

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

SAFESTITCH MEDICAL, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

11-2962080

(IRS Employer
Identification Number)

4400 Biscayne Boulevard, Suite A-100 Miami Florida 33137

(Address of Principal Executive Offices)

SafeStitch Medical, Inc. 2007 Incentive Compensation Plan

(Full title of the Plan)

**Adam S. Jackson
Chief Financial Officer
SafeStitch Medical, Inc.
4400 Biscayne Boulevard, Suite A-100
Miami, Florida 33137**

(Name and address of agent for service)

(305) 575-4202

Telephone number, including area code, of agent for service

Copies to:

**Robert L. Grossman, Esq.
Greenberg Traurig, P.A.
1221 Brickell Avenue
Miami, Florida 33131
(305) 579-0500**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer

Non-accelerated filer (Do not check if a smaller reporting company)

Accelerated Filer

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, par value \$0.001 per share	2,000,000	\$0.80 - \$3.10	\$2,321,485	\$129.54

(1) Pursuant to Rule 416(c) of the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of common stock, \$0.001 par value per share ("Common Stock"), of SafeStitch Medical, Inc. (the "Registrant") which become issuable under the SafeStitch Medical, Inc. 2007 Incentive Compensation Plan (the "Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration that results in an increase in the number of the Registrant's outstanding shares of Common Stock.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with: (i) Rule 457(h) of the Securities Act on the basis of the per share strike prices of \$3.10, \$3.00, \$2.80, \$1.16 and \$0.80 in respect of 95,500, 53,000, 6,000, 13,500 and 358,500 shares, respectively, of Common Stock registered hereunder that are issuable upon exercise of options already granted under the Plan; and (ii) Rule 457(c) of the Securities Act based on the average of the bid and asked prices for a share of Common Stock as reported on the OTCBB on August 7, 2009 with respect to 1,473,500 shares of Common Stock registered hereunder that are subject to future grants under the Plan.

Part I. INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified by Items 1 and 2 of Part I of Form S-8 is omitted from this registration statement in accordance with the provisions of Rule 428 of the Securities Act of 1933, as amended (the "Securities Act"), and the introductory Note to Part I of Form S-8.

The documents containing the information specified in Part I of Form S-8 will be sent or given to participating employees as specified by Rule 428(b) of the Securities Act. Such documents and the documents incorporated by reference herein pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Part II. INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents, which have been filed with the Securities and Exchange Commission, are hereby incorporated by reference into this registration statement:

- (a) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2008;
- (b) Our Proxy Statement for our 2009 Annual Meeting of Stockholders;
- (c) Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2009;
- (d) Our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009;
- (e) Our Current Reports on Form 8-K filed on June 18, 2009 and July 23, 2009 (not including any information furnished under Items 2.02, 7.01 or 9.01 of any such Form 8-K); and

(f) The description of our common stock contained in our Registration Statement on Form 8-A filed with the Securities and Exchange Commission on July 30, 1991 and any amendments to such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

Additionally, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (not including any information furnished under Items 2.02, 7.01 or 9.01 of Form 8-K, which information is not incorporated by reference herein) prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated herein by reference and to be a part of this registration statement from the date of filing of such documents. Any statement contained in a document incorporated herein by reference will be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein, or in a subsequently filed document incorporated herein by reference, modifies or supersedes the statement. Any statement modified or superseded will not be deemed, except as modified or superseded, to constitute a part of this registration statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

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 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 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 or enterprise. A corporation may, in advance of the final action of any civil, criminal, administrative or investigative action, suit or proceeding, pay the expenses (including attorneys' fees) incurred by any officer, director, employee or agent in defending such action, provided that the director or officer undertakes to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by the corporation. A corporation may indemnify such person against 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 if he or she acted in good faith and in a manner he or she 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 or her conduct was unlawful.

A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation to procure a judgment in its favor under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses (including attorneys' fees) which he or she actually and reasonably incurred in connection therewith. The indemnification provided is not deemed to be exclusive of any other rights to which an officer or director may be entitled under any corporation's by-law, agreement, vote or otherwise.

The Registrant's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws (together, the "Charter Documents") contain indemnification provisions that are substantially identical to those contained in the DGCL, and which have been included in furtherance and not in limitation or exclusion of the powers conferred by the DGCL. Additionally, the Charter Documents provide that the Registrant may purchase and maintain insurance on behalf of any person who is or was serving the Registrant as a director, officer, employee or agent against any liability asserted against him and incurred by him in such capacity, or arising out of his status as such, whether or not the Registrant would have the power to indemnify him against such liability under the provisions contained in the Charter Documents. The Registrant maintains a Director and Officer insurance policy.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits

See "Exhibit Index" below.

Item 9. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 Miami, State of Florida on this 11th day of August, 2009.

SAFESTITCH MEDICAL, INC.

By: /s/ Jeffrey G. Spragens

Jeffrey G. Spragens
Chief Executive Officer and President
(Principal Executive Officer)

POWER OF ATTORNEY

Each person whose signature appears below hereby appoints Jeffrey G. Spragens and Adam S. Jackson his true and lawful attorney-in-fact with 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 post-effective amendments) to this registration statement 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, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jeffrey G. Spragens</u> Jeffrey G. Spragens	Chief Executive Officer and President (Principal Executive Officer)	August 11, 2009
<u>/s/</u> Jane H. Hsiao, Ph.D.	Chairman of the Board of Directors	_____
<u>/s/ Dr. Charles Filipi</u> Dr. Charles Filipi	Medical Director and Director	August 11, 2009
<u>/s/ Steven D. Rubin</u> Steven D. Rubin	Director	August 11, 2009
<u>/s/ Richard Pfenniger, Jr.</u> Richard Pfenniger, Jr.	Director	August 11, 2009
<u>/s/ Kevin Wayne</u> Kevin Wayne	Director	August 11, 2009
<u>/s/ Adam S. Jackson</u> Adam S. Jackson	Chief Financial Officer (Principal Financial and Accounting Officer)	August 11, 2009

EXHIBIT INDEX

Exhibit Number	Description
4.1	Restated Certificate of Incorporation of the Registrant, as amended, filed as Annex A to the Registrant's Definitive Information Statement on Schedule 14C filed with the SEC on December 7, 2007 and incorporated by reference herein.
4.2	Certificate of Designation of Series A Preferred Stock, filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 23, 2009 and incorporated by reference herein.
4.3	Amended and Restated Bylaws, filed as Exhibit 3.2 to the Registrant's Annual Report on Form 10-KSB, as amended, filed with the SEC on March 26, 2008 and incorporated by reference herein.
5.1	Opinion of Greenberg Traurig, P.A.
10.1	SafeStitch Medical, Inc. 2007 Incentive Compensation Plan, filed as Annex B to the Registrant's Definitive Information Statement on Schedule 14C, filed with the SEC on December 7, 2007 and incorporated by reference herein.
23.1	Consent of Eisner LLP
23.2	Consent of Greenberg Traurig, P.A. (contained in its opinion filed as Exhibit 5.1 hereto).
24.1	Power of Attorney (contained on signature pages hereto).

August 11, 2009
SafeStitch Medical, Inc.
4400 Biscayne Boulevard
Miami, Florida 33137

Re: Registration Statement on Form S-8 for the SafeStitch Medical, Inc. 2007 Incentive Compensation Plan.

Ladies and Gentlemen,

On or about the date hereof, SafeStitch Medical, Inc., a Delaware corporation (the "Company"), transmitted for filing with the Securities and Exchange Commission (the "Commission") a Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to the offering and sale by the Company of up to an aggregate of 2,000,000 shares of the Company's common stock, par value \$0.001 per share ("Common Stock"), under the SafeStitch Medical, Inc. 2007 Incentive Compensation Plan (the "Plan"). We have acted as counsel to the Company in connection with the preparation and filing of the Registration Statement.

In connection therewith, we have examined and relied upon the original or a copy, certified to our satisfaction, of: (i) the Certificate of Incorporation and Bylaws of the Company, each as amended to the date hereof; (ii) records of corporate proceedings of the Company related to the Plan; (iii) the Registration Statement and exhibits thereto; and (iv) such other documents and instruments as we have deemed necessary for the expression of the opinions contained herein. In making the foregoing examinations, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals, and the conformity to original documents of all documents submitted to us as certified or photocopies. As to various questions of fact material to this opinion, we have relied, to the extent we deemed reasonably appropriate, upon representations of officers or directors of the Company and upon documents, records and instruments furnished to us by the Company, without independently checking or verifying the accuracy of such documents, records and instruments.

Based upon the foregoing examination and assuming that (i) the Company reserves for issuance an adequate number of authorized and unissued shares of Common Stock for issuance under the Plan and (ii) the consideration required to be paid in connection with the issuance and sale of shares of Common Stock under the Plan is actually received by the Company as provided in the Plan, we are of the opinion that the shares of Common Stock issued under the Plan will be duly authorized, validly issued, fully paid and nonassessable.

This opinion is rendered only to you and is solely for your benefit in connection with the transactions covered hereby. This opinion may not be relied upon by you for any other purpose, or furnished to, quoted to or relied upon by any other person, firm or corporation for any purpose, without our prior written consent.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not admit that we come within the category of persons whose consent is required by Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

The opinions expressed herein are specifically limited to the laws of the State of Florida and the federal laws of the United States of America and are as of the date hereof. We assume no obligation to update or supplement such opinions to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Sincerely,

GREENBERG TRAURIG, P.A.

By: /s/ Robert L. Grossman

Robert L. Grossman, Esq.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 27, 2009 with respect to our audits of the consolidated financial statements of SafeStitch Medical, Inc. (a development stage company) as of December 31, 2008 and 2007 and for the years then ended and for the period from September 15, 2005 (inception) through December 31, 2008 included in its Annual Report on Form 10-K for the year ended December 31, 2008 filed with the Securities and Exchange Commission.

/s/ Eisner LLP
New York, New York
August 7, 2009
