

PROSPECTUS SUPPLEMENT NO. 5
(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 January 31, 2006 was \$28.82 per share.

Investing in these securities involves risks. 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 NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS SUPPLEMENT OR THE PROSPECTUS TO WHICH IT RELATES OR THE DOCUMENTS INCORPORATED BY REFERENCE THEREIN. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus supplement is February 1, 2006.

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
Tang Capital Partners, L.P.	3,500,000	2.3%	111,269	*	111,269	0
Credit Suisse First Boston Europe Limited	10,000,000	6.7%	317,914	1.03%	317,914	0

* 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 November 30, 2005.