

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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of
the Securities Exchange Act of 1934

Filed by the Registrant x

Filed by a Party other than the Registrant o

Check the appropriate box:

- x Preliminary Proxy Statement
- o **Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- o Definitive Proxy Statement
- o Definitive Additional Materials
- o Soliciting Material Pursuant to §240.14a-12

BACTERIN INTERNATIONAL HOLDINGS, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- x No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:

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- o Fee paid previously with preliminary materials.
- o Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
 - (1) Amount Previously Paid:

 - (2) Form, Schedule or Registration Statement No.:

 - (3) Filing Party:

 - (4) Date Filed:



**Notice of Annual Meeting of Stockholders
To Be Held June 11, 2014**

To Our Stockholders:

You are invited to attend the Annual Meeting of Stockholders (the "Annual Meeting") of Bacterin International Holdings, Inc. (the "Company") on June 11, 2014 at 7:00 a.m. Mountain Daylight Time, at 8300 E. Crescent Pkwy., Englewood, Colorado 80111, for the following purposes:

1. To elect the two Class III directors named in the accompanying Proxy Statement to serve on the Company's Board of Directors for a three year term until the 2017 Annual Meeting of Stockholders and until their respective successors have been duly elected and qualified;
2. To ratify the appointment of EKS&H LLLP ("EKS&H") as the Company's independent registered public accounting firm for the year ending December 31, 2014;
3. To approve an amendment to the Company's Restated Certificate of Incorporation (in the event it is deemed by the Board of Directors to be advisable) to effect a reverse stock split of the Company's common stock at a ratio within the range of 1:2 to 1:25, as determined by the Board of Directors; and
4. To transact such other business as may properly be brought before the Annual Meeting and any adjournment or postponement thereof.

Stockholders of record at the close of business on April 17, 2014 shall be entitled to notice of and to vote at the Annual Meeting and any adjournments or postponements thereof.

Your vote is important. Please submit a proxy as soon as possible so that your shares can be voted at the Annual Meeting. You may submit your proxy by mail or Internet, and you may revoke your proxy and vote in person if you decide to attend the Annual Meeting.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting to Be Held on June 11, 2014: The Proxy Statement, along with our 2013 Annual Report on Form 10-K, are available at www.bacterin.com (click "About," "Investor Info" and "SEC Filings").

By order of the Board of Directors

/s/ Daniel Goldberger

Daniel Goldberger

Chief Executive Officer

Belgrade, Montana
May , 2014

Information about Attending the Annual Meeting

Only stockholders of record on the record date of April 17, 2014, are entitled to notice of, and to attend or vote at, our Annual Meeting. If you plan to attend the meeting in person, please bring the following:

1. Proper identification.
2. Acceptable Proof of Ownership if your shares are held in “street name.”

Street Name means your shares are held of record by brokers, banks or other institutions.

Acceptable Proof of Ownership is either (a) a letter from your broker confirming that you beneficially owned shares of the Company’s common stock on the record date or (b) an account statement showing that you beneficially owned shares of the Company’s common stock on the record date.

BACTERIN INTERNATIONAL HOLDINGS, INC.

664 Cruiser Lane, Belgrade, Montana 59714

**PROXY STATEMENT FOR THE
ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 11, 2014**

**QUESTIONS AND ANSWERS ABOUT THE PROXY MATERIALS
AND THE ANNUAL MEETING**

Q: WHY AM I RECEIVING THESE MATERIALS?

A: We are providing these proxy materials to you in connection with the Board's solicitation of proxies for our 2014 Annual Meeting of Stockholders (the "Annual Meeting"), which will take place on June 11, 2014. As a stockholder of record, you are invited to attend the Annual Meeting and are entitled and requested to vote on the items of business described in this Proxy Statement. This Proxy Statement and accompanying proxy card (or voting instruction card) are being mailed on or about May, 2014 to all stockholders entitled to vote at the Annual Meeting.

Q: WHEN AND WHERE WILL THE ANNUAL MEETING BE HELD?

A: The Annual Meeting will be held on June 11, 2014 at 7:00 a.m. Mountain Standard Time at 8300 E. Crescent Pkwy., Englewood, Colorado 80111.

Q: WHAT INFORMATION IS CONTAINED IN THIS PROXY STATEMENT?

A: This Proxy Statement contains information regarding our corporate governance practices, our board of directors, our named executive officers, the compensation of our board of directors, the proposals to be voted on at the Annual Meeting and certain other required information.

Q: HOW MAY I OBTAIN THE COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2013?

A: We have enclosed with this Proxy Statement a copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2013. Our Annual Report on Form 10-K can also be accessed through our website at www.bacterin.com (click "About," "Investor Info" and "SEC Filings"). We filed our Annual Report on Form 10-K with the Securities and Exchange Commission (the "SEC") on March 27, 2014.

Q: WHAT ITEMS OF BUSINESS WILL BE VOTED ON AT THE ANNUAL MEETING?

A: The items of business scheduled to be voted on at the Annual Meeting are:

1. To elect two Class III directors to serve on the Board until the 2017 Annual Meeting of Stockholders and until their respective successors have been duly elected and qualified;
2. To ratify the appointment of EKS&H LLLP ("EKS&H") as the Company's independent registered public accounting firm for the year ending December 31, 2014;
3. To approve an amendment to the Company's Restated Certificate of Incorporation (in the event it is deemed by the Board of Directors to be advisable) to effect a reverse stock split of the Company's common stock at a ratio within the range of 1:2 to 1:25, as determined by the Board of Directors; and
4. To transact such other business as may properly be brought before the Annual Meeting and any adjournment or postponement thereof.

Q: HOW MANY VOTES MUST THE NOMINEES FOR DIRECTOR HAVE TO BE ELECTED?

A: In order for a director to be elected, he must receive the affirmative vote of a plurality of the shares voted. There is no cumulative voting for our directors or otherwise.

Q: WHAT ARE THE VOTING REQUIREMENTS TO APPROVE THE OTHER PROPOSALS?

A: The affirmative vote of a majority of the shares cast in person or represented by proxy at the Annual Meeting and entitled to vote on the matter is required to ratify the appointment of EKS&H. The affirmative vote of a majority of the Company's issued and outstanding shares is required to approve the reverse stock split.

Q: HOW DOES THE BOARD RECOMMEND THAT I VOTE?

A: Our Board recommends that you vote your shares “FOR” the nominees to the Board; “FOR” the ratification of the appointment of EKS&H as our registered public accounting firm; and “FOR” the reverse stock split.

Q: WHAT SHARES MAY I VOTE?

A: Each share of our common stock issued and outstanding as of the close of business on April 17, 2014 (the “Record Date”) is entitled to one vote on each of the matters to be voted upon at the Annual Meeting.

You may vote all shares owned by you as of the Record Date, including (a) shares held directly in your name as the stockholder of record and (b) shares held for you as the beneficial owner through a broker, trustee or other nominee (collectively, a “Broker”).

We had 54,975,576 shares of common stock issued and outstanding on the Record Date.

Q: WHAT IS THE DIFFERENCE BETWEEN BEING A STOCKHOLDER OF RECORD AND BEING THE BENEFICIAL OWNER OF SHARES HELD IN STREET NAME?

A: A stockholder of record owns shares which are registered in his or her own name. A beneficial owner owns shares which are held in street name through a third party, such as a Broker. As summarized below, there are some distinctions between stockholders of record and beneficial owners.

Stockholder of Record

You are the stockholder of record of any of your shares registered directly in your name with our transfer agent, Corporate Stock Transfer. With respect to such shares, these proxy materials are being sent to you by the Company. As the stockholder of record, you have the right to grant your voting proxy directly to our designees, Daniel Goldberger, Chief Executive Officer, and John P. Gandolfo, Chief Financial Officer, or to any other person you wish to designate, or to vote in person at the Annual Meeting. We have enclosed a proxy card for you to grant your voting proxy to Messrs. Goldberger and Gandolfo.

Shares Beneficially Held in Street Name

You are the beneficial owner of any of your shares held in street name. With respect to such shares registered through a Broker, these proxy materials, together with a voting instruction card, are being forwarded to you by your Broker. As the beneficial owner, you have the right to direct your Broker how to vote. You may use the voting instruction card provided by your Broker for this purpose. Even if you have directed your Broker how to vote, you may also attend the Annual Meeting. However, you may not vote your shares in person at the Annual Meeting unless you obtain a “legal proxy” or other evidence from your Broker giving you the right to vote the shares at the Annual Meeting.

Q: WHO IS ENTITLED TO ATTEND THE ANNUAL MEETING AND WHAT ARE THE ADMISSION PROCEDURES?

A: You are entitled to attend the Annual Meeting only if you were a stockholder as of the close of business on the Record Date or if you hold a valid proxy for the Annual Meeting. A list of stockholders eligible to vote at the Annual Meeting will be available for inspection at the Annual Meeting. If you are a beneficial holder, you will need to provide proof of beneficial ownership as of the Record Date, such as a brokerage account statement showing that you owned shares of the Company’s common stock as of the Record Date or the voting instruction card provided by your Broker. The Annual Meeting will begin promptly at 7:00 a.m., local time. You should be prepared to present photo identification for admittance. Check-in will begin one-half hour prior to the meeting. Please allow ample time for the admission procedures.

Q: MAY I VOTE MY SHARES IN PERSON AT THE ANNUAL MEETING?

A: If you were a stockholder of record on the Record Date, you may vote your shares in person at the Annual Meeting or through a proxy. If you decide to vote your shares in person, you do not need to present your share certificate(s) at the Annual Meeting; your name will be on the list of stockholders eligible to vote. If you hold your shares beneficially in street name, you may vote your shares in person at the Annual Meeting only if you obtain a legal proxy or other evidence from your Broker giving you the right to vote the shares. *Even if you plan to attend the Annual Meeting, we recommend that you also submit your proxy or voting instructions as described below so that your vote will be counted if you later decide not to attend the Annual Meeting.*

Q: HOW CAN I VOTE MY SHARES WITHOUT ATTENDING THE ANNUAL MEETING?

A: Whether you hold shares directly as the stockholder of record or beneficially in street name, you may direct how your shares are voted without attending the Annual Meeting. If you are a stockholder of record, you may vote by submitting a proxy. If you hold shares beneficially in street name, you may vote by submitting voting instructions to your Broker. For directions on how to vote, please refer to the instructions on your proxy card or, for shares held beneficially in street name, the voting instruction card provided by your Broker.

Stockholders of record may submit proxies by completing, signing, dating and mailing their proxy cards to the address provided on the proxy card. Stockholders who hold shares beneficially in street name may vote by completing, signing and dating the voting instruction cards provided and mailing them to the address provided on the voting instructions card. The proxy card and voting instructions card also include directions as to how you may submit your vote through the Internet. The voting instructions card may also include directions for alternative methods of submitting your vote. We encourage you to vote early. If you choose to vote by mail, please allow sufficient time for your proxy or voting instructions card to reach our vote tabulator prior to the Annual Meeting.

Q: WHO WILL COUNT THE VOTES?

A: Votes at the Annual Meeting will be counted by an inspector of election, who will be appointed by the Board of Directors or the chairman of the Annual Meeting.

Q: WHAT IS THE EFFECT OF NOT VOTING?

A: If you are a stockholder of record and you do not cast your vote, no votes will be cast on your behalf on any of the items of business at the Annual Meeting. If you are a stockholder of record and you properly sign and return your proxy card, your shares will be voted as you direct. If no instructions are indicated on such proxy card and you are a stockholder of record, shares represented by the proxy will be voted in the manner recommended by the Board of Directors on all matters presented in this Proxy Statement, namely "FOR" both of the director nominees, "FOR" the ratification of the appointment of EKS&H as the Company's independent registered public accounting firm for the year ending December 31, 2014, and "FOR" the approval of the reverse stock split.

If you are a beneficial owner of shares in street name and do not provide the Broker that holds your shares with specific voting instructions then, under applicable rules, the Broker may generally vote on "routine" matters but cannot vote on "non-routine" matters. In the case of a non-routine item, your shares will be considered "broker non-votes" on that proposal. Proposal 2 (ratification of the appointment of EKS&H) and Proposal 3 (approval of the reverse stock split) are matters the Company believes will be considered "routine." Proposal 1 (election of directors) is a matter the Company believes will be considered "non-routine."

Q: HOW ARE BROKER NON-VOTES AND ABSTENTIONS TREATED?

A: Broker non-votes and abstentions with respect to a proposal are counted as present or represented by proxy for purposes of establishing a quorum. If a quorum is present, broker non-votes and abstentions have no effect on the outcome of the vote for directors, but will count as votes against each of the other proposals.

Q: CAN I REVOKE MY PROXY OR CHANGE MY VOTE AFTER I HAVE VOTED?

A: You may revoke your proxy and change your vote by voting again or by attending the Annual Meeting and voting in person. Only your latest dated proxy card received at or prior to the Annual Meeting will be counted. However, your attendance at the Annual Meeting will not have the effect of revoking your proxy unless you forward written notice to the Corporate Secretary at Bacterin International Holdings, Inc., 664 Cruiser Lane, Belgrade, MT 59714, or you vote by ballot at the Annual Meeting. If you are a beneficial owner, you will need to request a legal proxy from your Broker and bring it with you to vote at the Annual Meeting.

Q: HOW MANY VOTES DO YOU NEED TO HOLD THE ANNUAL MEETING?

A: The presence, in person or by proxy, of the holders of one-third of the shares of common stock outstanding and entitled to vote on the Record Date is necessary to hold the Annual Meeting and conduct business. This is called a quorum. Abstentions and broker non-votes will be considered as present at the Special Meeting for purposes of establishing a quorum.

Q: MAY THE COMPANY POSTPONE OR ADJOURN THE ANNUAL MEETING?

A: If sufficient votes for approval of the matters to be considered at the Annual Meeting have not been received prior to the meeting date, the Company may postpone or adjourn the Annual Meeting in order to solicit additional votes. The enclosed proxy card requests authority for the proxy holders, in their discretion, to vote the stockholders' common shares with respect to a postponement or adjournment of the Annual Meeting. At any postponed or adjourned meeting, proxies received pursuant to this Proxy Statement will be voted in the same manner described in this Proxy Statement with respect to the original meeting.

Q: WHO WILL BEAR THE COST OF SOLICITING VOTES FOR THE ANNUAL MEETING?

A: The Company is making this solicitation and will pay the entire cost of preparing, printing, assembling, mailing and distributing these proxy materials. In addition to the use of the mails, proxies may be solicited by personal interview, telephone, electronic mail and facsimile by directors, officers and regular employees of the Company. None of the Company's directors, officers or employees will receive any additional compensation for soliciting proxies on behalf of the Board. The Company may also make arrangements with brokerage firms and other custodians, nominees and fiduciaries for the forwarding of soliciting material to the beneficial owners of common stock held of record by those owners. The Company will reimburse those brokers, custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses incurred in connection with that service.

Q: WHERE CAN I FIND THE VOTING RESULTS OF THE ANNUAL MEETING?

A: We intend to announce preliminary voting results at the Annual Meeting and will disclose results on a Form 8-K that will be filed not more than four business days following the Annual Meeting.

PROPOSAL 1: ELECTION OF DIRECTORS

Nominees for Director

The Company's Board of Directors consists of three classes of directors with staggered terms of three years each. Our Class I directors are Daniel Goldberger and Mitchell Godfrey, our Class II directors are Kent Swanson and John Deedrick, and our Class III directors are Michael Lopach and Jon Wickwire. Each director holds office until his or her successor has been elected and qualified or until the director's earlier resignation or removal. The term of our Class III directors expires at the Annual Meeting, and both of our current Class III directors are standing for re-election. Biographical information about our directors is provided below.

The Board of Directors recommends that you vote "FOR" the election of Messrs. Lopach and Wickwire.

The names, ages and positions of our directors are as follows:

| Name | Age | Position |
|-------------------|------------|---|
| Kent Swanson | 69 | Chairman of the Board |
| Daniel Goldberger | 55 | President, Chief Executive Officer and Director |
| Mitchell Godfrey | 68 | Director |
| Michael Lopach | 65 | Director |
| Jon Wickwire | 70 | Director |
| John Deedrick | 51 | Director |

The business experience of our directors for the past five years (and, in some instances, for prior years) is summarized below.

Nominees standing for re-election as Class III Directors:

Michael Lopach, Director, is a certified public accountant with over 40 years of accounting experience. Mr. Lopach spent 27 years of his career with Galusha, Higgins, Galusha & Co., the largest privately held accounting firm in Montana and northern Idaho, where he served as president and CEO. In 1999, Mr. Lopach founded Lopach & Carparelli PC, an accounting firm that focuses on medical practitioners. Mr. Lopach received his MBA from the University of Notre Dame. Mr. Lopach serves as chairman of the Board's Audit Committee. Mr. Lopach contributes significant accounting experience to the Board of Directors.

Jon Wickwire, Director, is an attorney and founding shareholder of Wickwire Gavin, P.C., a national construction law firm which merged with Akerman Senterfitt, one of the top 100 law firms in the United States. Mr. Wickwire served as lead counsel on major infrastructure litigation and alternative dispute resolutions, both domestically and internationally, throughout his 35 year career, and was a founding fellow of the American College of Construction Lawyers. Mr. Wickwire also served as the founding chairman of the College of Scheduling, an organization dedicated to advancing the techniques, practice and profession of project scheduling, and has authored several books and articles on construction and public contract law, including *Construction Management: Law and Practice* and *The Construction Subcontracting Manual: Practice Guide with Forms*. Mr. Wickwire currently serves on the advisory board for Crunchies Food Company. Mr. Wickwire is a graduate of the University of Maryland and Georgetown University Law Center. Mr. Wickwire serves as chairman of the Nominations and Corporate Governance Committee. Mr. Wickwire contributes legal experience to the Board of Directors.

Continuing Directors:

Kent Swanson, Chairman of the Board, was with Accenture for over 32 years, retiring from the firm in 2001 as a Senior Partner. He held global leadership and management positions in a wide range of industries and geographies. From 2001 to 2008, he was the Board Chair of ALN Medical Management; providing outsourced services for clinic-based physician practices. Also from 2001 to 2008, he was Board Chair for Boys Hope Girls Hope of Colorado, a charitable organization providing a home and scholarship education for disadvantaged children with significant capabilities and promise. From 2002 to 2009, he was a Board member, Audit Committee member and Compensation Committee Chair for MPC Computers. Mr. Swanson graduated with distinction from the University of Minnesota earning an M.S. in Business and received an M.B.A. from the University of Chicago in 1969. Mr. Swanson contributes significant management experience to the Board of Directors.

Daniel Goldberger, Director, Chief Executive Officer and President, has more than 25 years of experience as a leader of both publicly traded and privately held medical technology companies, with a proven track record of building revenue and profits through the introduction of market changing product innovations. He was most recently CEO and a director of Sound Surgical Technologies from April 2007 through its merger with Solta Medical (Nasdaq SLTM) in February 2013. Previously, he was President/CEO and a director of Xcorporeal (Amex XCR) an innovator in portable dialysis and Glucon (private) a developer of glucose measurement technology and several other successful enterprises. Mr. Goldberger is a named inventor on more than 60 US patents. He holds a BS in Mechanical Engineering from the Massachusetts Institute of Technology and an MS in Mechanical Engineering from Stanford University. Mr. Goldberger contributes medical industry and management experience to the Board of Directors.

John Deedrick, Director, is an experienced senior executive with 15 years experience in healthcare venture capital and business consulting. Mr. Deedrick also has 12 years of experience in the high tech defense industry. He has served as a corporate venture capitalist for Mayo Clinic and a Founder and General Partner for Accuitive Medical Ventures. Mr. Deedrick also serves as President and CEO of CHIP Solutions and is Founder and Chairman of GreatDeeds, a Minnesota non-profit organization. Mr. Deedrick has served on the board of numerous early stage healthcare companies over the last 15 years. Mr. Deedrick received his undergraduate degree from Northwestern College (Roseville, MN) and his MBA from St. Thomas University (St. Paul, MN). Mr. Deedrick contributes industry experience to the Board of Directors

Mitchell T. Godfrey, Director, has been involved over the past 25 years in a number of private enterprises, including consulting for and participation in firms in the manufacturing, medical devices, nuclear, service and animal health industries. Mr. Godfrey graduated from the University of Utah in 1968 with Bachelor of Science degrees in psychology and mathematics. He served as a Lieutenant in the U.S. Navy for a period of four years in the 1960s. Upon his return from overseas duty, he served as a director of the Utah Vietnam Agent Orange Program. He currently is the Chairman of the Montana based Crow Creek Falls Conservation Group and has been actively involved in many other organizations. Mr. Godfrey joined us in October 2003 as our Chief Financial Officer until December 2007, when his primary responsibility was changed to investor relations. Mr. Godfrey has served as a consultant to the Company since 2010 and is also on the Board of Directors of American Donor Services, one of our recovery partners. Mr. Godfrey contributes extensive knowledge about the Company's history to the Board of Directors

GENERAL INFORMATION ABOUT THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Director Independence

In accordance with the rules of the NYSE MKT, a majority of our Board members and all members of our audit, compensation and nominations and corporate governance committees are independent directors. Our independent Board members are Kent Swanson, Michael Lopach, Jon Wickwire and John Deedrick.

Board Meetings; Attendance at Annual Stockholders Meeting

The Board of Directors met 20 times during fiscal 2013. All directors attended at least 75% of the aggregate total of meetings of the Board and Board Committees on which the director served during the last fiscal year. The Company does not have a formal policy on Board member attendance at annual meetings of stockholders, but encourages Directors to attend. All Directors attended the Company's 2013 annual meeting of stockholders.

Board Leadership Structure and Risk Oversight

The Board is led by Kent Swanson in his role as Chairman. Mr. Swanson is an independent director. The Company believes this structure is appropriate because it enables the Board to provide independent oversight and guidance.

The Board of Directors has overall responsibility for risk oversight with a focus on the most significant risks facing the Company. The Board of Directors relies upon the Chief Executive Officer to supervise day-to-day risk management, and the Chief Executive Officer reports directly to the Board and certain Committees on such matters as appropriate.

Stockholder Communications

The Board does not have a formal process for stockholders to send communications to the Board of Directors and does not feel that such a process is necessary at this time. If the Company receives stockholder communications that cannot be properly addressed by officers of the Company, the officers bring the matter to the attention of the Board of Directors.

Corporate Governance

The Company has adopted a Code of Ethics for the CEO and Senior Financial Officers, as well as a Code of Conduct that applies to all directors, officers and employees. Our corporate governance materials, including our Code of Conduct and our Code of Ethics for the CEO and Senior Financial Officers, are available on our website at www.bacterin.com (click "About," "Investor Info" and "Corporate Governance").

Committees

Our Board has the following committees and committee members (all of whom are independent directors):

| <u>Audit</u> | <u>Compensation</u> | <u>Nominations & Corporate Governance</u> |
|-------------------|---------------------|---|
| Mr. Lopach, Chair | Mr. Deedrick, Chair | Mr. Wickwire, Chair |
| Mr. Swanson | Mr. Swanson | Mr. Swanson |
| Mr. Wickwire | Mr. Lopach | Mr. Deedrick |

All committee charters are posted on our website at www.bacterin.com (click "About," "Investor Info" and "Corporate Governance"). A description of each Committee's function and number of meetings during fiscal 2013 follows.

Audit Committee

The purpose of the Audit Committee is to assist the oversight of our Board of Directors of the integrity of the Company's financial statements, the Company's compliance with legal and regulatory matters, the independent auditor's qualifications and independence, and the performance of the Company's independent auditor and internal audit function. The primary responsibilities of the Audit Committee are set forth in its charter, and include various matters with respect to the oversight of the Company's accounting and financial reporting process and audits of the financial statements of the Company. The Audit Committee also selects the independent auditor to conduct the annual audit of the financial statements of the Company; reviews the proposed scope of such audit; reviews accounting and financial controls of the Company with the independent auditor and our financial accounting staff; and reviews and approves transactions between the Company and directors, officers, and affiliates.

The Audit Committee currently consists of Messrs. Lopach, Swanson and Wickwire, each an independent director. Mr. Lopach serves as the Chairman of the Audit Committee. The Board of Directors has determined that Messrs. Lopach and Swanson (whose backgrounds are detailed above) each qualify as an "audit committee financial expert" in accordance with applicable rules and regulations of the SEC. The Audit Committee met 5 times during 2013.

Report of the Audit Committee

The Audit Committee reviews the Company's financial reporting process on behalf of the Board of Directors. Management has the primary responsibility for establishing and maintaining adequate internal financial control, for preparing the financial statements and for the public reporting process. EKS&H LLLP is responsible for expressing opinions on the conformity of the Company's audited financial statements with generally accepted accounting principles. In this context, the Audit Committee has (i) reviewed and discussed the audited financial statements with management and the independent auditors, (ii) discussed with the independent auditors the matters that are required to be discussed by the applicable Public Company Accounting Oversight Board standards, and (iii) received written disclosures and the letter from the independent auditors required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent auditors' communications with the Audit Committee concerning independence, and has discussed with the independent auditors the independent auditors' independence. Based on the review and discussions referred to above, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in the Company's 2013 Annual Report on Form 10-K.

Respectfully submitted,

Michael Lopach
Kent Swanson
Jon Wickwire

The foregoing Audit Committee Report does not constitute soliciting material and shall not be deemed filed or incorporated by reference into any other filing of our company under the Securities Act of 1933, as amended, or the Exchange Act of 1934, except to the extent we specifically incorporate this Audit Committee Report by reference therein.

Compensation Committee

The primary purposes of the Compensation Committee are to determine or recommend the compensation of our CEO and other executive officers and to oversee the administration of the Amended and Restated Bacterin International Equity Incentive Plan. Our Compensation Committee currently consists of John Deedrick, Kent Swanson and Michael Lopach, each of whom is an independent director. The Compensation Committee met three times during 2013.

Our Chief Executive Officer makes recommendations to the Compensation Committee regarding the Company's business goals and the performance of executives in achieving those goals, and recommends other executives' compensation levels to the Compensation Committee based on such performance. The Compensation Committee considers these recommendations and then makes an independent decision regarding officer compensation levels and awards. Neither the Compensation Committee nor management engaged the services of a compensation consultant during the year ended December 31, 2013.

Nominations and Corporate Governance Committee

The purposes of the Nominations and Corporate Governance Committee include the selection or recommendation to our Board of Directors of nominees to stand for election as directors at each election of directors, the oversight of the selection and composition of committees of our Board of Directors, the oversight of the evaluations of our Board of Directors and management, and the development and recommendation to our Board of Directors of a set of corporate governance principles applicable to our company.

In identifying and evaluating candidates for membership on the Board of Directors, the Nominations and Corporate Governance Committee may take into account all factors it considers appropriate, which may include strength of character, mature judgment, career specialization, relevant technical skills, diversity (including, but not limited to, gender, race, ethnicity, age, experience and skills), and the extent to which the candidate would fill a present need on the Board of Directors. The Company does not have a formal diversity policy for directors. The Nominations and Corporate Governance Committee identifies director candidates based on input provided by a number of sources, including members of the Committee, other directors, our stockholders, members of management and third parties. The Nominating and Corporate Governance Committee does not distinguish between nominees recommended by our stockholders and those recommended by other parties. Any stockholder recommendation must be sent to our Corporate Secretary at Bacterin International Holdings, Inc., 664 Cruiser Lane, Belgrade, MT 59714, and must include certain information concerning the nominee as specified in the Company's Amended and Restated Bylaws.

The Nominations and Corporate Governance Committee currently consists of Messrs. Wickwire, Swanson and Deedrick, each of whom is an independent director. Mr. Wickwire serves as the Chairman of the Nominations and Corporate Governance Committee. The Nominations and Corporate Governance Committee met four times in 2013.

Director Compensation

Independent Directors receive an annual retainer of \$40,000 per year. In fiscal 2013, the Chairman of the Board and each Committee Chair received an additional \$10,000 per year. Beginning in fiscal 2014, the additional amount paid to the Chairman of the Board will increase from \$10,000 to \$20,000 per year. In June of 2013, the Compensation Committee and Board of Directors approved a grant to independent directors of options to purchase 50,000 shares of our common stock, as well as a grant of options to purchase 50,000 shares of our common stock to a director who is not independent in connection with consulting services the director provided to the Company. In prior years, Board members received an annual continued service grant of options to purchase 30,000 shares of our common stock and new independent Board members received options to purchase 50,000 shares of our common stock, vesting after one year. All stock options have an exercise price equal to the closing price of our common stock on the date of grant.

Director Compensation

| Name | Fees Earned or Paid in Cash (1) | Option Awards (2) | All Other Compensation | Total |
|-------------------|--|----------------------------------|-----------------------------------|--------------|
| Mitch Godfrey (3) | \$ - | \$ 41,500 | \$ 95,000 | \$ 136,500 |
| Kent Swanson | \$ 50,000 | \$ 41,500 | \$ - | \$ 91,500 |
| Michael Lopach | \$ 50,000 | \$ 41,500 | \$ - | \$ 91,500 |
| Jon Wickwire | \$ 50,000 | \$ 41,500 | \$ - | \$ 91,500 |
| John Deedrick | \$ 50,000 | \$ 41,500 | \$ - | \$ 91,500 |

(1) Our independent Board members receive an annual retainer of \$40,000 per year, and our Committee Chairs receive an additional \$10,000 per year. Beginning in 2014, our independent Board Chair will receive an additional \$20,000 per year.

(2) Key assumptions used to estimate the grant date fair value of option awards are contained in Note 8 to the financial statements in Item 8 of our 2013 Annual Report on Form 10-K. As of December 31, 2013, each director held the following number of stock options: Mitch Godfrey 150,000, Kent Swanson, 110,000, Michael Lopach, 160,000, Jon Wickwire 160,000, and John Deedrick 100,000.

(3) Mitchell Godfrey serves as a consultant to the Company and all compensation reflected under "All Other Compensation" was in payment for his services as a consultant. Mr. Godfrey does not receive any director fees for his service as a director.

TRANSACTIONS WITH RELATED PERSONS, PROMOTERS AND CERTAIN CONTROL PERSONS

Guy Cook was our President, Chief Executive Officer and Chairman of our Board of Directors until April 5, 2013, when he resigned. Mr. Cook has advised us that he is currently an owner and executive officer of Lattice Biologics, Inc., a competitor of ours that was formerly known as International Biologics, LLC. International Biologics, LLC was a former customer of Bacterin and is indebted to us in the amount of approximately \$32,974, which we are currently attempting to collect.

Mr. Cook assisted unrelated parties in the initial capitalization of Holgan, LLC, a former stocking distributor that purchased a bulk shipment of products from Bacterin at a discount in 2012 (“Holgan”). Holgan subsequently obtained financing from Lacuna Hedge Fund LLLP (“Lacuna”), which is a significant Bacterin stockholder. Holgan failed to fully pay for the products it acquired from Bacterin and defaulted under its credit agreement with Lacuna. We recently entered into a settlement agreement with Lacuna whereby we paid Lacuna \$350,000 in exchange for a release of claims against Bacterin and its current and former directors and officers. We also understand that Mr. Cook’s new company Lattice has purchased substantially all of the Bacterin products held by Holgan, with the proceeds to be paid to Lacuna. We are still in discussions with Holgan on its unpaid obligations.

Mr. Cook’s spouse was employed by Bacterin as the Director of Human Resources until April 9, 2013. Mr. Cook, together with his adult children, owned and operated Silver Forest Fund, LP (“Silver Forest”), a former distributor of Bacterin products. We terminated the contractual relationship with Silver Forest on October 24, 2013. In 2012, Silver Forest purchased Bacterin products from an unaffiliated former distributor and subsequently exchanged some of those products for different Bacterin products of equivalent value. Other than product exchanges and payment of amounts owed by the non-affiliated distributor, there were no other direct transactions between Bacterin and Silver Forest. In 2012, Mr. Cook pledged 1,850,000 shares of Bacterin stock as collateral for loans made for the benefit of Silver Forest.

Mr. Cook remains our largest stockholder with beneficial ownership of approximately 19.4% of our outstanding capital according to Amendment No. 4 to his Schedule 13D filed on February 25, 2014 with the Securities and Exchange Commission (the “Schedule 13D”). In the Schedule 13D, Mr. Cook indicated that he believed Bacterin would be better able to realize its full value as a private entity, and that he planned to engage legal and financial advisors to assist him in evaluating alternatives for taking Bacterin private. To date, Mr. Cook has not made any formal offer to our Board of Directors.

Mr. Cook also formerly served as a board member of West Coast Tissue Services (“WCTS”) and American Donor Services (“ADS”). Mr. Cook did not receive any compensation for his board service from either entity. Darrel Holmes, our Chief Operating Officer, and Mitchell Godfrey, a director, also serve on the board of ADS, and Mr. Godfrey also serves as secretary and treasurer for ADS. Messrs. Godfrey and Holmes receive \$5,000 per year for their service to ADS. ADS and WCTS recover tissue from donors. We reimburse them for their recovery fees, which are comprised primarily of labor costs. The approximate aggregate amount of all transactions with WCTS was \$840,100 for 2013 and \$525,900 for 2012, and the approximate aggregate amount of all transactions with ADS was \$2,055,523 for 2013 and \$1,472,949 for 2012. These relationships have benefited us, as these entities provide us with donors, thus insuring that we have a pipeline of current and future donors, which is necessary to our success.

Unless delegated to the Compensation Committee by the Board of Directors, the Audit Committee or the disinterested members of the full Board of Directors reviews and approves all related party transactions.

Family Relationships

There are no family relationships between or among our directors, executive officers, or persons nominated or chosen by the Company to become directors or executive officers.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding the beneficial ownership of our common stock as of April 17, 2014, by (a) each of our directors and named executive officers, (b) all of our current directors and named executive officers as a group, and (c) each person who is known by us to beneficially own 5% or more of our common stock.

| Name and Address of Beneficial Owner | Number of Shares Beneficially Owned ⁽²⁾ | Percentage of Shares Beneficially Owned ⁽³⁾ |
|--|---|--|
| Directors and Named Executive Officers ⁽¹⁾ : | | |
| Daniel Goldberger | 100,100 | * |
| Kent Swanson | 726,509 ⁽⁴⁾ | 1.3% |
| Mitchell Godfrey | 1,162,133 ⁽⁵⁾ | 2.1% |
| Michael Lopach | 231,185 ⁽⁶⁾ | * |
| Jon Wickwire | 553,764 ⁽⁷⁾ | 1.0% |
| John Deedrick | 100,000 ⁽⁸⁾ | * |
| John Gandolfo | 412,420 ⁽⁹⁾ | * |
| Darrel Holmes | 336,832 ⁽¹⁰⁾ | * |
| Gregory Juda | 217,749 ⁽¹¹⁾ | * |
| All executive officers and directors as a group (9 persons) | 3,840,692 | 7.0% |

Five Percent Stockholders:

| | | |
|---|---------------------------|-------|
| Guy S. Cook 246 Painted Hills Rd. Bozeman, MT 59714 | 9,786,781 ⁽¹²⁾ | 17.8% |
| Rawleigh Hazen Ralls, IV c/o Lacuna, LLC 1100 Spruce Street, Suite 202 Boulder, Colorado 80302 | 3,100,550 ⁽¹³⁾ | 5.6% |
| OrbiMed Advisors LLC 601 Lexington Ave., 54 th Floor New York, NY 10022 | 5,631,579 ⁽¹⁴⁾ | 10.2% |
| Perkins Capital Management, Inc. 730 East Lake Street Wayzata, MN 55391 | 3,316,273 ⁽¹⁵⁾ | 6.0% |

* Less than 1% of outstanding shares of common stock.

- (1) The address for directors and named executive officers is c/o Bacterin International, Inc., 664 Cruiser Lane, Belgrade Montana 59714.
- (2) Unless otherwise indicated, includes shares owned by a spouse, minor children and relatives sharing the same home, as well as entities owned or controlled by the named person. Also includes shares if the named person has the right to acquire those shares within 60 days after April 17, 2014, by the exercise or conversion of any warrant, stock option or convertible preferred stock. Unless otherwise noted, shares are owned of record and beneficially by the named person.
- (3) The calculation in this column is based upon 54,975,576 shares of common stock outstanding on April 17, 2014. The shares of common stock underlying warrants and stock options are deemed outstanding for purposes of computing the percentage of the person holding them, but are not deemed outstanding for the purpose of computing the percentage of any other person.
- (4) Includes (a) 350,000 shares of our common stock held directly, (b) 200,000 shares held by a family limited partnership, (c) warrants to purchase 66,509 shares of our common stock, and (d) options to purchase 110,000 shares of our common stock.
- (5) Includes (a) 711,467 shares of our common stock, (b) 250,666 shares of common stock owned by Mr. Godfrey's spouse, and (c) vested options to purchase 200,000 shares of our common stock.
- (6) Includes (a) 16,949 shares of our common stock held directly, (b) 33,898 shares held by a 401(k) plan, (c) warrants to purchase 20,338 shares, and (d) options to purchase 160,000 shares.

- (7) Includes (a) 105,509 shares of our common stock, (b) 257,630 shares of common stock held by trusts, (c) warrants to purchase 30,625 shares of common stock, and (d) options to purchase 160,000 shares of our common stock.
- (8) Includes vested options to purchase 100,000 shares of our common stock.
- (9) Includes (a) 9,943 shares of our common stock held by an IRA, (b) 100,500 shares of restricted stock vesting within 60 days, (c) warrants to purchase 3,977 shares of our common stock, and (d) vested options to purchase 298,000 shares of our common stock.
- (10) Includes vested options to purchase 236,332 shares of our common stock, and (b) 100,500 shares of restricted stock vesting within 60 days.
- (11) Includes (a) 20,000 shares of our common stock, (b) 33,500 shares of restricted stock vesting within 60 days, and (c) vested options to purchase 164,249 shares of our common stock.
- (12) Includes (a) 4,352,369 shares of our common stock held directly, (b) 5,300,000 shares of our common stock held by trusts for the benefit of Mr. Cook's children, and (c) warrants to purchase 134,412 shares of our common stock.
- (13) Based on Schedule 13G filed with the SEC on February 14, 2014. Includes 1,990,550 shares held indirectly by a fund for which Mr. Ralls may be deemed to have shared power to vote and dispose of the shares, and 110,000 shares held indirectly by Mr. Ralls' spouse. Mr. Ralls disclaims beneficial ownership of shares held indirectly, except to the extent of his pecuniary interest therein.
- (14) Includes 4,754,386 shares of our common stock and warrants to purchase 877,193 shares of our common stock held by an entity managed by OrbiMed Advisors LLC.
- (15) Based on Schedule 13G filed with the SEC on February 7, 2014. Includes 2,965,393 shares of our common stock and warrants to purchase 350,880 shares of our common stock.

Economic Ownership; Stock Ownership Guidelines

Because the table above is limited to shares that are owned or which the person has the right to acquire within 60 days, it does not present a complete view of the economic exposure our directors and executive officers have to the Company's common stock. Excluded from the table above are unvested stock options and unvested warrants which will become vested more than 60 days from April 17, 2014.

EXECUTIVE OFFICERS

The following table sets forth the certain information concerning each of our named executive officers:

| <u>Name</u> | <u>Age</u> | <u>Position</u> |
|-------------------|------------|--|
| Daniel Goldberger | 55 | President, Chief Executive Officer and Director |
| John P. Gandolfo | 53 | Chief Financial Officer, Treasurer and Secretary |
| Darrel Holmes | 61 | Chief Operating Officer |
| Gregory Juda | 38 | Chief Scientific Officer |

The business experience of our named executive officers for the past five years (and, in some instances, for prior years) is summarized below.

Daniel Goldberger, Director, Chief Executive Officer and President, has more than 25 years of experience as a leader of both publicly traded and privately held medical technology companies, with a proven track record of building revenue and profits through the introduction of market changing product innovations. He was most recently CEO and a director of Sound Surgical Technologies from April 2007 through its merger with Solta Medical (Nasdaq SLTM) in February 2013. Previously, he was President/CEO and a director of Xcorporeal (Amex XCR) an innovator in portable dialysis and Glucon (private) a developer of glucose measurement technology and several other successful enterprises. Mr. Goldberger is a named inventor on more than 60 US patents. He holds a BS in Mechanical Engineering from the Massachusetts Institute of Technology and an MS in Mechanical Engineering from Stanford University.

John P. Gandolfo, Chief Financial Officer, joined Bacterin as its interim Chief Financial Officer on a part-time basis, effective June 4, 2010, and filled this position full time commencing on July 6, 2010. Mr. Gandolfo also served as Interim Co-Chief Executive Officer from April 5, 2013 to August 14, 2013, and as a Director from July 9, 2013 to August 14, 2013. Mr. Gandolfo has 25 years of experience as chief financial officer of rapidly growing private and publicly held companies with a primary focus in the life sciences, healthcare and medical device areas. Mr. Gandolfo has had direct responsibility over capital raising, including four public offerings, financial management, mergers and acquisition transactions and SEC reporting throughout his professional career. Prior to joining Bacterin, Mr. Gandolfo served as the Chief Financial Officer for Progenitor Cell Therapy LLC, a leading manufacturer of stem cell therapies. Prior to joining Progenitor, Mr. Gandolfo served as the Chief Financial Officer for Power Medical Interventions, Inc., a publicly held developer and manufacturer of computerized surgical stapling and cutter systems, from January 2007 to January 2009. Prior to joining PMI, Mr. Gandolfo was the Chief Financial Officer of Bioject Medical Technologies, Inc., a publicly held supplier of needle-free drug delivery systems to the pharmaceutical and biotechnology industries, from September 2001 to May 2006, and served on the Bioject's Board of Directors from September 2006 through May 2007. Prior to joining Bioject, Mr. Gandolfo was the Chief Financial Officer of Capital Access Network, Inc., a privately held specialty finance company, from 2000 through September 2001, and Xceed, Inc., a publicly held Internet consulting firm, from 1999 to 2000. From 1994 to 1999, Mr. Gandolfo was Chief Financial Officer and Chief Operating Officer of Impath, Inc., a publicly held, cancer-focused healthcare information company. From 1987 through 1994, he was Chief Financial Officer of Medical Resources, Inc., a publicly held manager of diagnostic imaging centers throughout the United States. A graduate of Rutgers University, Mr. Gandolfo is a certified public accountant (inactive status) who began his professional career at Price Waterhouse.

Darrel L. Holmes, Chief Operating Officer, has over 25 years of experience in the medical device, biologics, and diagnostic industries. He previously served as Operations Executive for American Qualex, HYCOR Biomedical and Stratagene, and as Executive Vice President and COO of Big Spring Water Company. Since joining Bacterin International, Inc. in 2003, Mr. Holmes has assumed responsibilities for all aspects of medical device and biologic product design and development, process scale-up, and production, and Mr. Holmes also served as Interim Co-Chief Executive Officer from April 5, 2013 to August 14, 2013. Mr. Holmes has worked with numerous regulatory agencies at the federal, state, and local level and coordinates Bacterin's ISO 13485 compliance and environmental health and safety programs. He oversees Bacterin's operations and production, facility management, engineering and information technology (IT) to produce Bacterin's medical devices and biologic products, and to accommodate business growth. He directs the design, purchase, validation and implementation of capital assets and facility expansions for the company, and is responsible for strategic planning as well as the development and administration of division-level budgets. Currently, Mr. Holmes serves as the Tissue Bank Director and on Bacterin's Medical Advisory Committee, as a member of Montana State University's Employer Advisory Board, as a Scientific Advisory Board Member for Montana Molecular in Bozeman, Montana, and as member of the Board of Directors of American Donor Services. Mr. Holmes graduated from California State University at Long Beach with a degree in Biological Science.

Greg Juda, Chief Scientific Officer, joined Bacterin in 2005 and has played an integral role in the growth of Bacterin's orthobiologics business. During his time with the company, Dr. Juda has been responsible for guiding the development, commercialization, and marketing of three revolutionary, life-enhancing allograft products: Bacterin's OsteoSponge® allograft family, OsteoSelect® Demineralized Bone Matrix Putty, and hMatrix® Acellular Dermal Matrix. Dr. Juda is an expert in the design, manufacturing, regulation, and marketing of biologics and biologic based medical devices. He was responsible for directing equipment, facility, and process validation efforts for Bacterin's state-of-the-art allograft tissue processing facility. These efforts included the design and validation of programs for tissue processing and decontamination, facility cleaning and monitoring, and sterilization of finished product. Currently, Dr. Juda directs research and development efforts for Bacterin's orthobiologic product lines and serves as the primary source of technical expertise for Bacterin's direct and indirect sales initiatives. Dr. Juda received a Bachelor of Science in Biochemistry from Virginia Polytechnic Institute and State University and a Doctorate of Philosophy in Biochemistry from Montana State University-Bozeman.

Potential Payments Upon Termination or Change-in-Control

Both our Chief Executive Officer and our Chief Financial Officer have employment agreements that provide for payment of twelve months base salary if they are terminated in connection with a change in control, and our Chief Executive Officer's employment agreement also provides for six months base salary as severance if he is terminated without cause or if he resigns for good reason. Stock option vesting for all employees, including our executive officers, accelerates upon the occurrence of a change in control.

EXECUTIVE COMPENSATION

The table below summarizes the compensation earned for services rendered to the Company for the fiscal years indicated, by its Chief Executive Officer and two most highly-compensated named executive officers other than the Chief Executive Officer. The Company had two Chief Executive Officers and two Interim Co-Chief Executive Officers during 2013.

| Name and Principal Position | Year | Salary | Bonus | Stock Awards (1) | Option Awards (1) | All Other Compensation | Total |
|---|------|------------|-----------|------------------|-------------------|------------------------|------------|
| Daniel Goldberger Chief Executive Officer From August 14, 2013 to present | 2013 | 143,077 | - | - | 1,098,055 | - | 1,241,132 |
| Guy S. Cook Chief Executive Officer Until April 5, 2013 | 2013 | \$ 156,065 | \$ 46,960 | \$ - | \$ - | \$ - | \$ 203,025 |
| | 2012 | 500,000 | 100,000 | - | 138,180 | - | 738,180 |
| John Gandolfo Chief Financial Officer Interim Co-Chief Executive Officer from April 5 2013 to August 14, 2013 | 2013 | 321,462 | 100,800 | 68,340 | 34,745 | - | 525,347 |
| | 2012 | 299,947 | 50,000 | - | 96,726 | - | 446,673 |
| Darrel Holmes Chief Operating Officer Interim Co-Chief Executive Officer from April 5 2013 to August 14, 2013 | 2013 | 254,615 | 84,000 | 68,340 | 34,745 | - | 441,700 |
| | 2012 | 199,231 | 50,000 | - | 197,467 | - | 446,698 |
| Gregory Juda Chief Scientific Officer | 2013 | 200,000 | 71,128 | 22,780 | 34,745 | - | 328,653 |
| | 2012 | 179,807 | - | - | 110,482 | - | 290,289 |
| Nick Navarro ⁽²⁾ VP of Sales | 2013 | 240,000 | 70,500 | 22,780 | 34,745 | - | 368,025 |
| | 2012 | 233,077 | - | - | 261,005 | 13,344 ⁽³⁾ | 507,426 |

(1) Key assumptions used to estimate the grant date fair value of restricted stock and option awards are contained in Note 8 to the financial statements in Item 8 of our 2013 Annual Report on Form 10-K.

(2) Mr. Navarro was serving as a named executive officer at the end of 2013, but is no longer serving as a named executive officer.

(3) Represents commission paid to Mr. Navarro.

The following table shows information about Outstanding Equity Awards to our Named Executive Officers as of December 31, 2013

| Name | Option Awards | | | | Stock Awards | |
|-------------------|---|--|-----------------------|------------------------|---|---|
| | Number of Securities Underlying Unexercised Options Exercisable | Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options | Option Exercise Price | Option Expiration Date | Number of shares or units of stock that have not vested | Market value of shares or units of stock that have not vested |
| Daniel Goldberger | - | 2,000,000 | \$ 0.60 | 8/14/23 | | |
| Guy Cook | - | - | \$ - | - | | |
| John Gandolfo | 150,000 | 100,000 | \$ 1.60 | 6/3/20 | 100,500 | 50,250 |
| | 14,000 | 56,000 | \$ 2.36 | 3/27/22 | | |
| | | 70,000 | \$ 0.68 | 5/24/23 | | |
| Darrel Holmes | 30,000 | | \$ 1.34 | 10/9/16 | 100,500 | 50,250 |
| | 18,287 | | \$ 1.50 | 12/29/18 | | |
| | 11,712 | | \$ 1.50 | 12/29/18 | | |
| | 15,000 | | \$ 1.50 | 12/29/18 | | |
| | 15,000 | | \$ 1.50 | 12/29/18 | | |
| | 15,000 | | \$ 1.50 | 12/29/18 | | |
| | 14,000 | 56,000 | \$ 2.36 | 3/27/22 | | |
| | 33,000 | 67,000 | \$ 1.65 | 9/6/22 | | |
| | | 70,000 | \$ 0.68 | 5/24/23 | | |
| Nick Navarro | 36,000 | 24,000 | \$ 1.60 | 4/1/20 | 33,500 | 16,750 |
| | 24,000 | 36,000 | \$ 2.36 | 3/27/22 | | |
| | 80,000 | 120,000 | \$ 1.48 | 5/8/22 | | |
| | | 70,000 | \$ 0.68 | 5/24/23 | | |
| Gregory Juda | 2,500 | | \$ 1.34 | 8/22/15 | 33,500 | 16,750 |
| | 3,750 | | \$ 1.34 | 2/8/17 | | |
| | 14,999 | | \$ 1.34 | 8/21/17 | | |
| | 25,000 | | \$ 6.90 | 11/17/20 | | |
| | 24,000 | 96,000 | \$ 1.47 | 5/8/22 | | |
| | | 70,000 | \$ 0.68 | 5/24/23 | | |

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) requires directors, executive officers and holders of more than 10% of an equity security registered pursuant to Section 12 of the Exchange Act of 1934 to file various reports with the SEC.

To the Company's knowledge, based solely on our review of the Section 16 reports furnished to us in 2013, we believe all reports required pursuant to Section 16(a) were filed on a timely basis except that Mr. Goldberger filed a Form 4 due on November 14, 2013 one day late due to a delay in receipt of trade confirmations.

**PROPOSAL 2: RATIFICATION OF APPOINTMENT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM**

We are seeking stockholder ratification of the appointment of EKS&H LLLP (“EKS&H”) as our independent registered public accounting firm for the fiscal year ending December 31, 2014. If the stockholders fail to ratify the appointment of EKS&H, the Audit Committee may reconsider its selection. Even if the selection is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if the Audit Committee feels that such a change would be in the best interests of the Company and our stockholders.

We do not expect representatives from EKS&H to attend the Annual Meeting.

The Board of Directors recommends that the stockholders vote “FOR” the ratification of the appointment of EKS&H as our independent registered public accounting firm for the fiscal year ending December 31, 2014.

Audit and Non-audit Fees

EKS&H served as the independent registered public accounting firm to audit our financial statements for the fiscal years ending December 31, 2013 and December 31, 2012. The following table presents the aggregate fees billed for professional services rendered by EKS&H for the years ended December 31, 2013 and December 31, 2012.

| | 2013 | 2012 |
|--------------------|------------|-----------|
| Audit fees | \$ 138,500 | \$ 85,000 |
| Audit-related fees | \$ 11,073 | \$ 39,500 |
| Tax fees | \$ - | \$ - |
| All other fees | \$ - | \$ 5,288 |

In the above table, “audit fees” are fees billed for services provided related to the audit of our annual financial statements, quarterly reviews of our interim financial statements and services normally provided by the independent accountant in connection with statutory and regulatory filings or engagements for those fiscal periods. “Audit-related fees” are fees not included in audit fees that are billed by the independent accountant for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements. “Tax fees” are fees billed by the independent accountant for professional services rendered for tax compliance, tax advice and tax planning. “All other fees” are fees billed by the independent accountant for products and services not included in the foregoing categories.

Audit Committee’s Pre-Approval Policy

It is the Audit Committee’s policy to approve in advance the types and amounts of audit, audit-related, tax and any other services to be provided by our independent accountants. In situations where it is not possible to obtain full Audit Committee approval, the Audit Committee has delegated authority to the Chairman of the Audit Committee to grant pre-approval of auditing, audit-related, tax and all other services. Any pre-approved decisions by the Chairman are required to be reviewed with the Audit Committee at its next scheduled meeting.

The Audit Committee approved 100% of the foregoing services provided by EKS&H.

**PROPOSAL 3: APPROVAL OF AN AMENDMENT TO THE COMPANY'S
RESTATED CERTIFICATE OF INCORPORATION
TO EFFECT A REVERSE STOCK SPLIT**

General

The Board recommends that our stockholders approve an amendment to the Company's Restated Certificate of Incorporation in substantially the form attached hereto as Annex A (the "Certificate of Amendment"), to effect a reverse stock split at a ratio within a range from 1-for-2 to 1-for-25, with the final ratio to be determined by the Board, in its sole discretion, following stockholder approval. If the stockholders approve the reverse stock split, and the Board decides to implement it, the reverse stock split will become effective upon the filing of the Certificate of Amendment with the Delaware Secretary of State.

The reverse stock split will be realized simultaneously for all outstanding common stock and the ratio determined by the Board will be the same for all outstanding common stock. The reverse stock split will affect all holders of common stock uniformly and each stockholder will hold the same percentage of common stock outstanding immediately following the reverse stock split as that stockholder held immediately prior to the reverse stock split, except for adjustments that may result from the treatment of fractional shares as described below. The Certificate of Amendment will not reduce the number of authorized shares of common stock (which will remain at 95,000,000) or change the par value of the common stock (which will remain at \$0.000001 per share).

Purposes of the Proposed Reverse Stock Split

Insufficient Authorized Shares to raise Sufficient Equity Capital to Regain Compliance with the NYSE MKT Continued Listing Requirements

Our common stock is currently listed on the NYSE MKT. On May 13, 2013, we received a deficiency notice from the NYSE MKT notifying us that we are not in compliance with Section 1003(a)(iii) of the Company Guide with stockholders' equity of less than \$6,000,000 and net losses in five of our most recent fiscal years and Section 1003(a)(ii) with stockholders' equity of less than \$4,000,000 and net losses in three of our four most recent fiscal years. On June 12, 2013 we submitted a plan to regain compliance with the continued listing requirements, and on June 21, 2013 the NYSE MKT informed us of the acceptance of our plan and gave us an extension until November 13, 2014 to regain compliance with the continued listing standards. On November 19, 2013, we received another letter from the NYSE MKT notifying us that we are not in compliance with Section 1003(a)(i) of the Company Guide with stockholders' equity of less than \$2,000,000 as of September 30, 2013 and net losses in two of three of our most recent fiscal years, and we submitted an amended plan to regain compliance.

The Board of Directors believes that maintaining the listing of the common stock on the NYSE MKT is in the best interests of the Company and its stockholders. If the common stock were delisted from the NYSE MKT, the Board believes that the liquidity in the trading market for the common stock could be significantly decreased, which could reduce the trading price.

In order to regain compliance, we will either need to increase our market capitalization or stockholders' equity. Since we cannot control our stock price, we may need to increase stockholder equity in order to retain our NYSE MKT listing status, and at today's stock price, we do not have a sufficient number of authorized shares to raise enough equity capital to achieve \$6 million in stockholder equity. As discussed below under the caption "Effect on Authorized but Unissued Shares," the reverse stock split will have the effect of significantly increasing the number of authorized but unissued shares of common stock, so we would have a sufficient number of shares available for issuance to raise an amount of equity capital necessary to remain listed on the NYSE MKT. Although the Company anticipates that it will attempt to raise equity capital before November 2014, there can be no assurance that the Company will raise enough equity capital to remain listed on the NYSE MKT even if our stockholders approve the reverse stock split.

Increase Our Common Stock Price to a Level More Appealing for Investors.

We believe that the reverse stock split could enhance the appeal of our common stock to the financial community, including institutional investors, and the general investing public. We believe that a number of institutional investors and investment funds are reluctant to invest in lower-priced securities and that brokerage firms may be reluctant to recommend lower priced stock to their clients, which may be due in part to a perception that lower-priced securities are less promising as investments, are less liquid in the event that an investor wishes to sell its shares, or are less likely to be followed by institutional securities research firms and therefore to have less third-party analysis of the company available to investors. We believe that the reduction in the number of issued and outstanding shares of the common stock caused by the reverse stock split, together with the anticipated increased stock price immediately following and resulting from the reverse stock split, may encourage interest and trading in our common stock and thus possibly promote greater liquidity for our stockholders, thereby resulting in a broader market for the common stock than that which currently exists.

We cannot assure you that all or any of the anticipated beneficial effects on the trading market for our common stock will occur. Our Board of Directors cannot predict with certainty what effect the reverse stock split will have on the market price of the common stock, particularly over the longer term. Some investors may view a reverse stock split negatively, which could result in a decrease in our market capitalization. Additionally, any improvement in liquidity due to increased institutional or brokerage interest or lower trading commissions may be offset by the lower number of outstanding shares.

Determination of Ratio

The ratio of the reverse stock split, if approved and implemented, will be a ratio of not less than 1-for-2 and not more than 1-for-25, as determined by the Board in its sole discretion. In determining the reverse stock split ratio, the Board will consider numerous factors including:

- the historical and projected performance of the common stock;
- general economic and other related conditions prevailing in our industry and in the marketplace;
- the projected impact of the selected reverse stock split ratio on trading liquidity in the common stock and our ability to continue the common stock's listing on the NYSE MKT;
- our capitalization (including the number of shares of common stock issued and outstanding);
- the prevailing trading price for common stock and the volume level thereof; and
- potential devaluation of our market capitalization as a result of a reverse stock split.

The purpose of asking for authorization to implement the reverse stock split at a ratio to be determined by the Board, as opposed to a ratio fixed in advance, is to give the Board the flexibility to take into account then-current market conditions and changes in price of common stock and to respond to other developments that may be deemed relevant when considering the appropriate ratio.

Principal Effects of the Reverse Stock Split

A reverse stock split refers to a reduction in the number of outstanding shares of a class of a corporation's capital stock, which may be accomplished, as in this case, by reclassifying and combining all of our outstanding shares of common stock into a proportionately smaller number of shares. For example, if the Board decides to implement a 1-for-5 reverse stock split of common stock, then a stockholder holding 10,000 shares of common stock before the reverse stock split would instead hold 2,000 shares of common stock immediately after the reverse stock split. Each stockholder's proportionate ownership of outstanding shares of common stock would remain the same, except that stockholders that would otherwise receive fractional shares as a result of the reverse stock split will receive cash payments in lieu of fractional shares.

The following table illustrates the effects of the reverse stock split at certain exchange ratios within the 1-for-2 to 1-for-25 range, without giving effect to any adjustments for fractional shares of common stock, on our outstanding shares of common stock and authorized but unreserved shares of common stock as of April 17, 2014:

| | Before | After Reverse Stock Split | | |
|---|------------------------|---------------------------|------------|------------|
| | Reverse Stock Split | 1-for-2 | 1-for-10 | 1-for-25 |
| Common Stock Authorized | 95,000,000 | 95,000,000 | 95,000,000 | 95,000,000 |
| Common Stock Outstanding as of April 17, 2014 | 54,975,576 | 27,487,788 | 5,497,557 | 2,199,023 |
| Common Stock Underlying Options, RSUs and Warrants | 18,697,493 | 9,348,746 | 1,869,749 | 747,899 |
| Common Stock Available for Grants under the Company's Equity Incentive Plan | 516,490 | 258,245 | 51,649 | 20,659 |
| Total Common Stock Authorized but Unreserved | 20,810,441 | 10,405,220 | 2,081,044 | 832,417 |

Because no fractional shares will be issued, holders of common stock could be eliminated in the event that the proposed reverse stock split is implemented. However, the Board does not intend to use the reverse stock split as a part of or a first step in a “going private” transaction within the meaning of Rule 13e-3 of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”). There is no plan or contemplated plan by the Company to take itself private at the date of this Proxy Statement. As of April 17, 2014, 15 record holders held fewer than 25 shares of common stock, out of a total of approximately 252 record holders. Therefore, we believe that a reverse stock split, even if approved and implemented at a ratio of 1-for-25, would have no significant effect on the number of record holders of common stock.

Certain Risks Associated with the Reverse Stock Split

Before voting on this Proposal 3, you should consider the following risks associated with the implementation of the reverse stock split:

- Although we expect that the reverse stock split will result in an increase in the market price of the common stock, we cannot assure you that the reverse stock split, if implemented, will increase the market price of the common stock in proportion to the reduction in the number of shares of the common stock outstanding or result in a permanent increase in the market price. The effect the reverse stock split may have upon the market price of the common stock cannot be predicted with any certainty, and the history of similar reverse stock splits for companies in similar circumstances to ours is varied. The market price of the common stock is dependent on many factors, including our business and financial performance, general market conditions, prospects for future success and other factors detailed from time to time in the reports we file with the SEC. Accordingly, the total market capitalization of the common stock after the proposed reverse stock split may be lower than the total market capitalization before the proposed reverse stock split and, in the future, the market price of the common stock following the reverse stock split may not exceed or remain higher than the market price prior to the proposed reverse stock split.
- Even if our stockholders approve the reverse stock split and the reverse stock split is implemented, there can be no assurance that we will raise enough equity capital to regain compliance with the NYSE MKT continued listing requirements.
- The reverse stock split may result in some stockholders owning “odd lots” of less than 100 shares of common stock on a post-split basis. These odd lots may be more difficult to sell, or require greater transaction costs per share to sell, than shares in “round lots” of even multiples of 100 shares.
- While the Board believes that a higher stock price may help generate investor interest, there can be no assurance that the reverse stock split will result in a per share price that will attract institutional investors or investment funds or that such share price will satisfy the investing guidelines of institutional investors or investment funds. As a result, the trading liquidity of the common stock may not necessarily improve.
- Although the Board believes that the decrease in the number of shares of common stock outstanding as a consequence of the reverse stock split and the anticipated increase in the market price of common stock could encourage interest in the common stock and possibly promote greater liquidity for our stockholders, such liquidity could also be adversely affected by the reduced number of shares outstanding after the reverse stock split.

Effect on Authorized but Unissued Shares

The reverse stock split will have the effect of significantly increasing the number of authorized but unissued shares of common stock. The number of authorized shares of common stock will not be decreased and will remain at 95,000,000. Because the number of outstanding shares will be reduced as a result of the reverse stock split, the number of shares available for issuance will be increased. See the table under the caption "Principal Effects of the Reverse Stock Split" that shows the number of unreserved shares of common stock that would be available for issuance at various reverse stock split ratios.

The Board believes that the Company may need to raise additional capital in order to regain compliance with the NYSE MKT continued listing requirements and is contemplating an equity financing transaction, the terms of which have not yet been established. In addition, we may issue shares to acquire other companies or assets or engage in business combination transactions. As of the date of this Proxy Statement, we have no specific plans, arrangements or understandings, whether written or oral, with respect to the increase in shares available for issuance as a result of the reverse stock split, other than those relating to the contemplated equity financing transaction discussed above.

Anti-Takeover and Dilutive Effects

The purpose of maintaining our authorized Common Stock at 95,000,000 after the reverse stock split is to regain compliance with the NYSE MKT continued listing requirements, not to establish any barriers to a change of control or acquisition of the Company. Shares of Common Stock that are authorized but unissued provide the Board with flexibility to effect, among other transactions, public or private financings, mergers, acquisitions, stock dividends, stock splits and the granting of equity incentive awards. However, these authorized but unissued shares may also be used by the Board, consistent with and subject to its fiduciary duties, to deter future attempts to gain control of us or make such actions more expensive and less desirable. The Certificate of Amendment would give the Board authority to issue additional shares from time to time without delay or further action by the stockholders except as may be required by applicable law or the NYSE MKT rules. The Certificate of Amendment is not being recommended in response to any specific effort of which the Company is aware to obtain control of the Company, although Guy Cook, our former President and Chief Executive Officer and our largest stockholder, indicated in a Schedule 13D filing that he believed Bacterin would be better able to realize its full value as a private entity, and that he planned to engage legal and financial advisors to assist him in evaluating alternatives for taking Bacterin private. The Board does not have any present intent to use the authorized but unissued common stock to impede a takeover attempt. There are no plans or proposals to adopt other provisions or enter into any arrangements that have material anti-takeover effects.

In addition, the issuance of additional shares of common stock for any of the corporate purposes listed above could have a dilutive effect on earnings per share and the book or market value of the outstanding common stock, depending on the circumstances, and would likely dilute a stockholder's percentage voting power in the Company. Holders of common stock are not entitled to preemptive rights or other protections against dilution. The Board intends to take these factors into account before authorizing any new issuance of shares.

Effect on Fractional Stockholders

No fractional shares of common stock will be issued in connection with the reverse stock split. If as a result of the reverse stock split, a stockholder of record would otherwise hold a fractional share, the stockholder will receive a cash payment in lieu of the issuance of any such fractional share in an amount per share equal to the closing price per share on the NYSE MKT on the trading day immediately preceding the effective time of the reverse stock split (as adjusted to give effect to the reverse stock split), without interest. The ownership of a fractional interest will not give the holder thereof any voting, dividend or other right except to receive the cash payment therefor.

If a stockholder is entitled to a cash payment in lieu of any fractional share interest, a check will be mailed to the stockholder's registered address as soon as practicable after the reverse stock split. By signing and cashing the check, stockholders will warrant that they owned the shares of common stock for which they received a cash payment.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where we are domiciled and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective time may be required to be paid to the designated agent for each such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds may have to seek to obtain them directly from the state to which they were paid.

Effect on Beneficial Stockholders

If you hold shares of common stock in street name through a broker, bank or other nominee, we will treat your common stock in the same manner as stockholders of record. Brokers and other nominees will be instructed to effect the reverse stock split for their customers holding common stock in street name. However, these brokers, banks and other nominees may have different procedures for processing a reverse stock split. If you hold shares of common stock in street name, we encourage you to contact your broker, bank or other nominee.

Registered “Book-Entry” Holders of Common Stock

If you hold shares of common stock electronically in book-entry form with our transfer agent, you do not currently have and will not be issued stock certificates evidencing your ownership after the reverse stock split, and you do not need to take action to receive post-reverse stock split shares. If you are entitled to post-reverse stock split shares, a transaction statement will automatically be sent to you indicating the number of shares of common stock held following the reverse stock split.

If you are entitled to a payment in lieu of any fractional share interest, payment will be made as described above under “Effect on Fractional Stockholders.”

Effect on Registered Stockholders Holding Certificates

As soon as practicable after the reverse stock split, our transfer agent will mail transmittal letters to each stockholder holding shares of common stock in certificated form. The letter of transmittal will contain instructions on how a stockholder should surrender his or her certificate(s) representing shares of common stock (the “Old Certificates”) to the transfer agent in exchange for certificates representing the appropriate number of whole shares of post-reverse stock split common stock (the “New Certificates”). No New Certificates will be issued to a stockholder until such stockholder has surrendered all Old Certificates, together with a properly completed and executed letter of transmittal, to the transfer agent. No stockholder will be required to pay a transfer or other fee to exchange his or her Old Certificates. Stockholders will then receive a New Certificate(s) representing the number of whole shares of common stock that they are entitled as a result of the reverse stock split. Until surrendered, we will deem outstanding Old Certificates held by stockholders to be cancelled and only to represent the number of whole shares of post-reverse stock split common stock to which these stockholders are entitled. Any Old Certificates submitted for exchange, whether because of a sale, transfer or other disposition of stock, will automatically be exchanged for New Certificates.

If you are entitled to a payment in lieu of any fractional share interest, payment will be made as described above under “Effect on Fractional Stockholders.”

Effect on Outstanding Options and Warrants

Upon a reverse stock split, all outstanding options, warrants and future or contingent rights to acquire common stock will be adjusted to reflect the reverse stock split. With respect to all outstanding options and warrants to purchase common stock, the number of shares of common stock that such holders may purchase upon exercise of such options or warrants will decrease, and the exercise prices of such options or warrants will increase, in proportion to the fraction by which the number of shares of common stock underlying such options and warrants are reduced as a result of the reverse stock split. Also, the number of shares reserved for issuance under our existing stock option and equity incentive plans would be reduced proportionally based on the ratio of the reverse stock split.

Procedure for Effecting the Reverse Stock Split

If our stockholders approve this proposal, and the Board elects to effect the reverse stock split, we will effect the reverse stock split by filing the Certificate of Amendment (as completed to reflect the reverse stock split ratio as determined by the Board, in its discretion, within the range of not less than 1-for-2 and not more than 1-for-25) with the Secretary of State of the State of Delaware. The reverse stock split will become effective, and the combination of, and reduction in, the number of our outstanding shares as a result of the reverse stock split will occur automatically, at the time of the filing of the Certificate of Amendment (referred to as the “effective time”), without any action on the part of our stockholders and without regard to the date that stock certificates representing any certificated shares prior to the reverse stock split are physically surrendered for new stock certificates. Beginning at the effective time, each certificate representing pre-reverse stock split shares will be deemed for all corporate purposes to evidence ownership of post-reverse stock split shares. The text of the Certificate of Amendment is subject to modification to include such changes as may be required by the office of the Secretary of State of the State of Delaware and as the Board deems necessary and advisable to effect the reverse stock split.

The Board reserves the right, notwithstanding stockholder approval and without further action by the stockholders, to elect not to proceed with the reverse stock split if, at any time prior to filing the Certificate of Amendment, the Board, in its sole discretion, determines that it is no longer in the best interests of the Company and its stockholders to proceed with the reverse stock split. By voting in favor of the reverse stock split, you are expressly also authorizing the Board to delay (until May 31, 2015) or abandon the reverse stock split. If the Certificate of Amendment has not been filed with the Secretary of State of the State of Delaware by the close of business on May 31, 2015, the Board will abandon the reverse stock split.

Stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) until they receive a letter of transmittal from our transfer agent.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split

The following is a summary of important tax considerations of the reverse stock split. It addresses only stockholders who hold common stock as capital assets. It does not purport to be complete and does not address stockholders subject to special rules, such as financial institutions, tax-exempt organizations, insurance companies, dealers in securities, foreign stockholders, stockholders who hold their pre-reverse stock split shares as part of a straddle, hedge or conversion transaction, and stockholders who acquired their pre-reverse stock split shares pursuant to the exercise of employee stock options or otherwise as compensation. This summary is based upon current law, which may change, possibly even retroactively. It does not address tax considerations under state, local, foreign and other laws. The tax treatment of a stockholder may vary depending upon the particular facts and circumstances of such stockholder. Each stockholder is urged to consult with such stockholder’s own tax advisor with respect to the tax consequences of the reverse stock split.

A stockholder generally will not recognize gain or loss on the reverse stock split, except to the extent of cash, if any, received in lieu of a fractional share interest. The aggregate tax basis of the post-reverse stock split shares received will be equal to the aggregate tax basis of the pre-reverse stock split shares exchanged therefor (excluding any portion of the holder’s basis allocated to fractional shares), and the holding period of the post-reverse stock split shares received will include the holding period of the pre-reverse stock split shares exchanged.

A holder of the pre-reverse stock split shares who receives cash will generally be treated as having exchanged a fractional share interest for cash in a redemption by us. The amount of any gain or loss will be equal to the difference between the portion of the tax basis of the pre-reverse stock split shares allocated to the fractional share interest and the cash received.

The foregoing views are not binding on the Internal Revenue Service or the courts. Accordingly, each stockholder should consult with his or her own tax advisor with respect to all of the potential tax consequences to him or her of the reverse stock split.

Accounting Matters

The par value of the common stock will remain unchanged at \$0.000001 per share after the reverse stock split. As a result, our stated capital, which consists of the par value per share of the common stock multiplied by the aggregate number of shares of the common stock issued and outstanding, will be reduced proportionately at the effective time of the reverse stock split. Correspondingly, our additional paid-in capital, which consists of the difference between our stated capital and the aggregate amount paid to us upon the issuance of all currently outstanding shares of common stock, will be increased by a number equal to the decrease in stated capital. Further, net loss per share, book value per share and other per share amounts will be increased as a result of the reverse stock split because there will be fewer shares of common stock outstanding.

Required Vote

The affirmative vote of the holders of a majority of the shares of the common stock outstanding on the Record Date will be required to approve the reverse stock split. Accordingly, abstentions and broker non-votes will have the same effect as a vote against the proposal. Shares represented by valid proxies and not revoked will be voted at the Annual Meeting in accordance with the instructions given. If no voting instructions are given, such shares will be voted "FOR" this proposal.

The Board of Directors recommends that you vote "FOR" the approval of the Reverse Stock Split.

ADDITIONAL INFORMATION

Stockholder Proposals

Proposals by stockholders that are submitted for inclusion in our proxy statement for our 2015 Annual Meeting must follow the procedures set forth in Rule 14a-8 under the Securities Exchange Act of 1934 and our bylaws. To be timely under Rule 14a-8, stockholder proposals must be received by our Corporate Secretary at Bacterin International Holdings, Inc., 664 Cruiser Lane, Belgrade, MT 59714 by February , 2015.

The Company's Amended and Restated Bylaws also establish an advance notice procedure with regard to nominations of persons for election to the Board of Directors and stockholder proposals to be brought before an annual meeting. Stockholder proposals and nominations may not be brought before an annual meeting unless, among other things, the stockholder's submission contained certain information concerning the proposal or the nominee, as the case may be, and other information specified in the Company's Amended and Restated Bylaws. Proposals or nominations not meeting these requirements will not be entertained at an annual meeting.

Stockholder proposals and nominations may not be brought before the 2015 Annual Meeting unless, among other things, the stockholder's submission contains certain information concerning the proposal or the nominee, as the case may be, and other information specified in the Company's Amended and Restated Bylaws, and the stockholder's submission is received by us no earlier than the close of business on February 11, 2015, and no later than March 13, 2015. Proposals or nominations not meeting these requirements will not be entertained at the 2015 Annual Meeting.

Stockholders recommending candidates for consideration by the Nominating and Corporate Governance Committee must provide the candidate's name, biographical data and qualifications. Any such recommendation should be accompanied by a written statement from the individual of his or her consent to be named as a candidate and, if nominated and elected, to serve as a director. These requirements are separate from, and in addition to, the SEC's requirements that a stockholder must meet in order to have a stockholder proposal included in the proxy statement.

Householding Information

If you share an address with any of our other stockholders, your household might receive only one copy of our proxy statement, unless you have instructed us otherwise. This delivery method is referred to as "householding" and can result in cost savings for us. To take advantage of this opportunity, we may deliver a single proxy statement to multiple stockholders who share an address. We will deliver upon oral or written request a separate copy of our proxy statement to any stockholder of a shared address to which a single copy of our proxy statement was delivered. If you prefer to receive separate copies of our proxy statement, either now or in the future, or if you currently are a stockholder sharing an address with another stockholder and wish to receive only one copy of future proxy statements for your household, please call us at (406) 388-0480 or send your request in writing to us at the following address: 664 Cruiser Lane, Belgrade, MT 59714, Attention: Corporate Secretary.

OTHER MATTERS

Whether or not you plan to attend the meeting, please vote over the Internet or complete, sign and return the proxy card or voting instructions form sent to you in the envelope provided.

Our 2013 Annual Report on Form 10-K, which is not a part of this Proxy Statement and is not proxy soliciting material, is enclosed.

By order of the Board of Directors

/s/ Daniel Goldberger

Daniel Goldberger

Chief Executive Officer

Belgrade, Montana
, 2014

Annex A

**CERTIFICATE OF AMENDMENT
OF
RESTATED CERTIFICATE OF INCORPORATION
OF
BACTERIN INTERNATIONAL HOLDINGS, INC.**

Bacterin International Holdings, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), does hereby certify as follows:

1. The name of the Corporation is Bacterin International Holdings, Inc.
2. Article 4 of the Restated Certificate of Incorporation of the Corporation is hereby amended by appending the following to the end thereof:

Upon the filing and effectiveness (the "Effective Time") of this amendment to the Corporation's Restated Certificate of Incorporation pursuant to the Delaware General Corporation Law, each _____ shares of the Common Stock (the "Old Common Stock") issued and outstanding immediately prior to the Effective Time shall be reclassified and combined into one validly issued, fully paid and non-assessable share of the Corporation's common stock, \$.000001 par value per share (the "New Common Stock"), without any action by the holder thereof (the "Reverse Stock Split"). The Corporation shall not issue fractions of shares of New Common Stock in connection with such reclassification and combination. Stockholders who, immediately prior to the Effective Time, own a number of shares of Old Common Stock which is not evenly divisible by ____ shall, with respect to such fractional interest, be entitled to receive cash from the Corporation in lieu of fractions of shares of New Common Stock from the disposition of such fractional interest as provided below. The Corporation shall arrange for the disposition of fractional interests by those otherwise entitled thereto, by the mechanism of having (x) the transfer agent of the Corporation aggregate such fractional interests, (y) the shares resulting from the aggregation sold and (z) the net proceeds received from the sale allocated and distributed among the holders of the fractional interests as their respective interests appear. Each certificate that theretofore represented shares of Old Common Stock shall thereafter represent that number of shares of New Common Stock into which the shares of Old Common Stock represented by such certificate shall have been reclassified and combined; provided, that each person holding of record a stock certificate or certificates that represented shares of Old Common Stock shall receive, upon surrender of such certificate or certificates, a new certificate or certificates evidencing and representing the number of shares of New Common Stock to which such person is entitled under the foregoing reclassification and combination."

3. This Certificate of Amendment has been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with Section 242 of the General Corporation Law of the State of Delaware.
4. This Certificate of Amendment shall become effective at _____ .m. Eastern [Standard][Daylight] Time on _____ , _____ .

IN WITNESS WHEREOF, the Corporation has caused its duly authorized officer to execute this Certificate of Amendment on this _____ day of _____ , _____ .

BACTERIN INTERNATIONAL HOLDINGS, INC.

By: _____
Name:
Title:

PROXY

BACTERIN INTERNATIONAL HOLDINGS, INC.
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
ANNUAL MEETING OF STOCKHOLDERS
JUNE 11, 2014

The undersigned hereby appoints Daniel Goldberger and John Gandolfo, or either of them, as proxies, each with full power of substitution, and hereby authorizes them to represent and to vote (with discretionary authority as to any and all other business that may properly come before the meeting), all of the shares of Common Stock of Bacterin International Holdings, Inc. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 7:00 a.m. local time on June 11, 2014 at 8300 E. Crescent Pkwy., Englewood, Colorado 80111, and at any adjournment, continuation or postponement thereof.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED BY THE STOCKHOLDER(S). IF NO SUCH DIRECTIONS ARE MADE, THIS PROXY WILL BE VOTED IN ACCORDANCE WITH THE RECOMMENDATION OF THE BOARD OF DIRECTORS.

IF YOU ARE NOT VOTING ON THE INTERNET, PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY.

Item 1 – Election of Class III Directors

| | For | Withhold |
|----------------------------|--------------------------|--------------------------|
| Class III – Michael Lopach | <input type="checkbox"/> | <input type="checkbox"/> |
| Class III – Jon Wickwire | <input type="checkbox"/> | <input type="checkbox"/> |

The Board of Directors recommends a vote FOR the listed nominees under Item 1.

Item 2 – Ratification of Independent Auditors

For Against Abstain

The Board of Directors recommends a vote FOR Item 2.

Item 3 – Reverse Stock Split. To approve an amendment to the Company’s Restated Certificate of Incorporation to effect a reverse stock split of the Company’s issued and outstanding common stock, par value \$.000001 per share, by a ratio of not less than 1-for-2 and not more than 1-for-25, such ratio to be determined in the discretion of the Board of Directors of the Company:

For Against Abstain

The Board of Directors recommends a vote FOR Item 3

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

Please date and sign name exactly as it appears hereon. Executors, administrators, trustees, etc. should so indicate when signing. If the stockholder is a corporation, the full corporate name should be inserted and the proxy signed by an officer of the corporation indicating his/her title.

Date: _____

Signature

Signature (Joint Owners)

Address Changes/Comments:

Please indicate whether you plan to attend this meeting: