

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): October 25, 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))

Item 7.01 Regulation FD Disclosure.

The Company has issued a press release entitled “Bacterin Study Shows OsteoSponge Equivalence to rhBMP-2 in Spinal Fusion” which 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 of 1933 or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No</u>	<u>Description</u>
99.1	Press Release of Bacterin International Holdings, Inc. dated October 25, 2011 entitled “Bacterin Study Shows OsteoSponge Equivalence to rhBMP-2 in Spinal Fusion.”

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: October 25, 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 October 25, 2011 entitled "Bacterin Study Shows OsteoSponge Equivalence to rhBMP-2 in Spinal Fusion."



Bacterin Study Shows OsteoSponge Equivalence to rhBMP-2 in Spinal Fusion

BELGRADE, MT, – October 25, 2011 – Bacterin International Holdings, Inc. (NYSE Amex: BONE), a leader in the development of revolutionary bone graft material and antimicrobial coatings for medical applications, reported results of a two-year study for OsteoSponge®.

Used in conjunction with the patients' own bone marrow aspirate, OsteoSponge is a highly effective osteoinductive and osteoconductive bone scaffold that aids in spinal fusion. The study was conducted in collaboration with researchers at the Salt Lake Orthopaedic Clinic, Spine Surgery of Salt Lake City.

The two-year post-operative, clinical data showed OsteoSponge to be equivalent to rhBMP-2 in achieving an interbody fusion based upon radiographic assessment, CT scans, and quality of life outcomes. Additionally, patients receiving the OsteoSponge graft reported statistically significant less leg pain at one year relative to the rhBMP-2 group.

“Since OsteoSponge has been released, surgeons have used our bone graft implants more than 100,000 times, and this latest study further validates its effectiveness in spinal fusion surgery,” said Guy Cook, Bacterin’s chairman and CEO. “Surgeons noted our product’s unique handling properties, ability to irrigate the site, and quick insertion of the OsteoSponge scaffold into the PEEK cage.”

This study, which evaluated the effectiveness of Bacterin’s OsteoSponge allograft for use in lumbar spinal fusion and entitled, “Lumbar Interbody Fusion with OsteoSponge Demineralized Allograft in a PEEK Cage Compared to Fusion with rhBMP-2: Long Term Post-Operative Assessment,” was presented at EuroSpine 2011 in Milan, Italy last week. The abstract of this presentation was published in European Spine Journal (Volume 20, Supplement 4, 421-464).

The study has also been accepted for presentation at the 2012 AAOS Annual Meeting in San Francisco, California on February 7-11, 2011.

About Bacterin International Holdings

Bacterin International Holdings, Inc. (NYSE Amex: BONE) 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 to promote bone, subchondral repair and dermal growth. These products are used in a variety of applications including enhancing fusion in spine surgery, relief of back pain, 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, 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. For further information, please visit www.bacterin.com.

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