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 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 and General Counsel
ACADIA Pharmaceuticals Inc.
3911 Sorrento Valley Boulevard
San Diego, CA 92121
(858) 558-2871

D. Bradley Peck, Esq. J. Patrick Loobourrow, Esq. Cooley Godward Kronish LLP 4401 Eastgate Mall San Diego, CA 92121 (858) 550-6000

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 Equity Incentive Plan (par	_			
value \$0.0001 per share)	750,000 shares(3)	\$4.17	\$3,127,500	\$175
Common Stock issuable under the 2004 Employee Stock Purchase				
Plan (par value \$0.0001 per share)	150,000 shares(4)	\$4.17	\$625,500	\$35
Total	900,000 shares	N/A	\$3,753,000	\$210

- (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 July 31, 2009, 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 Equity Incentive Plan (the "2004 EIP") on June 12, 2009, pursuant to an "evergreen" provision contained in the 2004 EIP. Pursuant to such provision, on the date of the Registrant's annual stockholders' meeting, the number of shares authorized for issuance under the 2004 EIP is automatically increased by a number equal to the least of: three percent of the number of shares of Common Stock outstanding on the record date for the annual stockholders' meeting; 750,000 shares of Common Stock; or a lesser number of shares of Common Stock that may be determined by the Registrant's board of directors.
- (4) 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 12, 2009, 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 STATEMENTS ON FORM S-8 NO. 333-115956, NO. 333-128290, NO. 333-137557, NO. 333-146398 AND NO. 333-153346

The contents of Registration Statements on Form S-8 No. 333-115956, No. 333-128290, No. 333-137557, No. 333-146398 and No. 333-153346 filed with the Securities and Exchange Commission on May 27, 2004, September 13, 2005, September 22, 2006, September 28, 2007 and September 5, 2008, respectively, are incorporated by reference herein.

EXHIBITS

4.1	Registrant's Amended and Restated Certificate of Incorporation. (1)
4.2	Registrant's Amended and Restated Bylaws, as currently in effect. (1)
4.3	Form of Registrant's common stock certificate. (2)
5.1	Opinion of Cooley Godward Kronish LLP.
23.1	$Consent \ of \ Price waterhouse Coopers \ {\tt LLP}, \ independent \ registered \ public \ accounting \ firm.$
23.2	Consent of Cooley Godward Kronish LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney is contained on the signature pages.
99.1	2004 Equity Incentive Plan. (1)
99.2	2004 Employee Stock Purchase Plan. (1)

Exhibit

Number

Description

⁽¹⁾ Filed as an exhibit to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-113137), filed with the Commission on February 27, 2004, and incorporated herein by reference.

⁽²⁾ 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.

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 5, 2009.

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
/s/ Uli Hacksell ULI HACKSELL	President, Chief Executive Officer and Director (Principal Executive Officer)	August 5, 2009
/s/ Thomas H. Aasen THOMAS H. AASEN	Vice President, Chief Financial Officer, Secretary and Treasurer (<i>Principal Financial and Accounting Officer</i>)	August 5, 2009
/s/ Leslie L. Iversen Leslie L. Iversen	Chairman of the Board	August 5, 2009
MICHAEL T. BORER	Director	
/s/ Laura A. Brege LAURA A. BREGE	Director	August 5, 2009
/s/ Mary Ann Gray Mary Ann Gray	Director	August 5, 2009
/s/ Lester J. Kaplan Lester J. KAPLAN	Director	August 5, 2009
/s/ Torsten Rasmussen TORSTEN RASMUSSEN	Director	August 5, 2009
/s/ Alan G. Walton ALAN G. WALTON	Director	August 5, 2009

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D. Bradley Peck (858) 550-6012 bpeck@cooley.com

August 5, 2009

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 offering of an aggregate of up to 900,000 shares of the Company's common stock, \$0.0001 par value, including 750,000 shares (the "Incentive Plan Shares") issuable pursuant to the Company's 2004 Equity Incentive Plan (the "Incentive Plan") and 150,000 shares (the "ESPP Shares") issuable pursuant to the Company's 2004 Employee Stock Purchase Plan (the "ESPP").

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectuses, the Incentive Plan and the ESPP, the Company's Amended and Restated Certificate of Incorporation and 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 thereof and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that (i) the Incentive Plan Shares, when issued and sold in accordance with the Incentive Plan, the Registration Statement and related prospectus, will be validly issued, fully paid and nonassessable (except as to Incentive Plan Shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full) and (ii) the ESPP Shares, when issued and sold in accordance with the ESPP, the Registration Statement and related prospectus, 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 5, 2009 Page Two

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

Very truly yours,

Cooley Godward Kronish LLP

By: <u>/s/</u> D. Bradley Peck

D. Bradley Peck

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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 4, 2009 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in ACADIA Pharmaceuticals Inc.'s Annual Report on Form 10 K for the year ended December 31, 2008.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP San Diego, California August 5, 2009