

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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): April 8, 2011

Bacterin International Holdings, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

001-34951

(Commission File Number)

20-5313323

(IRS Employer Identification No.)

600 Cruiser Lane
Belgrade, Montana

(Address of Principal Executive Offices)

59714

(Zip Code)

(406) 388-0480

(Registrant's Telephone Number, Including Area Code)

(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 (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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ITEM 2.02. RESULTS OF OPERATIONS AND FINANCIAL CONDITION

Bacterin International Holdings, Inc. (the "Company") is releasing an update to its full year and fourth quarter 2010 earnings release, which was attached as an exhibit to the Company's Form 8-K filed on March 29, 2011. The updated items are described in the press release entitled "Bacterin International Updates Fourth Quarter and Full Year 2010 Financial Results," which is attached as Exhibit 99.1 hereto.

The information in this Item 2.02 (including Exhibit 99.1 hereto) is being furnished pursuant to Item 2.02 and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section.

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 is available on our website located at www.bacterin.com, however the contents of our website are not incorporated by reference herein.

This Form 8-K may contain forward-looking statements that are subject to various assumptions, risks and uncertainties. These forward-looking statements may include financial projections, earnings guidance and other statements or assumptions regarding our expectations and beliefs. The Company believes that its expectations, as expressed in these statements are based on reasonable assumptions regarding the risks and uncertainties inherent in achieving those expectations. These statements are not, however, guarantees of performance and actual results may differ materially. Risks and uncertainties which may cause actual results to be different than expressed or implied in our forward-looking statements include, but are not limited to, the risk factors described under the heading "Risk Factors" in the Company's Annual Report on Form 10-K. The Company expressly disclaims any current intention to update any forward-looking statements as a result of new information or future events or developments.

ITEM 9.01. FINANCIAL STATEMENTS AND EXHIBITS

(d) Exhibits.

99.1 Press Release dated April 8, 2011 entitled "Bacterin International Holdings, Inc. Updates Full Year and Fourth Quarter 2010 Financial Results."

SIGNATURE

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 hereunto duly authorized.

Dated: April 8, 2011

BACTERIN INTERNATIONAL HOLDINGS, INC.

By: /s/ Guy S. Cook

Name: Guy S. Cook

Title: President and Chief Executive Officer

EXHIBIT INDEX

- 99.1 Press Release of Bacterin International Holdings, Inc. dated April 8, 2011 entitled "Bacterin International Holdings, Inc. Updates Full Year and Fourth Quarter 2010 Financial Results"
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Bacterin International Updates Fourth Quarter and Full Year 2010 Financial Results

BELGRADE, MT – April X, 2011 – Bacterin International Holdings, Inc. (“Bacterin”) (NYSE Amex: BONE), a developer of revolutionary bone graft material, filed its 2010 Annual Report on SEC Form 10-K today. Included in the filing are certain non-recurring, non-cash charges in the fourth quarter results ended December 31, 2010, which increased non cash expenses by approximately \$1.2 million from the financial results reported by the Company on SEC Form 8-K on March 28, 2011, details of which follow:

- Non-cash charge of \$772,000 reflecting the terms of a settlement agreement under which a former officer of the Company exchanged outstanding options for a warrant to purchase 100,000 shares of common stock and also received 30,000 shares of restricted stock. In accordance with generally accepted accounting principles (“GAAP”), Bacterin recorded the associated expense at the market price as of the date of the agreement.
- Non-cash charge of \$405,000 related to the issuance of shares pursuant to an agreement with financial advisors at the time of the Company’s reverse merger. The agreement requires Bacterin to grant additional shares to the financial advisors upon the achievement of certain market valuation goals in 2011. GAAP requires the Company to account for the probability of the grant under the terms of the agreement as a consulting expense at the time of the reverse merger as opposed to when the shares are granted in 2011.

About Bacterin International Holdings, Inc.

BACTERIN INTERNATIONAL HOLDINGS, INC. (“the “Company” or “Bacterin”) develops, manufactures and markets biologics products to domestic and international markets. Bacterin’s proprietary methods optimize the growth factors in human allografts to create the ideal stem cell scaffold and promote bone and other tissue growth. These products are used in a variety of applications including enhancing fusion in spine surgery, relief of back pain with a facet joint stabilization, promotion of bone growth in foot and ankle surgery, promotion of cranial healing following neurosurgery and subchondral repair in knee and other joint surgeries.

Bacterin’s Medical Device division develops anti-microbial coatings based upon proprietary coating technologies. Bacterin develops, employs, and licenses bioactive coatings for various medical device applications. Bacterin’s strategic coating initiatives include antimicrobial coatings designed to inhibit biofilm formation and microbial contamination. Headquartered in Belgrade, Montana, Bacterin operates a 32,000 square foot., state-of-the-art, fully compliant and FDA registered facility, equipped with five “Class 100” clean rooms. For further information please visit www.bacterin.com.

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 indicating the Company's expectation that the proposed transaction will occur. 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 under existing and anticipated contractual obligations; the Company's ability to develop, market, sell and distribute desirable applications, 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 after the date hereof or to reflect the occurrence of unanticipated events, except as required by law.

Contact:

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or

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