SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE **SECURITIES ACT OF 1933**

ACCESS PHARMACEUTICALS. INC.

(Exact Name of Registrant as Specified in Its Charter)

DELAWARE -----

(State or Other Jurisdiction of Incorporation or Organization)

83-0221517 _____

(I.R.S. Employer Identification No.)

2600 Stemmons Freeway, Suite 176, Dallas, Texas 75207

(Address of Principal Executive Offices) (Zip Code)

ACCESS PHARMACEUTICALS, INC. 1995 STOCK OPTION PLAN ACCESS PHARMACEUTICALS, INC. 2000 SPECIAL STOCK OPTION PLAN

_____ (Full Title of the Plan)

> Kerry P. Gray President and Chief Executive Officer Access Pharmaceuticals, Inc. 2600 Stemmons Freeway, Suite 176 Dallas, Texas 75207

> > with copies to:

John J. Concannon III, Esq. Bingham McCutchen LLP 150 Federal Street Boston, MA 02110 _____

(Name and address of agent for service)

(214) 905-5100

(617) 951-8000 ------

(Telephone Number, Including Area Code, of Agent For Service)

	CALCULATION OF REGISTRATION FEE	
<table></table>		

-CADTIONS

~CAF HON-						
	Title of					
	Securities	Amo	unt	Proposed Maximum		
	to be	to be	Proposed M	aximum A	Aggregate A	Amount of
Plan	Registered	l Regi	stered* Offe	ring Price*	* Offering Price	e* Registration Fee
<s></s>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>	
1995 Stock (Option					
Plan p	Common Sto oar value per sh		500,000	\$6.46	\$3,230,000	\$409.24

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* Estimated solely for the purpose of computing the registration fee pursuant to Rule 457(h) under the Securities Act of 1933, as amended, based on the average of the high and low prices of the Registrant's Common Stock, \$.01 par value per share, reported by the American Stock Exchange on March 31, 2004.

PART II

Item 3. Incorporation Of Documents By Reference.

The following documents filed by Access Pharmaceuticals, Inc. (the "Registrant") with the Securities and Exchange Commission (the "SEC")

are hereby incorporated by reference into this Registration Statement: (1) the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2003 filed with the SEC on March 24, 2004; (2) our Amended Quarterly Report filed on Form 10-Q/A for the fiscal quarter ended September 30, 2003; (3) all other reports filed by the Registrant pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") since December 31, 2003; and

(4) the description of the Common Stock of the Registrant, \$.01 par value per share (the "Common Stock"), contained in the Registrant's registration

statement filed under Section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

In addition, all documents filed pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities registered hereby have been sold or which deregisters all of such securities then remaining unsold shall be incorporated by reference into this Registration Statement as of the filing date of each.

Item 4. Description Of Securities.

Not applicable.

Item 5. Interests Of Named Experts And Counsel.

The validity of the securities registered hereby is being passed upon for us by Bingham McCutchen LLP 150 Federal Street, Boston, Massachusetts 02110. Justin P. Morreale, David L. Engel and John J. Concannon III, partners of Bingham McCutchen LLP, beneficially own an aggregate of 208,533 shares of our common stock. Mr. Concannon is our corporate Secretary.

Item 6. Indemnification Of Directors And Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") empowers a Delaware corporation to indemnify any person who was or is, or is threatened to be made, a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation) by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, provided that such person acted in good faith and in a manner that such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or

proceeding, such person had no reasonable cause to believe his conduct was unlawful. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding. A Delaware corporation may also indemnify such persons against expenses (including attorneys' fees) in actions brought by or in the right of the corporation to procure a judgment in its favor, subject to the same conditions set forth in the immediately preceding sentences, except that no indemnification is permitted in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and to the extent the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses as the Court of Chancery or other such court shall deem proper. To the extent such person has been successful on the merits or otherwise in defense of any action to above, or in defense of any claim, issue or matter therein, the corporation must indemnify such person against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. The indemnification and advancement of expenses provided for in, or granted pursuant to, Section 145 is not exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise.

Section 145 of the DGCL also provides that a corporation may maintain insurance against liabilities for which indemnification is not expressly provided by the statute. The Registrant is insured against liabilities which it may incur by reason of its indemnification obligations under its Certificate of Incorporation, Bylaws and indemnification agreements.

Article X of the Registrant's Certificate of Incorporation provides that the Registrant will indemnify, defend and hold harmless directors, officers, employees and agents or the Registrant to the fullest extent currently permitted under the DGCL.

In addition, Article X of the Registrant's Certificate of Incorporation, provides that neither the Registrant nor its stockholders may recover monetary damages from the Registrant's directors for a breach of their fiduciary duty in the performance of their duties as directors of the Registrant, unless such breach relates to (i) the director's duty of loyalty, (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the DGCL or (iv) any transactions for which the director derived an improper personal benefit. The By-Laws of the Registrant provide for indemnification of the Registrant's directors, employees and agents on the terms permitted under Section 145 of the DGCL described above.

The Registrant has entered into indemnification agreements with certain of its directors and executive officers. These agreements provide rights of indemnification to the full extent allowed and provided for by Section 145 of the DGCL and the Certificate of Incorporation and Bylaws of Access.

3 Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are filed as part of or incorporated by reference into this Registration Statement:

3.1 Certificate of Incorporation (incorporated by reference to Exhibit 3(a) of the Registrant's Form 8-B dated July 12, 1989, Commission File Number 9-9134)

3.2 Certificate of Amendment of Certificate of Incorporation filed August 21, 1992

3.3 Certificate of Merger filed January 25, 1996. (Incorporated by

reference to Exhibit E of the Registrant's Registration Statement on Form S-4 dated December 21, 1995, Commission File No. 33-64031)

3.4 Certificate of Amendment of Certificate of Incorporation filed January 25, 1996 (incorporated by reference to Exhibit E of the Registrant's Registration Statement on Form S-4 dated December 21, 1995, Commission File No. 33-64031)

3.5 Certificate of Amendment of Certificate of Incorporation filed July 18, 1996. (incorporated by reference to Exhibit 3.8 of the Registrant's Form 10-K for the year ended December 31, 1996)

3.6 Certificate of Amendment of Certificate of Incorporation filed June 18, 1998. (incorporated by reference to Exhibit 3.8 of the Registrant's Form 10-Q for the quarter ended June 30, 1998)

3.7 Certificate of Amendment of Certificate of Incorporation filed July 31, 2000 (incorporated by reference to Exhibit 3.8 of our form 10-Q for the quarter ended March 31, 2001)

3.8 Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 of the Registrant's Form 10-Q for the quarter ended June 30, 1996)

3.9 Certificate of Designations of Series A Junior Participating Preferred Stock filed November 7, 2001 (Incorporated by reference to Exhibit 4.1.h of our Registration Statement on Form S-8, dated December 14, 2001, Commission File No. 333-75136)

4.1 1995 Stock Option Plan (Incorporated by reference to Exhibit F of our Registration Statement on Form S-4 dated December 21, 1995, Commission File No. 33-64031)

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4.2 2000 Special Stock Option Plan and Agreement (Incorporated by reference to Exhibit 10.24 of our Form 10-Q for the quarter ended September 30, 2000)

4.3 2001 Restricted Stock Plan (Incorporated by reference to Appendix A of our Proxy Statement filed on April 16, 2001)

5 Opinion of Bingham McCutchen LLP as to the legality of the securities being registered

23.1 Consent of Grant Thornton LLP

23.2 Consent of Bingham McCutchen LLP (included in Exhibit 5)

24 Power of Attorney (included on the signature page of this Registration Statement)

Item 9. Undertakings.

The Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made pursuant to this Registration Statement, a post-effective amendment to this Registration Statement to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of

the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the

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foregoing provisions described in Item 6 above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange 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.

6 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 Dallas, Texas, as of the 6th day of April, 2004.

ACCESS PHARMACEUTICALS, INC.

By: /s/ Kerry P. Gray

Kerry P. Gray President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below hereby appoints Kerry P. Gray and Stephen B. Thompson, and each of them severally as his true and lawful attorney-in-fact with the authority to execute in the name of each such person, and to file with the Securities and Exchange Commission, together with any exhibits thereto and other documents therewith, any and all amendments (including without limitation posteffective amendments) to this Registration Statement on Form S-8 necessary or advisable to enable the Registrant to comply with the Securities Act of 1933, as amended, and any rules, regulations, and requirements of the Securities and Exchange Commission in respect thereof, which amendments may make such other changes in the Registration Statement as the aforesaid attorney-in-fact executing the same deems appropriate.

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 dates indicated.

Signature Title Date

/s/ Kerry P. Gray

- -----

Kerry P. Gray President and Chief Executive April 6, 2004 Officer, Director

/s/ Stuart M. Duty							
Stuart M. Duty	Director	April 6, 2004					
/s/ J. Michael Flinn							
J. Michael Flinn	Director	April 6, 2004					
/s/ Stephen B. Howell							
Stephen B. Howell	Director	April 6, 2004					
/s/ Max Link							
Max Link	Director	April 6, 2004					
/s/ Herbert H. McDade, Jr.							
Herbert H. McDade, J		April 6, 2004					
/s/ John J. Meakem, Jr	7 r.						
John J. Meakem, Jr.	Director	April 6, 2004					
/s/ Stephen B. Thomp	son						
Chi	N Vice President, ef Financial Officer, asurer	April 6, 2004					

8 EXHIBIT INDEX

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BINGHAM MCCUTCHEN LLP 150 Federal Street Boston, MA 02110

April 6, 2004

Access Pharmaceuticals, Inc. 2600 Stemmons Freeway, Suite 176 Dallas, Texas 75207

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

This opinion is furnished in connection with the registration, pursuant to a Registration Statement on Form S-8 under the Securities Act of 1933, as amended (the "Act"), to be filed with the Securities and Exchange Commission on or about March 31, 2004 (the "Registration Statement"), of (a) 500,000 shares (the "1995 Plan Shares") of common stock, par value \$0.01 per share (the "Common Stock"), of Access Pharmaceuticals, Inc., a Delaware corporation (the "Company"), which the Company may grant options to purchase pursuant to the Company's 1995 Stock Option Plan (the "1995 Plan") and (b) 500,000 shares (the "2000 Plan Shares" and together with the 1995 Plan Shares, the "Shares")of Common Stock of the Company, which the Company may grant options to purchase pursuant to the Company's 2000 Special Stock Option Plan (the "2000 Plan").

We have acted as counsel to the Company in connection with the foregoing registration of the Shares. We have examined and relied upon originals or copies of such records, instruments, certificates, memoranda and other documents as we have deemed necessary or advisable for purposes of this opinion and have assumed, without independent inquiry, the accuracy of those documents. In that examination, we have assumed the genuineness of all signatures, the conformity to the originals of all documents reviewed by us as copies, the authenticity and completeness of all original documents reviewed by us in original or copy form and the legal competence of each individual executing such documents. We have further assumed that all options granted or to be granted pursuant to the 1995 Plan and the 2000 Plan were or will be validly granted in accordance with terms of the 1995 Plan and the 2000 Plan, as appplicable, that all Shares to be issued upon exercise of such options will be issued in accordance with the terms of such options and the 1995 Plan or the 2000 Plan, as applicable.

This opinion is limited solely to the Delaware General Corporation Law, as applied by courts located in Delaware, the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting those laws.

Based upon and subject to the foregoing, we are of the opinion that upon the issuance and delivery of the Shares upon the exercise of options granted under the 1995 Plan and the 2000 Plan in accordance with the terms of such options and the 1995 Plan or the 2000 Plan, as applicable, and upon the Company's receipt of the full purchase price therefore, as determined by the Board of Directors of the Company and as specified in the documents governing such grants, the 1995 Plan and the 2000 Plan, the Shares will be validly issued, fully paid and nonassessable shares of the Company's Common Stock.

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

Very truly yours,

Bingham McCutchen LLP

Exhibit 23.1

Consent of Independent Certified Public Accountants

We have issued our report dated March 13, 2004, accompanying the consolidated financial statements of Access Pharmaceuticals, Inc., included in the Company's Annual Report on Form 10-K for the year ended December 31, 2003, which is incorporated by reference in this Registration Statement. We consent to the incorporation by reference in the Registration Statement of the aforementioned report.

Grant Thornton LLP

Dallas, Texas April 6, 2004