

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
OMB Number:	3235-0287
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1. Name and Address of Reporting Person* BAKER BROS. ADVISORS LP (Last) (First) (Middle) 667 MADISON AVENUE, 21ST FLOOR (Street) NEW YORK NY 10065 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol ALEXION PHARMACEUTICALS INC [ALXN]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 06/14/2017	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock								65,810 ⁽¹⁾	D	
Common Stock								66,153 ⁽²⁾	D	
Common Stock								94,410	I	See Footnote ⁽³⁾
Common Stock	06/14/2017		P		7,324	A	\$114.3325 ⁽⁴⁾	517,050	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		64,455	A	\$114.3325 ⁽⁴⁾	6,171,047	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		2,122	A	\$115.0577 ⁽⁸⁾	519,172	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		18,678	A	\$115.0577 ⁽⁸⁾	6,189,725	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		23,614	A	\$115.7123 ⁽¹⁰⁾	542,786	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		207,814	A	\$115.7123 ⁽¹⁰⁾	6,397,539	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		19,305	A	\$115.7676 ⁽¹¹⁾	562,091	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		169,897	A	\$115.7676 ⁽¹¹⁾	6,567,436	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		224	A	\$116.1752 ⁽¹²⁾	562,315	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		1,976	A	\$116.1752 ⁽¹²⁾	6,569,412	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		43,835	A	\$116.3674 ⁽¹³⁾	606,150	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		385,774	A	\$116.3674 ⁽¹³⁾	6,955,186	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		1,446	A	\$116.3678 ⁽¹⁴⁾	607,596	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		12,726	A	\$116.3678 ⁽¹⁴⁾	6,967,912	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		3,634	A	\$116.7055 ⁽¹⁵⁾	611,230	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		31,974	A	\$116.7055 ⁽¹⁵⁾	6,999,886	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		102	A	\$116.96	611,332	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		898	A	\$116.96	7,000,784	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	06/14/2017		P		7,416	A	\$117.014 ⁽¹⁶⁾	618,748	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		65,264	A	\$117.014 ⁽¹⁶⁾	7,066,048	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		3,656	A	\$117.2208 ⁽¹⁷⁾	622,404	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		32,172	A	\$117.2208 ⁽¹⁷⁾	7,098,220	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		22,399	A	\$117.506 ⁽¹⁸⁾	644,803	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		197,126	A	\$117.506 ⁽¹⁸⁾	7,295,346	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		2,564	A	\$117.9483 ⁽¹⁹⁾	647,367	I	See Footnotes ⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽²⁰⁾⁽²¹⁾
Common Stock	06/14/2017		P		22,560	A	\$117.9483 ⁽¹⁹⁾	7,317,906	I	See Footnotes ⁽⁶⁾⁽⁷⁾⁽⁹⁾⁽²⁰⁾⁽²¹⁾

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date					

1. Name and Address of Reporting Person*
BAKER BROS. ADVISORS LP

 (Last) (First) (Middle)
667 MADISON AVENUE, 21ST FLOOR

 (Street)
NEW YORK NY 10065

 (City) (State) (Zip)

1. Name and Address of Reporting Person*
BAKER FELIX

 (Last) (First) (Middle)
667 MADISON AVENUE, 21ST FLOOR

 (Street)
NEW YORK NY 10065

 (City) (State) (Zip)

1. Name and Address of Reporting Person*
BAKER JULIAN

 (Last) (First) (Middle)
667 MADISON AVENUE, 21ST FLOOR

 (Street)
NEW YORK NY 10065

 (City) (State) (Zip)

1. Name and Address of Reporting Person*

[Baker Bros. Advisors \(GP\) LLC](#)

(Last) (First) (Middle)

667 MADISION AVENUE, 21ST FLOOR

(Street)

NEW YORK NY New York

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[667, L.P.](#)

(Last) (First) (Middle)

667 MADISION AVENUE, 21ST FLOOR

(Street)

NEW YORK NY 10065

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[Baker Brothers Life Sciences LP](#)

(Last) (First) (Middle)

667 MADISION AVENUE, 21ST FLOOR

(Street)

NEW YORK NY 10065

(City) (State) (Zip)

Explanation of Responses:

- 65,810 shares of Common Stock of Alexion Pharmaceuticals, Inc. (the "Issuer") directly held by Felix J. Baker, a principal of Baker Bros. Advisors LP (the "Adviser"). Felix J. Baker serves on the Board of Directors of the Issuer (the "Board").
- 66,153 shares of Common Stock of the Issuer directly held by Julian C. Baker, a principal of the Adviser.
- Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest in 94,410 shares of Common Stock of the Issuer directly held by FBB Associates. Felix J. Baker and Julian C. Baker are the sole partners of FBB Associates. Felix J. Baker and Julian C. Baker each disclaims beneficial ownership of the securities held directly by FBB Associates except to the extent of their pecuniary interest therein, and this report shall not be deemed an admission that Felix J. Baker or Julian C. Baker is a beneficial owner of such securities for purposes of Section 16 or any other purpose.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667, L.P. ("667") and Baker Brothers Life Sciences, L.P. ("Life Sciences" and together with 667, the "Funds") in multiple transactions at prices ranging from \$114.01 to \$114.96, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission ("SEC"), upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- After giving effect to the transactions reported herein and as a result of their ownership interest in Baker Biotech Capital (GP), LLC, Felix J. Baker and Julian C. Baker each may be deemed to have an indirect pecuniary interest in the Issuer's shares of Common Stock reported in column 5 of Table I directly held by 667, a limited partnership of which the sole general partner is Baker Biotech Capital, L.P., a limited partnership of which the sole general partner is Baker Biotech Capital (GP), LLC, due to Baker Biotech Capital, L.P.'s right to receive an allocation of a portion of the profits from 667.
- Includes beneficial ownership of 1,531 common shares and 2,030 restricted stock units payable solely in common shares previously issued to Felix J. Baker in his capacity as a director of the Issuer pursuant to the Stock Incentive Plan in lieu of director retainer fees, of which the fund may be deemed to own a portion.
- Includes 12,763, 33,608 and 20,226 shares of Common Stock of the Issuer held directly, respectively by Julian C. Baker, Felix J. Baker and Stephen R. Biggar received from their service on the Board of Directors of Synageva Biopharma Corp. ("Synageva Board"), a company acquired by the Issuer pursuant to a merger agreement dated May 5, 2015 and its predecessor ("Predecessor Board"). Julian C. Baker, a principal of the Adviser, served on the Predecessor Board as a representative of the Funds. Felix J. Baker, a principal of the Adviser, and Stephen R. Biggar, an employee of the Adviser served on the Synageva Board. Felix J. Baker serves on the Board. Pursuant to the policies of the Adviser, Julian C. Baker, Felix J. Baker and Stephen R. Biggar do not have any right to any of Synageva's or the Issuer's securities issued as part of their service on the Board, the Synageva Board or the Predecessor Board and the Funds are entitled to receive all the pecuniary interest in the securities issued. The Funds each own an indirect proportionate pecuniary interest in the stock options or common shares received for service on the Board, the Synageva Board or the Predecessor Board. Solely as a result of Felix J. Baker's and Julian C. Baker's ownership interest in the general partners of the general partners of the Funds, Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest in the stock options and common shares received from their service on the Board, the Synageva Board or the Predecessor Board (i.e. no direct pecuniary interest).
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$114.99 to \$115.17, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- After giving effect to the transactions reported herein and as a result of their ownership interest in Baker Brothers Life Sciences Capital (GP), LLC, Julian C. Baker and Felix J. Baker each may be deemed to have an indirect pecuniary interest in the Issuer's shares of Common Stock reported in column 5 of Table I directly held by Life Sciences, a limited partnership of which the sole general partner is Baker Brothers Life Sciences Capital, L.P., a limited partnership of which the sole general partner is Baker Brothers Life Sciences Capital (GP), LLC, due to Baker Brothers Life Sciences Capital, L.P.'s right to receive an allocation of a portion of the profits from Life Sciences.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$115.03 to \$116.00, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$115.21 to \$116.19, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$116.13 to \$116.19, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$116.01 to \$117.00, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$116.09 to \$116.50, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$116.26 to \$117.23, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$116.31 to \$117.25, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.
- The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$116.98 to \$117.75, inclusive. The reporting

persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.

18. The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$117.01 to \$118.00, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.

19. The price reported in Column 4 is a weighted average price. These shares were traded by 667 and Life Sciences in multiple transactions at prices ranging from \$117.83 to \$118.00, inclusive. The reporting persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares traded at each separate price within the range set forth in this footnote.

20. The Adviser serves as the Investment Adviser to the Funds. In connection with the services provided by the Adviser, the Adviser receives an asset-based management fee that does not confer any pecuniary interest in the securities held by the Funds. Baker Bros. Advisors (GP) LLC (the "Adviser GP") is the Adviser's sole general partner. Julian C. Baker and Felix J. Baker are principals of the Adviser GP. The Adviser has complete and unlimited discretion and authority with respect to the investment and voting power of the securities held by the Funds. The general partners of the Funds relinquished to the Adviser all discretion and authority with respect to the investment and voting power of the securities held by the Funds.

21. Julian C. Baker, Felix J. Baker, the Adviser GP and the Adviser disclaim beneficial ownership of the securities held directly by the Funds except to the extent of their pecuniary interest therein, and this report shall not be deemed an admission that any of Julian C. Baker, Felix J. Baker, the Adviser GP or the Adviser is a beneficial owner of such securities for purposes of Section 16 or any other purpose.

Remarks:

Felix J. Baker is a director of Alexion Pharmaceuticals, Inc. (the "Issuer"). By virtue of his representation on the Board of Directors of the Issuer, for purposes of Section 16 of the Securities Exchange Act of 1934, as amended, the reporting persons other than Felix J. Baker are deemed directors by deputization of the Issuer. This is the first of two Form 4's reporting changes in beneficial ownership. Due to space limitations in Form 4 we are thus filing these two Form 4's.

Baker Bros. Advisors LP,
Name: Scott L. Lessing, Title: 06/16/2017
President /s/ Scott L. Lessing

/s/ Felix J. Baker 06/16/2017
/s/ Julian C. Baker 06/16/2017

Baker Bros. Advisors (GP),
LLC, Name: Scott L Lessing, 06/16/2017
Title: President /s/ Scott L
Lessing

Baker Bros. Advisors LP,
Mgmt. Co. and Inv. Adviser to
667, L.P., pursuant to authority
granted by Baker Biotech
Capital, L.P., GP to Baker 06/16/2017
Brothers 667, L.P. Name: Scott
L. Lessing Title: President /s/
Scott L. Lessingg Title:
President /s/

Baker Bros. Advisors LP,
Mgmt. Co. and Inv. Adviser to
BAKER BROTHERS LIFE
SCIENCES, L.P., pursuant to
authority granted by Baker 06/16/2017
Brothers Life Sciences Capital,
L.P., GP to Baker Brothers Life
Sciences, L.P. Name: Scott L.
Lessing Title: President /s/

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.