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<HTMI>
<HEAD>
<TITLE> S-8 Registration Statement</TITLE>
<BODY>
<CENTER><B> As filed with the Securities and Exchange Commission on February 10, 2000</B></Center><BR>
<H5 ALIGN=RIGHT>Registration No. 333-</H5>
<HR>
<H1 ALIGN=CENTER><FONT SIZE=3>SECURITIES AND EXCHANGE COMMISSION
by Washington, D.C. 20549
FONT>
/H1>
<HR SIZE=1 WIDTH=15% ALIGN=CENTER NOSHADE>
<H1 ALIGN=CENTER><FONT SIZE=3>FORM S-8<BR>REGISTRATION STATEMENT</PONT></H1>
<CENTER><I>Under<BR>
The Securities Act of 1933</I></CENTER>
<HR SIZE=1 WIDTH=15% ALIGN=CENTER NOSHADE>
<H1 ALIGN=CENTER><FONT SIZE=3>BOSTON BIOMEDICA, INC.
<CENTER>(Exact Name of Registrant as Specified in its Charter)
<PRE>
                                    04-2652826
      Massachusetts
  (State or Other Jurisdiction of
                                      (I.R.S. Employer
   Incorporation or Organization)
                                      Identification Number)
</PRE>
<H1 ALIGN=CENTER><FONT SIZE=3>375 West Street, West Bridgewater, Massachusetts
02379</FONT></H1>
<CENTER>(Address, Including Zip Code, and Telephone
Number, Including Area Code, of Registrant's Principal Executive Offices)</CENTER>
<HR SIZE=1 WIDTH=15% ALIGN=CENTER NOSHADE>
< H1 ALIGN=CENTER><FONT SIZE=3><U>Employee Stock Option Plan<br/>br>1999 Nonqualified Stock Option Plan<br/>dr>1999 Employee Stock Purchase Plan</U></FONT></H1>
<CENTER>(Full title of Plan)</CENTER>
<HR SIZE=1 WIDTH=15% ALIGN=CENTER NOSHADE>
<H1 ALIGN=CENTER><FONT SIZE=3>Richard T. Schumacher, Chief Executive Officer<br/>br>
Boston Biomedica, Inc. <br/> br>
375 West Street<BR>
West Bridgewater, MA 02379<br>
(508) 580-1900<BR></FONT></H1>
<CENTER>(Name, Address and Telephone Number, Including Area Code, of Agent for Service)</CENTER>
<H1 ALIGN=CENTER><FONT SIZE=3><I>with a copy to:</I></FONT></H1>
<H1 ALIGN=CENTER><FONT SIZE=3>Steven R. London, Esq.<BR>
Brown, Rudnick, Freed & Drown; Gesmer BR>
One Financial Center, Boston, Massachusetts 02111<BR>
(617) 856-8200</FONT></H1>
<HR SIZE=1 WIDTH=15% ALIGN=CENTER NOSHADE>
<H1 ALIGN=CENTER><FONT SIZE=3>CALCULATION OF REGISTRATION FEE</FONT></H1>
<PRE>
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Proposed Proposed Amount Maximum Maximum Amount of Title of Each Class of to Be Offering Price Aggregate Registration Securities to Be Registered Registered (1) Per Share (3) Offering Price(3) Fee

Common Stock, \$. 01 par value 2,000,000 Shares(2) \$5.46 \$10,920,000 \$2,882,88

- (1) Includes (i) 1,250,000 shares that may be issued pursuant to the 1999 Employee Stock Option Plan, (ii) 500,000 shares that may be issued pursuant to the 1999 Nonqualified Stock Option Plan and (iii) 250,000 shares that may be issued pursuant to the Employee Stock Purchase Plan.
- (2) Such presently indeterminable number of additional shares of Common Stock are also registered hereunder as may be issued in the event of a merger, consolidation, reorganization, recapitalization, stock dividend, stock split or other similar change in Common Stock.
- (3) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, on the basis of the average of the high and low reported price of the Common Stock of \$5.46 on the Nasdaq Stock Market, Inc. on February 4, 2000.

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 3.
Incorporation of Documents by Reference.

The following documents are hereby incorporated by reference into this Registration Statement:

<PRE>

- (a) The Registrant's Final Prospectus dated October 31, 1996 in the form filed on October 31, 1996 with the Securities and Exchange Commission pursuant to Rule 424(b)(4) under the Securities Act of 1933, as amended (the "1933 Act");
- (b) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act");
- (c) The Registrant's quarterly reports on Form 10-Q for the quarters ended March 31, 1999, June 30, 1999 and September 30, 1999 filed pursuant to Section 13(a) or 15(d) of the Exchange Act
- (d) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A, (File No. 000-216515), filed under the Exchange Act with the Securities and Exchange Commission, including any amendment or report filed for the purpose of updating such description; and
- (e) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form S-1 (File No. 333-10759) filed under the 1933 Act.

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<P><FONT SIZE=3>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the date hereof and 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 by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. </FONT></P>

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 4.</U> Description of Securities.</FONT></H2>

Not Applicable.

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 5.</U> Interests of Named Experts and Counsel.</FONT></H2>

Not Applicable.

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 6.</U> Indemnification of Directors and Officers.</FONT></H2>

<P><FONT SIZE=3>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;The Registrant&#146;s Amended and Restated Articles of Organization eliminate, subject to certain exceptions, the personal liability of directors to the Registrant or its stockholders for monetary damages for breaches of fiduciary duties as directors. The Amended and Restated Articles do not provide for the elimination of or any limitation on the personal liability of a director for (i) any breach of the director&#146;s duty of loyalty to the Registrant or its stockholders.

(ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) certain unauthorized dividends, redemptions, or distributions as provided under Section 61 of the Massachusetts Business Corporation Law, (iv) certain loans of assets of the Registrant to any of its officers or directors as provided under Section 62 of the Massachusetts Business Corporation Law or (v) any transaction from which the director derived an improper personal benefit. This provision of the Amended and Restated Articles of Organization will limit the remedies available to a stockholder in the event of breaches of any director's duties to such stockholder or the Registrant. </FONT></P>

<P><FONT SIZE=3>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;The Registrant&#146;s Amended and Restated Articles of Organization provide that the Registrant may, either in its By-laws or by contract, provide for the indemnification of directors, officers, employees and agents, by whomever elected or appointed, to the full extent permitted by law, as it may be amended from time to time. </FONT></P>

<P><FONT SIZE=3>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;The Amended and Restated Articles do not provide for the elimination of or any limitation on the personal liability of a director for (i) any breach of the director&#146;s duty of loyalty to the Registrant or its stockholders, (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) certain unauthorized dividends, redemptions, or distributions as provided under Section 61 of the Massachusetts Business Corporation Law, (iv) certain loans of assets of the Registrant to any of its officers or directors as provided under Section 61 of the Massachusetts Business Corporation Law or (v) any transaction from which the director derived an improper personal benefit. This provision of the Amendment and Restated Articles of Organization will limit the remedies available to a stockholder in the event of breaches of any director&#146;s duties to such stockholder or the Registrant.

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 7.
/U> Exemption from Registration Claimed.

Not Applicable.

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 8.</U> Exhibits.</FONT></H2>

- (4) Instruments defining the rights of security holders, including indentures.
  - (a) Description of Certificate of Common Stock filed as Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-10759) (the "S-1 Registration Statement").\*
  - (b) Amended and Restated Articles of Organization of the Registrant, filed as Exhibit 3.1 to the S-1 Registration Statement.\*
  - (c) Amended and Restated By-Laws of the Registrant, filed as Exhibit 3.2 to the S-1 Registration Statement.\*
- (5) Opinion regarding legality.
  - (a) Legal Opinion of Brown, Rudnick, Freed and Gesmer.
- (24) Consents of experts and counsel.

</PRE>

<PRE>

- (a) Consent of PricewaterhouseCoopers LLP, independent accountants.
- (b) Consent of Brown, Rudnick, Freed & Drown; Gesmer is included within their legal opinion filed as Exhibit (5) (a) hereof.
- (25) Power of Attorney (included on signature page hereof).
- (99) Additional Exhibits.
  - (a) Boston Biomedica, Inc. Employee Stock Option Plan filed as Exhibit 10.16 to the S-1 Registration Statement.\*
  - (b) Boston Biomedica, Inc. 1999 Nonqualified Stock Option Plan.\*
  - (c) Boston Biomedica, Inc. 1999 Employee Stock Purchase Plan.\*

Not filed herewith. In accordance with Rule 411(c) promulgated pursuant to the Securities Act of 1933, as amended, reference is made to the documents previously filed with the Securities and Exchange Commission which documents are hereby incorporated by reference.

<H2 ALIGN=LEFT><FONT SIZE=3><U>Item 9. Undertakings.</U></FONT></H2>

- (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 of 1933;
      - (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;
      - (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;

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provided,

however, that paragraphs (1)(i) and (1)(ii) do not apply if the Registration Statement is on Form S-3 or Form S-8; and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic 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 that are incorporated by reference in the Registration Statement.</FONT></TD>

</TABLE>

<BR> <PRE>

> (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 the 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 of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 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.
- (h) 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 Registrant's Certificate of Incorporation, as amended, By-Laws, 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. </PR F>

## <H1 ALIGN=CENTER><FONT SIZE=3>SIGNATURES</FONT></H1>

<P><U>The Registrant</U>. 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 West Bridgewater, Commonwealth of Massachusetts, on February 11, 2000.

<H1 ALIGN=RIGHT><B><FONT SIZE=3>BOSTON BIOMEDICA, INC.

<PRE>

By:/S/ Richard T. Schumacher

Richard T. Schumacher<BR>
Principal Executive Officer

</PRE>

<H1 ALIGN=CENTER><FONT SIZE=3>POWER OF ATTORNEY</PONT></H1>

<P>KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Richard T. Schumacher, and Kevin W. Quinlan and each of them (with full power to each of them to act alone), his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their substitutes, may lawfully do or cause to be done by virtue hereof.

<P>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.

<PRF> Signature Title /S/ Richard T. Schumacher February 11, 2000 --- Principal Executive Officer and Director Richard T. Schumacher /S/ Kevin W. Quinlan February 11, 2000 -- Principal Financial and Accounting --Kevin W. Quinlan Officer and Director /S/ Francis E. Capitanio February 11, 2000 Francis E. Capitanio

</PRE>
<H1 ALIGN=CENTER><FONT SIZE=3>EXHIBIT INDEX</FONT></H1>

<PRE>
Item 8. Exhibits.

- (4) Instruments defining the rights of security holders, including indentures.
  - (a) Description of Certificate of Common Stock filed as Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-10759) (the "S-1 Registration Statement").\*
  - (b) Amended and Restated Articles of Organization of the Registrant, filed as Exhibit 3.1 to the S-1 Registration Statement.\*
  - (c) Amended and Restated By-Laws of the Registrant, filed as Exhibit 3.2 to the S-1 Registration Statement.\*
- (5) Opinion regarding legality.
  - (a) Legal Opinion of Brown, Rudnick, Freed & Discourse, Gesmer.
- (24) Consents of experts and counsel.
  - (a) Consent of PricewaterhouseCoopers LLP, independent accountants.
  - (b) Consent of Brown, Rudnick, Freed & Description of Sesmer is included within their legal opinion filed as Exhibit (5)(a) hereof
- (25) Power of Attorney (included on signature page hereof).
- (99) Additional Exhibits.
  - (a) Boston Biomedica, Inc. Employee Stock Option Plan filed as Exhibit 10.16 to the S-1 Registration Statement.\*
  - (b) Boston Biomedica, Inc. 1999 Nonqualified Stock Option Plan.\*
  - (c) Boston Biomedica, Inc. 1999 Employee Stock Purchase Plan.\*

</PRE></RE>

\* Not filed herewith. In accordance with Rule 411(c) promulgated pursuant to the Securities Act of 1933, as amended, reference is made to the documents previously filed with the Securities and Exchange Commission which documents are hereby incorporated by reference.

<H1 ALIGN=CENTER><FONT SIZE=3>EXHIBIT 5</FONT></H1>

<CENTER>Opinion of Brown, Rudnick, Freed & Desmer <P>

February 11, 2000</CENTER><P>

Boston Biomedica, Inc.<BR>
375 West Street<BR>
West Bridgewater, MA 02379<BR>

<PRE>

RE: Boston Biomedica, Inc. Registration Statement on Form S-8

Dear Ladies and Gentlemen:

We have acted as legal counsel to Boston Biomedica, Inc., a Massachusetts corporation (the "Company"), in connection with the preparation and filing of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), relating to an aggregate of 2,000,000 shares of the Company's Common Stock, \$.01 par value (the "Shares").

The Shares issuable pursuant to the exercise of options granted or to be granted pursuant to the Boston Biomedica, Inc. Employee Stock Option Plan, the

Boston Biomedica, Inc. 1999 Nonqualified Stock Purchase Plan and the Boston Biomedica, Inc. Employee Stock Purchase Plan (collectively, the "Plans").

In connection with this Opinion Letter, we have examined the documents listed on Schedule A attached hereto (collectively, the "Documents").

We have not made any independent review or investigation of orders, judgments, rules or other regulations or decrees by which the Company or any of its property may be bound, nor have we made any independent investigation as to the existence of actions, suits, investigations or proceedings, if any, pending or threatened against the Company.

With your concurrence, the opinion hereafter expressed, whether or not qualified by language such as "to our knowledge," is based solely upon (i) our review of the Documents, (ii) discussions with certain officers of the Company with respect to the Documents, (iii) discussions with those of our attorneys who have given substantive legal representation to the Company in connection with the Registration Statement, and (iv) such review of published sources of law as we have deemed necessary.

This firm, in rendering legal opinions, customarily makes certain assumptions which are described in Schedule B hereto. In the course of our representation of the Company in connection with the Registration Statement, nothing has come to our attention which causes us to believe reliance upon any of those assumptions is inappropriate, and, with your concurrence, the opinion hereafter expressed is based upon those assumptions. For purposes of those assumptions, the Enumerated Party referred to in Schedule B is the Company.

Our opinion hereafter expressed is limited to the law of the Commonwealth of Massachusetts and Federal law.

We express no legal opinion upon any matter other than as explicitly addressed in numbered paragraph 1 below, and our express opinion therein contained shall not be interpreted to be implied opinions upon any other matter.

Based upon and subject to the foregoing, we are of the opinion that:

 The Shares have been duly authorized, and when issued and paid for in accordance with the terms of the Plans, will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an Exhibit to the Registration Statement and to the reference to this firm wherever it appears in the Registration Statement.

Very truly yours,

BROWN, RUDNICK, FREED & DESMER By: Brown, Rudnick, Freed & Desmer, P.C., a partner

By: /S/ Steven R. London

Steven R. London Duly authorized

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SRL/JGN/JRS

<H1 ALIGN=CENTER><FONT SIZE=3>SCHEDULE A

<BR><BR>

<U>LIST OF DOCUMENTS</U></FONT></H1>

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In connection with the Opinion Letter to which this Schedule A is attached, we have reviewed the following Documents. However, except as otherwise expressly indicated, we have not reviewed any documents, instruments or agreements referred to in or listed upon any of the following documents:

- (i) the Amended and Restated Articles of Organization of the Company, as amended, as certified by the Secretary of State of the Commonwealth of Massachusetts.
  - (ii) copy of the Amended and Restated By-laws of the Company.
- (iii) the corporate minute books or other records of the Company pertaining to certain resolutions of the directors and the stockholders of the Company as to the Plans and a certificate of the Clerk of the Company as to certain resolutions of the directors of the Company;
- (iv) a certificate dated as of a recent date of the Secretary of State of the Commonwealth of Massachusetts as to the good standing of the Company;
- (v) a letter dated as of a recent date from the Company's transfer agent with respect to the number of shares of Common Stock of the Company outstanding;
  - (vi) the Plans; and
  - (vii) the Registration Statement

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<H1 ALIGN=CENTER><FONT SIZE=3>SCHEDULE B
<BR>><BR>
BROWN, RUDNICK, FREED & GESMER <BR>
<U>STANDARD ASSUMPTIONS</U></FONT></H1>
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In rendering legal opinions in third party transactions, Brown, Rudnick, Freed & Desmer makes certain customary assumptions described below:

- 1. Each natural person executing any of the documents has sufficient legal capacity to enter into such Documents.
- 2. Each person other than the Enumerated Party has all requisite power and authority and has taken all necessary corporate or other action to enter into the Documents to which it is a part or by which it is bound, to the extend necessary to make the documents enforceable against it.
- 3. Each person other than the Enumerated Party has complied with all legal requirements pertaining to its status as such status relates to its rights to enforce the Documents against the Enumerated Party.
- 4. Each Document is accurate, complete and authentic, each original is authentic, each copy conforms to an authentic original and all signatures are genuine.
- 5. All official public records are accurate, complete and properly indexed and filed.  $\ensuremath{<\!\!\!/\!\!\!PRE\!\!\!>}$

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<H1 ALIGN=CENTER><FONT SIZE=3>EXHIBIT (24)(a)<BR><BR>CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 24, 1999, except as to certain information in the first paragraph of Note 9, for which the date is March 31, 1999, relating to the consolidated financial statements and financial statement schedule, which appears in Boston Biomedica, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1998.<br/>
P>>BR>>BR>>BR>

<CENTER>/S/ PricewaterhouseCoopers LLP</CENTER><P> <BR> <BR> Boston, Massachusetts<BR> February 11, 2000 </BODY> </HTML>