

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under The Securities Exchange Act of 1934

BOSTON BIOMEDICA, INC.

(Name of Issuer)

Common Stock, \$0.01 par value per share

(Title of Class of Securities)

100560101

(CUSIP Number)

Tim T. Hart
Chief Financial Officer
c/o SeraCare Life Sciences, Inc.
1935 Avenida del Oro, Suite F
Oceanside, California 92056
(760) 806-8922

with a copy to

Andor D. Turner, Esq.
O'Melveny & Myers LLP
114 Pacifica, Suite 100
Irvine, California 92618
(949) 737-2900

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

April 16, 2004

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. Name of Reporting Person
I.R.S. Identification Nos. of above person (entities only)

SERACARE LIFE SCIENCES, INC.

2. Check the Appropriate Box if a Member of a Group
(a)
(b)

3. SEC Use Only

4. Source of Funds:

OO

5. Check Box if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6. Citizenship or Place of Organization:

CALIFORNIA

7. Sole Voting Power

-0-

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

8. Shared Voting Power

2,250,032 shares (See Item 5)

9. Sole Dispositive Power

-0-

10. Shared Dispositive Power

-0-

11. Aggregate Amount Beneficially Owned by Each Reporting Person

2,250,032 shares (See Item 5)

12. Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares

13. Percent of Class Represented by Amount in Row (11):

32.6%

14. Type of Reporting Person

CO

Item 1. Security and Issuer

This statement on Schedule 13D (this "Schedule 13D") relates to shares of Common Stock, par value \$0.01 per share ("Common Stock"), of Boston Biomedica, Inc., a Massachusetts corporation (the "Issuer"). The Issuer has its principal executive offices at 375 West Street, West Bridgewater, Massachusetts.

Item 2. Identity and Background.

This Schedule 13D is being filed by SeraCare Life Sciences, Inc., a California corporation (the "Reporting Person"). The Reporting Person develops, manufactures, and sells innovative blood based products, services, and cell culture products for the biotechnology, pharmaceutical, and diagnostic markets. The address of its principal executive offices is 1935 Avenida del Oro, Suite F, Oceanside, California.

The directors and executive officers of the Reporting Person are set forth on Schedule A attached hereto. Schedule A sets forth the following information with respect to each such person:

- (a) Name;
- (d) Title of Class of Securities;
- (b) Residence or business address;
- (c) Present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted; and
- (d) Citizenship.

During the last five years, neither the Reporting Person, nor any person named in Schedule A attached hereto, has been (a) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (b) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration.

On April 16, 2004, the Reporting Person entered into an Asset Purchase Agreement, dated as of April 16, 2004 with Issuer and BBI Biotech Research Laboratories, Inc., a Massachusetts corporation ("BBI Biotech") (the "Purchase Agreement"), a copy of which is attached to this Statement as Exhibit 99.1, pursuant to which the Reporting Person has agreed to acquire substantially all of the assets of the BBI Diagnostics and BBI Biotech divisions of Issuer for approximately \$30.0 million in cash plus the assumption of certain liabilities.

Concurrently with the execution of the Purchase Agreement, the Reporting Person and certain shareholders of the Issuer entered into (i) a Voting Agreement, dated April 16, 2004 (the

“Schumacher Voting Agreement”), a copy of which is attached to this Statement as Exhibit 99.3, by and among the Reporting Person and Richard T. Schumacher (“Schumacher”), where in consideration for the delivery of the Purchase Agreement, Schumacher agreed to vote his shares in favor of the Purchase Agreement and against any Acquisition Proposal (as such term is defined in the Purchase Agreement) and (ii) a Voting Agreement, dated April 16, 2004 (the “Kiphart Voting Agreement”), a copy of which is attached to this Statement as Exhibit 99.2, by and among the Reporting Person, Richard Kiphart, Rebecca Kiphart and Shoreline Micro-Cap Fund I LP (“Shoreline”), where in consideration for the delivery of the Purchase Agreement, Richard Kiphart, Rebecca Kiphart and Shoreline (together, with Schumacher, the “Shareholders”) agreed to vote their shares in favor of the Purchase Agreement and against any Acquisition Proposal (as such term is defined in the Purchase Agreement). In addition, the Shareholders granted an irrevocable proxy to certain officers of the Reporting Person and appointed such officers as their attorney-in-fact to vote all the shares beneficially owned by them in accordance with the provisions of the Schumacher Voting Agreement and Kiphart Voting Agreement, respectively.

Item 4. Purpose of Transaction

The purpose of the Schumacher Voting Agreement and Kiphart Voting Agreement is to facilitate the sale of certain assets of Issuer pursuant to the terms of the Purchase Agreement. As inducement for, and in consideration of, the Reporting Person’s participation in the Purchase Agreement, the Shareholders agreed to vote their shares in favor of the transactions contemplated by the Purchase Agreement and against any Acquisition Proposal (as such term is defined in the Purchase Agreement). The description contained in this Item 4 of the transactions contemplated by the Kiphart Voting Agreement and the Schumacher Voting Agreement is qualified in its entirety by reference to the full text of the Kiphart Voting Agreement and Schumacher Voting Agreement, copies of which are attached to this Statement as Exhibits 99.2 and 99.3, respectively.

The Purchase Agreement provides, among other things, for (a) the sale of certain assets of BBI Diagnostics and BBI Biotech to the Reporting Person and (b) the assumption of certain liabilities by the Reporting Person of BBI Diagnostics and BBI Biotech. The description contained in this Item 4 of the transactions contemplated by the Purchase Agreement is qualified in its entirety by reference to the full text of the Purchase Agreement, a copy of which is attached to this Statement as Exhibit 99.1.

Except as otherwise disclosed above, the Reporting Person currently has no specific plans or proposals that relate to or would result in the events described in paragraphs (a) through (j) of Item 4 of the instructions to Schedule 13D, although the Reporting Person reserves the right to develop such plans or proposals.

Item 5. Interest in Securities of the Issuer

(a) The shares subject to the Schumacher Voting Agreement consist of a total of 707,047 shares of Common Stock of the Issuer (the “Schumacher Shares”). The Schumacher Shares include (i) 637,907 shares of Common Stock held of record by Schumacher, (ii) 48,667 shares underlying options for Common Stock held of record by Schumacher and (iii) 20,473

shares of Common Stock held of record by Schumacher's spouse. The shares subject to the Kiphart Voting Agreement consist of a total of 1,542,985 shares of Common Stock of the Issuer (the "Kiphart Shares"). The Kiphart Shares include (i) 1,059,638 shares of Common Stock held of record by Richard Kiphart, (ii) 27,734 shares underlying warrants for Common Stock held of record by Richard Kiphart, (iii) 357,791 shares of Common Stock held of record by Shoreline, (iv) 7,822 shares underlying warrants for Common Stock held of record by Shoreline, and (v) 90,000 shares of Common Stock held of record by Rebecca Kiphart. The Kiphart Shares and the Schumacher Shares (collectively, the "Shares") represent approximately 32.6% of the shares of Common Stock, based on 6,827,592 shares of Common Stock outstanding as reported by the Issuer on their most recent annual report on Form 10-K.

(b) Under the terms of the Schumacher Voting Agreement and the Kiphart Voting Agreement, the Shareholders have agreed to vote or cause to be voted all the Shares in favor of the transactions contemplated by the Purchase agreement and against any Acquisition Proposal (as such term is defined in the Purchase Agreement). Additionally, the Shareholders have given an irrevocable proxy to certain officers of the Reporting Person and appointed such officers as its attorney-in-fact to vote all the shares beneficially owned by them in accordance with the provisions of the Schumacher Voting Agreement and Kiphart Voting Agreement. Accordingly, the Reporting Person with respect to matters relating to the transactions contemplated by the Purchase Agreement may be deemed to have acquired shared voting power with respect to the Shares.

(c) The information provided in Item 3 above is incorporated herein by reference. Persons named in Schedule A attached hereto, did not acquire or dispose of any shares of Common Stock during the past sixty days.

(d) Not applicable.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

The information provided in Item 3, 4 and 5 is incorporated herein by reference. The descriptions herein of the Purchase Agreement, Schumacher Voting Agreement and Kiphart Voting Agreement are qualified in their entirety by reference to such agreements, copies of which are attached hereto as Exhibits.

Item 7. Materials to Be Filed as Exhibits.

99.1. Asset Purchase Agreement, dated April 16, 2004, by and among SeraCare Life Sciences, Inc., a California corporation, Boston Biomedica, Inc., a Massachusetts corporation, and BBI Biotech Research Laboratories, Inc., a Massachusetts corporation (incorporated by reference to Exhibit 2.1 of the Reporting Person's Form 8-K, filed April 16, 2004).

99.2. Voting Agreement, dated April 16, 2004, by and among the Richard Kiphart, Rebecca Kiphart, Shoreline Micro-Cap Fund I LP and SeraCare Life Sciences, Inc., a California

corporation (incorporated by reference to Exhibit 10.1 of the Reporting Person's Form 8-K, filed April 16, 2004).

99.3. Voting Agreement, dated April 16, 2004, by and between Richard T. Schumacher and SeraCare Life Sciences, Inc., a California corporation (incorporated by reference to Exhibit 10.2 of the Reporting Person's Form 8-K, filed April 16, 2004).

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: April 20, 2004

/s/ Tim T. Hart

Tim T. Hart
Chief Financial Officer

SCHEDULE A**DIRECTORS AND EXECUTIVE OFFICERS OF SERACARE LIFE SCIENCES, INC.**

<u>Name</u>	<u>Residence or Business Address</u>	<u>Present Principal Occupation or Employment</u>	<u>Citizenship</u>
Barry D. Plost	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Chairman of the Board	U.S.
Michael F. Crowley Jr.	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director, President and Chief Executive Officer	U.S.
Tim T. Hart	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Chief Financial Officer	U.S.
Jerry L. Burdick	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director and Secretary	U.S.
Samuel Anderson	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director	U.S.
Ezzat Jallad	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director	Lebanon
Dr. Nelson Teng	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director	U.S.
Robert J. Cresci	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director	U.S.
Dr. Bernard Kasten	SeraCare Life Sciences, Inc. 1935 Avenida del Oro, Suite F Oceanside, California	Director	U.S.