ACADIA PHARMACEUTICALS INC
Form 424B5
April 02, 2007

The information in this prospectus supplement and the accompanying prospectus is not complete and may be changed. This prospectus supplement and the accompanying prospectus are not an offer to sell securities, and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-139217

SUBJECT TO COMPLETION, DATED APRIL 2, 2007

Prospectus Supplement

(To Prospectus dated December 28, 2006)

5,000,000 Shares

Common Stock

We are offering 5,000,000 shares of our common stock. Our common stock is listed on The Nasdaq Global Market under the symbol ACAD . On March 30, 2007, the last reported sale price for our common stock was $15.02. You are encouraged to obtain current market quotations for shares of our common stock.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-6 of this prospectus supplement.

	Per Share	Total
Offering price	$	$
Discounts and commissions to underwriters	$	$
Offering proceeds to ACADIA Pharmaceuticals Inc., before expenses	$	$

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus supplement or the accompanying prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

We have granted the underwriters the right to purchase up to 750,000 additional shares of common stock in the event that the underwriters sell more than 5,000,000 shares in the offering. The underwriters can exercise this right at any time within 30 days after the offering. The underwriters expect to deliver the shares of common stock to investors on or about , 2007.

Banc of America Securities LLC **Lehman Brothers**

Deutsche Bank Securities

Piper Jaffray

JMP Securities

Rodman & Renshaw

, 2007

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Prospectus Supplement

Prospectus

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to, updates and changes information contained in the accompanying prospectus and the documents incorporated by reference. The second part is the accompanying prospectus, which gives more general information. To the extent the information contained in this prospectus supplement differs from or conflicts with the information contained in the accompanying prospectus or any document incorporated by reference, the information in this prospectus supplement will control.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized, and the underwriters have not authorized, anyone to provide you with different information. No one is making offers to sell or seeking offers to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus supplement is accurate as of the date on the front cover of this prospectus supplement only and that any information we have incorporated by reference or included in the accompanying prospectus is accurate only as of the date given in the document incorporated by reference or as of the date of the prospectus, as applicable, regardless of the time of delivery of this prospectus supplement or the accompanying prospectus or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

References in this prospectus supplement or the accompanying prospectus to ACADIA, the Company, we, us and our refer to ACADIA Pharmaceuticals Inc., together with our wholly-owned subsidiaries, ACADIA Pharmaceuticals AB and ACADIA Pharmaceuticals A/S.

ACADIA and R-SAT are our trademarks. This prospectus supplement, the accompanying prospectus and the documents incorporated by reference also include trademarks and trade names owned by other parties, and these trademarks and trade names are the property of their respective owners. Use or display by us of other parties trademarks, trade dress or products in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference is not intended to, and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

Information contained on our website does not constitute part of this prospectus supplement or the accompanying prospectus.

SUMMARY

This summary does not contain all the information that you should consider before investing in our common stock. You should carefully read the entire prospectus supplement and the accompanying prospectus, including the Risk Factors sections, as well as the financial statements and the other information incorporated by reference herein before making an investment decision.

Overview

We are a biopharmaceutical company focused on the discovery, development, and commercialization of small molecule drugs for the treatment of central nervous system disorders. We currently have five programs in clinical development and several additional programs in preclinical discovery and development. We recently reported positive top-line results from a Phase II trial in our program with ACP-103 as a co-therapy for schizophrenia. In our most advanced program, we are entering Phase III development with ACP-103 for the treatment of Parkinson s disease psychosis. We also have two additional proprietary Phase II-stage clinical programs, including ACP-103 for the treatment of sleep maintenance insomnia and ACP-104 for the treatment of schizophrenia. We have retained worldwide commercialization rights for all four of these proprietary programs. In addition, we have a neuropathic pain program in Phase II clinical trials in collaboration with Allergan, Inc. All of the drug candidates in our product pipeline emanate from discoveries made using our proprietary drug discovery platform.

Our programs address diseases that are not well served by currently available therapies and represent large potential commercial opportunities. We believe that our drug candidates offer innovative therapeutic approaches and may provide significant advantages relative to current therapies. Our programs consist of the following:

Program	Stage of Development	Commercialization Rights
ACP-103 for Parkinson s disease psychosis	Phase III	ACADIA
ACP-103 as a co-therapy for schizophrenia	Phase II	ACADIA
ACP-103 for sleep maintenance insomnia	Phase II	ACADIA
ACP-104 for schizophrenia	Phase II	ACADIA
AGN-XX/YY for neuropathic pain	Phase II	Allergan
AC-262271 for glaucoma	IND-track development	Allergan
ACP-105 for endocrine indications	IND-track development	ACADIA
ACP-106 for neuropsychiatry and sleep indications	IND-track development	ACADIA
Serotonin program for neuropsychiatry and sleep indications	Preclinical	ACADIA
Pro-cognitive antipsychotic (PCAP) program for schizophrenia	Preclinical	ACADIA
Muscarinic program for neuropsychiatry and other indications	Preclinical	Sepracor
Cannabinoid CB1 program for obesity	Preclinical	ACADIA

Recent Clinical Developments

ACP-103 as a co-therapy for schizophrenia. In March 2007, we announced positive top-line results from our Phase II clinical trial that evaluated co-therapy with ACP-103 when used together with either risperidone, a commonly prescribed atypical antipsychotic drug, or haloperidol, a generic typical antipsychotic drug. The ACP-103 co-therapy arms demonstrated statistically significant antipsychotic efficacy as measured by the reduction in the Positive and Negative Syndrome Scale, or PANSS, the primary endpoint of the trial ($p<0.0001$). ACP-103 co-therapy with low-dose risperidone demonstrated a statistically significant improvement in antipsychotic efficacy compared to low-dose risperidone plus placebo ($p=0.01$), and comparable efficacy to high-dose risperidone plus placebo (p=NS). In addition, ACP-103 co-therapy with low-dose risperidone also led to a significantly faster onset of antipsychotic action. After two weeks of therapy, about 50% more patients in the ACP-103 plus low dose risperidone co-therapy arm responded to treatment compared to each of the low-dose risperidone ($p<0.008$) and high-dose risperidone ($p<0.03$) arms. A responder was defined as a patient showing at least a 20% reduction in the PANSS. In addition, to these advantages in efficacy, ACP-103 co-therapy also led to an improved side effect profile. Patients in the ACP-103 plus low-dose risperidone co-therapy arm had 50% less gain in weight than patients in the high-dose risperidone arm. This difference trended to statistical significance ($p=0.078$). Patients in the ACP-103 plus low-dose risperidone co-therapy arm also had significantly lower prolactin levels after 42 days of treatment compared to patients in the high-dose risperidone arm ($p=0.0001$).

Our Clinical Programs

ACP-103 for the treatment of Parkinson s disease psychosis. Parkinson s disease psychosis is a debilitating psychiatric disorder that occurs in up to 40 percent of patients with Parkinson s disease and is the most common factor leading to nursing home placements of these patients. Currently, there are no therapies approved to treat Parkinson s disease psychosis in the United States. We believe that ACP-103 may effectively treat psychosis in patients with Parkinson s disease without impairing motor function, thereby significantly improving the quality of life for these patients. We have completed a multi-center Phase II clinical trial in which ACP-103 demonstrated antipsychotic effects, was safe and well tolerated, and did not impair disease-related motor function in patients with Parkinson s disease psychosis. We are preparing to initiate the first of two planned pivotal trials in our Phase III program with ACP-103 for Parkinson s disease psychosis during the first half of 2007.

ACP-103 as a co-therapy for schizophrenia. Current drugs used to treat schizophrenia have substantial limitations, including inadequate efficacy and severe side effects. We believe that co-therapy with ACP-103 may result in enhanced efficacy and fewer side effects relative to existing treatments, thereby providing an improved therapy for patients with schizophrenia. We recently completed a multi-center Phase II clinical trial that evaluated co-therapy with ACP-103 when used together with either risperidone or with haloperidol. The results of the trial demonstrated several advantages of co-therapy with ACP-103, including enhanced efficacy, faster onset of antipsychotic action and an improved side effect profile.

ACP-103 for the treatment of sleep maintenance insomnia. In contrast to most currently available insomnia drugs, ACP-103 provides the opportunity to treat the symptoms of sleep maintenance insomnia without inducing sleep or impairing daytime functioning. If approved as a treatment for sleep maintenance insomnia, ACP-103 is not expected to be designated as a controlled substance, as is the case with most existing sleep agents due to their potential for abuse. We have completed a proof-of-concept clinical study that demonstrated that ACP-103 induced a statistically significant and dose-related increase in deep, or slow wave, sleep in healthy older adults. We are planning to initiate a Phase II clinical trial with ACP-103 in patients with sleep maintenance insomnia during the first half of 2007.

ACP-104 for the treatment of schizophrenia. We believe that ACP-104 represents a new approach to schizophrenia therapy that combines an atypical antipsychotic efficacy profile with the added potential benefit of enhanced cognition. Currently prescribed treatments do not effectively address or may exacerbate cognitive disturbances associated with schizophrenia. We have completed three initial studies in our Phase II clinical program with ACP-104 in patients with schizophrenia. The results of these studies demonstrated that ACP-104 was well tolerated after repeated dosing of up to 600 mg per day and initial signals of antipsychotic effects, as indicated by clinically meaningful reductions in the PANSS, were observed within the tolerated dose range of ACP-104. We are planning to initiate a multi-center Phase IIb clinical trial with ACP-104 in patients with schizophrenia during the first half of 2007.

Neuropathic pain. We have discovered a new class of compounds in collaboration with Allergan that we believe may represent a significant breakthrough in the treatment of neuropathic pain. Allergan has completed Phase I clinical trials and is currently conducting Phase II clinical trials in this program.

We have built an integrated drug discovery platform that we use to rapidly discover new compounds that may serve as potential treatments for significant unmet medical needs. Our platform includes proprietary target-based and chemistry-based technologies that we integrate with our discovery and development capabilities. We believe that the breadth of our discovery and development programs and the rapid pace at which we have discovered drug candidates provide strong validation of our proprietary platform and a basis for expanding our pipeline. We leverage our proprietary drug discovery platform and expertise through collaborations with pharmaceutical and biotechnology companies. We have three separate collaborations with Allergan and one with Sepracor Inc. for the discovery and development of small molecule drug candidates.

We have assembled a management team with significant industry experience to lead the discovery, development, and commercialization of our drug candidates. Members of our management team have contributed to the discovery, development, and approval of multiple drug candidates. We complement our management team with a network of scientific and clinical advisors that includes recognized experts in the fields of schizophrenia, Parkinson s disease, and other central nervous system disorders.

Corporate Information

We were originally incorporated in Vermont in 1993 as Receptor Technologies, Inc. In 1997, we reincorporated in Delaware. Our executive offices are located at 3911 Sorrento Valley Boulevard, San Diego, California 92121, and our telephone number is (858) 558-2871. Our website address is www.acadia-pharm.com. Information contained on our website is not a part of this prospectus supplement, the accompanying prospectus or any of the documents incorporated by reference herein.

The Offering

Common stock offered by us	5,000,000 shares
Common stock to be outstanding after this offering	34,952,227 shares
Use of proceeds	We intend to use the net proceeds of this offering to fund ongoing and new clinical trials for ACP-103 and ACP-104 and our other product candidates, support research and preclinical development activities for our potential product candidates, and for general corporate purposes, including working capital.
Dividend policy	We currently intend to retain any future earnings to fund the development and growth of our business and do not anticipate paying cash dividends in the foreseeable future.
Nasdaq Global Market Symbol	ACAD

The number of shares of our common stock to be outstanding after this offering is based upon the number of our shares outstanding as of February 28, 2007 and excludes:

- up to 2,797,847 shares that may be issued upon the exercise of outstanding options granted pursuant to our stock option plans at a weighted average exercise price of $6.64 per share; and

- up to 1,393,475 shares that may be issued upon exercise of outstanding warrants at a weighted average exercise price of $8.15 per share.

Except as otherwise indicated, information in this prospectus supplement assumes no exercise by the underwriters of their option to purchase up to 750,000 additional shares of common stock.

Summary Consolidated Financial Data

The following data has been derived from our audited financial statements, including the consolidated balance sheet at December 31, 2006 and 2005 and the related consolidated statements of operations for the three years ended December 31, 2006 and related notes appearing in our Annual Report on Form 10-K, which we filed with the SEC and is incorporated herein by reference. You should read the selected financial data set forth below in conjunction with Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and related notes included in our 2006 Form 10-K.

	Years Ended December 31,		
	2006	2005	2004
	(in thousands, except per share data)		
Consolidated Statement of Operations Data:			
Revenues:			
Collaborative revenues	$ 8,133	$ 10,956	$ 4,604
Operating expenses(1):			
Research and development	49,398	30,336	23,885
General and administrative	11,349	10,205	6,814
Provision for loss from (settlement of) litigation	(3,560)	6,221	
Total operating expenses	57,187	46,762	30,699
Loss from operations	(49,054)	(35,806)	(26,095)
Interest income	4,153	1,851	607
Interest expense	(198)	(180)	(429)
Loss before change in accounting principle	(45,099)	(34,135)	(25,917)
Cumulative effect of change in accounting principle	51		
Net loss	$ (45,048)	$ (34,135)	$ (25,917)
Net loss available to common stockholders	$ (45,048)	$ (34,135)	$ (17,330)
Net loss per common share, basic and diluted	$ (1.61)	$ (1.55)	$ (1.67)
Weighted average shares used in computing net loss per common share, basic and diluted(2)	27,923	22,014	10,353
Net loss available to participating preferred stockholders	$	$	$ (8,587)
Net loss per participating preferred share, basic and diluted	$	$	$ (0.87)
Weighted average participating preferred shares outstanding, basic and diluted(2)			9,901

(1) As described in Note 2 of the notes to our consolidated financial statements appearing in our Form 10-K for the year ended December 31, 2006, we adopted the provisions of SFAS No. 123 (revised 2004), *Share-Based Payment*, effective January 1, 2006.

(2) Please see Note 2 of the notes to our consolidated financial statements for an explanation of the determination of the number of shares used in computing per share data. All amounts reflect a 1-for-2 reverse stock split effected by us on May 25, 2004.

	At December 31,	
	2006	2005
	(in thousands)	
Consolidated Balance Sheet Data:		
Cash, cash equivalents, investment securities and restricted cash	$ 83,255	$ 55,521
Working capital	65,249	38,424
Total assets	89,544	62,506
Long-term debt, less current portion	1,379	892
Total stockholders equity	67,159	39,371

RISK FACTORS

Investment in our common stock involves risks. Before deciding whether to invest in our common stock, you should consider carefully the risk factors discussed in the section entitled Risk Factors contained in our Annual Report on Form 10-K for the year ended December 31, 2006, as filed with the SEC on March 9, 2007, which is incorporated herein by reference in its entirety, as well as any amendment or updates to our risk factors reflected in subsequent filings with the SEC. If any of the risks or uncertainties described in our SEC filings actually occurs, our business, financial condition, results of operations or cash flow could be materially and adversely impacted. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to statements about:

- the progress of clinical trials involving our drug candidates;
- the progress of our research and development programs;
- the benefits to be derived from relationships with our collaborators;
- the receipt of regulatory clearances and approvals;
- our estimates of future revenues and profitability; and
- our estimates regarding our capital requirements and our need for additional financing.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipa believes, estimates, projects, predicts, potential and similar expressions intended to identify forward-looking statements. These statements re our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail in the documents incorporated by reference herein, usually under the heading Risk Factors . Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should rely only on the information contained, or incorporated by reference, in this prospectus supplement, the accompanying prospectus, and the registration statement of which this prospectus supplement is a part, and understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future

events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to purchase our common stock, you should carefully consider the risk factors incorporated by reference herein, in addition to the other information set forth in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference herein.

USE OF PROCEEDS

We estimate the net proceeds to us from this offering will be approximately $70.3 million, based upon an assumed public offering price of $15.02 per share, the last reported sales price of our common stock on March 30, 2007 ($80.9 million if the underwriters option to purchase additional shares is exercised in full), after payment of underwriting discounts and commissions and estimated expenses of this offering.

We intend to use the net proceeds of this offering to fund ongoing and new clinical trials for ACP-103 and ACP-104 and our other product candidates, support research and preclinical development activities for our potential product candidates, and for general corporate purposes, including working capital. The timing and amount of our actual expenditures will depend significantly on many factors including, but not limited to, the progress in, and costs of, our clinical trials and research and development activities, and the amount and timing of revenues from our current or future collaborations.

Pending such uses, we may invest the net proceeds in short-term, investment-grade, interest-bearing securities or guaranteed obligations of the United States government or other securities. Our management will have significant flexibility in applying the net proceeds of this offering and could use these proceeds for corporate purposes that do not increase our profitability or our market value, or in ways with which our stockholders may not agree. Investors will be relying on the judgment of our management regarding the application of the proceeds of this offering. We may use the net proceeds for corporate purposes that do not yield a significant return or any return at all for our stockholders, which may cause our stock price to decline.

CAPITALIZATION

The following table shows:

- our capitalization on December 31, 2006; and
- our capitalization on December 31, 2006, assuming the completion of this offering at an assumed public offering price of $15.02 per share, less the underwriting discounts and commissions and estimated offering expenses payable by us.

	December 31, 2006	
	Actual	As Adjusted (unaudited)
	(in thousands)	
Cash, cash equivalents, and investment securities	$ 83,255	$ 153,599
Long-term debt, less current portion	$ 1,379	1,379
Stockholders equity:		
Preferred stock, $0.0001 par value: 5,000,000 shares authorized, no shares issued and outstanding, actual, no shares issued and outstanding, as adjusted	$	$
Common stock, $0.0001 par value: 75,000,000 shares authorized, 29,940,477 shares outstanding, actual, 34,940,477 shares issued and outstanding, as adjusted	3	3
Additional paid-in capital	240,446	310,790
Accumulated deficit	(173,466)	(173,466)
Unearned stock-based compensation	(64)	(64)
Accumulated other comprehensive income	240	240
Total stockholders equity	67,159	137,503
Total capitalization	$ 68,538	$ 138,882

The number of shares of common stock as reflected in the actual and as adjusted columns above is based on the actual number of shares outstanding as of December 31, 2006, and does not include, as of that date:

- 1,319,402 shares of common stock issuable upon the exercise of outstanding warrants at an exercise price of $8.148 per share;
- 74,073 shares of common stock issuable upon the exercise of outstanding warrants at an exercise price of $8.10 per share;
- 2,820,389 shares of common stock issuable upon exercise of outstanding options at a weighted average exercise price of $6.62 per share;

547,573 shares of common stock available for future grants under our equity compensation plans; and

297,424 shares of common stock available for future issuance under our 2004 Employee Stock Purchase Plan.

DILUTION

Our net tangible book value at December 31, 2006 was approximately $67.2 million, or $2.24 per share of common stock. Net tangible book value per share is determined by dividing the net tangible book value, total tangible assets less total liabilities, by the number of outstanding shares of common stock at that date. After taking into account the sale of 5,000,000 shares of our common stock in this offering at the assumed public offering price of $15.02 per share (the last reported sale price of our common stock on March 30, 2007) and, after deducting underwriting discounts and commissions and our estimated offering expenses, the pro forma net tangible book value at December 31, 2006 would have been approximately $137.5 million, or $3.94 per share. Assuming the completion of this offering, there will be an immediate increase in net tangible book value to existing stockholders of $1.70 per share and an immediate dilution to new investors of $11.08 per share. The following table illustrates the per share dilution to new investors:

Offering price per share		$ 15.02
Net tangible book value per share as of December 31, 2006	2.24	
Pro forma increase in net tangible book value per share attributable to new investors	1.70	
Pro forma net tangible book value per share, after offering		3.94
Dilution per share to new investors		$ 11.08

Assuming the sale of 5,000,000 shares of our common stock in this offering, a $1.00 increase in the assumed public offering price would result in a pro forma net tangible book value per share, after offering, of approximately $4.07 and the dilution per share to new investors in this offering would be approximately $11.95 per share. Assuming the sale of 5,000,000 shares of our common stock in this offering, a $1.00 decrease in the assumed public offering price would result in a pro forma net tangible book value per share, after offering, of approximately $3.80 and the dilution per share to new investors in this offering would be approximately $10.22 per share.

If the underwriters exercise their option to purchase 750,000 additional shares in full, there will be an increase in pro forma net tangible book value to existing stockholders of $1.91 per share and an immediate dilution in pro forma net tangible book value to new investors of $10.87 per share.

The pro forma information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering.

PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

Our common stock trades on the Nasdaq Global Market under the symbol ACAD. The following table sets forth the range of high and low sales prices as reported by the Nasdaq Global Market for the periods indicated.

	Price Range of Common Stock	
	High	**Low**
Fiscal year ending December 31, 2005:		
First Quarter	$ 8.40	$ 6.16
Second Quarter	9.51	6.25
Third Quarter	11.69	7.85
Fourth Quarter	11.85	8.73
Fiscal year ending December 31, 2006:		
First Quarter	$ 17.94	$ 9.60
Second Quarter	16.23	7.60
Third Quarter	8.81	5.07
Fourth Quarter	10.55	8.10
Fiscal year ending December 31, 2007:		
First Quarter	$ 16.84	$ 6.63

On March 30, 2007, the last sales price of the common stock reported on the Nasdaq Global Market was $15.02.

On March 1, 2007, the approximate number of holders of record of our common stock was 88.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings to fund the development and growth of our business and do not anticipate paying any cash dividends in the foreseeable future. Future dividends, if any, will be determined by our board of directors and will depend upon our financial condition, results of operations, capital requirements and other factors.

UNDERWRITING

We are offering the shares of common stock described in this prospectus supplement through a number of underwriters. Banc of America Securities LLC and Lehman Brothers Inc. are the representatives, and book-running managers, of the several underwriters with whom we have entered into a firm commitment underwriting agreement. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter severally has agreed to purchase, the number of shares of common stock listed next to its name in the following table:

Underwriter	Number of Shares
Banc of America Securities LLC	
Lehman Brothers Inc.	
Deutsche Bank Securities Inc.	
Piper Jaffray & Co.	
JMP Securities LLC	
Rodman & Renshaw, LLC	
Total	5,000,000

The underwriting agreement is subject to a number of terms and conditions and provides that the underwriters must buy all of the shares if they buy any of them (other than those shares covered by their option to purchase up to 750,000 additional shares). The underwriters will sell the shares to the public when and if the underwriters buy the shares from us.

The underwriters initially will offer the shares to the public at the price specified on the cover page of this prospectus supplement. The underwriters may allow a concession of not more than $ per share to selected dealers. The underwriters may also allow, and those dealers may re-allow, a concession of not more than $ per share to some other dealers. If all the shares are not sold at the public offering price, the underwriters may change the public offering price and the other selling terms. The offering of the shares of common stock is subject to a number of conditions, including:

receipt and acceptance of the common stock by the underwriters; and

the underwriters right to reject orders in whole or in part.

Option to Purchase Additional Shares. We have granted the underwriters an option to purchase up to 750,000 additional shares of our common stock at the same price per share as they are paying for the shares shown on the cover page of this prospectus supplement. These additional shares would cover sales by the underwriters which exceed the total number of shares shown in the table above. The underwriters may exercise this option at any time and from time to time, in whole or in part, within 30 days after the date of this prospectus supplement. To the extent that the underwriters exercise this option, each underwriter will purchase additional shares from us in approximately the same proportion as it purchased the shares shown in the table above. We will pay the expenses associated with the exercise of this option.

Discounts and Commissions. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. These amounts are shown assuming no exercise and full exercise of the underwriters option to purchase additional shares.

	Paid by Us	
	No Exercise	**Full Exercise**
Per Share	$	$
Total	$	$

In compliance with NASD guidelines, the maximum compensation to the underwriters in connection with the sale of common stock pursuant to this prospectus supplement and the accompanying prospectus will not exceed 8% of the aggregate total offering price to the public of the common stock as set forth on the cover page of this prospectus supplement.

Listing. We estimate that the expenses of the offering to be paid by us, not including underwriting discounts and commissions, will be approximately $250,000.

Quotation. Our common stock is quoted on the Nasdaq Global Market under the symbol ACAD .

Stabilization. In connection with the offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

- stabilizing transactions;
- short sales;
- syndicate covering transactions; and
- purchases to cover positions created by short sales.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. Stabilizing transactions may include making short sales of our common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock from us or on the open market to cover positions created by short sales. Short sales may be covered shorts, which are short positions in an amount not greater than the underwriters option to purchase additional shares referred to above, or may be naked shorts, which are short positions in excess of that amount. Syndicate covering transactions involve purchases of our common stock in the open market after the distribution has been completed in order to cover syndicate short positions.

The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making the determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through their option to purchase additional shares.

A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchased in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

These activities may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence the activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq Global Market, in the over-the-counter market or otherwise.

Market Making. In connection with the offering, some underwriters and any selling group members who are qualified market makers on the Nasdaq Global Market may engage in passive market making transactions in our common stock on the Nasdaq Global Market. Passive market making is allowed during the period when the SEC s rules would otherwise prohibit market activity by the underwriters and dealers who are participating in this offering. Passive market making may occur during the business day before the pricing of this offering, before the pricing of this offering or before the commencement of offers or sales of the common stock. A passive market maker must comply with applicable volume and price limitations and must be identified as a passive market maker. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for our common stock; but if all independent bids are lowered below the passive market maker s bid, the passive market maker must also lower its bid once it exceeds specified purchase limits. Net purchases by a passive market maker on each day are limited to a specified percentage of the passive market maker s average

daily trading volume in our common stock during the specified period and must be discontinued when that limit is reached. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. The underwriters and dealers are not required to engage in passive market making and may end passive market making activities at any time.

Lock-up Agreements. We have agreed not to offer, sell, contract to sell or otherwise issue any shares of common stock or securities exchangeable or convertible into common stock, without the prior written consent of Banc of America Securities LLC and Lehman Brothers Inc. for a period of 90 days, subject to an 18 day extension under certain circumstances, following the date of this prospectus supplement, subject to certain exceptions. In addition, substantially all of our directors and executive officers have entered into lock-up agreements with the underwriters. Under those lock-up agreements, subject to exceptions, those holders of such stock may not, directly or indirectly, offer, sell, contract to sell, pledge or otherwise dispose of or hedge any common stock or securities convertible into or exchangeable for shares of common stock, or publicly announce to do any of the foregoing, without the prior written consent of Banc of America Securities LLC and Lehman Brothers Inc. for a period of 90 days, subject to an 18 day extension under certain circumstances, from the date of this prospectus supplement. This consent may be given at any time without public notice. These agreements, however, do not apply to the grant or exercise of options or other issuance of common stock under any existing stock option or other employee benefit plans.

Indemnification. We will indemnify the underwriters against certain liabilities, including liabilities under the Securities Act. If we are unable to provide this indemnification, we will contribute to payments the underwriters may be required to make in respect of those liabilities.

Conflicts/Affiliates. The underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us for which services they have received, and may receive in the future, customary fees.

LEGAL MATTERS

Cooley Godward Kronish LLP, San Diego, California, will pass upon the validity of the issuance of the shares being sold in this offering. Certain matters will be passed upon for the underwriters by Shearman & Sterling LLP, New York, New York.

EXPERTS

The financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control Over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2006 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are a reporting company and we file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement under the Securities Act with respect to the common stock offered hereby. This prospectus supplement, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits which are part of the registration statement. For further information with respect to us and the common stock offered by this prospectus supplement, we refer you to the registration statement and the exhibits filed as part of the registration statement. You may read and copy any document we file with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public from the SEC s website at www.sec.gov. We maintain a website at www.acadia-pharm.com.

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the following documents we filed with the SEC pursuant to Section 13 of the Exchange Act:

Annual Report on Form 10-K for the fiscal year ended December 31, 2006;

Information from our Proxy Statement for our 2006 Annual Meeting of Stockholders that is specifically incorporated by reference into our Form 10-K for the fiscal year ended December 31, 2005;

Current Reports on Form 8-K filed on March 19, March 30, and April 2, 2007;

Description of our common stock contained in our registration statement on Form 8-A dated May 19, 2004; and

All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and before the last offering of the securities under this prospectus supplement.

You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Proxy Statement, and amendments to those documents filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at the SEC s website or our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website does not constitute incorporation by reference of the information contained in our website. We do not consider information contained on, or that can be accessed through, our website to be part of this prospectus supplement or the related registration statement.

You may request a copy of our SEC filings at no cost, by telephoning or writing us at the following address:

Investor Relations

ACADIA Pharmaceuticals Inc.

3911 Sorrento Valley Boulevard

San Diego, CA 92121

(858) 558-2871

Common Stock

We may from time to time sell up to $100,000,000 aggregate initial offering price of our common stock, $0.0001 par value per share. You should read this prospectus and any supplement carefully before you invest.

Our common stock is listed on The Nasdaq Global Market under the symbol ACAD . On December 7, 2006, the last reported sale price for our common stock was $9.00. You are encouraged to obtain current market quotations for shares of our common stock.

Our principal executive offices are located at 3911 Sorrento Valley Boulevard, San Diego, California 92121, and our telephone number at that address is (858) 558-2871.

Investing in our common stock involves a high degree of risk. See Risk Factors on page 1.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

December 28, 2006

You should rely only on the information contained or incorporated by reference in this prospectus and any related prospectus supplement. We have not authorized anyone to provide you with different information. No one is making offers to sell or seeking offers to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus is accurate as of the date on the front of this prospectus only and that any information we have incorporated by reference or included in any prospectus supplement is accurate as of the date given in the document incorporated by reference or the prospectus supplement, as applicable, only, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

References in this prospectus to ACADIA, the Company, we, us and our refer to ACADIA Pharmaceuticals Inc., together with our wholly-owned subsidiaries, ACADIA Pharmaceuticals AB and ACADIA Pharmaceuticals A/S.

ACADIA and R-SAT are our trademarks. This prospectus also includes trademarks and trade names owned by other parties, and these trademarks and trade names are the property of their respective owners. Use or display by us of other parties trademarks, trade dress or products in this prospectus is not intended to, and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

RISK FACTORS

An investment in our securities is risky. Prior to making a decision about investing in our securities, you should carefully consider the specific risks discussed under Risk Factors in the applicable prospectus supplement and in our filings with the Securities and Exchange Commission, or SEC, incorporated by reference in this prospectus, together with all of the other information contained in this prospectus and the prospectus supplement or incorporated by reference in this prospectus. The risks and uncertainties described in the applicable prospectus supplement and in our SEC filings are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of the risks or uncertainties described in the prospectus supplement or our SEC filings or any such additional risks and uncertainties actually occur, our business, results of operations and financial condition could be materially and adversely affected. In that case, the trading price of the securities being offered by this prospectus and the applicable prospectus supplements could decline, and you might lose all or part of your investment.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain, and any prospectus supplement hereto may contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to statements about:

- the progress of clinical trials involving our drug candidates;
- the progress of our research and development programs;
- the benefits to be derived from relationships with our collaborators;
- the receipt of regulatory clearances and approvals;
- our estimates of future revenues and profitability; and
- our estimates regarding our capital requirements and our need for additional financing.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipa believes, estimates, projects, predicts, potential and similar expressions intended to identify forward-looking statements. These statements re our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in this prospectus and the documents incorporated by reference herein in greater detail under the heading Risk Factors. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus, the registration statement of which this prospectus is a part, the documents incorporated by reference herein, and any applicable prospectus supplement completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

You should rely only on the information contained, or incorporated by reference, in this prospectus and any applicable prospectus supplement. We have not authorized anyone to provide you with different information. The securities offered under this prospectus are not being offered in any state where the offer is not permitted. You

should not assume that the information provided by this prospectus is accurate as of any date other than the date on the front of this prospectus or that any information incorporated by reference in this prospectus or included in any prospectus supplement is accurate as of any date other than the date of the document incorporated by reference or the prospectus supplement, as applicable. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of our common stock offered under this prospectus. Unless we indicate otherwise in the applicable prospectus supplement, we anticipate that any net proceeds will be used for working capital and general corporate purposes. We will set forth in the applicable prospectus supplement our intended use for the net proceeds received from the sale of any securities sold pursuant to that prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities to one or more underwriters for public offering and sale by them and may also sell the securities to investors directly or through agents. We will name any underwriter or agent involved in the offer and sale of securities in the applicable prospectus supplement. We have reserved the right to sell or exchange securities directly to investors on our own behalf in those jurisdictions where we are authorized to do so.

We may distribute the securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also, from time to time, authorize dealers, acting as our agents, to offer and sell securities upon the terms and conditions set forth in the applicable prospectus supplement. We, or the purchasers of securities for whom the underwriters may act as agents, may compensate underwriters in the form of underwriting discounts or commissions, in connection with the sale of securities. Underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis and a dealer will purchase securities as a principal, and may then resell the securities at varying prices to be determined by the dealer.

We will describe in the applicable prospectus supplement any compensation we pay to underwriters or agents in connection with the offering of securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Dealers and agents participating in the distribution of securities may be deemed to be underwriters, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against certain civil liabilities, including liabilities under the Securities Act and to reimburse these persons for certain expenses. We may grant underwriters who participate in the distribution of securities we are offering under this prospectus an option to purchase additional shares to cover over-allotments, if any, in connection with the distribution.

To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the price of the securities. This may include over- allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

Certain underwriters, dealers or agents and their associates may engage in transactions with and perform services for us in the ordinary course of our business.

LEGAL MATTERS

Cooley Godward Kronish LLP, San Diego, California, has given its opinion to us as to certain legal matters relating to the validity of the shares of our common stock to be offered by this prospectus. Any underwriters will be advised about the other issues relating to any offering by their own legal counsel.

EXPERTS

The financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2005 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and we file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement under the Securities Act with respect to the common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits which are part of the registration statement. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and the exhibits filed as part of the registration statement. You may read and copy any document we file at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public from the SEC s website at www.sec.gov. We maintain a website at www.acadia-pharm.com.

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the following documents we filed with the SEC pursuant to Section 13 of the Exchange Act:

Annual Report on Form 10-K for the fiscal year ended December 31, 2005 (including information specifically incorporated by reference into our Form 10-K from our Proxy Statement for our 2006 Annual Meeting of Stockholders);

Quarterly Report on Form 10-Q for the quarters ended March 31, June 30, and September 30, 2006;

Current Reports on Form 8-K filed on January 18 (except for the information furnished pursuant to Item 7.01 therein), March 6, March 23, April 19, April 28, June 19, September 8, October 23, and December 4, 2006;

Description of our common stock contained in our registration statement on Form 8-A dated May 19, 2004; and

All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the last offering the securities under this prospectus.

You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Proxy Statement, and amendments to those documents filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at the SEC s website or our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website does not constitute incorporation by reference of the information contained in our website. We do not consider information contained on, or that can be accessed through, our website to be part of this prospectus or the related registration statement.

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3911 Sorrento Valley Boulevard

San Diego, CA 92121

(858) 558-2871

5,000,000 Shares

Common Stock

Prospectus Supplement

, 2007

Banc of America Securities LLC

Lehman Brothers

Deutsche Bank Securities

Piper Jaffray

JMP Securities

Rodman & Renshaw