

**PROSPECTUS SUPPLEMENT NO. 1**  
**(To Prospectus Dated May 25, 2005)**

**\$150,000,000**

**Alexion Pharmaceuticals, Inc.**

**1.375% Convertible Senior Notes due 2012 and**  
**Shares of Common Stock Issuable Upon**  
**Conversion of the Notes**

This prospectus supplement relates to the resale from time to time by the holders of our 1.375% Convertible Senior Notes due 2012 and the shares of common stock issuable upon conversion of the notes.

You should read this prospectus supplement in conjunction with the prospectus dated May 25, 2005, and this prospectus supplement is qualified in its entirety by reference to the prospectus, except to the extent that the information in this prospectus supplement supersedes the information contained in the prospectus. The prospectus is to be delivered with this prospectus supplement. The terms of the notes and the common stock issuable upon conversion of the notes are set forth in the prospectus.

Our common stock is quoted on The Nasdaq National Market under the symbol "ALXN." The last reported sale price of our common stock on June 17, 2005 was \$22.74 per share.

**See "Risk Factors" beginning on page 6 of the prospectus to read about factors you should consider before buying the notes or our common stock.**

**Neither the Securities and Exchange Commission, any state securities commission nor any other regulatory authority, has approved or disapproved the securities nor have any of the foregoing authorities passed upon or endorsed the merits of this offering or the accuracy or adequacy of this prospectus supplement or the prospectus or the documents incorporated by reference therein. Any representation to the contrary is a criminal offense.**

The date of this prospectus supplement is June 20, 2005.

The prospectus is hereby amended and supplemented to include in the table under the caption “Selling Securityholders” beginning on page 59 of the prospectus the information regarding the selling securityholders listed below. This information was furnished to us by the selling securityholders as of the date of this prospectus supplement.

Selling Securityholder (1)	Principal Amount of Notes (1)		Number of Common Shares (1)(2)			
	Beneficially Owned Prior to the Offering and Offered Hereby	Percentage of Notes Outstanding	Beneficially Owned Prior to the Offering (3)	Percentage of Common Shares Outstanding (4)	Offered Hereby	Beneficially Owned After Completion of the Offering
Baker Bros. Investments, L.P. (34)	1,319,000	*	41,932	*	41,932	0
Baker/Tisch Investments, L.P. (34)	1,170,000	*	37,195	*	37,195	0
Baker Biotech Fund I, L.P. (34)	13,073,000	8.7%	415,608	1.5%	415,608	0
Baker Biotech Fund II, L.P. (34)	11,908,000	7.9%	378,571	1.3%	378,571	0
Baker Biotech Fund III, L.P. (34)	10,330,000	6.9%	328,405	1.2%	328,405	0
Citadel Equity Fund Ltd. (35)	16,500,000	11.0%	916,838(36)	3.2%	524,558	392,280

\* Less than 1%

- (1) Information concerning the selling securityholders may change from time to time. Any such changed information will be set forth in supplements to this prospectus if and when necessary. The amounts of notes and the number of our common shares indicated may be in excess of the total amount registered under the registration statement of which this prospectus forms a part, due to sales or transfers by selling securityholders of such notes or shares in transactions exempt from the registration requirements of the Securities Act after the date on which they provided us information regarding their holdings of notes and such common shares.
- (2) For purposes of presenting the number of our common shares beneficially owned by holders of the notes, we assume a conversion rate of 31.7914 shares per \$1,000 principal amount of notes, and a cash payment in lieu of the issuance of any fractional share interest. However, the conversion price is subject to adjustment, as described under “Description of the Notes—Conversion Rights.” As a result, the number of common shares issuable upon conversion of the notes, and as a consequence, the number of shares beneficially owned by the holders of notes, may increase or decrease in the future.
- (3) Unless otherwise noted, represents shares of common stock issuable upon conversion of the notes.
- (4) Percentages based on the number of shares of common stock outstanding as of March 15, 2005.
- (34) Julian Baker and Felix Baker may be deemed to have voting and investment power over these securities. Julian Baker and Felix Baker also have voting and investment power over securities held by the following entities: Baker Bros. Investments II, L.P., Baker Biotech Fund II (Z), L.P., Baker Biotech Fund III (Z), L.P., and 14159, L.P. These entities own an additional \$6,000,000 of registered notes, convertible into 190,748 shares of common stock, representing 4.0% of notes outstanding and less than 1.0% of common shares outstanding. These additional notes and shares of common stock were acquired in registered transactions and therefore not offered pursuant to this prospectus.
- (35) The selling securityholder is an affiliate of a registered broker-dealer. The broker-dealers are under common control with Citadel Equity Fund Ltd. and one is directly owned by Citadel Equity Fund. The broker dealers are: Aragon Investments Ltd., Palofax Trading LLC, Citadel Trading Group, LLC, and Citadel Derivatives Group. Citadel Limited Partnership (“Citadel”) is the trading manager of Citadel Equity Fund Ltd. and consequently has investment discretion over securities held by Citadel Equity Fund Ltd. Citadel disclaims beneficial ownership of the shares beneficially owned by Citadel Equity Fund Ltd. Kenneth C. Griffin indirectly controls Citadel and therefore has ultimate investment discretion over securities held by Citadel Equity Fund Ltd. Mr. Griffin disclaims beneficial ownership of the shares held by Citadel Equity Fund Ltd.
- (36) Of the 916,838 shares, 524,558 are issuable upon conversion of the notes and are offered pursuant to this prospectus.