

SPECTRUM PHARMACEUTICALS INC  
Form 424B3  
September 16, 2011

Filed pursuant to rule 424(b)(3)  
Registration Statement No. 333-135029

**PROSPECTUS SUPPLEMENT NO. 5**  
(TO PROSPECTUS DATED AUGUST 21, 2006)

**PROSPECTUS**  
**UP TO 1,550,134 SHARES OF**  
**SPECTRUM PHARMACEUTICALS, INC.**  
**COMMON STOCK**

This prospectus supplement no. 5 relates to the offer and sale of up to 1,550,134 shares of our common stock by the selling stockholders named in the prospectus dated August 21, 2006, as supplemented by prospectus supplement no. 1 dated October 22, 2007, no. 2 dated March 31, 2008, no. 3 dated April 20, 2009 and no. 4 dated July 14, 2011 (the Prospectus ). This prospectus supplement no. 5 should be read in conjunction with the Prospectus.

In connection with our 2006 acquisition of all the oncology drug assets of Targent, LLC, as the successor to Targent, Inc. ( Targent ), Targent is eligible to receive contingent consideration, in the form of either cash or shares, upon the satisfaction of certain milestones. As a result of the satisfaction of one such milestone in 2011, we are issuing an aggregate of 577,367 shares of our common stock, as directed by Targent, to the individuals or entities named in the Selling Stockholders table below. Pursuant to this prospectus supplement no. 5, as required by the registration rights agreement with Targent, we are registering for resale 192,456 of those 577,367 shares. Other than the asset purchase agreement relating to the acquisition and transactions contemplated thereby, there are no material relationships between the Company and Targent or its stockholders.

The information appearing in the table below, as of the date hereof, supplements the information in the table appearing under the heading Selling Stockholders in the Prospectus. This table only provides beneficial ownership information with respect to selling stockholders who are receiving shares of our common stock in connection with the achievement of a milestone related to the acquisition of certain assets from Targent, as described above.

We prepared this table based on the information supplied to us by the selling stockholders named in the table and we have not sought to verify such information. Since the date on which the selling stockholder provided this information, the selling stockholder may have sold, transferred or otherwise disposed of all or a portion of the shares of common stock that he, she or it beneficially owns in a transaction exempt from the registration requirements of the Securities Act of 1933, as amended, or pursuant to an existing resale registration statement.

| Name  | Shares of Common Stock Beneficially Owned Before Offering |            | Number of Shares of Common Stock Offered Hereby | Shares of Common Stock Beneficially Owned Following the Offering <sup>(1)</sup> |            |
|---|---|------------|---|---|------------|
|   | Number  | % of Class |   | Number  | % of Class |
| Robert F. Johnston                                    | 534,096   | *%         | 73,106  | 460,990   | *%         |
| Hephaestos II Trust UAD 12/31/1991 <sup>(2)</sup>     | 152,980   | *          | 20,207  | 132,773   | *          |
| Lynn D. Johnston                                      | 164,689   | *          | 18,632  | 146,057   | *          |
| 11/6/1978 Trust F/B/O William Johnston <sup>(2)</sup> | 22,635  | *          | 2,396   | 20,239  | *          |
| William M. Johnston APT LLC <sup>(2)</sup>            | 44,793  | *          | 4,331   | 40,462  | *          |
| William M. Johnston GST 6/1/2004 <sup>(2)</sup>       | 13,527  | *          | 1,816   | 11,711  | *          |

| Name   | Shares of Common Stock Beneficially Owned Before Offering |       | Number of Shares of Common Stock Offered Hereby | Shares of Common Stock Beneficially Owned Following the Offering <sup>(1)</sup> |       |
|--|---|-------|---|---|-------|
|  | Number  | % of  |   | Number  | % of  |
|  |   | Class |   |   | Class |
| Trust F/B/O Bradford Johnston 11/6/1978<br>(2)   | 73,151  | *     | 7,118   | 66,033  | *     |
| Bradford D. Johnston GST dtd 1/29/02 (2)         | 9,704   | *     | 1,425   | 8,279   | *     |
| Trust F/B/O Alexandra Johnston 11/06/78<br>(2)   | 73,154  | *     | 7,118   | 66,036  | *     |
| Alexandra F. Johnston Trust DTD<br>2/25/2004 (2) | 9,704   | *     | 1,425   | 8,279   | *     |
| Targent Pharmaceuticals, LLC (3)                 | 118,229   | *     | 21,335  | 96,894  | *     |
| Seth Lederman                                    | 11,734  | *     | 2,117   | 9,617   | *     |
| Eli R. Lederman                                  | 104,334   | *     | 9,959   | 94,375  | *     |
| James Bell                                       | 7,625   | *     | 1,027   | 6,598   | *     |
| Bayard Henry                                     | 28,771  | *     | 3,266   | 25,505  | *     |
| Peter Melhado                                    | 12,196  | *     | 2,182   | 10,014  | *     |
| Lysander, LLC (4)                                | 62,073  | *     | 6,173   | 55,900  | *     |
| Patrick Maguire                                  | 2,919   | *     | 428   | 2,491   | *     |
| Ernest Mario                                     | 36,928  | *     | 3,397   | 33,531  | *     |
| Stephen K. Carter                                | 5,326   | *     | 428   | 4,898   | *     |
| Gerold F.L. Klauer IRA                           | 24,909  | *     | 3,656   | 21,253  | *     |
| James Harpel                                     | 6,228   | *     | 914   | 5,314   | *     |
| <b>Total :</b>                                   | <b>1,519,705</b>  |       | <b>192,456</b>                                  | <b>1,327,249</b>  |       |

\* less than 1%

- (1) Assumes the sale by the selling stockholders of all of the shares of common stock available for resale under this prospectus supplement.
- (2) Richard Johnston is a Trustee and holds the dispositive voting and investment power over the shares of common stock.
- (3) Seth Lederman is the Managing Member and holds the dispositive voting and investment power over the shares of common stock.
- (4) Stuart Davidson is a Member and holds the dispositive voting and investment power over the shares of common stock.

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. SEE RISK FACTORS IN OUR FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2010 AND OTHER DOCUMENTS INCORPORATED BY REFERENCE INTO THE PROSPECTUS.

**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 the prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus supplement is September 16, 2011.