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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**Form 6-K**

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

**Dated: September 19, 2006**

**Commission File Number 001-32295**

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**ADHEREX TECHNOLOGIES INC.**

(Translation of registrant's name into English)

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

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

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

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

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

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

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**Adherex Technologies Inc.**

**Form 6-K**

On September 18, 2006, the Company issued a press release announcing changes in the membership of its Board of Directors. A copy of the material change report filed by the Company in Canada on September 18, 2006 pursuant to National Instrument 51-102 is attached hereto as Exhibit 99.1 and is incorporated herein in its entirety by reference, including the copy of the press release attached thereto as Exhibit A.

The information in this Form 6-K (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such a filing.

**EXHIBIT INDEX**

**Exhibit  
Number**

**Description**

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Material Change Report filed pursuant to National Instrument 51-102 in Canada dated September 18, 2006

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**SIGNATURES**

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

ADHEREX TECHNOLOGIES INC.  
(Registrant)

Date: September 19, 2006

By: /s/ D. Scott Murray  
D. Scott Murray  
Vice President, General Counsel & Secretary

**FORM 51-102F3**  
**Material Change Report**

**Item 1 Name and Address of Company**

Adherex Technologies Inc.  
4620 Creekstone Drive, Suite 200  
Durham, NC 27703

**Item 2 Date of Material Change**

September 18, 2006

**Item 3 News Release**

Press Release of Adherex Technologies Inc. dated September 18, 2006 is attached as Exhibit "A" to this report.

**Item 4 Summary of Material Change**

On September 18, 2006, Adherex announced the appointment of Michael G. Martin, Chief Executive Officer of BioEnergy of America, Inc., to the Company's Board of Directors. The Company also announced the concurrent resignation of Raymond Hession.

**Item 5 Full Description of Material Change**

See attached news release.

**Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102**

Not applicable.

**Item 7 Omitted Information**

Not applicable.

**Item 8 Executive Officer**

D. Scott Murray, Vice President, General Counsel and Corporate Secretary of Adherex, is knowledgeable about the material change and this report. His business telephone number is (919) 484-8484.

**Item 9 Date of Report**

September 18, 2006.



**PRESS RELEASE**

**CORPORATE GROWTH EXPERT MICHAEL MARTIN  
JOINS ADHEREX BOARD OF DIRECTORS**

**Research Triangle Park, NC, September 18, 2006** — Adherex Technologies Inc. (AMEX:ADH, TSX:AHX), a biopharmaceutical company with a broad portfolio of oncology products under development, today announced the appointment of Michael G. Martin, Chief Executive Officer of BioEnergy of America, Inc., to the Company's Board of Directors.

"Mike Martin brings to the Adherex Board extensive experience in growing and financing smaller companies," said William P. Peters, Chairman and CEO of Adherex. "His creative and forthright style and business acumen have enabled him to successfully guide numerous companies through the early stages of development, and I look forward to his contributions to Adherex."

Martin said, "I am very pleased to have the opportunity to be a part of this innovative cancer company, particularly as it advances its products through some key stages of development. These are exciting times for Adherex, and I look forward to helping build value for Adherex's shareholders and patients with cancer."

Prior to assuming his role as CEO of BioEnergy of America, a company dedicated to developing renewable sources of energy, Martin served as managing director of R&M Financial Associates, a merger & acquisition consulting firm specializing in small and mid-size companies across multiple industries.

The Company also announced the concurrent departure of Raymond Hession from the Board of Directors. "We thank Ray for his eight years of dedicated service to Adherex and express our gratitude for all of his valuable contributions," said Peters.

**About Adherex Technologies**

Adherex Technologies Inc. is a biopharmaceutical company dedicated to the discovery and development of novel cancer therapeutics. We aim to be a leader in developing innovative treatments that address important unmet medical needs in cancer. We currently have multiple products in the clinical stage of development, including ADH-1 (Exherin™), eniluracil and sodium thiosulfate (STS). ADH-1, our lead biotechnology compound, selectively targets N-cadherin, a protein present on certain tumor cells and established blood vessels that feed solid tumors. Eniluracil, an oral dihydropyrimidine dehydrogenase (DPD) inhibitor, was previously under development by GlaxoSmithKline for oncology indications. STS, a drug from our specialty pharmaceuticals pipeline, protects against the disabling hearing loss that can often result from treatment with

platinum-based chemotherapy drugs. With a diversified portfolio of unique preclinical and clinical-stage cancer compounds and a management team with expertise in identifying, developing and commercializing novel cancer therapeutics, Adherex is emerging as a pioneering oncology company. For more information, please visit our website at [www.adherex.com](http://www.adherex.com).

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*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 the uncertainties of clinical trials, drug development and regulatory review, our need for additional capital to fund our operations, the early stage of our product candidates, our reliance on collaborative partners, our history of losses, and other risks inherent in the biopharmaceutical industry. For a more detailed discussion of related risk factors, please refer to our public filings available at [www.sedar.com](http://www.sedar.com) and [www.sec.gov](http://www.sec.gov).*

***For further information, please contact:***

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