

(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 2.02. RESULTS OF OPERATIONS AND FINANCIAL CONDITION

We are furnishing this Item 2.02 in connection with the disclosure of information, in the form of the textual information from a press release on August 9, 2012 entitled “Bacterin International Announces Second Quarter and Six Months 2012 Financial Results” and filed 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 contains forward-looking statements that are subject to various assumptions, risks and uncertainties. These forward-looking statements may include financial projections, revenue and 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 our 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 August 9, 2012 entitled “Bacterin International Announces Second Quarter and Six Months 2012 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.

BACTERIN INTERNATIONAL HOLDINGS, INC.

Dated: August 9, 2012 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 August 9, 2012 entitled “Bacterin International Announces Second Quarter and Six Months 2012 Financial Results”