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

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.
2004 EMPLOYEE STOCK PURCHASE PLAN**
(Full Title of the Plan)

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

CALCULATION OF REGISTRATION FEE

Title of Securities to Be Registered	Amount to Be Registered (1)	Proposed Maximum Offering Price per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock issuable under the 2004 Employee Stock Purchase Plan (par value \$0.0001 per share)	150,000 shares(3)	\$1.34	\$201,000	\$23.34

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement also registers any additional shares of the Registrant’s common stock, par value \$0.0001 per share (the “Common Stock”), as may become issuable under the plans as a result of any stock split, stock dividend, recapitalization or similar event.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h)(1) and Rule 457(e) under the Securities Act. The price per share and aggregate offering price are based upon the average of the high and low prices of Registrant’s Common Stock on August 8, 2011, as reported on the Nasdaq Global Market.
- (3) Represents shares of Common Stock that were automatically added to the shares authorized for issuance under the Registrant’s 2004 Employee Stock Purchase Plan (the “2004 ESPP”) on June 10, 2011, pursuant to an “evergreen” provision contained in the 2004 ESPP. Pursuant to such provision, on the date of the Registrant’s annual stockholders’ meeting, the number of shares authorized for issuance under the 2004 ESPP is automatically increased by a number equal to the least of: one percent of the number of shares of Common Stock outstanding on the record date for the annual stockholders’ meeting; 150,000 shares of Common Stock; or a lesser number of shares of Common Stock that may be determined by the Registrant’s board of directors.

**INCORPORATION BY REFERENCE OF CONTENTS OF
REGISTRATION STATEMENT ON FORM S-8 NO. 333-168667**

The contents of Registration Statement on Form S-8 No. 333-168667, filed with the Securities and Exchange Commission on August 9, 2010, are incorporated by reference herein.

Item 8. Exhibits

Exhibit Number	Description
4.1	Registrant's Amended and Restated Certificate of Incorporation, as amended. (1)
4.2	Registrant's Amended and Restated Bylaws, as currently in effect. (2)
4.3	Form of Registrant's common stock certificate. (3)
5.1	Opinion of Cooley LLP.
23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
23.2	Consent of Cooley LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney is contained on the signature pages.
99.1	2004 Employee Stock Purchase Plan. (4)

(1) Filed as Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q, filed August 10, 2011, and incorporated herein by reference.

(2) Filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed December 17, 2009, and incorporated herein by reference.

(3) Filed as Exhibit 4.1 to Registration Statement on Form S-1 (File No. 333-52492), filed with the Commission on December 21, 2000, and incorporated herein by reference.

(4) Filed as Exhibit 10.4 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-113137), filed with the Commission on May 19, 2004, and incorporated herein by reference.

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;
- (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 SEC 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 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 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on August 10, 2011.

ACADIA PHARMACEUTICALS INC.

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

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints ULI HACKSELL, PH.D. and THOMAS H. AASEN, and each of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement 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 10, 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 10, 2011
<u>/s/ Leslie Iversen</u> LESLIE L. IVERSEN	Chairman of the Board	August 10, 2011
<u>/s/ Michael Borer</u> MICHAEL T. BORER	Director	August 10, 2011
<u>/s/ Laura Brege</u> LAURA A. BREGE	Director	August 10, 2011
<u>/s/ Mary Ann Gray</u> MARY ANN GRAY	Director	August 10, 2011
<u>/s/ Lester Kaplan</u> LESTER J. KAPLAN	Director	August 10, 2011
<u>/s/ Torsten Rasmussen</u> TORSTEN RASMUSSEN	Director	August 10, 2011

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L. Kay Chandler
T: +1 858 550 6014
kchandler@cooley.com

August 10, 2011

ACADIA Pharmaceuticals Inc.
3911 Sorrento Valley Boulevard
San Diego, CA 92121

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by ACADIA Pharmaceuticals Inc., a Delaware corporation (the "Company"), of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission, covering the registration of 150,000 shares of the Company's Common Stock, \$0.0001 par value, for issuance pursuant to the Company's 2004 Employee Stock Purchase Plan (the "Plan").

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectus, the Plan, the Company's Amended and Restated Certificate of Incorporation, as amended, its Amended and Restated Bylaws and the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters. Our opinion is expressed only with respect to the federal laws of the United States and the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that, when sold and issued in accordance with the Plan, the Registration Statement and related prospectus, the Shares will be validly issued, fully paid and nonassessable.

4401 EASTGATE MALL, SAN DIEGO, CA 92121 T: (858) 550-6000 F: (858) 550-6420 WWW.COOLEY.COM

ACADIA Pharmaceuticals Inc.

August 10, 2011

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We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ L. Kay Chandler

L. Kay Chandler

4401 EASTGATE MALL, SAN DIEGO, CA 92121 T: (858) 550-6000 F: (858) 550-6420 WWW.COOLEY.COM

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 10, 2011 relating to the financial statements, which appears in ACADIA Pharmaceuticals Inc.'s Annual Report on Form 10-K for the year ended December 31, 2010.

/s/ PricewaterhouseCoopers LLP

San Diego, California
August 10, 2011