

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

ALEXION PHARMACEUTICALS, INC.

-----  
(Name of Issuer)

SERIES B CONVERTIBLE PREFERRED STOCK

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

NONE

-----  
(CUSIP Number)

DR. ANDREAS BREMER  
GRAFENAUWEG 4, 6301 ZUG CH/SWITZERLAND  
011-41-41-724-5959

-----  
(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

Copy to:

Daniel L. Goelzer, Esq.  
Baker & McKenzie  
815 Connecticut Avenue, N.W.  
Washington, D.C. 20006

SEPTEMBER 8, 1997

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

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(b)(3) or (4), check the following box [ ].

Check the following box if a fee is being paid with the statement [ ]. (A fee is not required only if the reporting person: (1) has a previous statement on file reporting beneficial ownership of more than five percent of the class of securities described in Item 1; and (2) has filed no amendment subsequent thereto reporting beneficial ownership of five percent or less of such class.) (See Rule 13d-7.)

Note: Six copies of this statement, including all exhibits, should be filed with the Commission. See Rule 13d-1(a) for other parties to whom copies are to be sent.

CUSIP No. None  
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(1) Name of Reporting Persons  
S.S. or I.R.S. Identification No. of Above Persons

BB Biotech AG  
Biotech Target, S.A.

(2) Check the Appropriate Box if a Member of a Group\* (a) [ ]  
(b) [x]

(3) SEC Use Only

(4) Source of Funds  
AF, WC

(5) Check Box If Disclosure of Legal Proceedings Is Required Pursuant To Items 2(d) or 2(e) [ ]

(6) Citizenship or Place of Organization

BB Biotech AG -- Switzerland  
Biotech Target, S.A. -- Panama

Number of Shares Beneficially Owned	(7) Sole Voting Power 0 by Biotech AG -----
by Each Reporting Person With	(8) Shared Voting Power 400,000 by Biotech Target S.A. ----- (See Item 5) -----
	(9) Sole Dispositive Power 0 by Biotech AG -----
	(10) Shared Dispositive Power 400,000 by Biotech Target S.A. ----- (See Item 5) -----

(11) Aggregate Amount Beneficially Owned by Each Reporting Person

400,000 shares of Series B Preferred Convertible Stock  
(See Item 5)

(12) Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares\* [ ]

(13) Percent of Class Represented by Amount in Row (9)

100%

(12) Type of Reporting Person\*

BB Biotech AG -- HC, CO  
Biotech Target, S.A. -- CO

## EXPLANATORY NOTE

Pursuant to a Series B Preferred Stock Purchase Agreement, dated September 8, 1997, (the "Agreement") Biotech Target, S.A., a Panamanian corporation ("Biotech Target") purchased 400,000 shares of Series B Convertible Preferred Stock, \$.01 par value per share (the "Preferred Stock") of Alexion Pharmaceuticals, Inc. ("Alexion"). Biotech Target became the beneficial owner of the Preferred Stock on September 8, 1997.

## ITEM 1. SECURITY AND ISSUER

This statement relates to the Preferred Stock of Alexion. Alexion's principal executive offices are located at 25 Science Park, New Haven, Connecticut 06511.

## ITEM 2. IDENTITY AND BACKGROUND

This statement is filed jointly by BB Biotech AG ("BB Biotech") and Biotech Target. Biotech Target is a wholly-owned subsidiary of BB Biotech.

BB Biotech is a holding company incorporated in Switzerland. BB Biotech's business address is Vordergasse 3, 8200 Schaffhausen, CH/Switzerland. BB Biotech invests in companies involved in the development, production, and distribution of pharmaceuticals and other products based on biotechnology. BB Biotech is publicly traded on the Zurich Stock Exchange.

Biotech Target is a wholly-owned subsidiary of BB Biotech incorporated in the Republic of Panama. Biotech Target's business address is Swiss Bank Tower, Panama 1, Republic of Panama. The principal business of Biotech Target is to invest in companies in the biotechnology sector.

The name, business address, present principal occupation, and citizenship of each executive officer and director of BB Biotech and Biotech Target are set forth on Appendix A hereto, which is incorporated herein by reference.

During the last five (5) years, neither BB Biotech nor Biotech Target, nor to the best of their knowledge, any of their executive

officers or directors, has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction as a result of which he was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

ITEM 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION

Biotech Target purchased the Alexion Preferred Stock in a privately negotiated transaction pursuant to the Agreement for an aggregate consideration of \$10,000,000. Biotech Target used capital to purchase the Preferred Stock, which, in turn, was working capital supplied by BB Biotech. BB Biotech is publicly traded on the Zurich Stock Exchange, and its shareholders are both private and institutional investors.

ITEM 4. PURPOSE OF TRANSACTION

The Preferred Stock are being held for investment purposes only. However, Biotech Target may, from time to time, either increase or decrease its holdings of the Preferred Stock, subject to applicable laws and limitations contained in the Agreement. Any such decision will depend, however, on numerous factors, including, without limitation, the market price of shares of Alexion Preferred Stock, the terms and conditions related to their purchase and sale, the prospects and profitability of Alexion, other business and investment alternatives of Biotech Target and general economic and market conditions.

It is Biotech Target's general policy not to interfere with the management of companies in which it holds portfolio investments. Neither Biotech Target nor BB Biotech have an intention to influence or direct Alexion's affairs, modify its corporate structure or interfere with the business decisions of its management. However, Biotech Target has negotiated the inclusion in the Certificate of Designations for the Preferred Stock filed with the Delaware Secretary of State (the "Certificate of Designations") of certain negative covenants with respect to the Preferred Stock. These covenants include certain restrictions on the amendment or repeal of provisions in Alexion's Certificate of Incorporation. These negative covenants also include: (i) restrictions on the issuance of third party debt in excess of an aggregate amount of \$20,000,000; (ii) restrictions on distributions in respect of and redemptions of Alexion's capital stock; (iii) the giving of guarantees or indemnities; and (iv) certain other negative covenants. Except as set forth above, neither Biotech Target nor BB Biotech, nor to the best knowledge of such persons, any executive officer or director of either BB Biotech or Biotech

Target, has any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of Alexion or the disposition of securities of Alexion; (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving Alexion; (c) a sale or transfer or a material amount of assets of Alexion; (d) any change in the present board of directors or management of Alexion, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board; (e) any material change in the present capitalization or dividend policy of Alexion; (f) any other material change in Alexion's business or corporate structure; (g) changes in Alexion's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of Alexion by any person; (h) causing a class of securities of Alexion to be delisted from a national securities exchange or to cease to be authorized to be quoted in an interdealer quotation system of a registered national securities association; (i) a class of equity securities of Alexion to become eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934 ("Exchange Act"); or (j) any action similar to any of those enumerated above.

ITEM 5. INTEREST IN SECURITIES OF THE ISSUER

(a) BB Biotech may be deemed to be the indirect beneficial owner of the Preferred Stock held directly by Biotech Target as of September 8, 1997, which represents approximately 100% of Alexion's outstanding shares of Preferred Stock. No Alexion shares of Preferred Stock are directly owned by BB Biotech. To the best knowledge of BB Biotech and Biotech Target, no director or executive officer of BB Biotech or Biotech Target owns any shares of Alexion Common Stock.

Pursuant to the Certificate of Designations, Biotech Target may elect to convert the Preferred Stock, at any time, into shares of common stock in Alexion (the "Common Stock"). If Biotech Target were to have converted its Preferred Stock into shares of Common Stock on September 8, 1997, Biotech Target would hold approximately 935,781 shares of Common Stock. This conversion would make Biotech Target the holder of approximately 9.5% of Alexion's outstanding common stock. The conversion ratio which governs the conversion of the Preferred Stock into Common Stock is subject to adjustment as provided for in the Certificate of Designations, to reflect stock splits, dividends and other transactions described therein.

By virtue of its ownership of the Preferred Stock, Biotech Target is also entitled to a dividend associated with the Preferred Stock. This dividend, which as of the date of the signing of the Agreement is \$2.25 per share of Preferred Stock, is payable in either cash or Common Stock at the option of Alexion.

(b) The number of shares of Alexion Preferred Stock to which there is sole power to vote or to direct the vote, shared power to vote or to direct the vote, sole power to dispose or to direct the disposition, or shared power to dispose or direct the disposition, is set forth in the cover pages hereof and such information is incorporated herein by reference. BB Biotech, through its ownership of Biotech Target, may be deemed to beneficially own the shares of Alexion Preferred Stock within the meaning of Regulation 13D under the Exchange Act, and may be deemed to share with Biotech Target the power to vote, or direct the vote of, and the power to dispose of or direct the disposition of, the aggregate 400,000 shares of Alexion Preferred Stock held by Biotech Target. BB Biotech hereby expressly declares that the filing of this statement shall not be construed as an admission that it is, for purposes of Section 13(d) of the Exchange Act, the beneficial owner of the shares of Alexion Common Stock held by Biotech Target.

(c) Not applicable.

(d) Not applicable.

(e) Not applicable.

ITEM 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS  
WITH RESPECT TO SECURITIES OF THE ISSUER

Pursuant to the Agreement, Alexion and Biotech Target have agreed to the following provisions as they relate to the shares of Alexion Common Stock:

(a) Registration Rights. Alexion has provided Biotech Target with certain registration rights with respect to the resale of shares of Conversion Shares held by Biotech Target. Among other things, Alexion has agreed to use its best efforts to prepare and file a registration statement on Form S-3 with the Securities and Exchange Commission under the Securities Act of 1933, as amended, to register the resale of the shares by Biotech Target on November 8, 1997 or as soon as thereafter as is practicable and to use its best efforts to cause such registration statement to be declared effective as soon as practicable.

(b) Restriction on Sales. Biotech Target has agreed not to engage in any sales of Common Stock prior to the effectiveness of a registration statement, except to the extent that any such short sale is covered by shares of Common Stock acquired other than pursuant to the Agreement.

(c) Reference to the Agreement. The response to this Item 6 is qualified in its entirety by reference to the Agreement, the

full text of which is filed as Exhibit 4 hereto and incorporated herein by reference.

(d) Those other negative covenants and other terms as contained in the Certificate of Designations and described herein.

Except for the Agreement, neither BB Biotech nor Biotech Target nor, to the best of their knowledge, any of the executive officers or directors of either BB Biotech or Biotech Target, is a party to any contract, arrangement, understanding, or relationship (legal or otherwise) with any person with respect to any securities of Alexion (including the shares of Common Stock), finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, divisions of profits or loss, or the giving or withholding of proxies.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS

- Exhibit 1: Translation of minutes of the October 18, 1995, Board of Directors Meeting of Biotech Target (evidencing a power of attorney in favor of Dr. Andreas Bremer).
- Exhibit 2: Translation of minutes of the January 3, 1997 meeting of the Board of Directors Meeting of Biotech Target (evidencing a power of attorney in favor of Dr. Anders Hove).
- Exhibit 3: Translation of evidence of a power of attorney in favor of Victor Bischoff and Hans-Joerg Graf on behalf of BB Biotech.\*
- Exhibit 4: Agreement by and between BB Biotech and Biotech Target with respect to the filing of this disclosure statement.
- Exhibit 5: Series B Preferred Stock Purchase Agreement dated September 4, 1997. (To be filed as an amendment).

- - - - -  
\* See power of attorney, attached as an exhibit 99.E to the Schedule 13D relating to Biogen, Inc. filed with the Securities and Exchange Commission on June 2, 1994, which exhibit is incorporated by reference herein.

SIGNATURES

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

BB BIOTECH AG

Date: September 18, 1997  
---

By: /s/ HANS-JOERG GRAF  
-----  
Name: Hans-Joerg Graf

Date: September 18, 1997  
---

By: /s/ DR. VICTOR BISCHOFF  
-----  
Name: Dr. Victor Bischoff

BIOTECH TARGET, S.A.

Date: September 18, 1997  
---

By: /s/ DR. ANDREAS BREMER  
-----  
Name: Dr. Andreas Bremer

Date: September 18, 1997  
---

By: /s/ DR. ANDERS HOVE  
-----  
Name: Dr. Anders Hove

## APPENDIX A TO ITEM 2

NAME AND POSITION WITH COMPANY -----	RESIDENCE OR BUSINESS ADDRESS -----	PRESENT PRINCIPAL OCCUPATION -----
<b>BB BIOTECH</b>		
Dr. Ernst Thomke (Swiss citizen)	Vordergasse 3, 8200 Schaffhausen, CH/Switzerland	Vice- Chairman and Director
Dr. Victor Bischoff (Swiss citizen)	Vordergasse 3, 8200 Schaffhausen, CH/Switzerland	Vice- Chairman and Director
Dr. David Baltimore (U.S. citizen)	Rockefeller University 1239 York Avenue New York, NY 19921	Professor and Director
<b>BIOTECH TARGET</b>		
Dr. Andreas Bremer (German citizen)	Grafenauweg 4, 6301 Zug CH/Switzerland	signatory authority
Dr. Anders Hove (Danish citizen)	Grafenauweg 4, 6301 Zug CH/Switzerland	signatory authority
Hans-Joerg Graf (Swiss citizen)	Grafenauweg 4, 6301 Zug CH/Switzerland	signatory authority
Pablo Javier Espino (Panamanian citizen)	Swiss Bank Tower, Panama 1, Republic of Panama	President and Director
Adelina M. de Estribi (Panamanian citizen)	Swiss Bank Tower, Panama 1, Republic of Panama	Director

CERTIFICADO:---- Yo, Adelina M. de Estribi, Secretaria de la sociedad BIOTECH TARGET S.A., certifico que lo anterior es copia autentica de su original.

- ----- (Fdo.) Adelina M. de Estribi Secretaria.---

- ----- -MINUTES OF A MEETING OF THE BOARD OF DIRECTORS OF THE CORPORATION BIOTECH TARGET S.A.----In the City of Panama, Republic of Panama, on October 18, 1995, a Meeting of the Board of Directors of BIOTECH TARGET S.A., was held in the principal offices of said corporation at 53rd Street, Urbanizacion Obarrio, Torre Swiss Bank, 16th floor, Panama, Republic of Panama, wherein a quorum was at all time present and active.--- All of the Directors of the corporation, PABLO JAVIER ESPINO, AIDA MAY BIGGS and ADELINA M. DE ESTRIBI, were present at the Meeting, therefore the notice of the meeting was waived.-- The President of the Corporation PABLO JAVIER ESPINO presided the Meeting, and the Secretary of the Corporation ADELINA M. DE ESTRIBI served as Secretary.-- The President then called the Meeting to order and explained its objects: to grant power of attorney to persons chosen by the Board of Directors to act on behalf of the corporation with such authority as the Board may approve, there upon, after an exchange of views on motion duly made and seconded the following resolutions were unanimously approved:-- RESOLVED: That be and hereby is granted a Power of Attorney as full as it may be legally necessary in favor of DANIEL BUGMANN, born the 10.10.1966, at Wiesenstrasse 10, 8008 Zurich, Switzerland; ANDREAS BREMER, born the 1.7.1961, at Schaedruetirain 8, 6006 Lucerna, Switzerland; NICOLAS MERIAN, born the 18.1.1961, at Rennweg 10, 8001 Zurich, Switzerland, to act on behalf of the Corporation, jointly by two, with full powers, which for purposes of enunciation and not in order to limit this Power of Attorney, are detailed as follows: - to purchase, alienate, transfer, sell, lease, pledge, mortgage, encumber, or dispose of in any way or manner, the movable or immovable, corporeal or incorporeal, property of the corporation; to accept, endorse, collect, deposit and transfer checks, tes and any other negotiable instruments in its name; to open and to close any kind of banking account, to draw from accounts and the banking deposits of the corporation, be they checking accounts, time

deposits or against overdraft or any other kind of deposits, be it in the Republic of Panama or abroad. To issue notes, sign, bills of exchange as a drawer, acceptor, endorser or guarantor; accept obligations, be they of a commercial or civil nature; to represent the corporation in matters of disposition and administration as well as in all affairs of management and situations in which the corporation has an interest, also in general partnerships or joint ventures; to buy stock or shares of any kind in other companies; to take part in Assemblies or meetings in order to make any kind of agreements, including agreements of constitution, transformation, increase of capital and dissolution of companies, to become the legal representative of the company, as plaintiff, defendant, third party or in any other form, in front of any office of the Republic of Panama or abroad, be they judicial, administrative, concerning labor, or of any other nature, to substitute this power in whole or partially and to revoke the substitutions, to subscribe documents wherein the corporation may be involved; as debtor or creditor; to make agreements using arbitrators or any other type of arrangement whatsoever and to complete any act or to enter into any contract that may be considered beneficial to the interests of the company BIOTECH TARGET S.A., because it is the intention of this Power of Attorney that it be exercised without any limitations whatsoever. It is hereby expressed that this Power of Attorney can be exercised inside the territory of the Republic of Panama or in any other country.--- It was also resolved to give authority to the law firm MORGAN Y MORGAN to protocolize a copy of the minutes of this meeting of the Board of Directors.-----Having nothing else to discuss, the meeting was adjourned.------(sgd.) Pablo J. Espino- President----- Adelina M. de Estribi- Secretary.----CERTIFICATE:- I, ADELINA M. DE ESTRIBI, Secretary of the corporation BIOTECH TARGET S.A., certify that the foregoing is a genuine copy of its original.------(sgd.) Adelina M. de Estribi- Secretary.-----Concuenda con su original esta copia que expido, firmo y sello en la Ciudad de Panama, a los dieciocho (18) dias del mes de octubre de mil novecientos noventa y cinco (1995)

TARGET S.A. certificado que lo anterior es copia autentica de su original.  
 - -----(Fdo.) Adeline M. de Estribi-Secretaria.----- MINUTES OF A  
 MEETING OF THE BOARD OF DIRECTORS OF THE CORPORATION BIOTECH TARGET S.A. -----  
 In the City of Panama, Republic of Panama, on January 3, 1997, a Meeting of the  
 Board of Directors of BIOTECH TARGET S.A. was held in the principal offices of  
 said corporation at 53rd Street Urbanizaicion Obarrio, Torre Swiss Bank, 16th  
 floor, Panama, Republic of Panama, wherein a quorum was at all time present and  
 active.----- All of the Directors of the corporation, PABLO JAVIER ESPINO, AIDA  
 MAY BIGGS and ADELINA M. DE ESTRIBI, were present at the Meeting, therefore  
 notice of the meeting was waived.-- The President of the Corporation PABLO  
 JAVIER ESPINO presided the Meeting, and the Secretary of the Corporation ADELINA  
 M. DE ESTRIBI served as Secretary.--- The President then called the Meeting to  
 order and explained its objects: to grant a Power of Attorney to a person chosen  
 by the Board of Directors to act on behalf of the corporation with such  
 authority as the Board may approve. There upon, after an exchange of views on  
 motion duly made and seconded the following resolutions were unanimously  
 approved: -- RESOLVED: That be and hereby is granted a Power of Attorney as full  
 as it may be legally necessary in favor of Dr. ANDERS HOVE, Danish, born on  
 October 31, 1965, to act on behalf of the Corporation, jointly by two, with  
 Messrs. HANS JOERG GRAF, DANIEL BUGMANN, ANDREAS BREMER and NICOLAS MERIAM, with  
 full powers, which for purposes of enunciation and not in order to limit this  
 Power of Attorney, are detailed as follows: to purchase, alienate, transfer,  
 sell, lease, pledge, mortgage, encumber, or dispose of in any way or manner, the  
 movable or immovable, corporeal or incorporeal property of the corporation; to  
 accept, endorse, collect, deposit and transfer checks, notes and any other  
 negotiable instruments in its name; to open and to close any kind of bank  
 account, to draw from accounts and the bank deposits of the corporation, be they  
 checking accounts, time deposits overdraft, or any other kind of deposits, be  
 they in the Republic of Panama or abroad. To issue notes, sign bill of exchange  
 as a drawer, acceptor, endorser or guarantor; accept obligations, be they of a  
 commercial or civil nature; to represent the corporation in matters of  
 disposition and administration as well as in all affairs of management and  
 situations in which the corporation has an interest, also in general  
 partnerships or joint ventures; to buy stock or shares of any kind in other  
 companies; to take part in Assemblies or meetings in order to make any kind of  
 agreements, including agreements of constitution, transformation, increase of  
 capital and dissolution of companies, to become the legal representative of the  
 company, as plaintiff, defendant, third party or in any other form, before any  
 office of the Republic of Panama or abroad, be they judicial, administrative,  
 concerning labor, or of any other nature, to substitute this power in whole or  
 in part and to revoke the substitutions; to subscribe documents wherein the  
 corporation may be involved as debtor or creditor; to make agreements using  
 arbitrators or any other type of arrangement whatsoever and to complete any act  
 or to enter into any contract that may be considered beneficial to the interests  
 of the company BIOTECH TARGET S.A. because it is the intention of this Power of  
 Attorney that it be exercised without any limitations whatsoever. - It is hereby  
 expressed that this Power of Attorney can be exercised in the territory of the  
 Republic of Panama or in any other country.---- It was also resolved to give  
 authority to the Law firm MORGAN Y MORGAN to protocolize a copy of the minutes  
 of this meeting of the Board of Directors.----- Having nothing else  
 to discuss, the meeting was adjourned.----- (sgd.) Pablo J. Espino-  
 President - Adelina H. de Estribi- Secretary.----- CERTIFICATE:- I,  
 ADELINA M. DE ESTRIBI, Secretary of the corporation BIOTECH TARGET S.A. certify  
 that the foregoing is a genuine copy of its original.----- (sgd.) Adelina M.  
 de Estribi- Secretary.----- Concuerta con su original esta copia que  
 expido, firmo y sello en la Ciudad de Panama. Republica de Panama, a los  
 veinticuatro (24) dias del mes de abril de mil novecientos noventa y siete  
 (1997).

## JOINT FILING AGREEMENT

We, the undersigned, hereby express our agreement that the attached Schedule 13D (including all amendments thereto) is filed on behalf of each of the undersigned.

Date: September 18, 1997  
---

BB BIOTECH AG

By: /s/ HANS-JOERG GRAF  
-----

Name: Hans-Joerg Graf

By: /s/ DR. VICTOR BISCHOFF  
-----

Name: Dr. Victor Bischoff

BIOTECH TARGET, S.A.

By: /s/ DR. ANDREAS BREMER  
-----

Name: Dr. Andreas Bremer

By: /s/ DR. ANDERS HOVE  
-----

Name: Dr. Anders Hove