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

Form 6-K

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

Dated: January 19, 2007

Commission File Number 001-32295

ADHEREX TECHNOLOGIES INC.

(Translation of registrant's name into English)

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

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

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

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

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

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

On January 18, 2007, the Company announced that it had entered into a third amendment (the "Amendment") to a development and license agreement (the "Agreement") with Glaxo Group Limited. The Company and Glaxo entered into the Agreement on July 14, 2005. A copy of the press release issued January 18, 2007 announcing the Amendment is attached hereto as Exhibit 99.1 and is incorporated herein by reference. A copy of the Amendment is attached hereto as Exhibit 4.42.

Attached hereto as Exhibit 99.2 is the form of a material change report filed by the Company under National Instrument 51-102 in Canada on January 18, 2007 to report events of January 18, 2007. The press release referenced in that material change report is found in Exhibit 99.1 to this Report.

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

EXHIBIT INDEX

Exhibit Number	Description
4.42	Amendment No. 3, dated January 17, 2007, to Development and License Agreement dated July 14, 2005 between Adherex Technologies Inc. and Glaxo Group Limited
99.1	Press release dated January 18, 2007
99.2	Material change report filed pursuant to National Instrument 51-102 in Canada dated January 18, 2007

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: January 19, 2007

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

AMENDMENT NO. 3
to
DEVELOPMENT AND LICENSE AGREEMENT
between
GLAXO GROUP LIMITED
and
ADHEREX TECHNOLOGIES INC.

THIS AMENDMENT NO. 3 (this "Third Amendment") effective on this 17th day of January, 2007 (the "Third Amendment Effective Date"), is entered into by and between **Glaxo Group Limited**, a company organized under the laws of England and Wales, having its registered office at GlaxoWellcome House, Berkeley Avenue, Greenford, Middlesex, UB6 0NN United Kingdom ("GGL") and **Adherex Technologies Inc**., a company organized under the laws of Canada and having an office located at 4620 Creekstone Drive, Suite 200, Durham, North Carolina, 27703 USA ("Adherex"):

RECITALS

A. The Parties entered into the Development and License Agreement, effective as of July 14, 2005 (the "Agreement").

B. The Parties entered into Amendment No. 1 to the Agreement, effective December 20, 2005, relating to the Exherin™ Option.

C. The Parties entered into Amendment No. 2 to the Agreement, effective June 23, 2006, relating to Eniluracil.

D. The Parties now desire to further amend the Agreement to reflect the expiration of the GGL Options under the Agreement on the terms and conditions set forth below.

NOW THEREFORE, in consideration of the foregoing premises and the mutual covenants set forth below, the Parties, intending to be legally bound, hereby amend the Agreement and otherwise agree as follows:

1. Defined Terms. All terms used in this Third Amendment but not defined herein shall have the same meaning as set forth in the Agreement.

2. Accelerated Expiration of Option B, Option C, and Option E; Effect. The Parties agree that, notwithstanding Sections 2.4, 2.4.2, 2.4.3 and 2.4.8 of the Agreement, Option B, Option C, and Option E shall expire on March 1, 2007 (the "Closing Date"), subject to Adherex's payment and satisfaction of the Buy-Out Price as provided in Section 5 below. Upon payment by Adherex of the Buy-Out Price: (i) GGL shall have no further option or right to Develop or Commercialize Eniluracil, unless otherwise agreed by the Parties; (ii) the Agreement shall continue in full force and effect as if GGL had exercised none of the GGL Options; (iii) all references in the Agreement to activities, actions or responsibilities of GGL

on exercise of a GGL Option shall have no further force or effect; and (iv) this Third Amendment shall have no effect on Adherex's obligations to Develop and Commercialize Eniluracil on expiration of the GGL Options, as provided in the Agreement, with payment to GGL of the milestones and royalties set forth in Sections 8.1, 8.2 and 8.3.

3. Deletion of Section 2.4.4. Section 2.4.4 of the Agreement is hereby deleted in its entirety from the Agreement.

4. Disbanding of JSC; Updates to GGL. Upon the Closing Date, the JSC shall be disbanded. Article 3 of the Agreement is hereby deleted in its entirety, and all references to the JSC in the Agreement are hereby deleted. Commencing upon the Closing Date, Adherex shall provide GGL with written updates of Development progress and efforts on at least a quarterly basis and will provide GGL with any information regarding Development of Eniluracil by Adherex, its Affiliates or its sublicensees as reasonably requested by GGL.

5. Buy-Out of Option B, Option C and Option E. On or before the Closing Date, Adherex shall pay GGL one million US Dollars (US $1,000,000) in consideration for GGL's agreement to allow the GGL Options to expire (the "Buy-Out Price") as set forth in Section 2. If Adherex fails to make the payment of the Buy-Out Price to GGL on or before the Closing Date, this Third Amendment shall have no force or effect, and the Agreement shall continue in full force and effect, as amended prior to this Third Amendment.

6. Manner of Payment of Buy-Out Price. On the Closing Date Adherex shall pay the Buy-Out Price to GGL by electronic wire transfer into an account designated in writing by GGL.

7. Binding Effect. This Third Amendment shall be binding upon and inure to the benefit of the Parties hereto, their permitted successors, legal representatives and assigns.

8. Waiver. No waiver of any term or condition of this Third Amendment will be effective unless set forth in a written instrument that explicitly refers to this Third Amendment that is duly executed by or on behalf of the waiving Party. No waiver by any Party of any term or condition of this Third Amendment, in any one or more instances, will be deemed to be or construed as a waiver of the same or any other term or condition of this Third Amendment on any prior, concurrent or future occasion. Except as expressly set forth in this Third Amendment, all rights and remedies available to a Party, whether under this Third Amendment or afforded by Law or otherwise, will be cumulative and not in the alternative to any other rights or remedies that may be available to such Party.

9. Severability. If any provision of this Third Amendment is held to be invalid, illegal or unenforceable in any respect, that provision will be limited or eliminated to the minimum extent necessary so that this Third Amendment will otherwise remain in full force and effect and enforceable.

10. Governing Law. This Third Amendment will be construed, and the respective rights of the Parties determined, according to the substantive law of the State of North Carolina without regard to the provisions governing conflict of laws.

11. Counterparts. This Third Amendment may be executed in any two counterparts, each of which, when executed, will be deemed to be an original and both of which together will constitute one and the same document.

12. Continuing Effect. All other terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, Glaxo Group Limited and Adherex Technologies Inc., by their duly authorized representatives, have executed this Amendment No. 3 as of the Third Amendment Effective Date.

GLAXO GROUP LIMITED

By: /s/ Paul Williamson

Name: Paul Williamson
Title: For and on behalf of
Edinburgh Pharmaceutical
Industries Limited
Corporate Director

ADHEREX TECHNOLOGIES INC.

By: /s/ William P. Peters

Name: William P. Peters
Title: Chairman & CEO

PRESS RELEASE

ADHEREX BUYS OUT ENILURACIL DEVELOPMENT OPTIONS FROM GLAXOSMITHKLINE

Research Triangle Park, NC, January 18, 2007 — Adherex Technologies Inc. (AMEX:ADH, TSX:AHX), a biopharmaceutical company with a broad portfolio of oncology products under development, today announced it has amended its July 14, 2005 Development and License Agreement for eniluracil with GlaxoSmithKline (NYSE: GSK) by purchasing all of GSK's remaining options under the Agreement. As a result, Adherex will assume full direction and control over the product's future development pursuant to the terms of the license, including the ability to partner and/or sub-license the product to third parties. An upfront fee of US$1 million is due on closing, which is expected to occur on or about March 1, 2007.

"Adherex has sought since 2004 to acquire the rights to eniluracil, which we believe represents a major pharmaceutical and therapeutic opportunity. Today's agreement brings the development and commercialization of eniluracil under our control and provides the flexibility for Adherex to develop the product alone or to collaborate or partner with other parties as we feel most appropriate," said William P. Peters, MD, PhD, Chairman and CEO of Adherex.

Adherex is developing eniluracil, an oral dihydropyrimidine dehydrogenase (DPD) inhibitor, to improve the therapeutic value of 5-fluorouracil (5-FU) by making 5-FU orally active, with fewer side effects and potentially more effective. 5-FU is one of the most commonly used oncology drugs in the world, currently used as first- and second-line therapy for multiple solid tumors, such as colon, rectal, breast, gastric, head and neck, ovarian, and basal cell cancer of the skin, among others. The use of 5-FU in combination with eniluracil may also offer the opportunity to broaden the types of cancer in which 5-FU has been shown to be active.

GSK's clinical development program for the combination of 5-FU and eniluracil met with success in early development. However, Phase III trials failed and development was stopped by GSK. Adherex hypothesized that the reason for the failure of the Phase III trials was an unexpected dose and schedule dependent drug interaction that resulted in the inhibition of 5-FU's activation into an effective anticancer agent. Adherex's preclinical and clinical results to date have supported this hypothesis.

Under the terms of the Development and License Agreement with GSK, Adherex received an exclusive license to eniluracil for all indications, and GSK retained options to buy back the compound at various points in time during its development. If GSK had exercised any

of its options on eniluracil, Adherex would have received development and sales milestone payments plus sales royalties, the magnitude of which were dependent upon if and when an option was exercised. If GSK did not exercise any of its buy-back options, Adherex would have been free to develop eniluracil alone or with other partners and would have been required to pay GSK development and sales milestone payments and sales royalties. Today's agreement accelerated this process and, upon payment of the upfront fee, Adherex will have all rights to the compound and will be required to pay GSK the same development and sales milestone payments and sales royalties as previously agreed, but GSK's options to buy back the product will no longer remain.

"Our recent data suggests eniluracil is back on track in its accelerated development plan. While GSK's initial Phase III trials with the product failed, we now have data to support each element of our hypothesis as to why those trials failed," Peters continued. "We expect to complete our Phase I dose escalation trial in North America shortly and intend to begin our Phase II trial in breast cancer promptly thereafter. We also have a Phase I/II trial in hepatocellular cancer ongoing in Asia. Along with the ongoing development of our lead biotechnology product, ADH-1, this provides the opportunity for a robust year of corporate developments for Adherex."

Adherex has indicated previously that we believe our cash and cash equivalents will be sufficient to satisfy our anticipated capital requirements into March 2007. The payment of the upfront fee to GSK does not alter our guidance, but we recognize the immediate need for additional capital to continue moving our product candidates forward in their development.

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.

This press release contains forward-looking statements that involve significant risks and uncertainties. The actual results, performance or achievements of the Company might differ materially from the results, performance or achievements of the Company expressed or implied by such forward-looking statements. Such forward-looking statements include, without limitation, those regarding the development plans of the Company and the expected timing and results of such development. We can provide no assurance that such development will proceed as currently anticipated or that the expected timing or results of such development will be realized. We are subject to various risks, including 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, 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 and www.sec.gov.

— END —

For further information, please contact:

Melissa Matson
Director, Corporate Communications
Adherex Technologies Inc.
T: (919) 484-8484
matsonm@adherex.com

Exhibit 99.2

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

January 18, 2007

Item 3 News Release

Press Release of Adherex Technologies Inc. dated January 18, 2007 is attached as Exhibit "A" to this report.

Item 4 Summary of Material Change

On January 18, 2007, Adherex announced that it had amended its July 14, 2005 Development and License Agreement for eniluracil with GlaxoSmithKline (NYSE: GSK) by purchasing all of GSK's remaining options under the Agreement. As a result, Adherex will assume full direction and control over the product's future development pursuant to the terms of the license, including the ability to partner and/or sub-license the product to third parties. An upfront fee of US$1 million is due on closing, which is expected to occur on or about March 1, 2007.

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

January 18, 2007.