breen and Bussandri and conditioned upon the approval of the amended Stock Option Plan, the Board approved: (a) the grant to each Dr. Porter and Messrs. Breen and Bussandri an option to purchase 1.33% of Adherex's common stock estimated by the Company to be outstanding upon completion of the proposed rights offering announced by the Company on April 20, 2010, and (b) reimbursement for reasonable travel and related expenses incurred.

Mr. Butts does not accept cash fees or stock for his participation on the Board.

OTHER INFORMATION REGARDING MANAGEMENT

Stock Option Plan

The Amended and Restated Stock Option Plan was adopted to develop the interest and incentive of eligible employees, directors and other service providers of the Corporation in the Corporation's growth and development by giving eligible Participants (as defined below) an opportunity to purchase Common Shares on a favourable basis, thereby advancing the interests of the Corporation, enhancing the value of the Common Shares for the benefit of all Shareholders and increasing the ability of the Corporation to attract and retain skilled and motivated individuals in the service of the Corporation. Without giving effect to the Plan Maximum Amendment that is proposing to change the maximum number of Common Shares that may be issued under the Stock Option Plan to a rolling maximum equal to 25% of the issued and outstanding Common Shares from time to time, the total number of Common Shares that may be currently issued by the Corporation under the Stock Option Plan is 20,000,000, representing approximately 5.4% of the currently issued and outstanding Common Shares. As of May 24, 2010 options for an aggregate of 15,123,674 Common Shares have been granted and remain issued and outstanding under the Stock Option Plan, representing approximately 4.1% of the currently issued and outstanding Common Shares, and options for 183,000 Common Shares have been exercised under the Stock Option Plan, representing 0.1% of the currently issued and outstanding Common Shares. These numbers do not include options for 700,000 Common Shares, representing approximately 0.2% of the currently issued and outstanding Common Shares, which were specifically approved by the Corporation's shareholders on December 16, 2003 and granted to Dr. Peters outside of the Stock Option Plan. Although granted outside of the Stock Option Plan, these options were granted with an exercise price equal to the market price of the Common Shares on the date of grant, a term of seven (7) years from the date of grant, vesting as to one-third immediately upon granting, another third on the next day following the first anniversary of the date of grant, and the last third on the next day following the second anniversary of the date of grant, and otherwise had terms similar to options granted by the Corporation pursuant to the Stock Option Plan.

Within the above aggregate limit of 20,000,000 Common Shares (and proposed limit of 25% of the issued and outstanding Common Shares from time to time), the Stock Option Plan contains no limits on the number or percentage of such options that may be granted to insiders of the Corporation or to any one person. The Board currently has the right, in its sole discretion, to alter, amend or discontinue the Stock Option Plan from time to time and at any time. However, no such amendment or discontinuation may alter or impair the rights or increase the obligations under the Stock Option Plan of Participants without the consent of the Participants. Further, any amendment to the Stock Option Plan is subject to prior regulatory approval. The Stock Option Plan's amending procedures explicitly provide that shareholder approval is not required to implement any amendments, save and except for amendments related to (i) the maximum number of Common Shares or any other shares of the Corporation which are reserved for issuance under the Stock Option Plan (and under any other share compensation arrangement of the Corporation); (ii) a reduction in the exercise price for options held by insiders; and (iii) an extension to the term of options held by insiders. Examples of the amendments that may be made by the Board without shareholder approval include, without limitation, amendments related to (a) the vesting provisions of the Stock Option Plan or any option granted under the Stock Option Plan, (b) the early termination provisions of the Stock Option Plan or any option granted under the Stock Option Plan, (c) the addition of any form of financial assistance by the Corporation for the acquisition by all or certain categories of participants, and the subsequent amendment of any such provision which is more favourable to such participants, (d) the addition or modification of a cashless exercise feature, payable in cash or Common shares, which provides for a full deduction of the number of underlying Common Shares from the Stock Option Plan reserve, (e) changing the maximum percentage of Common Shares which are reserved for issuance under the Stock Option Plan to a maximum number of Common Shares not exceeding the number of Common Shares which then represents the maximum percentage previously approved by the Corporation's security holders; (f) the suspension or termination under applicable laws (including, without limitation, the rules, regulations and policies of the TSX); and/or (g) general housekeeping matters.

Participation in the Stock Option Plan shall be limited to directors, employees and service providers who are designated from time to time by the Compensation Committee (each, a "**Participant**"). Board nominees or other associates of the Corporation's largest shareholder, Southpoint Capital Advisors, are not eligible to participate in the Stock Option Plan. Subject to the terms of the Stock Option Plan, the Compensation Committee determines the Participants designated to participate in the Stock Option Plan, the number of Common Shares such Participant is entitled to purchase and the price at which the Common Shares may be purchased and the applicable vesting period. The option price at which the Common Shares may be purchased under the Stock Option Plan is the fair market value of the Common Shares of the Corporation at the time of grant.

Options granted under the Stock Option 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 Common Shares lapses. The **Stock Option Plan provides** that should the expiry date of any vested stock option of a Stock Option Plan participant fall on, or within nine (9) trading days immediately following, a Black-Out Period, the expiry date of such a vested stock option will automatically be the date that is ten (10) trading days from the date the relevant Black-Out Period ends. Unless otherwise determined by the Compensation Committee and specifically set forth in the stock option agreement executed by the Participant, options vest and may be exercised by the Participant as to one-third on each of the first, second and third anniversaries of the date of grant. The Compensation Committee may, however, in its sole discretion by written notice to any Participant, accelerate the vesting of all or any of the options of a Participant. The Participant's rights under the options granted under the Stock Option Plan are not assignable or transferable by the Participant. The Corporation does not currently have any arrangements in place for financial assistance to facilitate the purchase of securities by Participants under the Stock Option Plan.

A Participant's right to exercise options ceases following any of the following events (each of which, a "**Participant Termination Date**"): (i) if an employee, such Participant's employment with the Corporation or any of its subsidiaries is terminated for any reason; (ii) if a director, such Participant ceases to be a director on the Board for any reason; or (iii) if a service provider, such Participant ceases to provide services to the Corporation. In such case, the Participant, or the Participant's legal representative, as the case may be, may only exercise such options that are then vested any time prior to the earlier of: the original expiry date of such option, or within 30 days of the Participant Termination Date, or if specifically approved by the Board, such later date which may not be more than three (3) years following the Participant Termination Date.

For U.S. federal income tax purposes, an optionee who is granted an incentive stock option under the Stock Option Plan will generally not recognize taxable income either at the time the option is granted or upon its exercise, although the exercise will increase the optionee's alternative minimum taxable income by an amount equal to the difference, if any, between the fair market value of the shares at the time of exercise and the option's exercise price, and therefore may subject the optionee to the alternative minimum tax. Upon the sale or exchange of the shares more than two years after grant of the option and more than one year after exercising the option, any gain or loss will be treated as long-term capital gain or loss. If these holding periods are not satisfied, the optionee will recognize ordinary income at the time of sale or exchange equal to the difference between the exercise price and the lower of (i) the fair market value of the shares at the date of the option's exercise or (ii) the sale price of the shares. Adherex will be entitled to a deduction in the same amount as the ordinary income recognized by the optionee. Any gain or loss recognized on such a premature disposition of the shares in excess of the amount treated as ordinary income will be characterized as long-term or short-term capital gain or loss, depending on the optionee's holding period with respect to such shares. Options that do not qualify as incentive stock options under the Stock Option Plan are referred to as nonstatutory options. Generally, an optionee will not recognize any taxable income at the time he or she is granted a nonstatutory option. Upon its exercise, however, the optionee will generally recognize taxable ordinary income measured as the excess of the then fair market value of the shares acquired over the exercise price of the option. Any taxable income recognized in connection with an option exercise by an optionee who is also one of our employees will be subject to tax withholding by us. Adherex will be entitled to a tax deduction in the same amount as the ordinary income recognized by the optionee with respect to shares acquired upon exercise of a nonstatutory option. Upon resale of such shares by the optionee, any difference between the sales price received and the fair market value for the shares on the date of exercise of the option will be treated as long-term or short-term capital gain or loss, depending on the optionee's holding period with respect to such shares.

Directors' and Officers' Liability Insurance

Adherex has liability insurance for its directors and officers. The aggregate annual premium for that insurance is approximately \$95,000 no part of which is payable by the directors and officers of the Corporation. The insurance coverage under the policy for each loss is limited to an aggregate of \$5,000,000 for each policy year. The policy provides for a \$150,000 deductible for any securities claim made by the Corporation and for any other claim made by the Corporation and there shall be no deductible for any claim made by a director or officer.

Indebtedness of Directors and Executive Officers

Section 13(k) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), prohibits Adherex from making or arranging an extension of credit to its directors or executive officers in the form of a personal loan.

No individual, who is or was a director, executive officer or employee of Adherex, nor any proposed nominee for election as a director of Adherex, nor any associate of any one of them:

- (i) is or, at any time since the beginning of Adherex's most recent completed financial period, has been indebted to Adherex or any of its subsidiaries; or
- (ii) was indebted to another entity, which indebtedness is, or was at any time during Adherex's most recent completed financial period, the subject of a guarantee, support agreement, letter of credit or other similar arrangement or understanding provided by Adherex or any of its subsidiaries.

Interest of Informed Persons in Material Transactions

In accordance with the Canada Business Corporations Act (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 Adherex are required, subject to certain exceptions, to disclose that interest and abstain from voting on any resolution to approve that contract.

To the knowledge of Adherex, no informed person or proposed nominee for election as a director of Adherex and no associate or affiliate of the foregoing persons has or has had any material interest, direct or indirect, in any transaction since the commencement of Adherex’s last completed financial period or in any proposed transaction which has materially affected or would materially affect Adherex or any of its subsidiaries.

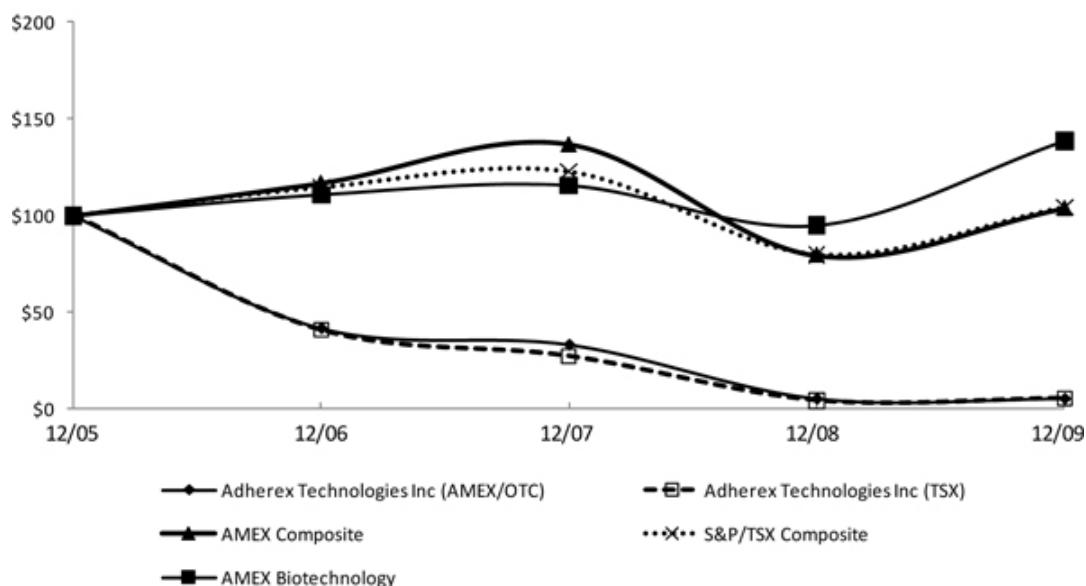
In accordance with regulations of the SEC, Adherex must disclose in this Circular any transaction or series of transactions in Adherex’s last completed financial period to which Adherex was a party and in which any director or executive officer of Adherex, or any of their immediate family members had a direct or indirect material interest, if the amount involved exceeds \$120,000 (a “Related Party Transaction”). To the knowledge of Adherex, there were no Related Party Transactions in Adherex’s last financial period and none anticipated at this time to occur in fiscal 2010.

Performance Graph

The following line graph compares the percentage change, from December 31, 2005 to December 31, 2009, in cumulative total shareholder return for \$100 (CAD\$ for TSX and US\$ for AMEX) invested in our common stock with cumulative total return of the AMEX Composite, the AMEX Biotechnology Index and the S&P/TSX Composite Total Return Index.

COMPARISON OF 48 MONTH CUMULATIVE TOTAL RETURN*

Among Adherex Technologies Inc., The S&P/TSX Composite Index, The AMEX Composite Index, and The AMEX Biotechnology Index



* \$100 invested on 12/31/05 in stock & index - including reinvestment of dividends
Fiscal year ending December 31

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Securities Authorized for Issuance Under Equity Compensation Plan

The following table provides certain information with respect to securities authorized for issuance under equity incentive plans as of December 31, 2009:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders ⁽¹⁾	13,200,852	\$ 0.55	4,693,326
	2,622,822	CAD \$ 2.19	
Equity compensation plans not approved by security holders	Nil	Nil	Nil
Total	15,823,674	N/A	4,693,326

(1) The Company's current stock option plans allows for the issuance of stock options denominated in both United States, or U.S., dollars and Canadian, or CAD, dollars. This table presents the number and weighted-average exercise price of outstanding options by the currency associated with the original grants. The numbers presented include 700,000 options with an exercise price of CAD \$2.25 that were specifically approved by the Company's shareholders on December 16, 2003 and granted to the Company's Chief Executive Officer outside of the Company's stock option plan. At December 31, 2009 we had 13,200,852 stock options denominated in U.S. dollars with a weighted-average exercise price of \$0.55 and 2,622,206 stock options denominated in CAD dollars with a weighted-average exercise price of CAD\$2.19. At December 31, 2009, we had 4,693,326 stock options available for future issuance.

REPORT ON CORPORATE GOVERNANCE

Adherex believes that good corporate governance is important to ensure that Adherex is managed for the long-term benefit of its shareholders. In connection with Adherex's commitment to comply with the standards of applicable securities legislation, Adherex has continued to review Adherex's corporate governance practices and policies and has compared them to developing practices and regulation in Canada and the United States. In particular, Adherex has considered the developing rules and guidelines for corporate governance practices and policies, and related disclosures, promulgated by the Canadian Securities Administrators, the SEC as well as the Sarbanes-Oxley Act of 2002.

In February 2004, Adherex's Board 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 Adherex. The Board also (i) restated the charter of the Audit Committee, (ii) established a separate Governance Committee and adopted a written charter for the committee, (iii) restated the charter of the Compensation Committee, (iv) established a Nominating Committee and adopted a written charter for the committee, and (v) appointed a Lead Independent Director, currently Mr. Robert W. Butts. Each of the various committee charters and other corporate governance documents are regularly reviewed and updated.

Set out below is a description of certain corporate governance practices of the Corporation.

Shareholder Communications

Shareholders who wish to communicate with members of the Board of Directors, including the independent directors individually or as a group, may send correspondence to them care of the Chief Executive at our principal executive offices. Such communication will be forwarded to the intended recipient(s). Adherex currently does not intend to have the Chief Executive screen this correspondence, but it may change this policy if directed by the Board due to the nature or volume of the correspondence.

Board of Directors

The board of directors is composed of a majority of independent directors. The Board applies the definition of independence found in the rules of the SEC and in Canadian National Instrument 58-101 and National Policy 58-201. The Board has determined that four of the current six directors are “independent”, including the Chair of the Board, being Messrs. Butts, Breen, Bussandri, and Porter. Only two directors have material relationships with the Corporation and are therefore not independent. Mr. Raykov, Chief Executive Officer of the Corporation and Chairman of the Board, and Mr. Andrade, Chief Financial Officer of the Corporation, are considered to have a material relationship with the Corporation by virtue of their executive officer positions. Adherex is of the view that the composition of its Board reflects a diversity of background and experience that are important for effective corporate governance. Other directorships held by Board members are described in this Circular under the heading “Ordinary Matters – Election of Directors.”

During the financial year ended December 31, 2009, the Board held eleven meetings in the absence of directors who are not “independent,” and certain of the Committees also conducted executive sessions where all participants were independent directors. In order to facilitate open and candid discussion among its independent directors, the Corporate Governance Guidelines provide that independent directors should meet at least annually without the presence of management or non-independent directors, that the Lead Independent Director is authorized to call additional meetings of the independent directors and that the Lead Independent Director is authorized to act as the presiding director at such meetings and to develop the agenda for such meetings. In addition, each Board member is free to suggest the inclusion of items on any Board or Committee meeting agenda and suggest pre-meeting materials to either the Chair of the Board or the Lead Independent Director. At any meeting of the Board, each Board member is also free to raise subjects that are not on the agenda for that meeting. Furthermore, each Board committee and the Lead Independent Director, on behalf of the independent directors as a group, have the authority to hire legal, accounting, financial or other advisors as they may deem necessary in their best judgment, without the need to obtain the prior approval of any officer of the Corporation. The Chief Financial Officer of the Corporation will arrange for payment of the invoices of any such third party.

Directors' Attendance

For the fiscal period ended December 31, 2009, the Board met on fifteen occasions, the Audit Committee met on four occasions, the Compensation Committee met once, and the Governance Committee met once.

The following table sets forth the attendance of directors at meetings of the Board, the Audit Committee, the Compensation Committee and the Governance Committee.

Director	Attendance at Board Meetings	Committees	Attendance at Committee Meetings
Robert W. Butts	15/15	Audit Committee, Governance Committee, Compensation Committee	6/6
Robert C Andrade (1)	4/4		N/A
William G. Breen	15/15	Audit Committee, Governance Committee, Compensation Committee	6/6
Claudio F. Bussandri	15/15	Audit Committee, Governance Committee, Compensation Committee	6/6
Arthur T. Porter	15/15	Audit Committee	4/4
Rostislav Raykov (1)	4/4	Governance Committee	N/A

(1) Messrs. Andrade and Raykov were appointed to the Board on July 7, 2009 and attended each board meeting thereafter.

The Board expects management to be responsible for the day-to-day operations of and to implement the approved strategic business plan within the context of authorized budgets and corporate policies and procedures. Management is expected to report regularly to the Board in a comprehensive, accurate, and timely fashion on Adherex's business and affairs.

Adherex does not have a formal written policy regarding attendance of Board members at annual meetings of the shareholders. Adherex, however, strongly encourages all directors to attend such meetings.

Mandate of the Board of Directors

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

- adoption of a strategic plan;
- approval of the annual operating and capital expenditure budgets;
- identification of the principal risks of the business and ensuring the implementation of the appropriate systems to manage these risks;
- succession planning, including appointing and monitoring senior management;
- adoption of a communications policy;
- approval of acquisitions, dispositions, investments and financings that exceed certain prescribed limits;
- integrity of the internal control and management information systems; and
- development of clear position descriptions for directors, including the Chair of the Board, the Chair of each Board committee and, together with the CEO, a clear position description for the CEO.

The Board discharges its responsibilities directly and through committees that have specific areas of responsibility. 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, directly and 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.

The Board mandate generally describes the Board's expectation of management and provides a list of specific matters for which management must obtain Board approval prior to implementation. The Board mandate also provides that the Board annually establish performance objectives for the CEO, which responsibility has been delegated to the Compensation Committee. In addition, the Board receives regular updates from management concerning the Corporation's progress toward achieving corporate goals. The Board has also delegated to the Compensation Committee responsibility for evaluating the CEO's compensation, which evaluation includes review of the CEO's performance against annual performance objectives for the year and input from the Lead Independent Director as well as other directors.

The Board Mandate is attached as Exhibit "A" to this Circular.

Position Descriptions

The Board Mandate and the Governance Committee Charter provide that the Board, is responsible for the development of clear position descriptions for directors, including the Chair of the Board and the chair of each board committee; and, together with the Chief Executive Officer, a clear position description for the Chief Executive Officer, which includes delineating management's responsibilities.

Ethical Business Conduct

In February 2004, Adherex's Board adopted a Mandate of the Board of Directors, Corporate Governance Guidelines and a Code of Business Conduct and Ethics (the "Code") applicable to all officers, directors and employees of Adherex. You can access the Code in the corporate governance section of Adherex's website at www.adherex.com. Adherex is committed to adhering to applicable legal requirements and maintaining the highest standards of conduct and integrity. The Code is intended to promote those goals in conjunction with the Corporation's Insider Trading Policy, Disclosure Policy and Audit Committee Complaint Procedures. The Code sets out the legal and ethical standards of conduct for personnel of Adherex and addresses topics such as: reporting obligations and procedures; honest and ethical conduct and conflicts of interest; compliance with applicable laws and Corporation policies and procedures; confidentiality of corporate information; use of corporate assets and opportunities; public disclosure and books and records; and non-retaliation. The Board is not aware of any conduct of a director or officer that constitutes a departure from the Code and, as a result, since the beginning of Adherex's fiscal year ended December 31, 2009, there have been no material change reports filed that pertain to such a departure.

The Code provides that the Governance Committee shall monitor and periodically evaluate compliance with the Code and its application to the Corporation's business. In addition, the Code sets out the procedures adopted by the Audit Committee for the receipt, retention and treatment of complaints and concerns regarding accounting, internal accounting control, or auditing matters. In each case, the Code provides that the Corporation will not discipline, discriminate against or retaliate against any employee who reports a complaint or concern in good faith, whether or not the information is ultimately proven to be correct, or who cooperates in any investigation or inquiry thereof.

In order to ensure independent judgment in considering transactions or agreements in which a director or officer has a material interest, the Code contains a process that must be followed regarding the disclosure, consultation and approval of transactions involving potential conflicts of interest. As a first step, officers and directors must disclose such matters to the Chief Executive Officer and to the Chair or any other disinterested member of the Governance Committee charged with reviewing conflicts of interest. The Board has adopted rules for what activities constitute conflicts of interest and potential conflicts of interest, as well as procedures for determining whether a relationship or transaction constitutes a conflict of interest, the current versions of which are attached as appendices to the Code. Following disclosure, any officer or director must avoid or terminate any activity that involves an actual or reasonably apparent conflict of interest unless it is determined at the appropriate level that the activity is not a conflict of interest or is otherwise not harmful to the Corporation or improper. Disinterested members of the Governance Committee shall make any such determination.

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. In addition, no director, director nominee or officer may enter into any transaction or relationship that is disclosable by such person or the Corporation pursuant to the CBCA or by the Corporation pursuant to SEC rules without the prior approval of the disinterested members of the Nominating (where appropriate) and Governance Committees, and no such person may directly or indirectly approve, or represent the Corporation or the other party in arranging, the terms of any transaction between the Corporation and a party with which he/she has any relationship of a type that is disclosable by such person or the Corporation pursuant to the CBCA or by the Corporation pursuant to SEC rules. All transactions between the Corporation and a party with which a director, officer or employee has such a relationship shall be on an arm's length basis.

Orientation and Continuing Education

Responsibility for the oversight of orientation for new directors and continuing education programs for all directors with respect to the Corporation's business and financial matters, corporate governance and other appropriate subjects is assigned to the Governance Committee under its charter. In this regard, the Governance Committee's duties include ensuring the adequacy of the orientation and education program for new members of the Board.

The Governance Committee is also responsible for arranging continuing education for directors in order to ensure that directors maintain the skill and knowledge necessary to meet their obligations as directors. Given the Corporation's limited resources, to date, no formal external continuing education programs have been sponsored by the Corporation but members of the Board are free to attend such programs as they determine necessary and in the Corporation's best interest. The Corporation also provides directors with the opportunity to meet with senior management of the Corporation, including the Chief Financial Officer and the General Counsel, as well as external advisors, at any time and such personnel and advisers are regularly invited to present at Board meetings or in connection with Board retreats to provide updates in legal, accounting, governance and other business developments. Some meetings are held at the Corporation's premises, allowing directors the opportunity to gain additional insight into the Corporation's operations. In addition, analyst reports and other information relating to the Corporation's business and the industry in which it operates are presented at Board meetings and strategy sessions and industry-related articles of interest are distributed to Board members from time to time. Pursuant to each Committee charter, directors are permitted to obtain advice and assistance from internal or external advisors, including for the purposes of continuing education and developments relevant to board responsibilities.

Nomination of Directors

The Board does not have a nominating committee. Nominations to the Board are largely the result of recruitment efforts of the Chairman of the Board. Potential nominees are discussed with the Board as a whole. The Board feels that the current approach is appropriate.

Assessments

The Chairman of the Board has the ongoing responsibility of assessing the effectiveness of the Board as a whole, the committees of the Board and the contribution of individual directors. Evaluation criteria include such factors as the attendance record of individual Board members and the effectiveness of their participation at Board meetings. Annually, the Chairman of the Board prepares and approves the list of nominees to be presented at the Annual Meetings of the Shareholders.

Compensation

The Board is responsible for establishing director and executive officer compensation and reviews such compensation at least as often as annually. The Board believes that directors should be fairly compensated for undertaking the responsibilities associated with serving as a director. At the same time, director compensation should be consistent with market practices generally. The Board delegates to the Compensation Committee responsibility for periodically assessing market practices for director and executive officer compensation. In addition, the Nominating Committee evaluates director compensation in the context of evaluating director recruitment and retention.

The Compensation Committee operates under a written charter adopted by the Board. The Compensation Committee is currently composed entirely of independent directors: Mr. Bussandri (Chair), Mr. Butts and Mr. Breen. The Compensation Committee held one meeting in the fiscal period ending December 31, 2009.

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

Other Board Committees

The Board has created audit, compensation, and governance committees to ensure that the Board functions independently of management. It is also customary practice for directors (i) to regularly receive detailed information describing Adherex's performance, 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 Adherex's external auditors.

Audit Committee

On behalf of the Board, the Audit Committee of the Board retains, oversees and evaluates Adherex's independent auditors, reviews the financial reports and other financial information provided by Adherex, including audited financial statements, and discusses the adequacy of disclosure with management and the auditors. The Audit Committee also reviews the performance of the independent auditors in the annual audit and in assignments unrelated to the audit, assesses the independence of the auditors, and reviews their fees. The Audit Committee is also responsible for reviewing Adherex's internal controls over financial reporting and disclosure.

The Audit Committee operates under a written charter adopted by the Board. Multilateral Instrument 52-110 – Audit Committees requires certain disclosures be cross-referenced with respect to the Audit Committee when soliciting proxies from Shareholders for the purpose of electing directors. The Corporation is relying on the exemption found in Part 7 of the Multilateral Instrument applicable to U.S. Listed Issuers. The Audit Committee met four times during the fiscal period ending December 31, 2009. As required by the rules of the SEC and Canadian securities laws, the Audit Committee is composed entirely of independent directors, each of whom the Board has determined is "financially literate" for purposes of the applicable laws: Dr. Porter (Chair), Mr. Butts, Mr. Bussandri and Mr. Breen. In addition, the Board has determined that Dr. Porter qualifies as an "audit committee financial expert," as defined in Item 401(h) of Regulation S-K promulgated by the SEC.

Audit Committee Report

The Audit Committee has (1) reviewed and discussed the audited financial statements with management, (2) discussed with Deloitte & Touche LLP, our independent registered public accounting firm, the matters required to be discussed by the Statement on Auditing Standards No. 61, and (3) received the written disclosures and the letter from Deloitte & Touche LLP required by the Independence Standards Board Standard No. 1, and has discussed their independence with the independent registered public accounting firm. Based upon these discussions and reviews, the Audit Committee recommended to the Board that the audited financial statements be included in the Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2009 that we filed with the SEC on or about March 30, 2010.

Deloitte & Touche LLP served as our independent registered public accounting and audited our consolidated financial statements for the year ended December 31, 2009. Though the Audit Committee does not have formal pre-approval policies and procedures in place, it has pre-approved all of the services performed by Deloitte & Touche LLP as discussed below, as required by SEC regulation.

Audit Fees

The following table presents the aggregate fees for professional services and other services rendered by our independent auditors, Deloitte & Touche LLP and PwC in fiscal year 2009 and PwC in fiscal year 2008 (in United States dollars):

	Fiscal Year 2009	Fiscal Year 2008
Audit Fees (1)	\$ 63,000	\$ 182,943
Audit-Related Fees (2)	-	-
Tax Fees (3)	11,250	56,702
All Other Fees (4)	-	3,707
Total	\$ 74,250	\$ 243,352

- (1) *Audit Fees* include fees for the standard audit work that needs to be performed each year in order to issue an opinion on the consolidated financial statements of the Corporation and to issue reports on the local statutory and regulatory financial statements. It also includes fees for services that can only be provided by the Corporation's auditor such as auditing of non-recurring transactions and application of new accounting policies, audits of significant and newly implemented system controls, pre-issuance reviews of quarterly financial results, consents and comfort letters and any other audit services required for U.S. Securities and Exchange Commission or other regulatory filings.
- (2) *Audit-Related Fees* include fees for those other assurance services provided by auditors but not restricted to those that can only be provided by the auditor signing the audit report.
- (3) *Tax Fees* include fees for periodic tax consultations and compliance services in various local, regional and national tax jurisdictions.
- (4) *All Other Fees* include fees for products and services other than Audit Fees, Audit Related Fees and Tax Fees, including access to an online database service provided by PwC.

Our Audit Committee has considered and determined that the provision of the non-audit services rendered to us during 2009 and 2008 was compatible with maintaining the independence of Deloitte & Touche LLP.

Submitted By: THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS
Arthur T. Porter, Chair
Robert W. Butts
Claudio Bussandri
William G. Breen

Governance Committee

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

The Governance Committee of the Board 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 Governance Committee is currently composed three independent directors and one affiliated director: Mr. Bussandri (Chair), Mr. Butts, Mr. Breen and Mr. Raykov. The Governance Committee held one meeting in the fiscal period ending December 31, 2009.

Retention of Outside Advisors

Adherex's Corporate Governance Guidelines provide that the Board, each Board committee and the Lead Independent Director, on behalf of the independent directors as a group, shall have the authority to hire legal, accounting, financial or other advisors as they may deem necessary in their best judgment, without the need to obtain the prior approval of any officer of the Corporation. The Corporation will arrange for payment of the invoices of any such third party.

Section 16(a) Beneficial Ownership Reporting Compliance

On February 21, 2007, Adherex became subject to Section 16(a) of the Exchange Act. Section 16(a) of the Exchange Act requires certain executive officers and directors of Adherex, and persons who own more than 10% of the Common Shares, to file reports of ownership on Form 3 and changes in ownership on Form 4 or Form 5 with the SEC. Those persons are also required to furnish Adherex with copies of all such forms that they file. Based solely on a review of these forms, we believe that in 2009, all of our executive officers, directors and shareholders required to file Forms 3, 4 and 5 with respect to Adherex filed those reports on time.

SHAREHOLDER PROPOSALS FOR NEXT YEAR'S ANNUAL MEETING

The CBCA permits certain eligible shareholders of the Corporation to submit shareholder proposals to the Corporation, which proposals may be included in a management proxy circular relating to an annual meeting of shareholders. Under SEC rules, shareholders having proposals that they desire to present at the next year's annual meeting of shareholders should, if they desire that such proposals be included in the Corporation's proxy circular relating to such meeting, submit such proposals in time to be received by Adherex not later than December 8, 2010. To be so included, all such submissions must comply with the requirements of the SEC's Rule 14a-8 and you should pay close attention to that rule. In addition, pursuant to SEC rules, management's proxy holders will have discretion to vote proxies given to them on any shareholder proposal of which Adherex does not have notice prior to February 23, 2011. Proposals should be mailed to the Secretary at Adherex Technologies Inc., 501 Eastowne Drive, Suite 140, Chapel Hill, NC 27514.

ADDITIONAL INFORMATION

Financial information for the financial year ended December 31, 2009 is provided in the Corporation's consolidated financial statements and management's discussion and analysis ("MD&A") which are included in the Annual Report. Securityholders who wish to be added to the mailing list for the annual and interim financial statements and MD&A should complete the appropriate sections of the proxy or contact the undersigned at 501 Eastowne Drive, Suite 140, Chapel Hill, North Carolina 27514.

The Corporation's Annual Report on Form 10-K for the fiscal period ended December 31, 2009 (including the consolidated financial statements and MD&A) and other information relating to the Corporation is available on SEDAR at www.sedar.com and at www.sec.gov.

APPROVAL OF THE BOARD OF DIRECTORS

The contents of this Circular and its sending to Shareholders have been approved by the Board of Directors.

DATED at Chapel Hill, North Carolina this 24th day of May 2010.

BY ORDER OF THE BOARD OF DIRECTORS

ss/ Rostislav Raykov
Rostislav Raykov
Chief Executive Officer, Member of Board

Exhibit "A"

ADHEREX TECHNOLOGIES INC.

Mandate of the Board of Directors

A. Responsibilities

The Board of Directors (the "**Board**") of Adherex Technologies Inc. (the "**Company**") is responsible for the stewardship of the Company. All directors shall act honestly and in good faith with a view to the best interests of the Company and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

The Board retains plenary authority and power to do all lawful acts and things as are not by law or otherwise directed or required to be exercised or done by the shareholders of the Company or in some other manner. In carrying out its responsibilities, the Board of Directors (or the committees of the Board of Directors duly constituted by the Board of Directors to the extent such delegation is permitted by law and is specifically made by the Board of Directors) shall have the following specific responsibilities:

1. the adoption of a corporate strategic plan that includes the periodic review and approval of business plans, which take into account, among other things, the opportunities and risks of the business;
2. the identification of the principal risks of the Company's business and ensuring the implementation of appropriate systems to manage these risks;
3. the adoption of processes for succession planning, the periodic review of succession plans for key members of senior management, including the Chief Executive Officer (the "**CEO**"), and the appointment and training of, and monitoring the performance and compensation of senior management, including officers of the Company;
4. the adoption of a communications policy and the periodic review of such policy;
5. the establishment of adequate systems of internal controls and management information systems;

the adoption of corporate governance guidelines or principles applicable to the Company, including with respect to: (i) the size and composition of the Board; (ii) the orientation of new directors; (iii) the provision of continuing education to directors; (iv) the compensation and tenure of directors; (v) the periodic assessment (at least annually) of the performance of the Board, its committees and directors, this Mandate, the Charter for each committee of the Board; and (vi) the position description(s) applicable to each individual director, as well as the competencies and skills each individual director is expected to bring to the Board;

6. the oversight of the maintenance by management of practices and processes to ensure compliance with applicable laws and appropriate ethical standards, including the adoption by management of corporate policies and procedures and the adoption of a written code of business conduct and ethics applicable to directors, officers and employees of the Company containing standards that are reasonably designed to deter wrongdoing;
7. to the extent feasible, satisfying itself as to the integrity of the CEO and other senior officers and that the CEO and other senior officers create a culture of integrity throughout the Company;
8. the submission of matters or questions requiring the approval of shareholders to the shareholders for approval;

10. the approval of the submission to the shareholders of any amendment to the articles of the Company or the approval of any adoption, amendment or repeal of any bylaws of the Company;
11. the recommendation of candidates for election or appointment to the Board of Directors, including the review of nominations recommended by shareholders;
12. the approval of the annual objectives of the Company and the Chief Executive Officer, and the assessment of the performance of the Company and the Chief Executive Officer against the approved objectives;
13. the approval of an annual operating budget for the Company and its subsidiaries on a consolidated basis;
14. the authorization of the issuance of securities of the Company as required in accordance with applicable laws;
15. the declaration of dividends on shares of the Company or the approval of the purchase, redemption or other acquisition of shares issued by the Company as required in accordance with applicable laws;
16. the oversight of the reliability and integrity of accounting principles and practices followed by management, financial statements and other financial reporting, and disclosure practices followed by management;
17. the oversight of the qualifications and independence of the independent auditors of the Company and the approval of the terms of their audit and non-audit service engagements as required in accordance with applicable laws and the requirements of any stock exchanges on which the Company lists its securities and of securities regulatory authorities, as adopted or in force or amended from time to time, and the assessment of the performance of the independent auditors, the filling of a vacancy in the office of the independent auditor between shareholders' meetings, and the recommendation of the annual appointment or, if appropriate, the removal, of the independent auditors of the Company to the shareholders of the Company for their approval in accordance with applicable laws;
18. the approval of the annual audited consolidated financial statements of the Company and, as required in accordance with applicable laws, the approval of the quarterly unaudited consolidated financial statements of the Company and overview of the accounting principles and practices followed by management;
19. the approval of prospectuses, annual information forms, annual reports on Form 20-F, 40-F or 10-K or other applicable form, as the case may be, and proxy circulars and proxy statements sent to shareholders of the Company and the review of managements' discussion and analyses of financial condition and results of operations, and other material disclosure documents as determined by the Board of Directors from time to time;
20. the establishment and periodic review of the Company's measures for receiving feedback from security holders;
21. the development of clear position descriptions for directors, including the Chair of the Board, a "Lead Independent Director" and the chair of each board committee; and, together with the CEO, a clear position description for the CEO, which includes delineating management's responsibilities;
22. the oversight of the management of environmental risks and practices, charitable activities and other social responsibility matters; and

23. to the extent not otherwise referred to above, the review and approval of all proposed transactions and matters described below under the heading “B. Decisions Requiring Prior Approval of the Board”

and, where applicable, in accordance with the requirements of the *Canada Business Corporations Act*, the stock exchanges on which the Company lists its securities and securities regulatory authorities, as adopted or in force or amended from time to time.

In discharging its duties and responsibilities, the Board of Directors is expected to be fully diligent in its oversight to avoid fraud or abuse. Accordingly, the Board may conduct such examinations, investigations or inquiries, and engage such special legal, accounting or other advisors, at the expense of the Company, at such time or times and on such terms and conditions as the Board of Directors considers appropriate.

B. Decisions Requiring Prior Approval of the Board

In addition to such other approvals as required by applicable law or the stock exchanges on which the Company lists its securities and securities regulatory authorities, the Board (or the committees of the Board duly constituted by the Board to the extent such delegation is permitted by law and is specifically made by the Board of Directors) shall review and approve:

1. the strategic plan, financial plans and operating budget of the Company on at least an annual basis;
2. the quarterly and annual financial statements of the Company;
3. all material capital expenditures not part of the approved operating budget, all mergers and acquisitions, and all material investments and dispositions of the Company;
4. all material borrowings and banking arrangements of the Company;
5. all financing by the Company including the issuance of debt, equity and derivative instruments; for greater certainty, this includes the approval of all off-balance sheet financings by the Company or by special purpose entities or affiliates;
6. the purchase and redemption of securities;
7. any changes to the articles or by-laws of the Company;
8. the hiring and, if necessary, the termination of the Chief Executive Officer;
9. the compensation paid to senior management and directors, including the issuance of stock options and non – arms length consulting arrangements;
10. any other material matters outside the ordinary course of the Company's business including all major strategic and policy decisions; and
11. any other matter specified by the Board as requiring its approval.

C. Expectations of Management.

The CEO, through the Senior management, is responsible for the day-to-day operations of the Company and for providing the Board, directly or through the Chair of the Board, the appropriate committee or the Lead Independent Director, with timely, complete and accurate information on such operations. The Board expects management to propose and, after Board approval, implement the Company's strategic plan and to be accountable for the Company's financial and competitive performance. The Board expects the Company's resources to be managed in a manner consistent with enhancing the value of the Company and with consideration for ethics and corporate social responsibility.

The Board may request that certain members of senior management attend all or any portion of a Board or committee meeting and may schedule presentations by managers who can provide additional insight based on their personal involvement in the matter or their particular expertise. Each director shall have complete access to any member of senior management. The Chief Financial Officer and the General Counsel of the Company shall each have access to meet separately with the Audit Committee and Governance Committee respectively, and the Lead Independent Director.

The Board may reasonably rely on the information provided to them by the Company's senior management personnel and outside advisors and auditors.

D. Measures for Receiving Shareholder Feedback

The Company has developed a Disclosure Policy to facilitate consistent disclosure practices aimed at informative, timely and broad dissemination of material information to the market in compliance with applicable securities laws and the rules and policies of any exchange on which the Company's securities are listed. The Disclosure Policy Committee established under the Disclosure Policy is responsible for overseeing and monitoring communications with, and responses to inquiries from, both institutional and individual investors and the financial community consistent with the objectives of the Company's Disclosure Policy.

Commencing in fiscal 2005, the Company intends to solicit questions and comments from shareholders by way of comments cards that will be mailed to shareholders in connection with the Company's annual meetings. The comments received will be reviewed by the Disclosure Policy Committee and those requiring a response will be answered individually. Any member of the Disclosure Policy Committee may provide copies or summaries of such comments or other communications from shareholders to the Directors, as he or she considers appropriate.

Company spokespersons as appointed by the Disclosure Policy Committee from time to time are available to shareholders by telephone, fax and e-mail and the Company maintains up-to-date material of interest to shareholders and investors on the Company's web site at www.adherex.com.

E. General.

The Board of Directors shall review and assess the adequacy of the mandate of the Board on an annual basis.

Nothing in this Mandate is intended, or may be construed, to impose on any member of the Board a standard of care or diligence that is in any way more onerous or extensive than the standard required by law.

APPENDIX "A"

FORM OF STOCK OPTION PLAN RESOLUTION

Stock Option Plan Resolution

BE IT RESOLVED AS AN ORDINARY RESOLUTION OF THE SHAREHOLDERS THAT:

1. the Corporation's stock option plan, as amended (the "Stock Option Plan") is hereby amended such that maximum number of common shares of the Corporation (the "**Common Shares**") that may be issued under the Stock Option Plan shall be increased from the current fixed maximum number of 20,000,000 Common Shares to that number of Common Shares representing twenty-five percent (25%) of the total number of all issued and outstanding Common Shares from time to time, provided that any increase in the issued and outstanding Common Shares will result in an increase in the available number of Shares that may be issued pursuant to options granted under the Stock Option Plan, any Common Shares subject to an option that expires or terminates without having been fully exercised may be made the subject of a further Option and any exercises of Options will make new grants available under the Stock Option Plan, effectively resulting in a re-loading of the number of options available to grant under the Stock Option Plan.
2. any officer or director of the Corporation be and is hereby authorized and directed, for and on behalf of the Corporation, to execute and deliver all such documents and to do all such acts and things as he or she may determine to be necessary or desirable in order to carry out the foregoing provisions of this resolution, the execution of any such document or the doing of any such acts and things being conclusive evidence of such determination; and
3. the directors of the Corporation may in their discretion revoke this resolution before it is implemented, without further notice to, or approval of the shareholders.

A-1

INSTRUMENT OF PROXY

For the Annual Meeting of Shareholders of Common Shares

of

Adherex Technologies Inc.

To be held on June 24, 2010

The undersigned holder of Common Shares of Adherex Technologies Inc. (the "Corporation") hereby appoints (with full power of appointment and substitution), Robert Butts, Chairman of the Corporation, or failing him, Rostislav Raykov, Chief Executive Officer of the Corporation, or in place or stead of the foregoing Robert Andrade, Chief Financial Officer of the Corporation as Proxy of the undersigned to attend the Annual Meeting of the Corporation (the "Meeting") to be held at Sofitel Montreal Golden Mile, Montreal, Quebec on June 24, 2010 at 10:00 am (Montreal time) and at any adjournment thereof. The undersigned hereby revokes any instrument of proxy heretofore given to attend and vote at the Meeting. Without limiting the general power hereby conferred, the person above named is directed to vote as follows:

1. To vote FOR or WITHHOLD VOTE FROM the resolution electing as directors the nominees named in the accompanying information circular **(and, if no specification is made, to vote FOR);**
2. To vote FOR or WITHHOLD VOTE FROM the resolution appointing Deloitte & Touche LLP, Chartered Accountants, as the auditors of the Corporation for the ensuing year and authorizing the directors of the Corporation to fix their remuneration **(and, if no specification is made, to vote FOR);**
3. To vote FOR or AGAINST the resolution approving an increase in the number of Common Shares issuable under the Corporation's stock option plan (the "Stock Option Plan Resolution") **(and, if no specification is made, to vote FOR);** and
4. At the discretion of the said Proxyholder, to vote upon any amendments or variation of the above matter or any other matter that may be properly brought before the said Meeting or any adjournment thereof.

This Proxy is solicited on behalf of the Management of the Corporation and will be voted as directed in the space provided above or, if no direction is given, it will be voted FOR each resolution. The persons named in this Proxy are officers of the Corporation. Each shareholder has the right to appoint a person, who need not be a shareholder, to attend and to act for him and on his behalf at the Meeting, other than the persons designated above. To exercise such rights, the names of the persons designated by Management to act should be crossed out and the name of the shareholder's appointee should be legibly printed in the blank space provided.

DATED this ____ day of _____, 20__

Signature of Shareholder

Shareholder's Name (Please Print)

NOTES

1. In the event that the date is not completed, this Proxy will be deemed to be dated upon the day that it is mailed by the Corporation to the securityholder.
2. This Proxy will not be valid and will not be acted upon or voted unless it is signed and delivered to the attention of Olympia Transfer Services Inc, 920, 120 Adelaide St W, Toronto, Ontario M5H 1T1, no later than 48 hours prior to the Meeting time or delivered to the Chairman at the Meeting.
3. In addition to any revocation in any other manner permitted by law, a Proxy may be revoked by instrument in writing executed by the securityholder or his attorney duly authorized in writing or, if the securityholder is a company, under its corporate seal by an officer or attorney thereof duly authorized and deposited either at the registered office of the Corporation, c/o Mr. Rostislav Raykov at any time up to and including 4:30 p.m. on the last Business Day preceding the day of the Meeting, or any adjournment thereof, at which the Proxy is to be used, or with the Chairman at the Meeting on the date of the Meeting, or any adjournment thereof and upon such deposit, the Proxy is revoked.
4. The signature on the Proxy should be exactly the same as the name in which the shares are registered. If the appointee is a corporation, the Proxy must be exercised under its corporate seal or signed by an officer or attorney duly authorized. Persons signing as executors, administrators, trustees, etc. should so indicate.