

SCHEDULE 13G

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No.: )\*

ALEXION PHARMACEUTICALS, INC.

-----  
(Name of Issuer)

COMMON STOCK

-----  
(Title of Class of Securities)

015351109

-----  
(CUSIP NUMBER)

December 31, 2006

-----  
(Date of Event Which Requires Filing of this Statement)

CHECK THE APPROPRIATE BOX TO DESIGNATE THE RULE PURSUANT TO WHICH THIS SCHEDULE IS FILED:

- Rule 13d-1 (b)
- Rule 13d-1 (c)
- Rule 13d-1 (d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 (the "Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Page 2 of 7

CUSIP No. 015351109 13G

1. NAME OF REPORTING PERSON  
S.S. or I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

BlackRock, Inc.  
(on behalf of its investment advisory subsidiaries - See Item 7)

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP Joint Filing

- (a)
- (b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF SHARES BENEFICALLY OWNED BY EACH REPORTING PERSON WITH

5. SOLE VOTING POWER

NONE

6. SHARED VOTING POWER

1,799,104

7. SOLE DISPOSITIVE POWER

NONE

8. SHARED DISPOSITIVE POWER

1,799,104

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,799,104 (ownership disclaimed pursuant to Rule 13d-4 of the 1934 Act)

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

5.19%

12. TYPE OF REPORTING PERSON

HC, CO

Page 3 of 7

12. TYPE OF REPORTING PERSON

SCHEDULE 13G

ITEM 1 (a) Name of Issuer:

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ALEXION PHARMACEUTICALS, INC. (the "Company")

ITEM 1 (b) Address of Issuer's Principal Executive Offices:

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352 Knotter Drive  
Cheshire, CT 06410

ITEM 2 (a) Name of Persons Filing:

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BlackRock, Inc.  
(on behalf of its investment advisory subsidiaries - See Item 7)

ITEM 2 (b) Address of Principal Business Office or, if none, Residence:

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BlackRock, Inc.  
40 East 52nd Street  
New York, NY 10022

ITEM 2 (c) Citizenship:

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See Item 4 of Cover Pages

ITEM 2 (d) Title of Class Securities:

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Common Stock

ITEM 2 (e) CUSIP NUMBER:

See Cover Page

Page 4 of 7

ITEM 3

If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b) or 13d-2(c), check whether the person filing is a:

- (a)  Broker or Dealer registered under Section 15 of the Act,
- (b)  Bank as defined in Section 3(a) (6) of the Act,
- (c)  Insurance Company as defined in Section 3(a) (19) of the Act,
- (d)  Investment Company registered under Section 8 of the Investment Company Act of 1940,
- (e)  Investment Adviser in accordance with Rule 13d-1(b) (1) (ii) (E),
- (f)  Employee Benefit Plan or Endowment Fund in accordance with Rule 13d-1(b) (ii) (F),
- (g)  Parent Holding Company or Control Person in accordance with Rule 13d-1(b) (ii) (G); see Item 7,
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813),
- (i)  A church plan that is excluded from the definition of an investment company under Section 3(c) (14) of the Investment Company Act of 1940,
- (j)  Group, in accordance with Rule 13d-1(b) (1) (ii) (J).

ITEM 4 Ownership

(a) Amount Beneficially Owned:

See Item 9 of Cover Pages.

(b) Percent of Class:

See Item 11 of Cover Pages

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote:

See Item 5 of Cover pages

(ii) shared power to vote or to direct the vote:

See Item 6 of Cover pages

(iii) sole power to dispose or to direct the disposition of:

See Item 7 of Cover pages

(iv) shared power to dispose or to direct the disposition of:

See Item 8 of Cover pages

Page 5 of 7

ITEM 5 Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following:

ITEM 6 Ownership of More than Five Percent on Behalf of Another Person.

BlackRock, Inc. is a parent holding company for a number of investment management subsidiaries. Certain of these subsidiaries hold shares of the security which is the subject of this report. (See Item 7).

ITEM 7 Identification and Classification of the Subsidiary Which  
Acquired the Security Being Reported on by the Parent Holding Company  
or Control Person.  
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The following subsidiaries of BlackRock, Inc. are investment advisors  
which hold shares of the security being reported;

BlackRock Advisors LLC  
BlackRock Capital Management, Inc.  
BlackRock Investment Management LLC  
BlackRock (Channel Islands) Ltd

ITEM 8 Identification and Classification of Members of the Group.  
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Not Applicable

ITEM 9 Notice of Dissolution of Group.  
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Not Applicable

Page 6 of 7

ITEM 10 Certification  
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By signing below each of the undersigned certifies that, to the best  
of their knowledge and belief, the securities referred to above were  
acquired and are held in the ordinary course of business and were not  
acquired and are not held for the purpose of or with the effect of  
changing or influencing the control of the issuer of such securities and  
were not acquired and are not held in connection with or as a participant  
in any transaction having such purpose or effect.

Signature.  
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After reasonable inquiry and to the best of my knowledge and belief,  
each of the undersigned certifies that the information set forth in  
this statement is true, complete and correct.

Date: February 14, 2007

BlackRock, Inc. (on behalf of its investment advisory subsidiaries)  
BlackRock Advisors LLC  
BlackRock Capital Management, Inc.  
BlackRock Investment Management LLC  
BlackRock (Channel Islands) Ltd

/s/ Jeffrey Hiller

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Name: Jeffrey Hiller  
Title: Attorney-In-Fact\*

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\*Signed pursuant to a power of attorney, dated October 4, 2006, included  
as Exhibit A to this Schedule 13G filed with the Securities and Exchange  
Commission by BlackRock, Inc.

Page 7 of 7

POWER OF ATTORNEY

The undersigned, BLACKROCK, INC., a corporation duly organized under the laws of the State of Delaware, on its behalf and that of its subsidiaries (collectively, the "Company"), does hereby make, constitute and appoint each of James DesMarais, Bartholomew Battista, Dan Waltcher, Vincent Tritto, Karen Clark, Denis Molleur, Alice Pellegrino and Jeffrey Hiller acting severally, as its true and lawful attorneys-in-fact, for the purpose of, from time to time, executing in its name and on its behalf, whether the Company is acting individually or as representative of others, any and all documents, certificates, instruments, statements, other filings and amendments to the foregoing (collectively, "documents") determined by such person to be necessary or appropriate to comply with ownership or control-person reporting requirements imposed by any United States or non-United States governmental or regulatory authority, including without limitation Forms 3, 4,5,13D,13F and 13G and any amendments to any of the foregoing as may be required to be filed with the Securities and Exchange Commission, and delivering, furnishing or filing any such documents with the appropriate governmental, regulatory authority or other person, and giving and granting to each such attorney-in-fact power and authority to act in the premises as fully and to all intents and purposes as the Company might or could do if personally present by one of its authorized signatories, hereby ratifying and confirming all that said attorney-in-fact shall lawfully do or cause to be done by virtue hereof. Any such determination by an attorney-in-fact named herein shall be conclusively evidenced by such person's execution, delivery, furnishing or filing of the applicable document.

This power of attorney shall be valid from the date hereof and remain in full force and effect until either revoked in writing by the company, or, in respect if any attorney-in-fact named herein, until such person ceases to be an employee of the Company or one of its affiliates.

IN WITNESS WHEREOF, the undersigned has caused this power of attorney to be executed as of this 4th day of October, 2006.

BLACKROCK, Inc.

By: /s/ Ralph Schlosstein  
Name: Ralph Schlosstein  
Title: President