UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

CURRENT REPORT
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of report (Date of earliest event reported) May 13, 2008

ADHEREX TECHNOLOGIES INC.

(Exact Name of Registrant as Specified in Charter)

Canada (State or Other Jurisdiction of Incorporation)

001- 32295 (Commission File Number) 20-0442384 (IRS Employer Identification No.)

4620 Creekstone Drive, Suite 200 Durham, North Carolina (Address of Principal Executive Offices)

27703 (Zip Code)

Registrant's telephone number, including area code (919) 484-8484

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On May 13, 2008, Adherex Technologies Inc. issued a press release announcing its financial results for the first quarter ended March 31, 2008. The press release issued in connection with such announcement is attached hereto as Exhibit 99.1.

The information in this Current Report on Form 8-K, including the accompanying exhibit, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

99.1

No. Description

Press Release dated May 13, 2008

SIGNATURE

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

Adherex Technologies Inc.

By: /s/ James A. Klein, Jr.

James A. Klein, Jr.

Chief Financial Officer

Dated: May 13, 2008

EXHIBIT INDEX

No. 99.1 Description
Press Release dated May 13, 2008



Adherex Reports First Quarter 2008 Financial Results

Research Triangle Park, NC, May 13, 2008—Adherex Technologies Inc. (AMEX:ADH, TSX: AHX), a biopharmaceutical company devoted to solving problems for patients with cancer, announced today its financial results for the first quarter ended March 31, 2008. All amounts are in U.S. dollars.

Financial Update

The net loss for the three-month period ended March 31, 2008 was \$4.3 million, or \$0.03 loss per share, compared to a net loss of \$4.0 million, or \$0.05 loss per share, for the three-month period ended March 31, 2007. Operating expenses totaled \$4.4 million, an increase of 8% over the same period last year. The increase in operating expenses is primarily due to \$1.3 million in non-cash stock-based compensation expense for the three-month period ended March 31, 2008, as compared to \$0.2 million for the three-month period ended March 31, 2007. This increase in stock-based compensation expense was offset by lower expenses in research and development during the first quarter of 2008 as compared to the same period in 2007.

Cash and cash equivalents totaled \$13.3 million as of March 31, 2008, compared to \$16.2 million as of December 31, 2007, with a corresponding decrease in working capital of \$2.9 million. This decrease is due to the funding of our corporate operations. The Company estimates that it has sufficient capital resources to fund operations through June 30, 2009.

The selected financial data presented below is derived from our consolidated financial statements which were prepared in accordance with U.S. generally accepted accounting principles. The complete consolidated financial statements for the quarter ended March 31, 2008 and management's discussion and analysis of financial condition and results of operations will be available on our website at www.adherex.com.

Annual General Meeting of Shareholders

Adherex will hold its Annual General Meeting of Shareholders on Wednesday, May 14, 2008 at 3 p.m. ET at the Mount Royal Centre, Mansfield #5, 2200 Rue Mansfield, Montreal, Quebec. A presentation by Adherex's Chairman and CEO, Dr. William P. Peters, will be made available by live webcast on the Company's website at www.adherex.com.

About Adherex Technologies

Adherex Technologies Inc. is a biopharmaceutical company dedicated to the discovery and development of novel cancer therapeutics. We are in the business of solving problems for patients with cancer. We have multiple products in the clinical stage of development, including eniluracil, ADH-1 and sodium thiosulfate (STS). Eniluracil, an oral dihydropyrimidine dehydrogenase (DPD) inhibitor, is being developed to improve the tolerability and effectiveness of 5-fluorouracil (5-FU), one of the most widely used oncology drugs in the world. ADH-1 is a biotechnology compound which selectively targets N-cadherin, a protein present on certain tumor cells and the blood vessels of solid tumors. STS is a chemoprotectant being developed to reduce or prevent hearing loss that may result from treatment with platinum-based chemotherapy drugs. With a diversified portfolio of unique preclinical and clinical-stage cancer compounds and a management team with expertise in identifying, developing and commercializing novel cancer therapeutics, Adherex aims to become a leader in developing innovative treatments that address important unmet medical needs in cancer. For more information, please visit our website at www.adherex.com.

This press release may contain forward-looking statements that involve significant risks and uncertainties. The actual results, performance or achievements of the Company might differ materially from the results, performance or achievements of the Company expressed or implied by such forward-looking statements. We are subject to various risks, including our history of losses, our need for additional capital to fund our operations, the uncertainties of clinical trials, drug development and regulatory review, the early stage of our product candidates, our reliance on collaborative partners, and other risks inherent to the biopharmaceutical industry. For a more detailed discussion of related risk factors, please refer to our public filings available at www.sedar.com and www.sec.gov.

— END —

For further information, please contact:

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Senior Vice President, Corporate Development
Adherex Technologies Inc.
T: (919) 484-8484
info@adherex.com

FINANCIAL CHARTS FOLLOW

Adherex Technologies Inc. Selected Financial Data

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

		March 31, 2008 (unaudited)		December 31, 2007	
Condensed Consolidated Balance Sheets:	,	·			
Assets:					
Cash and cash equivalents	\$	13,298	\$	16,162	
Other current and long-term assets		905		1,047	
Total assets	\$	14,203	\$	17,209	
Liabilities and stockholders' equity:					
Accounts payable and accrued liabilities	\$	2,349	\$	2,362	
Other current and long-term liabilities		677		699	
Total stockholders' equity		11,177		14,148	
Total liabilities and stockholders' equity	\$	14,203	\$	17,209	
		Three Months I		Ended March 31, 2007 (unaudited)	
Condensed Consolidated Statements of Operations:	,	,	`	Í	
Operating expenses:					
Research and development	\$	3,375	\$	3,157	
General and administrative		1,061		958	
Loss from operations		(4,436)		(4,115)	
Total interest income		132		147	
Net loss and comprehensive loss	\$	(4,304)	\$	(3,968)	
Net loss per share of common stock, basic and diluted	\$	(0.03)	\$	(0.05)	