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AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON MAY 11, 2001

Registration No. 333-___

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

SHEFFIELD PHARMACEUTICALS, INC. (Exact name of registrant as specified in its charter)

DELAWARE

13-3808303

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer

ion or organization) Identification No.)

14528 SOUTH OUTER FORTY ROAD, SUITE 205 ST. LOUIS, MISSOURI 63017 (Address of principal executive offices, including zip code)

1993 STOCK OPTION PLAN (Full title of the Plan)

LOREN G. PETERSON
CHIEF EXECUTIVE OFFICER
SHEFFIELD PHARMACEUTICALS, INC.
14528 SOUTH OUTER FORTY ROAD, SUITE 205
ST. LOUIS, MISSOURI 63017
(Name and address of agent for service)

(314) 579-9899

(Telephone number, including area code, of agent for service)

CALCULATION OF REGISTRATION FEE

TITLE OF SECURITIES	MAX AMOUNT TO F		MAXIMUM NG PRICE	AMOUNT AGGREGATE	- OF
	ISTERED(1)	PER SHARE			STRATION FEE
Common, Stock par value	3,000,00	0 \$3.89	(2) \$11,67 (0,000 (2) \$2	2,917.50
\$0.01 per share	125,000	\$1.75 (3)	\$218,75	0 (3) \$54 .	69
<u> </u>	100,000	\$1.75 (3)	\$175,000 (3	\$43.75	
	100,000	\$1.438 (3)	\$143,800 (3	\$35.95	
	3,325,000		2,207,550	 \$3,051.89	

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, this Registration Statement shall also be deemed to cover any additional shares offered under the 1993 Stock Option Plan to reflect share splits, share dividends, mergers and other capital changes.
- (2) Pursuant to Rule 457(c) and 457(h) under the Securities Act, the Maximum Offering Price Per Share and the Maximum Aggregate Offering Price for 3,000,000 shares available for purchase under the 1993 Stock Option Plan are estimated solely for the purpose of calculating the registration fee, and are based upon the average of the high and low prices of the registrant's common stock on the American Stock Exchange on May 9, 2001.
- (3) The Maximum Offering Price Per Share and the Maximum Aggregate Offering Price are based on the price at which outstanding options may be exercised under this Registration Statement, in accordance with Rule 457(h) under the Securities Act of 1933, as amended, and are utilized solely for the purpose of calculating the registration fee.

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EXPLANATORY NOTE

This Registration Statement has been prepared in accordance with the requirements of Form S-8, as amended. The purpose of this Registration Statement is to register 3,000,000 shares of common stock, par value \$0.01 per share ("Common Stock") of Sheffield Pharmaceuticals, Inc. which have been reserved for issuance under the Registrant's 1993 Stock Option Plan and to register 325,000 shares of Common Stock which have been reserved for issuance upon the exercise of options granted to employees. A total of 1,000,000 shares of Common Stock reserved under the 1993 Stock Option Plan have been previously registered pursuant to Registration Statement No. 333-14867 and No. 33-95262.

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PART II

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

Incorporated by reference into this Registration Statement are the following documents previously filed by Sheffield Pharmaceuticals, Inc. (the "Company") with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended and the Securities Act of 1934, as amended (the "Exchange Act"):

- (a) the Company's Annual Report on Form 10-K filed with the Commission on March 13, 2001 for the fiscal year ended December 31, 2000;
- (b) the Company's Current Report on Form 8-K filed with the Commission on November 14, 2000; and
- (c) the description of the Company's Common Stock set forth in its Registration Statement on Form 8-B filed on July 6, 1995.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the initial filing of this Registration Statement, but prior to the filing of a post-effective amendment to this Registration Statement indicating that all securities offered hereby have been sold or deregistering all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

None.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Except as hereinafter set forth, there is no statute, charter provision, by-law, contract or other arrangement under which any controlling person, director or officer of the Corporation is insured or indemnified in any manner against liability which he may incur in his capacity as such.

Article TENTH of the Corporation's Certificate of Incorporation provides as follows:

The Corporation shall, to the fullest extent permitted by ss.145 of the General Corporation Law of the State of Delaware, as the same may be amended and supplemented, indemnify any and all persons whom it shall have power to indemnify under said section from and against any and all of the expenses, liabilities or other matters referred to in or covered by said section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which

those indemnified may be entitled under any By-Law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 5.1 of the By-laws of the Corporation provides as follows:

- (a) The Corporation shall indemnify, subject to the requirements of subsection (d) of this Section, any person who was or is a party 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 the Corporation), by reason of the fact that he is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner her reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.
- (b) The Corporation shall indemnify, subject to the requirements of subsection (d) of this Section, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonable incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonable believed to be in or not opposed to the best interest of the Corporation and except that no indemnification shall be made 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 only to the extent that 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 buy in view of all the circumstances of the case, such person is fairly and reasonable entitled to indemnity for such expense which the Court of Chancery of the State of Delaware or such other court shall deem proper.
- (c) To the extent that a director, officer, employee or agent of the Corporation, or a person serving in any other enterprise at the request of the Corporation, has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsection (a) and (b) of this

Section, or in defense of any claim, issue or matter therein, the Corporation shall indemnify

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him against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

- (d) Any indemnification under subsections (a) and (b) of this Section (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in subsections (a) and (b) of this Section. Such determination shall be made (1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable a quorum of disinterested directors, or (3) by independent legal counsel in a written opinion, or (4) by the stockholders.
- (e) Expenses incurred by a directors, officer, employee or agent in defending a civil or criminal action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suite or proceeding as authorized by the Board of Directors upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this Section.
- (f) The indemnification and advancement of expenses provided by or granted pursuant to, the other subsections of this Section shall not limit the Corporation from providing any other indemnification or advancement of expenses permitted by law nor shall it be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.
- (g) The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or who is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of this section.
- (h) The indemnification and advancement of expenses provided by, or granted pursuant to this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.
- (i) For the purposes of this Section, references to "the Corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and

authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent f such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other

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enterprise, shall stand in the same position under the provisions of this Section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation of its separate existence had continued.

(j) This Section 5.1 shall be construed to give the Corporation the broadest power permissible by the Delaware General Corporation Law, as it now stands and as heretofore amended.

Section 145 of the General Corporation Law of the State of Delaware provides as follows:

- (a) A corporation may indemnify any person who was or is a party 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 the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.
- (b) A corporation may indemnify any person who was or is party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonable incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made 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 only to the extent that the Court of Chancery 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 which the Court of Chancery or such other court shall deem proper.

(c) To the extent that a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

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- (d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made (1) by the board of directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.
- (e) Expenses (including attorneys' fees) incurred by an officer or director in defending any civil criminal administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director of officer to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by other employees and agents may be so paid upon such terms and conditions, if any, as the board of directors deems appropriate.
- (f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitles under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.
- (g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under this section.
- (h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and

authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(i) For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the corporation"

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shall include any service s a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "no opposed to the best interests of the corporation" as referred to in this section.

(j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

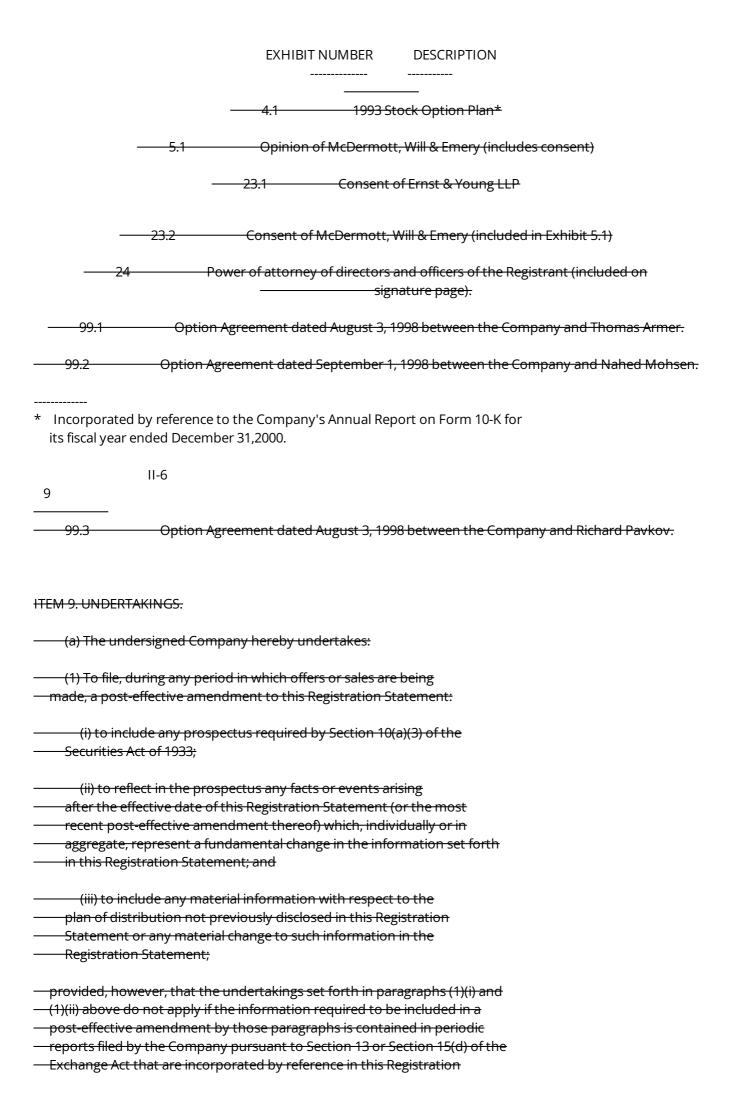
The Company has purchased a Directors and Officer Liability Insurance policy for coverage of up to \$5,000,000.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

The following is a complete list of exhibits filed or incorporated by reference as part of this Registration Statement.



— 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; and
 (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 Company further undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act 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 the time shall be deemed to be the initial bona fide offering thereof.
(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director,
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officer or controlling person of the Company 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 Company 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 of 1933 and will be governed by the final adjudication of such issue.
——————————————————————————————————————
Pursuant to the requirements of the Securities Act, the Company 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 County of St. Louis, State of Missouri on May 11, 2001.
Sheffield Pharmaceuticals, Inc.

	By: /s/ Loren G. Peterson
	Loren G. Peterson Chief Executive Officer and President
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	POWER OF ATTORNEY

Each of the undersigned hereby constitutes and appoints Loren G. Peterson, his or her attorneys-in-fact, each with power of substitution, in his or her name and in the capacity indicated below, to sign any and all further amendments (including post-effective amendments) to this Registration Statement and to file the same, with exhibits thereto and other documents in connection therewith, with the Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

— Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities indicated on May 11, 2001.

NAME AND SIGNATURE	TITLE
/s/ Thomas M. Fitzgerald	Director and Chairman
Thomas	M. Fitzgerald
	Chief Executive Officer, President, & Director (Principal Executive Officer)
Loren (G. Peterson
/s/ John M. Bailey	
John	M. Bailey
/s/ Digby W. Barrios	Director
Digby	W. Barrios
/s/ Todd C. Davis	
Todo	l C. Davis
/s/ Roberto Rettani	Director
Rober	to Rettani
/s/ Scott A. Hoffmann	Vice President Finance and Administration, Secretary
Scott A. Hoffmann	and Treasurer
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EXHIBIT INDEX

	EXHIBIT NUMBER DESCRIPTION
	
	-4.1 1993 Stock Option Plan*
	5.1 Opinion of McDermott, Will & Emery (includes consent)
	-23.1 Consent of Ernst & Young LLP
	23.2 Consent of McDermott, Will & Emery (included in Exhibit 5.1)
-24	Power of attorney of directors and officers of the Registrant (included on signature page).
-99.1	Option Agreement dated August 3, 1998 between the Company and Thomas Armer.
99.2	Option Agreement dated September 1, 1998 between the Company and Nahed Mohsen.
99.3	Option Agreement dated August 3, 1998 between the Company and Richard Pavkov.

^{*} Incorporated by reference to the Company's Annual Report on Form 10-K for

its fiscal year ended December 31,2000.