

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): February 16, 2011

Bacterin International Holdings, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

333-158426

(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 7.01 Regulation FD Disclosure.

A copy of a press release entitled “Bacterin International to Announce Launch of OsteoSponge®SC at American Academy of Orthopedic Surgeons 2011 Annual Meeting February 15-19” 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 February 16, 2011 entitled “Bacterin International to Announce Launch of OsteoSponge®SC at American Academy of Orthopedic Surgeons 2011 Annual Meeting February 15-19”

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: February 16, 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 February 16, 2011 entitled “Bacterin International to Announce Launch of OsteoSponge®SC at American Academy of Orthopedic Surgeons 2011 Annual Meeting February 15-19”
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Bacterin International to Announce Launch of OsteoSponge®SC at American Academy of Orthopedic Surgeons 2011 Annual Meeting February 15-19

BELGRADE, MT – February 16, 2011 – Bacterin International Holdings, Inc. (“Bacterin”) (OTCBB: BIHI), a developer of revolutionary bone graft material, today announced that it launched its OsteoSponge®SC product at the American Academy of Orthopedic Surgeons (“AAOS”) 2011 Annual Meeting taking place February 15-19 in San Diego, CA. Based on favorable preclinical data, Bacterin has received permission from the Food and Drug Administration to market OsteoSponge®SC as a subchondral bone void filler. OsteoSponge®SC has demonstrated extraordinary re-generative properties in both preclinical and clinical data and, as a result, Bacterin will be presenting three separate case studies this week at AAOS.

OsteoSponge® SC is an acellular matrix scaffold made from donated human bone that is used to replace a patient’s damaged subchondral bone. The OsteoSponge® SC process is cost effective, minimally invasive with superior handling characteristics, and enables surgeons more options in the treatment of subchondral defects. Bacterin’s core technology revolves around the designing and processing of human acellular biological scaffolds that can incorporate the patient’s own stem cells or bioactive agents for accelerated regeneration of tissue. To date, the Company has focused on bone regeneration with the Osteo product line, including the cornerstone product OsteoSponge®, OsteoSelect® DBM Putty, OsteoLock® / BacFast® HD, and OsteoWrap®. In addition to OsteoSponge® SC, during first quarter 2011 Bacterin will begin marketing hMatrix™, a scaffold for dermal healing and repair.

During AAOS several surgeons will be at Bacterin’s booth number 1556 presenting their data and sharing experiences using OsteoSponge®SC. Of particular note, Friday, February 18, 2011, Dr. Wayne Gersoff, Founding partner of Advanced Orthopedics in Denver, Colorado, will deliver his results using OsteoSponge®SC on subchondral defects. Currently, there are over 30 patients who have undergone foot, ankle and knee surgery utilizing OsteoSponge®SC, all experiencing favorable outcomes. As of today, five surgeons have already been trained to use OsteoSponge®SC at five separate medical sites.

Commenting on the results, Guy Cook, Bacterin’s chairman and CEO, said, “The current annual market size addressing subchondral defects in the foot, ankle and knee is approximately \$1.7 billion annually. This market is large and growing as more advanced repair technologies become available. OsteoSponge® SC, a form of OsteoSponge® designed to be used in subchondral repair surgery, has delivered favorable outcomes, which could potentially and significantly change the standard of care in regeneration of native tissues to avoid joint replacement.”

About Bacterin International Holdings, Inc.

Bacterin International Holdings, Inc. (“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 by facet joint stabilization, promotion of bone fusion in foot and ankle surgery, promotion of cranial healing following neurosurgery and subchondral bone defect repair in articulating 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 four "Class 100" clean rooms. For further information please visit www.bacterin.com.

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or

Guy Cook
Chairman & CEO
Bacterin International Holdings, Inc.
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Certain statements in this news release may constitute "forward-looking" statements within the meaning of section 21E of the Securities and Exchange Act of 1934. Our forward-looking statements include earnings guidance and other statements 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 future 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 Amendment No. 5 to our Form S-1 filed February 9, 2011. The Company expressly disclaims any current intention to update any forward-looking statements as a result of new information or future events or developments.
