

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**POST-EFFECTIVE AMENDMENT NO. 1 TO  
FORM S-8  
REGISTRATION STATEMENT**

*UNDER  
THE SECURITIES ACT OF 1933*

**ACADIA PHARMACEUTICALS INC.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**06-1376651**  
(I.R.S. Employer  
Identification No.)

**3911 Sorrento Valley Boulevard  
San Diego, CA 92121  
(858) 558-2871**  
(Address of Principal Executive Offices, Including Zip Code)

**ACADIA Pharmaceuticals Inc.  
2010 EQUITY INCENTIVE PLAN  
2004 EMPLOYEE STOCK PURCHASE PLAN**  
(Full Titles of the Plans)

**Uli Hacksell, Ph.D.**  
**President and Chief Executive Officer**  
**ACADIA Pharmaceuticals Inc.**  
**3911 Sorrento Valley Boulevard  
San Diego, CA 92121**  
(Name and Address of Agent for Service)

**(858) 558-2871**  
(Telephone Number, Including Area Code, of Agent for Service)

*Copies to:*

**Glenn F. Baity**  
**Vice President, General Counsel & Secretary**  
**ACADIA Pharmaceuticals Inc.**  
**3911 Sorrento Valley Boulevard  
San Diego, CA 92121  
(858) 558-2871**

**L. Kay Chandler, Esq.**  
**Sean M. Clayton, Esq.**  
**Cooley LLP**  
**4401 Eastgate Mall  
San Diego, CA 92121  
(858) 550-6000**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

## EXPLANATORY NOTE

This Post-Effective Amendment is being filed solely to update the Registrant's undertakings by the addition of Item 9 below in the registration statement on Form S-8 (File No. 333-168667).

### Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended, or the Securities Act;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission, or the Commission, pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement.
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on August 19, 2011.

### ACADIA PHARMACEUTICALS INC.

By: /s/ Uli Hacksell  
Uli Hacksell, Ph.D.  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Post-Effective Amendment has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
<u>/s/ Uli Hacksell</u> ULI HACKSELL	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	August 19, 2011
<u>/s/ Thomas H. Aasen</u> THOMAS H. AASEN	Executive Vice President, Chief Financial Officer, Chief Business Officer and Treasurer <i>(Principal Financial and Accounting Officer)</i>	August 19, 2011
<u>*</u> LESLIE L. IVERSEN	Chairman of the Board	August 19, 2011
<u>*</u> MICHAEL T. BORER	Director	August 19, 2011
<u>*</u> LAURA A. BREGE	Director	August 19, 2011
<u>*</u> MARY ANN GRAY	Director	August 19, 2011
<u>*</u> LESTER J. KAPLAN	Director	August 19, 2011
<u>*</u> TORSTEN RASMUSSEN	Director	August 19, 2011

\*Pursuant to Power of Attorney

By: /s/ Uli Hacksell  
Uli Hacksell, Ph.D.  
Attorney-in-fact