UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

ACADIA PHARMACEUTICALS INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware (State of Incorporation or Organization) 06-1376651 (I.R.S. Employer Identification no.)

3911 Sorrento Valley Boulevard San Diego, CA (Address of principal executive offices) 92121 (Zip code)

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act Registration Statement and Number to which the form relates: 333-113137

Securities to be registered pursuant to Section 12(b) of the Act:

 Title of each class to be so registered
 Name of exchange on which each class is to be registered

 n/a
 n/a

Securities to be registered pursuant to Section 12(g) of the Act:

Common Stock, \$0.0001 par value (Title of class)

Item 1. Description of Registrant's Securities to be Registered

A description of the common stock, par value \$0.0001 per share (the "Common Stock"), of ACADIA Pharmaceuticals Inc., a Delaware corporation (the "Registrant"), to be registered hereunder is contained in the section entitled "Description of Capital Stock" in the prospectus included in the Registrant's Form S-1 Registration Statement, No. 333-113137 filed with the Securities and Exchange Commission on February 27, 2004, as amended from time to time, (the "Registration Statement"), and is incorporated herein by reference.

| Item 2. | Exhibits |
|-------------------|--|
| Exhibit Number | Description of Document |
| 3.1* | Registrant's Amended and Restated Certificate of Incorporation, as currently in effect |
| 3.2* | Form of Registrant's Amended and Restated Certificate of Incorporation, to be filed immediately prior to the effectiveness of the Registrant's initial public offering |
| 3.3* | Form of Registrant's Amended and Restated Certificate of Incorporation, to be effective upon the closing of the Registrant's initial public offering |
| 3.4* | Registrant's Bylaws, as amended, as currently in effect |
| 3.5* | Form of Registrant's Amended and Restated Bylaws, to be effective upon the effectiveness of the Registrant's initial public offering |
| 4.1 | Form of common stock certificate of Registrant (incorporated by reference to Exhibit 4.1 to Registration Statement No. 333-52492, dated December 21, 2000) |
| 4.2* | Amended and Restated Stockholders Agreement, dated March 27, 2003, by and among the Registrant and the stockholders named therein |
| 4.3* | Form of Warrants to Purchase Preferred Stock issued to GATX Ventures on May 31, 2002 |
| 4.4* | Convertible Promissory Note issued to The Stanley Medical Research Institute on May 3, 2004 |
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* Filed as an exhibit to the Registration Statement No. 333-113137 and incorporated herein by reference.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: May 19, 2004

ACADIA PHARMACEUTICALS INC.

By: /s/ Thomas H. Aasen

Thomas H. Aasen Chief Financial Officer