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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 30, 2010

BACTERIN INTERNATIONAL HOLDINGS, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware

(State or other jurisdiction of incorporation)

333-158426 (Commission File Number) Identification No.) 20-5313323 (IRS Employer

600 Cruiser Lane Belgrade, Montana

(Address of principal executive offices)

59714 (Zip Code)

Registrant's telephone number, including area code: (406) 388-0480

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4 (c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 3.02. Unregistered Sales of Equity Securities

On July 30, 2010, Bacterin International Holdings, Inc. (the "Company") completed the second and final closing of the private placement of its securities initially reported in its Current Report on Form 8-K, filed with the Securities and Exchange Commission ("SEC") on June 30, 2010, and further reported in its Current Report on Form 8-K, filed with the SEC on July 7, 2010. In the second and final closing of this private placement, the Company sold a total of 1,102,500 shares of its common stock and warrants to purchase an aggregate of up to an additional 275,625 shares of its common stock for total gross cash proceeds of \$1,764,000 in a private placement to accredited investors in reliance upon the exemption from registration provided by Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act"), and Regulation D promulgated thereunder. The Company sold each share and warrant for an aggregate price of \$1.60 per share pursuant to the terms of a subscription agreement executed and delivered by each investor on or before the closing of the private placement. Each warrant entitles the holder to purchase one-quarter share of the Company's common stock at an exercise price of \$2.50 per share through July 30, 2015. The investment in the second closing of this private placement is subject to the same terms as the first closing described in the June 30 and July 7, 2010 Form 8-Ks, and the exhibits to those Form 8-Ks and the descriptions of the exhibits in those Form 8-Ks are incorporated herein by reference.

The placement agents in the private placement, including the lead placement agent, Middlebury Securities, LLC, received an aggregate of \$141,120 in cash placement fees and was issued 22,050 shares of the Company's common stock and warrants to purchase an additional 110,250 shares of the Company's common stock in connection with the second closing of the private placement. The warrants have an exercise price of \$1.60 per share, have a cashless exercise provision, have registration rights that are the same as those afforded to investors in the private placement and are otherwise identical to the warrants issued to investors in the private placement.

The shares of the Company's common stock and warrants issued in the private placement were exempt from registration under Section 4(2) of the Securities Act of 1933 as a sale by an issuer not involving a public offering or under Regulation D promulgated pursuant to the Securities Act. None of the common stock or warrants, or shares of its common stock underlying such warrants, were registered under the Securities Act, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act and corresponding provisions of state securities laws, which exempts transactions by an issuer not involving any public offering. Such securities may not be offered or sold in the United States absent registration or an applicable exemption from the registration requirements and certificates evidencing such shares contain a legend stating the same.

Following the second closing of the private placement, the Company had 35,744,653 shares of common stock outstanding. The Company also had outstanding warrants to purchase 6,750,208 shares of its common stock, at exercise prices ranging from \$2.08 to \$2.60 per share, and outstanding stock options to purchase a total of 4,273,196 shares of its common stock at exercise prices ranging from \$0.104 to \$2.60.

Item 7.01. Regulation FD Disclosure.

A copy of the press release announcing the matters described in Item 3.02 above is attached as Exhibit 99.1 and incorporated herein. The information in this Item 7.01 and the document attached as Exhibit 99.1 are being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), nor otherwise subject to the liabilities of that section, nor incorporated by reference in any filing under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

This Current Report on Form 8-K will not be deemed an admission as to the materiality of any information in the Report that is required to be disclosed solely by Regulation FD.

We do not have, and expressly disclaim, any obligation to release publicly any updates or any changes in our expectations or any change in events, conditions, or circumstances on which any forward-looking statement is based.

The text included with this Report on Form 8-K is available on our website located at *www.bacterin.com*, although we reserve the right to discontinue that availability at any time.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No	Description
99.1	Press Release of Bacterin International Holdings, Inc., dated August 5, 2010, entitled "Bacterin Closes Private Placement with Total Raise of \$9.2 Million"

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: August 5, 2010

BACTERIN INTERNATIONAL HOLDINGS, INC.

By: /s/ Guy S. Cook

Guy S. Cook President and Chief Executive Officer



Bacterin Closes Private Placement with Total Raise of \$9.2 million

Bacterin International Schedules Conference Call to Present Second Quarter 2010 Financial Results

BELGRADE, MT, August 5, 2010 – Bacterin International Holdings, Inc. ("Bacterin" or the "Company") (OTCBB: BIHI), a developer of anti-infective coatings for medical applications and revolutionary bone graft material, today announced that it has closed its private placement offering raising total gross proceeds of \$9.2 million from the sale to accredited investors, including certain of its directors and officers, of shares of its common stock at a purchase price of \$1.60 per share, with detachable warrants to purchase one-quarter of one share its common stock (at an exercise price of \$2.50 per share) for each share purchased.

In total, Bacterin sold 5,479,895 shares of its common stock and warrants to purchase 1,323,540 shares of its common stock in the private placement, including shares and warrants issued to the placement agents, which brings the Company's total shares outstanding to approximately 35.6 million (46.5 million shares on a fully diluted basis). Bacterin received gross proceeds of \$9,272,329, consisting of (i) \$4,026,000 from investors in the initial private placement round that closed on June 30, 2010, which included directors and executive officers of the Company, (ii) \$1,764,000 in the private placement round that closed on July 30, 2010, which only included investors who invested in the initial round, and (iii) \$3,482,329 from note holders in two earlier bridge financings who converted certain principal and interest outstanding under their notes into shares of common stock and warrants in the private placement at a 10% discount to the purchase price therein, being \$1.44 per share, and received warrants with a 10% discounted exercise price of \$2.25. Bacterin intends to use the cash proceeds from the capital raise to repay its remaining bridge notes in the principal amount of approximately \$1.85 million and for working capital, including the expansion of its sales force. Middlebury Securities, LLC, a wholly owned subsidiary of Middlebury Group, LLC acted as the placement agent in connection with the private placement.

Bacterin has scheduled a conference call for Thursday, August 12, 2010 at 10:00 a.m. (ET) to discuss the Company's financial results for its second quarter ended June 30, 2010, during which management may discuss forward-looking information. Bacterin intends to issue its earnings release after the market close on August 11, 2010.

Conference Call Details:

Date/Time:

Thursday, August 12, 2010-10:00 a.m. (ET)

Telephone Number:	866-804-6925
International Dial-In Number:	857-350-1871
Participant Pass code:	65868515
Internet Access:	www.bacterin.com or www.earnings.com

It is recommended that participants phone-in at least 5 minutes before the call is scheduled to begin. A replay of the conference call in its entirety will be available approximately one hour after its completion by dialing 888-286-8010 (U.S.), 617-801-6888 (International) and entering the pass code 11896393 and on the Internet at www.earnings.com.

Investor Contact:

Yvonne L. Zappulla Managing Director Grannus Financial Advisors, Inc. 212-681-4108 845-323-8014 Cell Yvonne@GrannusFinancial.com

About Bacterin International Holdings, Inc.

Bacterin International Holdings, Inc. ("Bacterin") processes and markets innovative, biologic allografts for transplantation. The Company's products, OsteoSponge®, OsteoSponge®, OsteoSponge®, OsteoSponge®, OsteoSponge®, are made from demineralized bone that is malleable and flexible, which enables more efficient and precise handling. It also markets BacFast® and OsteoLock®, which are used in spine surgery, designed to minimize graft back-out, and increase osteoinductivity. Bacterin's latest allograft, OsteoSelect® DBM Putty has excellent handling characteristics and is distributed as a sterile product, with osteoinductivity testing completed on every lot after terminal sterilization. Headquartered in Belgrade, Montana, Bacterin operates a 32,000 sq. ft., state-of-the-art, fully compliant and FDA registered facility, equipped with five "Class 100" clean rooms.

This news release contains certain disclosures that may be deemed forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to significant risks and uncertainties. Forward-looking statements include statements that are predictive in nature, that depend upon or refer to future events or conditions, or that include words such as "continue," "efforts," "expects," "anticipates," "intends," "plans," "believes," "estimates," "projects," "forecasts," "strategy," "will," "goal," "target," "prospects," "potential," "optimistic," "confident," "likely," "probable" or similar expressions or the negative thereof. These forward-looking statements are based on current expectations or beliefs and include, but are not limited to, statements about the Company's use of proceeds from the private placement offering and its earnings release. Statements of historical fact also may be deemed to be forward-looking statements. We caution that these statements by their nature involve risks and uncertainties, and actual results may differ materially depending on a variety of important factors, including, among others: the company's ability to meet its obligations, products and services and to protect its intellectual property; the ability and willingness of third-party manufacturers to timely and cost-effectively fulfill orders from the company; the ability of the company's customers to pay and the timeliness of such payments, particularly during recessionary periods; the company's ability to obtain financing as and when needed; changes in consumer demands and preferences; the company's ability to attract and retain management and employees with appropriate skills and expertise; the impact of changes in market, legal and regulatory conditions and in the applicable business environment, including actions of competitors; and other factors. The company undertakes no obligation to release publicly any revisions to any forward-looking statements to reflect events or circumstances aft