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 $\ \mathbf{x}$

Filed by a Party other than the Registrant \Box

Check the appropriate box:

□ Preliminary Proxy Statement

□ Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2)

- x Definitive Proxy Statement
- □ Definitive Additional Materials
- □ 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:
 - (2) Aggregate number of securities to which transaction applies:
 - (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
 - (4) Proposed maximum aggregate value of transaction:
 - (5) Total fee paid:

□ Fee paid previously with preliminary materials.

□ 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 July 11, 2013

To Our Stockholders:

You are invited to attend the Annual Meeting of Stockholders (the "Annual Meeting") of Bacterin International Holdings, Inc. (the "Company") on July 11, 2013 at 2:30 p.m. Mountain Standard Time, at 200 Inverness Drive West, Englewood, Colorado 80112, for the following purposes:

- 1. To elect two Class II directors to serve on the Company's Board of Directors for a three year term until the 2016 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, 2013;
- 3. To conduct an advisory vote to approve the compensation of the named executive officers;
- 4. To conduct an advisory vote on the frequency of shareholder votes on executive compensation; and
- 5. 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 May 31, 2013 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 July 11, 2013: This Proxy Statement, along with our 2012 Annual Report on Form 10-K, are available at <u>www.bacterin.com</u> (click "About," "Investor Info" and "SEC Filings").

By order of the Board of Directors

/s/ John Gandolfo

John Gandolfo Secretary CFO and Interim Co-CEO

June 14, 2013

Information about Attending the Annual Meeting

Only stockholders of record on the record date of May 31, 2013, 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.

PROXY STATEMENT FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JULY 11, 2013

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 2013 Annual Meeting of Stockholders (the "Annual Meeting"), which will take place on July 11, 2013. 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 June 14, 2013 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 July 11, 2013 at 2:30 p.m. Mountain Standard Time at 200 Inverness Drive West, Englewood, Colorado 80112.

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, 2012?

- 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, 2012. Our Annual Report on Form 10-K can also be accessed through our website at <u>www.bacterin.com</u> (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, 2013.
- 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 II directors to serve on the Board until the 2016 Annual Meeting of Stockholders and until their respective successors have been duly elected and qualified;
 - 2. To ratify the appointment of EKS&H as the Company's independent registered public accounting firm for the year ending December 31, 2013;
 - 3. To conduct an advisory vote to approve the compensation of our named executive officers;
 - 4. To conduct an advisory vote on the frequency of shareholder votes on executive compensation; and
 - 5. To transact such other business as may properly be brought before the Annual Meeting and any adjournment or postponement thereof.

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; "FOR" the approval, on an advisory basis, of the compensation of our named executive officers; and for an advisory vote on executive compensation every "THREE YEARS."

Q: WHAT SHARES MAY I VOTE?

A: Each share of our common stock issued and outstanding as of the close of business on May 31, 2013 (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 42,821,961 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 registered 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, John P. Gandolfo (our Chief Financial Officer, Interim Co-Chief Executive Officer and Secretary) and Darrel Holmes (our Chief Operating Officer and Interim Co-Chief Executive 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. Gandolfo and Holmes.

Shares Beneficially Held in Street Name

You are the beneficial owner of any of your shares registered 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 2:30 p.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 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.
- 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 director is 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 II directors expires at the Annual Meeting, and both of our current Class II 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. Swanson and Deedrick.

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

Name	Age	Position
Kent Swanson	68	Chairman of the Board
Mitchell Godfrey	67	Director
Michael Lopach	64	Director
Jon Wickwire	69	Director
John Deedrick	50	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 II 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.

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).

Continuing 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.

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 the 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.

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 currently serves as a consultant.

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 Shareholders Meeting

The Board of Directors met ten times during fiscal 2012. 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 shareholders, but encourages Directors to attend. All Directors attended the Company's 2012 annual meeting of shareholders.

Board Leadership Structure

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.

Shareholder Communications

The Board does not have a formal process for shareholders 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 shareholder communications that cannot be properly addressed by officers of the Company, the officers will 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):

		Nominations &
Audit	Compensation	Corporate Governance
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 <u>www.bacterin.com</u> (click "About," "Investor Info" and "Corporate Governance"). A description of each Committee's function and number of meetings during fiscal 2012 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 five times during 2012.

Report of the Audit Committee

The Audit Committee has (i) reviewed and discussed the audited financial statements with management, (ii) discussed with the independent auditors the matters required to be discussed by the statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1. AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T, and (iii) received written disclosures and the letter from the independent accountant required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the Audit Committee concerning independence, and has discussed with the independent accountant the independent accountant's independence. Based on the review and discussions referred to Regulation S-K Item 407 (d)(3)(i)(A)-(C), the audit committee recommended to the Board of Directors that the audited financial statements be included in the Company's 2012 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 four times during 2012.

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 of noncommendation to 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, and the extent to which the candidate would fill a present need on the Board of Directors. The Nominations and Corporate Governance Committee does not have a formal policy with regard to the consideration of director candidates recommended by shareholders because the Board of Directors does not consider such a policy necessary for the Company; however, the Nominations and Corporate Governance Committee will consider director candidates recommended by shareholders in accordance with the proxy rules.

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 two times in 2012.

Director Compensation

New independent Board members receive options to purchase 50,000 shares of our common stock, vesting after one year, with an exercise price equal to the closing price of our common stock on the date of grant. Following the first year of service, Board members receive an annual continued service grant of options to purchase 30,000 shares of our common stock with an exercise price equal to the closing price for our common stock on the date of grant. Independent Directors also receive an annual retainer of \$40,000 per year and Committee Chairs receive an additional \$10,000 per year. In June of 2013, the Compensation Committee and Board of Directors also approved a one time grant of options to purchase 50,000 shares of our common stock to independent directors, as well as a one time grant of options to purchase 50,000 shares of our common stock to the company.

Director Compensation

Name	-	ees Earned or Paid in Cash (1)	Stock Awards	A	Option Awards (2)	Non-Equity Incentive Plan Compensation	Change in Pension Value and Nonqualified Deferred Compensation Earnings	All Other mpensation	Total
Mitch Godfrey (3)	\$	-	\$ -	\$	-	-	-	\$ 95,000	\$ 95,000
Kent Swanson	\$	50,000	\$ -		36,564	-	-	-	\$ 86,564
Michael Lopach	\$	50,000	\$ -		25,917	-	-	-	\$ 75,917
Jon Wickwire	\$	50,000	\$ -		25,917	-	-	-	\$ 75,917
John Deedrick ₍₄₎	\$	10,000	\$		54,775				\$ 64,775

(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.

- (2) New independent Board members receive options to purchase 50,000 shares of our common stock, vesting after one year, with an exercise price equal to the closing price of our common stock on the date of grant. Following the first year of service, independent Board members receive an annual continued service grant of options to purchase 30,000 shares with an exercise price equal to the closing price of our common stock on the date of grant. Key assumptions used to estimate the grant date fair value of option awards are contained in Note 9 to the financial statements in Item 8 of our Annual Report on Form 10-K.
- (3) Mitchell Godfrey serves as a consultant to the Company and all compensation paid to Mr. Godfrey was in payment for his services as a consultant. Mr. Godfrey does not receive any director fees or options for his service as a director.
- (4) Mr. Deedrick joined the Board in September 2012.

TRANSACTIONS WITH RELATED PERSONS, PROMOTERS AND CERTAIN CONTROL PERSONS

Guy Cook, our former President, Chief Executive Officer and Chairman of the Board, serves as a board member of West Coast Tissue Services ("WCTS") and formerly served as a director for American Donor Services ("ADS"). Mr. Cook has not received any compensation for his board service for either entity. Mitchell Godfrey, a director, serves on the board of ADS and also serves as secretary and treasurer for ADS. Mr. Godfrey received \$5,000 for his service to ADS in 2012 and no compensation from ADS in 2011. ADS and WCTS recover tissue from donors, and we reimburse them for their recovery fees, which are comprised primarily of labor costs. The approximate aggregate amount of all transactions with WCTS was \$510,500 for 2011 and \$525,900 for 2012, and the approximate aggregate amount of all transactions with ADS was \$1,765,908 for 2011 and \$1,472,949 for 2012. These relationships benefit 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.

Mr. Cook's adult children own and operate a distributor of Bacterin products, which were purchased from a non-affiliated distributor, with payment made to Bacterin for amounts owed by the non-affiliated distributor. The affiliated distributor, Silver Forest Fund, LP, exchanged products initially purchased from the non-affiliated distributor for different Bacterin products of equivalent value. Other than product exchanges and payment of amounts owed by the non-affiliated distributor, there have been no other direct transactions between Bacterin and the affiliated distributor. Mr. Cook pledged 1,850,000 shares of Bacterin stock as collateral for loans made for the benefit of the affiliated distributor.

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.

Involvement in Certain Legal Proceedings

To the best of our knowledge, during the past ten years, no director or officer of the Company has been involved in any of the following: (1) any bankruptcy petition filed by or against such person individually, or any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time; (2) any conviction in a criminal proceeding or being subject to a pending criminal proceeding (excluding traffic violations and other minor offenses); (3) being subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining, barring, suspending or otherwise limiting his or her involvement in any type of business, securities or banking activities; or (4) being found by a court of competent jurisdiction (in a civil action), the SEC or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated.

Adverse Proceedings

As of the date of this proxy statement, there are no material proceedings to which any director or officer is a party adverse to the Company or has a material interest adverse to the Company.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding the beneficial ownership of our common stock as of May 31, 2013, by (a) each of our directors and executive officers, (b) all of our directors and 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₎ :		
Kent Swanson	599,842 ₍₄₎	1.40%
Mitchell Godfrey	1,062,133(5)	2.48%
Michael Lopach	181,185(6)	*
Jon Wickwire	503,764(7)	1.18%
John Deedrick	-	*
John P. Gandolfo	177,920 ₍₈₎	*
Darrel Holmes	133,999(9)	*
Nick Navarro	128,000(10)	*
Greg Juda	61,915(11)	*
All executive officers and directors as a group (9 persons)	2,848,758	6.65%
Five Percent Shareholders:		
Guy S. Cook 246 Painted Hills Rd. Bozeman, MT 59714	12,097,000 ₍₁₂₎	28.25%
Rawleigh Hazen Ralls, IV c/o Lacuna, LLC 1100 Spruce Street, Suite 202 Boulder, Colorado 80302	2,237,200 ₍₁₃₎	5.22%

- (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 May 31, 2013, 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 42,821,961 shares of common stock outstanding on May 31, 2013. 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) 250,000 shares of our common stock held directly, (b) 200,000 shares held by a family limited partnership, (c) warrants to purchase 89,842 shares of our common stock, and (d) options to purchase 60,000 shares of our common stock.
- (5) Includes (a) 711,467 shares of our common stock, (b) 50,666 shares of common stock owned by Mr. Godfrey's spouse, and (c) vested options to purchase 300,000 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 110,000 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 110,000 shares of our common stock.
- (8) Includes (a) 9,943 shares of our common stock held by an IRA, (b) warrants to purchase 3,977 shares of our common stock, and (c) vested options to purchase 164,000 shares of our common stock.
- (9) Includes vested options to purchase 133,999 shares of our common stock.
- (10) Includes vested options to purchase 128,000 shares of our common stock.
- (11) Includes vested options to purchase 61,915 shares of our common stock
- (12) Includes (a) 5,937,588 shares of our common stock held directly, (b) 6,000,000 shares of our common stock held by trusts for the benefit of Mr. Cook's children, (c) warrants to purchase 134,412 shares of our common stock, and (d) vested options to purchase 25,000 shares of our common stock held by Mr. Cook's spouse.
- (13) Based on Schedule 13G filed with the SEC on April 26, 2013. Includes 945,000 shares held directly, 1,197,200 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 95,000 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.

^{*} Less than 1% of outstanding shares of 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 May 31, 2012.

EXECUTIVE OFFICERS

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

hief Executive Officer,
Chief Executive Officer

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

John P. Gandolfo, Chief Financial Officer and Interim Co-Chief Executive 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 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 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 and Interim Co-Chief Executive Officer, Mr. Holmes 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. He is also responsible for the establishment and maintenance of an FDA CFR Title 21 Part 820 and 1271-compliant quality system. 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 is the primary regulatory interface for Bacterin's operations and he oversees 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, and as a Scientific Advisory Board Member for Montana Molecular in Bozeman, Montana. Mr. Holmes graduated from California State University at Long Beach with a degree in Biological Science.

Nicholas Navarro, National Sales Manager, has nine years of sales and management experience in the orthopedic industry. As the National Sales Manager, Mr. Navarro is responsible for managing Bacterin's sales force by supporting product sales for all Bacterin divisions. Prior to being promoted to this position in February 2012, Mr. Navarro served in various roles at Bacterin, starting as a Direct Representative, advancing to a Regional Sales Manager, and relocating to headquarters to serve as Vice President of Devices. Mr. Navarro's previous experience includes sales roles with Johnson and Johnson, specializing in wound and infection management, and at Wright Medical as a Foot and Ankle Hardware Specialist. Mr. Navarro has a Psychology degree from the University of Iowa and a minor in Business. Mr. Navarro also contributes time and efforts to support Miracle Feet, which helps to correct club feet in developing countries.

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, lifeenhancing 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

Except for Mr. Gandolfo's employment agreement described below, we currently have no employment agreements with any of our named executive officers which have payments upon termination or change in control, nor any compensatory plans or arrangements that provide for any payments or benefits upon the resignation, retirement or any other termination of any of our named executive officers, as the result of a change in control, or from a change in any named executive officer's responsibilities following a change in control, except that our standard form of stock option agreement for all employees provides for vesting acceleration in the event of a change in control.

Pursuant to the terms of Mr. Gandolfo's employment agreement, if Mr. Gandolfo's employment with our company is terminated by us in connection with a "Change of "Control" (as defined therein), Mr. Gandolfo shall be eligible to receive 12 months' salary as severance, if he has delivered to us a complete release of any claims against us in form and substance reasonably satisfactory to us and if Mr. Gandolfo has not breached any section of his employment agreement. Mr. Gandolfo's current salary is \$330,000 per year. The severance payments payable to Mr. Gandolfo will be paid biweekly through automatic deposits; provided that the initial payment of any severance hereunder shall begin on the eighth day after Mr. Gandolfo has signed the aforementioned release. A "Change of Control" is defined in Mr. Gandolfo's employment agreement to consist of either Guy Cook no longer serving as the Chief Executive Officer or a sale of all or substantially all of the assets of the Company.

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 officers other than the Chief Executive Officer.

Name and Principal Position	Year	Salary	Bonus	Stock Awards	A	Option wards (1)]	on-Equity Incentive Plan mpensation	Pens Non D Com	aange in sion Value and qualified eferred pensation arnings	Other	Total
Guy S. Cook	2012	\$ 500,000	\$ 100,000	\$ -	\$	138,180	\$	-	\$	-	\$ -	\$ 738,180
Chief Executive Officer	2011	500,000	50,000-	-		- 1		-		-	-	550,000
John Gandolfo	2012	299,947	50,000			96,726		-		-	-	446,673
Chief Financial Officer	2011	290,000	35,000-	-		-		-		-	-	325,000
Nick Navarro	2012	233,077				261,005					13,344(2)	507,426
National Sales Manager	2011	177,739	50,000								59,745(2)	287,484

(1) Key assumptions used to estimate the grant date fair value of option awards are contained in Note 9 to the financial statements in Item 8 of our Annual Report on Form 10-K.

(2) Commission

The following table shows information about Outstanding Equity Awards to Executive Officers as of December 31, 2012

	Number of Securiti Unexercised	0	Option Awards Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned	Option Option Exercise Expirati						
Name	Exercisable	Unexercisable	Options	 Price	Date					
Guy Cook	-	-	100,000	\$ 2.36	3/27/22					
John Gandolfo	100,000	-	150,000	\$ 1.60	6/3/20					
			70,000	\$ 2.36	3/27/22					
Nick Navarro	24,000	-	36,000	\$ 1.60	4/1/20					
	12,000	-	48,000	\$ 2.36	3/27/22					
	50,000	-	150,000	\$ 1.48	5/8/22					

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 2012, we believe all reports required pursuant to Section 16(a) were filed on a timely basis except for the following: Guy Cook, John Gandolfo, Darrel Holmes and Nick Navarro filed one Form 4 four days late due to administrative oversight.

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

We are seeking shareholder ratification of the appointment of EKS&H LLLP ("EKS&H") as our independent registered public accounting firm for the fiscal year ending December 31, 2013. 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.

The reports of EKS&H on the financial statements of the Company as of and for the fiscal years ended December 31, 2012 and 2011 did not contain an adverse opinion or a disclaimer of opinion, and were not qualified or modified as to uncertainty, audit scope or accounting principles.

On June 2, 2011, the Audit Committee of our Board of Directors engaged EKS&H as our independent registered public accounting firm for the fiscal year ending December 31, 2011, and dismissed Child, Van Wagoner & Bradshaw, PLLC ("CVWB") from that role. The change in accountants was recommended and approved by the Audit Committee of the Company's Board of Directors. During the fiscal year ended December 31, 2010 and through the date of dismissal, (i) there were no disagreements with CVWB on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreement, if not resolved to the satisfaction of CVWB, would have caused it to make reference to the subject matter of the disagreements in connection with its reports on the financial statements for those periods and (ii) there were no reportable events (as described in Item 304(a) (1)(v) of Regulation S-K).

Prior to filing the foregoing disclosure on Form 8-K, the Company requested that CVWB furnish the Company with a letter addressed to the SEC stating whether it agreed with the disclosure, and if not, stating the respects in which it did not agree. A copy of CVWB's letter is attached as Exhibit 16.1 to our Form 8-K filed with the SEC on June 3, 2011.

During the fiscal year ended December 31, 2010 and through the date the Company engaged EKS&H, neither the Company, nor anyone acting on its behalf, consulted with EKS&H regarding (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's consolidated financial statements, and no written report or oral advice was provided to the Company that EKS&H concluded was an important factor considered by the Company in reaching a decision as to the accounting, auditing or financial reporting issue, or (ii) any matters that were either the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K) or a reportable event (as described in Item 304(a)(1)(v) of Regulation S-K).

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, 2013.

Audit and Non-audit Fees

EKS&H served as the independent registered public accounting firm to audit our books and accounts for the fiscal years ending December 31, 2012 and December 31, 2011. The following table presents the aggregate fees billed for professional services rendered by EKS&H for the years ended December 31, 2012 and December 31, 2011.

	2012	2011
Audit fees	\$ 122,500	\$ 144,000
Audit-related fees	7,287	43,000
Tax fees	-	-
All other fees	-	-

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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 services provided by EKS&H.

PROPOSAL 3: ADVISORY VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

Pursuant to Section 14A of the Exchange Act of 1934, we are conducting a non-binding advisory vote on the compensation of our named executive officers. This proposal, commonly known as a "say-on-pay" proposal, gives the Company's shareholders the opportunity to express their views on the compensation of our named executive officers.

In determining the compensation of our named executive officers, the Compensation Committee of our Board of Directors attempts to offer compensation competitive with other similarly situated organizations in order to attract, retain and motivate the caliber of officers needed to achieve the Company's goals and to align rewards with performance that creates long-term value for shareholders. The Company believes the compensation of its named executive officers is appropriate and aligns the long-term interests of its named executive officers with the long-term interests of its shareholders.

For these reasons, the Board of Directors recommends a vote in favor of the following resolution:

"RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K is hereby APPROVED."

As an advisory vote, this proposal is not binding upon the Company. However, the Compensation Committee values the opinions expressed by shareholders in their vote on this proposal, and will consider the outcome of the vote when making future compensation decisions for named executive officers. The affirmative vote of the holders of a majority of the votes cast by our shareholders in person or represented by proxy and entitled to vote is required to approve this Proposal 3.

The Board of Directors recommends a vote "FOR" the approval, on an advisory basis, of the compensation of our named executive officers as described in this proxy statement.

PROPOSAL 4: ADVISORY VOTE ON THE FREQUENCY OF ADVISORY VOTES ON EXECUTIVE COMPENSATION

Pursuant to Section 14A of the Exchange Act of 1934, we are conducting a non-binding advisory vote on how frequently an advisory vote on the compensation of our named executive officers should occur. When voting on this Proposal, you may indicate whether you would prefer that we hold an advisory vote on the compensation of our named executive officers every one, two or three years. It is our strong belief, and the Board's recommendation, that we hold this vote every three years.

The Board believes that holding an advisory vote on executive compensation every three years will encourage a more meaningful long-term approach to evaluating our executive compensation policies and practices, in contrast to focusing on short term results. In addition, any adjustment in pay practices would take time to implement and be reflected in our financial performance and in the price of our common stock, and a vote every one or two years would not allow adequate time to evaluate the impact adjustments may have on performance. By holding an advisory vote on executive compensation every three years, shareholders will have sufficient time for a more meaningful evaluation.

For the above reasons, the Board recommends that you vote to hold an advisory vote on executive compensation every three years. The number of years that receives the most votes will be the frequency that stockholders approve. Although the Compensation Committee and Board of Directors will review and consider the results of the vote on this Proposal when deciding the frequency of future advisory votes on executive compensation, this advisory vote is not binding on us, and the Compensation Committee and the Board may decide that it is in the best interests of the Company and its stockholders to hold an advisory vote on the compensation of our named executive officers more or less frequently than the option approved by our stockholders.

The Board of Directors recommends that you vote to hold an advisory vote on executive compensation every "THREE YEARS."

ADDITIONAL INFORMATION

Shareholder Proposals

Proposals by shareholders that are submitted for inclusion in our proxy statement for our 2013 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, shareholder proposals must be received by our Corporate Secretary at Bacterin International Holdings, Inc., 664 Cruiser Lane, Belgrade, MT 59714 by February 14, 2014.

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 2012 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/ John Gandolfo

Chief Financial Officer and Interim Co-Chief Executive Officer, Treasurer and Secretary

Belgrade, Montana June 14, 2013

PROXY

BACTERIN INTERNATIONAL HOLDINGS, INC. THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS ANNUAL MEETING OF SHAREHOLDERS JULY 11, 2013

The undersigned hereby appoints John P. Gandolfo and Darrel Holmes, or either of them, as proxies, each with full power of substitution, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot (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 shareholder(s) is/are entitled to vote at the Annual Meeting of Shareholders to be held at 2:30 p.m. local time on July 11, 2013 at 200 Inverness Drive West, Englewood, Colorado 80112, and at any adjournment, continuation or postponement thereof.

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

Withhold

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

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	ent Swanson hn Deedrick								
The Board of Direct	ors recommends a vo	inees under Item 1.							
Item 2 – Ratification of Independent Auditors									
	□ For	□ Against	□ Abstain						
The Board of Direct	The Board of Directors recommends a vote FOR Item 2.								
Item 3 – Advisory V	ote on the Compensa	tion of our Named Ex	ecutive Officers						
	□ For	□ Against	□ Abstain						
The Board of Direct	tors recommends a vo	te FOR Item 3							
Item 4 – Advisory V	ote on the Frequency	of Advisory Votes on	Executive Compensation						
□ One Year	\Box Two Years	□ Three Years	□ Abstain						

The Board of Directors recommends an advisory vote on executive compensation every THREE YEARS

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 shareholder 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: \Box