

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
Under the Securities Exchange Act of 1934
(Amendment No. 2)*

Bacterin International Holdings, Inc.
(Name of Issuer)

Common Stock, \$0.000001 par value
(Title of Class of Securities)

05644R101
(CUSIP number)

Guy S. Cook
664 Cruiser Lane
Belgrade, MT 59714
(406) 388-0480

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

June 4, 2012
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box .

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

CUSIP No.

1.	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Guy S. Cook	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	SOURCE OF FUNDS (SEE INSTRUCTIONS) PF	
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o	
6.	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7.	SOLE VOTING POWER: 12,061,000 (1)
	8.	SHARED VOTING POWER: 0
	9.	SOLE DISPOSITIVE POWER: 12,061,000 (1)
	10.	SHARED DISPOSITIVE POWER: 0
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 12,061,000	
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) o	
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 28.4%	
14.	TYPE OF REPORTING PERSON* IN	

(1) Includes 134,412 shares underlying warrants and 25,000 shares subject to employee stock options held by spouse.

Explanatory Note

This Amendment No. 2 of Schedule 13D relates to the disposition of 1,000,000 shares (the "Shares") of common stock of Bacterin International Holdings, Inc. (the "Company") in connection with a Loan Agreement and Pledge Agreement with Equities First Holdings, LLC (the "Lender"). Pursuant to the Loan and Pledge agreements, the reporting person pledged the Shares in exchange for loan proceeds equal to 70% of the Fair Market Value (as defined in the Loan Agreement, based on a 3 day average closing price) of the Shares, less a 5% origination fee. The Lender is required to return an equal number of shares to the reporting person when the loan is repaid.

Except as otherwise provided herein, each Item of the reporting person's initial Schedule 13D filed May 12, 2011 ("Initial 13D"), as amended by Amendment No. 1 to the Initial 13D filed July 14, 2011 ("First Amendment"), remains unchanged.

Item 3. Source and Amount of Funds or Other Consideration

This Amendment No. 2 relates to a disposition in connection with a Loan and Pledge Agreement. The reporting person used personal funds for acquisitions totaling less than 1% of the Company's common stock since the date of the First Amendment.

Item 4. Purpose of Transaction

The disclosure previously provided in Item 4 of Schedule 13D is hereby amended to include the following additional disclosure:

The reporting person pledged the Shares to the Lender in exchange for loan proceeds equal to 70% of the fair market value of the Shares (based on a 3 day average closing price), less a 5% origination fee. The reporting person may use the loan proceeds to purchase additional shares of the Company's common stock. The other actions enumerated in Item 4 are not applicable.

Item 5. Interest in Securities of the Issuer

- (a) The reporting person beneficially owns 12,061,000 shares, which includes 134,412 shares underlying warrants and 25,000 shares subject to employee stock options held by the reporting person's spouse. The reporting person's beneficial ownership represents approximately 28.4% of the issued and outstanding shares of the Company's common stock.
- (b) Except for 25,000 shares underlying stock options held by the reporting person's spouse, the reporting person has the sole power to vote and dispose all of the shares he beneficially owns.
- (c) The reporting person transferred 1,000,000 shares to the lender in connection with Loan and Pledge Agreements in exchange for 70% of the fair market value (based on a 3 day average closing price) for the Shares, less a 5% loan origination fee. The Lender must return an equal number of shares to the reporting person when the loan is repaid. The reporting person also purchased 74,451 shares on the open market within the past 60 days.
- (d) N/A
- (e) N/A

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The reporting person entered into a Loan Agreement and a Pledge Agreement with Equities First Holdings, LLC. The Loan and Pledge Agreements required the transfer of the Shares to the Lender, and the Lender is required to return an equal number of Shares to the reporting person when the loan is repaid. The reporting person will not have any voting rights with respect to the Shares during the term of the loan. The disclosure in this Item 6 is qualified in its entirety by reference to the actual agreements which are attached hereto as Exhibits 99.1 and 99.2 and incorporated by reference herein.

Item 7. Material to be Filed as Exhibits

A copy of the Loan Agreement referenced in Item 6 is attached as Exhibit 99.1, and a copy of the Pledge Agreement is attached as Exhibit 99.2.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

6/5/12

Date

/s/ Guy S. Cook

Signature

Guy S. Cook

Name/Title

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative (other than an executive officer or general partner of the filing person), evidence of the representative's authority to sign on behalf of such person shall be filed with the statement: provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C 1001)

Exhibit Index

<u>No.</u>	<u>Description</u>
99.1	Loan Agreement
99.2	Pledge Agreement

LOAN AGREEMENT

This Loan Agreement dated June 4, 2012, is between Guy S. Cook having an address of 246 Painted Hills Road, Bozeman, MT 59715 ("Borrower") and Equities First Holdings, LLC, a Delaware limited liability company having a place of business at 10 West Market Street, Suite 3050, Indianapolis, IN 46204 (the "Lender").

WITNESSETH

WHEREAS, the Borrower has requested that the Lender provide a loan to be secured by collateral of the Borrower, which collateral will be used, liquidated, sold or otherwise utilized by the Lender during the term of the loan;

WHEREAS, the Lender is willing to furnish such loan, but only upon the terms and conditions contained herein, including, without limitation, the execution, delivery, and, where appropriate, the filing or recording of certain security instruments; and

NOW THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt of which is hereby acknowledged, it is hereby agreed as follows:

SECTION 1

DEFINITIONS

1.1 **Defined Terms.** As used in this Agreement, the following terms shall have the following meanings:

"**Agreement**" shall mean this Loan Agreement including any Exhibit and Schedules hereto and as amended or supplemented from time to time.

"**Closing Statement**" shall mean a statement in the form attached to this Agreement as Exhibit 1, which Closing Statement shall be delivered by the Lender to the Borrower contemporaneously with the funding of the Loan.

"**Currency**" the parties agree that all loans shall be priced, closed and funded in United States of American Dollars ("USD"). If the Pledged Collateral is a security or instrument which is priced and traded in a market and currency other than USD, the parties agree to convert to USD for all purposes and calculate the currency exchange rate to USD from the currency of the market in which the security or instrument is traded as set forth herein.

"**Currency Exchange Rate**" the parties agree that to calculate the currency exchange rate from any currency other than USD into USD equivalent they will utilize and rely upon the Wall Street Journal ("WSJ") U.S. Dollar foreign exchange rate daily closing price for the same three consecutive Exchange Business Days as utilized to establish the "Fair Market Value

("FMV") as defined herein and average the daily exchange rate closing price for those same three days to establish the exchange rate.

"Event of Default" shall mean any of the events specified in Section 8.1 hereof.

"Exchange Business Day" shall mean any day that is a trading day on national or international securities exchanges.

"Fair Market Value" ("FMV") shall mean with respect of the shares provided as Pledged Collateral if the principal market for the Pledged Collateral is a national or international securities exchange or the OTC Bulletin Board Services, the National Quotation Bureau, Incorporated or a comparable service, the average of the last sale on three consecutive Exchange Business Days shall be the price per share of the Pledged Collateral and establish its Fair Market Value. If the Pledged Collateral consists of shares of more than one security, the Fair Market Value shall be calculated as a weighted average of the entire portfolio (as identified in "Schedule I"), based on the three consecutive exchange business days last sale price.

"Lien" shall mean, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset.

"Loan Principal Amount" shall mean the amount of monies borrowed by Borrower from Lender under Section 2.1 hereof.

"Loan Documents" shall mean collectively, this Agreement, the Pledge Agreement, the Closing Statement, and any other agreements, documents, instruments or statements delivered in connection with the Loan. Each to be contemporaneously executed and read and construed together in a manner so as to give meaning and effect to all their provisions.

"Obligations" shall mean all obligations and liabilities of the Borrower to Lender of every kind, nature and description, present or future, direct or indirect, secured or unsecured, absolute or contingent, matured or not, due or to become due, now existing or hereafter arising, regardless of how they arise or by what agreement or instrument or whether evidenced by any agreement or instrument, including, without limitation, (i) the payment in full when due of the Loan and all interest thereon, the payment of all amounts payable by the Borrower to the Lender under the terms of the Loan Agreement or any other Loan Document and the payment and performance in full when due of all other liabilities and obligations of the Borrower to the Lender under the Loan Agreement and the other Loan Documents and (ii) the observance and performance by the Borrower of the obligations to be observed and performed by it hereunder or under any related agreement, instrument or document.

"Person" shall mean any individual, corporation, company, voluntary association, partnership, joint venture, trust, unincorporated organization or government (or any agency, instrumentality or political subdivision thereof).

"Pledge Agreement" shall mean the Pledge Agreement, by which the Pledged Collateral is pledged to the Lender.

"Pledged Collateral" shall mean up to 1,000,000 shares of Bacterin International Holdings, Inc. (BONE), whether physical or electronic, evidencing such shares (collectively, the "Pledged Shares") and all cash, instruments, securities or other property representing a dividend or other distribution on any of the Pledged Shares, or representing a distribution or return of capital upon or in respect of the Pledged Shares, or resulting from a split-up, revision, reclassification or other like change of the Pledged Shares or otherwise received in exchange therefore, and any warrants, rights or options issued to the holders of, or otherwise in respect of, the Pledged Shares, and all proceeds thereof.

"Valuation Event" shall mean that the Fair Market Value of the Pledged Collateral shall at any time be less than eighty percent (80%) of the then Loan Principal Amount as reflected by the three-day average of the last sale on a national or international securities exchange or the OTC Bulletin Board Services, the National Quotation Bureau, Incorporated or a comparable service. See Section 8.1(i) for full definition and effect.

1.2 **Use of Defined Terms.** All terms defined in this Agreement shall have such defined meanings when used (without repeating the definition) in the Pledge Agreement or other documents made or delivered in conjunction with this Agreement.

1.3 **Lender's Discretion.** Whenever the terms "satisfactory to," "determined by," "acceptable to," "shall elect," "shall request," or similar terms are used in this Agreement or any of the other Loan Documents to apply to Lender, except as otherwise specifically provided herein or therein, such terms shall mean satisfactory to, at the election of, determined by, acceptable to, or requested by, as applicable, Lender, in its sole discretion.

1.4 **Statements as to Knowledge.** Any statements, representations or warranties which are based upon the knowledge of the Borrower shall be deemed to have been made after due inquiry with respect to the matter in question but without Borrower being required to seek an opinion of counsel with respect thereto.

SECTION 2

AMOUNT AND TERMS OF LOAN

2.1 **Loan Principal Amount.** Subject at all times to all of the terms and conditions of this Agreement, the Lender agrees to lend to the Borrower funds equal to 70% of the current Fair Market Value of 1,000,000 shares (or such lesser amount if necessary to reduce the number of shares to satisfy the Rule 144 volume limitations as of the date the Form 144 is filed) of Bacterin International Holdings, Inc. (BONE), on three consecutive Exchange Business Days on a national or international exchange or the OTC Bulletin Board Services, the National Quotation Bureau, Incorporated or a comparable service if Bacterin International Holdings, Inc. (BONE) is not traded on a national or international exchange (the "Loan Principal Amount"). If the Pledged Collateral consists of shares of more than one security, the Fair Market Value shall be calculated as a weighted average of the entire portfolio (as identified in "Schedule 1"), based on the three consecutive exchange business days last sale price as defined in Section 1.1, "Fair Market Value." The Loan Principal Amount shall be funded no later than the Closing Date and shall be

memorialized in a Closing Statement in the form of Exhibit 1 hereto, which is hereby incorporated by reference.

2.2 Interest Rate.

(a) The Borrower shall pay to the Lender simple interest on the Loan Principal Amount for the term of the Loan at a fixed interest rate of 3.85%, provided that the rate of interest shall never exceed that permitted by applicable law.

(b) The Loan shall bear interest on the Principal Amount for each day from the Closing Date until the Maturity Date. Interest on the Principal Amount shall be computed on the basis of a 360-day year for the actual number of days elapsed and shall be due and payable quarterly commencing ninety (90) days from the Closing Date, for the preceding three months.

(c) The payment of interest will be overdue if not received by the Lender within ten (10) calendar days of the due date. Any overdue interest payment shall incur a penalty of seven percent (7%) of the amount due. If the overdue interest payment plus the penalty is not received by the Lender within thirty (30) days of the original due date the Lender will send a notice to the Borrower advising the Borrower that the loan will terminate under the default provisions of this Agreement if the payments due are not received by the Lender within five (5) days from the date this final notice was sent.

2.3 Loan Origination Fee. Contemporaneous with the funding of the Loan by the Lender on the Closing Date, the Borrower shall pay to the Lender an agreed upon loan origination fee of 5% of the Loan. The Lender is authorized to deduct the loan origination fee from the principal amount being borrowed, if a fee is charged.

2.4 Term of Loan and Maturity of Loan. The Loan shall mature, and the Principal Amount together with all accrued interest thereon shall be due and payable three (3) years subsequent to the occurrence of the Closing Date (the "Maturity Date" or "Maturity"). No prepayment of the Principal Amount or of any interest due under the Loan is allowed. The Maturity Date may be extended by the Lender, but only in writing and on such terms and conditions as the Lender and Borrower may agree upon in writing. The term of the Loan and this Agreement shall begin on the Closing Date and end on the Maturity Date (the "Loan Term"). The Closing Date shall be set in accordance with Section 2.10 of this Agreement and the Closing Statement shall identify the Closing Date.

2.5 Authority and Right to Sell and Buy Pledged Collateral. The Borrower acknowledges that the Lender has the absolute right to sell and buy any or all of the Pledged Collateral during the term of this Agreement and the Loan Documents. In the event of a diminution in the fair market value of the Pledged Collateral, the failure of the Lender to dispose of the Pledged Collateral shall under no circumstances be deemed a failure to exercise reasonable care in the custody or preservation of the Pledged Collateral. Any such sale or other disposition of any Pledged Collateral shall be deemed to be commercially reasonable under the Uniform Commercial Code, fully authorized and approved by the Borrower pursuant to this Loan Agreement and the Loan Documents, and otherwise proper in all respects.

2.6 Actions By Lender Related to Pledged Collateral. Borrower further acknowledges and agrees that as long as the Loan Principal Amount or the Obligations remain due and outstanding, Lender may take any and all actions with respect to the Pledged Collateral as the Lender, in its sole and absolute discretion, may deem to be advisable, including, without limitation, selling and buying some or all of the Pledged Collateral during the term of this Agreement and the Loan Documents, utilizing the Pledged Collateral as a part of hedging transactions, transferring the Pledged Collateral within or among one or more depository accounts, and creating and trading derivative instruments that are backed, in whole or in part, by the Pledged Collateral. Lender is under no obligation to sequester, hold, retain or escrow the Pledged Collateral in any manner, nor keep it apart from any other assets of Lender, and Lender may combine the Pledged Collateral, in whole or in part, with any other assets.

2.7 Payment of Principal Amount and Interest on Maturity Date. Repayment of the Loan Principal Amount plus any other Obligations due to the Lender, including but not limited to interest due on the Principal Amount, shall be made on the Maturity Date. If Lender has not received the full Principal Amount and all other Obligations due to the Lender in immediately available funds before the close of business of ten (10) calendar days after the Maturity Date, Borrower shall pay to Lender a late charge equal to the five percent (5%) of the amount of the Principal Amount that is then due. Such late charges shall be assessed only once, but shall be in addition to and cumulative with all other interest charges, rights, benefits and remedies available to Lender under any of the Loan Documents on account of any default by Borrower.

This Section 2.7 does not modify or supersede the Lender's rights under Section 2.5 of this Loan Agreement or under the Pledge Agreement to sell any or all of the Pledged Collateral during the term of the Loan or otherwise take actions with respect to the Pledged Collateral nor does it require that the Lender apply the proceeds of the sale of any Pledged Collateral that may occur during the term of the Loan to reduce the Loan Principal Amount or any other obligations.

2.8 Application of Payments. Any funds received as payment from or on behalf of the Borrower (whether pursuant to any of the terms and provisions of the Loan Documents or otherwise) shall be applied by Lender to the following items in the following manner:

- (i) first, if applicable, to the payment to or reimbursement of Lender for any fees and expenses for which it is entitled to be paid or reimbursed pursuant to the Loan Documents;
- (ii) second, if applicable, to any interest compounding at the Default Rate;
- (iii) third, to the payment of any accrued and unpaid interest due under the Loan Agreement; and
- (iv) fourth, to such use as the Lender may elect (it being understood that Lender shall have no obligation to credit such payment to principal except to the extent that principal is due).

2.9 **Prepayment.** There is no prepayment of the Principal Amount or of any interest due under the Loan permitted during the Loan Term. Borrower acknowledges that if the Loan or any interest due under the Loan are paid for any reason prior to the Maturity Date, the Lender will incur losses and damages and will be deprived the benefit of its bargain.

2.10 **Closing.** No later than five Exchange Business Days from the satisfaction of the conditions to Lender's Obligations set forth in Section 6 herein, the Closing shall occur (the "Closing Date"). Lender shall provide the Closing Statement to the Borrower prior to the Closing Date, which shall provide notice to the Borrower of the Closing Date. The Lender has the discretion and right to elect not to proceed with any loan transaction with the Borrower up until the completion of the Closing. On the Closing Date, the Loan (less any origination fee, costs or expenses, if applicable and as set forth in the Closing Statement, not satisfied in cash by the Borrower) shall be funded by wire transfer to the account of record for the Borrower as follows:

Bank/Institution Name:	Valley Bank
ABA Routing Number:	092901641
Account number:	3017044899
For Benefit of:	Guy S. Cook

2.11 **Termination and Redelivery of the Pledged Collateral.** This Agreement shall terminate when all of the Borrower's Obligations have been paid in full. Within five business days of the Borrower's satisfaction of the Obligations, the Lender shall reassign all right, title, ownership and interest in identical securities, as described in IRC § 1058, to the Borrower and redeliver the Pledged Collateral, without recourse or warranty, at the sole expense of the Lender. The Lender shall also deliver appropriate instruments of reassignment and release. Provided, however, that this Agreement shall be reinstated if any payment in respect of the Obligations is rescinded, invalidated, declared to be fraudulent or preferential or otherwise required to be restored or returned by the Lender for any reason, including without limitation by reason of the insolvency or bankruptcy of the Borrower or any other person. For the purpose of this Loan Agreement and the Loan Documents, a return of identical securities means a return of the Pledged Shares as modified as a result of any split-up, revision, reclassification or other like change of the Pledged Shares. Any cash or shares tendered to buy down the Loan due to the occurrence of an Event of Default are not subject to redelivery and do not become part of the Pledged Collateral.

SECTION 3

NATURE OF LOAN AND PLEDGE

3.1 **Non-Recourse Loan and Pledge.** The Lender agrees, for itself, its representatives, successors and assigns that: (i) neither the Borrower, nor any representative, successor, assign or affiliate of the Borrower, shall be personally liable for the Principal Loan Amount; and (ii) the Lender, and any such representative, successor or assignee, shall look only to the property identified in this Pledge Agreement for payment of the Obligations and will not make any claim or institute any action or proceeding against the Borrower, or any representatives, successors, assigns or affiliate of the Borrower, for any deficiency remaining after collection upon the Pledged Collateral, except as provided below.

Provided, however, notwithstanding the foregoing, the Borrower is and will remain personally liable for any deficiency remaining after collection of the Pledged Collateral to the extent of any loss suffered by Lender, or its representatives, successors, endorsees or assigns, is caused by Borrower based in whole or in part upon damages arising from any fraud, misrepresentations or the breach of any representation, warranty or agreement in the Loan Documents.

SECTION 4

REPRESENTATIONS AND WARRANTIES OF BORROWER

Borrower represents and warrants to Lender that:

4.1 **No Liens or Restrictions.** As of the date of this Agreement, the shares of stock constituting the Pledged Collateral are owned by the Borrower, and the Borrower will deliver shares that are free of any restriction, are freely tradable and transferable securities that do not have any restrictive legend.

4.2 **Consents.** This Agreement and all the other Loan Documents executed by and to be executed by Borrower constitute valid and binding obligations of Borrower enforceable in accordance with their respective terms and are to be construed and interpreted as a whole, the same being part of an integrated transaction. To the Borrower's knowledge, no consent of any other party and no consent, license, approval, or authorization of any governmental authority is required in connection with the borrowing by Borrower hereunder, the execution, delivery, and performance of this Agreement, and any of the other Loan Documents executed or to be executed in connection herewith.

4.3 **No Conflicts.** The borrowing by the Borrower hereunder and the execution and delivery by the Borrower of this Agreement and any other Loan Documents executed and to be executed by Borrower, do not conflict with or result in the breach of any agreement, mortgage or similar instrument under which Borrower or any of their properties is bound, or, to Borrower's knowledge, any law, rule, or regulation of any governmental agency applicable to him or said properties.

4.4 **Litigation.** There is no action or proceeding pending or, to the knowledge of Borrower, contemplated or threatened against Borrower before or by any court, arbitrator, grand jury or administrative agency, any governmental authority, bureau, agency, or instrumentality which might reasonably foreseeable result in a material adverse change in the financial condition of Borrower.

4.5 **No Defaults.** Borrower is not in default in the payment or performance of any of his obligations or in the performance of any contract, agreement or other instrument to which he is a party or by which any of his assets or properties may be bound.

4.6 **Margin Stock.** The Borrower is not engaged, directly or indirectly, in the business of obtaining credit for the purpose of purchasing or carrying any margin stock (as defined in Regulation U of the FRB, 12 CFR Part 221, "Margin Stock").

4.7 **No Contrary Liens.** Borrower covenants that so long as the Loan or any Obligations to the Lender remain outstanding and unpaid, the Borrower shall not without Lender's express prior written consent, create, assume or suffer to exist any Lien of any kind upon any of the Pledged Collateral, except for liens and security interests in favor of Lender.

SECTION 5

REPRESENTATIONS AND WARRANTIES OF LENDER

Lender represents and warrants to Borrower that:

5.1 **Margin Stock.** The Lender is not engaged, directly or indirectly, in the business of providing credit for the purpose of purchasing or carrying any margin stock (as defined in Regulation U of the FRB, 12 CFR Part 221, "Margin Stock").

5.2 **Short Selling.** The Lender is not engaged, directly or indirectly, in short selling any security by borrowing the shares from any entity or person and later buying shares in the same security, then returning the borrowed shares in an effort to make a profit.

5.3 **Front Running.** The Lender is not engaged, directly or indirectly, in buying or selling ahead of ("front running") the arrival of the Pledged Collateral.

SECTION 6

CONDITIONS TO LENDER'S OBLIGATIONS

The obligation of the Lender to make the Loan is subject to the satisfaction of the following conditions precedent (to the satisfaction of the Lender):

6.1 **Pre-Closing Deliveries.** The Borrower shall have delivered to the Lender:

- a. the Pledge Agreement duly executed by the Borrower; and

- b. the stock in electronic form representing the Pledged Collateral. Instructions for electronic transfer of stock to Lender are as follows:

Name of Firm:	The Bank of New York Mellon
DTC Code:	0954
Account Name:	Equities First Holdings, LLC
Account Number:	10570423100

6.2 **Legal Matters.** All matters and all documentation and other instruments in connection with the Loan shall be satisfactory in form and substance to Lender and its counsel, and counsel to Lender shall have received copies of all documents which it may reasonably request in connection with the Loan.

6.3 **Regulations.** The making of the Loan by Lender to Borrower and the execution, delivery and performance of any documents or agreements shall be in compliance with any applicable laws and government regulations imposed upon Lender and the Borrower.

6.4 **No Judgment and Litigation.** Lender shall have received evidence that (i) there exists no judgment, order, injunction or other restraint issued or filed which prohibits the making of the Loan or the consummation of the other transactions contemplated hereby, and (ii) no action, suit, litigation or similar proceeding at law or in equity by or before any court, governmental authority, or agency exists or is threatened with respect to the transactions contemplated hereby.

SECTION 7

AFFIRMATIVE COVENANTS

Borrower hereby covenants that, so long as the Loan or any Obligations to the Lender remain outstanding and unpaid, Borrower shall, unless otherwise consented to in writing by Lender:

7.1 **Notices.** Promptly give notice in writing to Lender of (a) the occurrence of any Default or Event of Default under this Agreement or any other Loan Document or (b) of any default whether or not any requirement for the giving of notice or the lapse of time or both has been satisfied under any instrument or agreement of Borrower which could have a materially adverse effect on the Pledged Collateral.

7.2 **Notice of Litigation and Other Matters.** Promptly upon learning of (a) the institution of any investigation or proceeding by any governmental authority or agency; or (b) any action, suit, proceeding which names as a party or may affect the Borrower. Borrower shall give notice to the Lender of any of the foregoing events describing the substance and status of the matter involved.

SECTION 8

EVENTS OF DEFAULT AND REMEDIES

8.1 Events of Default. An "Event of Default" shall exist if any one or more of the following shall occur:

(a) Failure by Borrower to pay the Interest when due or the Principal Amount when due or any other Obligations when due to the Lender within ten calendar days of the date when due, whether on the Interest due date, the Maturity Date or any earlier date resulting from acceleration; or

(b) If any representation or warranty made by Borrower in this Agreement or in any statement furnished at or in contemplation of the Closing Date or pursuant to this Agreement or any other Loan Document shall prove to have been knowingly untrue or misleading in any material respect at the time made; or

(c) Default by Borrower in the performance of or observance of any covenant or agreement contained in this Agreement or default in any other Loan Document which is not cured within a reasonable time; or

(d) If an Event of Default under the Pledge Agreement shall occur which is not cured within a reasonable time; or

(e) If the stock provided as Pledged Collateral is removed from a national or international securities exchange, or trading is halted for more than three Exchange Business Days by a regulatory agency, or if the company goes private and has the stock tendered as Pledged Collateral is no longer publicly traded on the national or international securities exchange; or

(f) If Borrower shall make a general assignment for the benefit of creditors or consent to the appointment of a receiver, liquidator, custodian, or similar official of all or substantially all of his properties, or any such official is placed in control of such properties, or Borrower admits in writing his inability to pay his debts as they mature, or the Borrower shall commence any action or proceeding or take advantage of or file under any federal or state insolvency statute, including, without limitation, the United States Bankruptcy Code, seeking to have an order for relief entered with respect to him or seeking adjudication as a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution, or other relief with respect to him or his debts; or

(g) The Pledge Agreement shall cease to create at any time and for any reason a valid and perfected first priority security interest in and to the property subject thereto or the validity or priority of such security interest shall be contested by Borrower or by any other Person; or any of the other Loan Documents shall at any time after their execution and delivery for any reason cease to be in full force and effect or shall be declared null or void, or the validity or enforceability thereof shall be contested by Borrower or by any other Person; or

(h) There shall be commenced against Borrower any action or proceeding of the nature seeking issuance of an attachment, execution, distraint, or similar process against all or any substantial part of the property of Borrower, which results in the entry of an order for relief which remains undismissed, undischarged or unbonded for a period of sixty (60) days; or

(i) If the Fair Market Value of the Pledged Collateral shall at any time be less than eighty percent (80%) of the amount of the Loan Principal Amount as reflected by the three-day average of the last sale on a national securities exchange. If the Pledged Collateral consists of shares of more than one security, the Fair Market Value shall be calculated as a weighted average of the entire portfolio (as identified in "Schedule 1"), based on the three consecutive exchange business days last sale price as defined in Section 1.1, "Fair Market Value." In such event, the Lender shall provide written notice of this Event of Default and the Borrower shall have five (5) business days commencing on the date the written notice is sent to cure in cash or stock equivalent, the deficiency. Upon receipt of notice from the Lender, the Borrower must cure this default by the delivery to the Lender of additional cash or shares of Bacterin International Holdings, Inc. (BONE) in the amount demanded by the Lender. The Lender shall have the right to demand the payment of cash or stock equivalent and shall have no obligation to accept shares of Bacterin International Holdings, Inc. (BONE) if the Lender elects to demand a cure in the form of cash. The provision of additional cash or free-trading shares serve to buy down the Loan to the new lower minimum Fair Market Value for the Pledged Collateral. Such additional cash or securities tendered by the Borrower serve only to buy down the minimum Fair Market Value of the Pledged Collateral pledged and securing the Obligations. Such additional buy down cash or shares do not become part of the original Pledged Collateral and are not subject to redelivery at Maturity. At origination the Borrower and the Lender agreed to a minimum Fair Market Value for the Pledged Collateral for the Loan. The payment of additional cash or securities establishes a new lower minimum Fair Market Value for the Loan and reflects a higher risk threshold for the Lender and Borrower alike.

8.2 Lender's Rights Upon Default. Upon the occurrence of an Event of Default which remains uncured, the Loan, together with any accrued and unpaid interest thereon, shall be immediately due and payable without notice or demand, presentment, or protest, all of which are hereby expressly waived.

At any time after the occurrence of an Event of Default which remains uncured, Lender may exercise the rights and remedies afforded to it under any of the Loan Documents with respect to the Pledged Collateral and may take, sell or otherwise dispose of any remaining Pledged Collateral then held as the Lender's own property. Borrower agrees that Lender may or may not proceed, as it determines in its sole discretion, with any or all rights, benefits, and remedies which it may have against Borrower and agrees that the Lender may exercise a right of acceleration in the event of the occurrence of an Event of Default which remains uncured.

SECTION 9

ARBITRATION

9.1 Any claim, dispute, or controversy ("Claim") arising from or relating to this Agreement or the relationships resulting from this Agreement, wherever and by whomever commenced, shall, upon delivery of a written notice demanding arbitration to the other party (including a written notice after the commencement of a lawsuit or a notice contained in court filings in any such lawsuit), be resolved by binding arbitration pursuant to the Federal Arbitration Act, 9 USC §§ 1 *et seq.*, this agreement, and the applicable rules of the American Arbitration Association ("AAA") or JAMS in effect at the time of the written notice demanding arbitration. The term "Claim" as used in this Agreement is to be given the broadest possible meaning, and includes but is not limited to claims, disputes, or controversies arising from or relating to soliciting, originating, closing, or enforcing the transaction that is the subject of the Loan Documents.

9.2 Borrower may select which of AAA or JAMS to use for purposes of administering an arbitration governed by this Agreement. The address, telephone number, and web site containing applicable rules for each of these arbitration administrators is as follows:

AAA
Corporate Headquarters
1633 Broadway, 10th Floor
New York, New York 10019
212-716-5800
www.adr.com

JAMS
71 South Wacker Drive
Suite 3090
Chicago, IL 60606
312-655-0555
www.jams.adr.com

If Borrower fails to select an arbitration administrator within thirty (30) days from the date you or we deliver notice demanding arbitration, Lender will choose one. Any arbitrator must be a commercial lawyer with more than ten (10) years of experience in a regionally recognized law firm or a retired Federal judge or judge who served as a regular member of a state court of intermediate or final appellate jurisdiction.

9.3 Arbitrations seeking monetary relief less than \$100,000.00 in the aggregate will be held within the federal judicial district encompassing the city where Borrower resides or is located. Arbitrations seeking monetary relief of \$100,000.00 or more in the aggregate will be held in Indianapolis, Indiana.

9.4 Lender will pay up to \$2,500.00 in fees charged by the arbitration administrator for Claim(s) asserted by Borrower in the arbitration, after Borrower has paid an amount equivalent to the fee, if any, had such Claim(s) been filed in state or federal court (whichever is less) in the judicial district in which Borrower resides or is located.

9.5 THIS AGREEMENT IS FULLY BINDING IN THE EVENT THAT A CLASS ACTION OR SIMILAR LAWSUIT IS FILED IN WHICH BORROWER WOULD BE A CLASS REPRESENTATIVE OR MEMBER. BORROWER AND LENDER AGREE THAT THERE SHALL BE NO CLASS OR CONSOLIDATED ARBITRATION OF ANY CLAIM. FURTHERMORE, CLAIMS BROUGHT BY OR ON BEHALF OF OTHER BORROWERS MAY NOT BE CONSOLIDATED WITH OR ARBITRATED IN ANY ARBITRATION PROCEEDING THAT IS CONSIDERING BORROWER'S CLAIMS UNLESS SAID OTHER BORROWERS ARE PARTIES TO THE SAME LOAN AGREEMENT. SIMILARLY, BORROWER MAY NOT JOIN WITH OTHER BORROWERS TO BRING CLAIMS IN THE SAME ARBITRATION PROCEEDING UNLESS ALL OF SUCH OTHER BORROWERS ARE PARTY TO THE SAME LOAN TRANSACTION.

SECTION 10

MISCELLANEOUS

10.1 **Notices.** All notices, requests or other communications to either of the parties by the other shall be in writing and shall be deemed duly given on the earlier of the date the same is delivered in person or when deposited in the United States mail, certified or registered, postage prepaid, return receipt requested, as follows:

If to Lender:

Equities First Holdings, LLC
10 West Market Street
Suite 3050
Indianapolis, IN 46204

If to the Borrower:

Guy S. Cook
246 Painted Hills Road
Bozeman, MT 59715

Either party may designate by notice in writing to the other a new address to which notices, requests and other communications hereunder shall be given.

10.2 Acceleration of Maturity Due to Change in Collateral. "Change in Collateral" shall mean and have occurred if substantially all of the stock or securities of the Company which issued the Pledged Collateral is acquired in a cash or stock and cash transaction and the stock or security representing the Pledged Collateral ceases to be traded on a national or international securities exchange or the OTC Bulletin Board Services, the National Quotation Bureau, Incorporated or a comparable service.

(a) In the event that a Change of Collateral, as defined above, does occur, and the stock or securities of the Company which issued the Pledged Collateral is acquired in a cash or stock and cash transaction then the Maturity Date for this Loan and Pledge Agreement are automatically accelerated so that these Agreements mature, as defined in section 2.4 herein, 45 days after the actual acquisition and closing date of the Change in Collateral event. Under those circumstances the Borrower and the Lender agree to and shall proceed as follows:

(1) In the event that a Change of Collateral as defined above does occur, the Pledged Collateral will be valued by utilizing the final takeover price or acquisition price at the time of the Change in Collateral closing date multiplied by the total number of shares received as Pledged Collateral. This sum of the number of shares of Pledged Collateral multiplied by the per share acquisition price, be it cash or cash plus stock valued as of the closing date, shall represent the sole and only purchase price value of the Pledged Collateral resulting from the Change in Collateral.

(2) The Borrower remains Obligated under section 2.7 herein to repay the Loan Principal Amount plus any accrued or unpaid interest on the Loan Principal Amount but said amounts will be subtracted by the Lender from the purchase price value of the Pledged Collateral as calculated in paragraph 10.2(a) above.

(3) The Borrower is further additionally obligated to pay an additional Early Termination Fee, as calculated in paragraph 10.2(a)(4) below, as a result of this acceleration of maturity due to this change in collateral which deprives the Lender of the essential benefits of its bargain rate but said amount will be subtracted by the Lender from the purchase price value of the Pledged Collateral as calculated in paragraph 10.2(a) above. Borrower acknowledges that Acceleration of Maturity due to Change in Collateral deprives the Lender of the benefit of its negotiated bargain rate because the Lender will forgo its expectation of earnings from the proceeds of rehypothecation or sale of the Initial Collateral and will be exposed to certain risks that Borrower has agreed to bear under the terms of this agreement.

(4) The Early Termination Fee shall be calculated and assessed using the following defined terms and formula:

- (i) "FMV" is defined as the Fair Market Value of the Pledged Collateral as defined in the Loan Agreement and reflected on the Loan Closing Statement;
- (ii) "T" is defined as the term of the loan expressed in number of years as set forth in Section 2.4 of the Loan Agreement.

- (iii) "Int. Rate" is defined as the Interest Rate established and agreed to in the Loan Agreement.
- (iv) "BBR" is defined as the benefit of the bargain rate of return over time and is hereby set as two percent (2%) as a bargain rate.
- (v) "N" is the number of days remaining to maturity divided by the total number of days of the Loan as established by the Closing Statement;
- (vi) the formula for calculating the Early Termination Fee is as follows:

$$\text{FMV multiplied by } [(\text{Int. plus BBR}) \text{ multiplied by } T \text{ multiplied by } N] = \text{the Early Termination Fee (ETF) amount or algebraically } \text{FMV} \times [(\text{Int} + \text{BBR}) \times T \times N] = \text{ETF}$$

This results in an early termination fee which declines over time on a per diem basis.

(5) If the purchase price value of the Pledged Collateral, as calculated in paragraph 10.2(a) above, is an amount which is greater than the payment Obligations owed by the Borrower, as set forth in paragraphs (2)-(4) above, then any net excess purchase price proceeds will be paid by the Lender to the Borrower within 5 business exchange days. If the purchase price value of the Pledged Collateral is an amount which is less than the payments owed by the Borrower as set forth in paragraphs (2)-(4) above, then any net excess purchase price proceeds remain the property of the Lender and no payments are due from the Lender to the Borrower. In each event the Loan and Pledge Agreement are terminated at Maturity.

(b) In the event that a Change of Collateral occurs which results from the stock or securities of the Company which issued the Pledged Collateral being acquired in an all stock transaction where substantially all of the stock or securities of the Company which issued the Pledged Collateral is acquired in a stock transaction and the stock or security representing the Pledged Collateral ceases to be traded on a national or international securities exchange or the OTC Bulletin Board Services, the National Quotation Bureau, Incorporated or a comparable service, then that new security, stock or share instrument is substituted for and becomes the Pledged Collateral and there is no acceleration of the maturity date for the Loan and Pledge Agreements. The Loan and Pledge remain intact because there has been a substitution of Pledged Collateral. At maturity the Borrower remains obligated under the terms of the Loan and Pledge Agreements and the Lender will be obligated to redeliver the Pledged Collateral pursuant to paragraph 2.11 recognizing that the new security, stock or share instrument is substituted for and becomes the Pledged Collateral. The number of shares to be redelivered shall be determined by multiplying the number of shares of the original Pledged Collateral by the number of shares

of the acquiring stock which would reflect the final buyout ratio of acquiring stock to the acquired stock.

10.3 Construction. This Agreement, the Pledge Agreement, and all instruments or agreements delivered hereunder shall be governed by and construed in accordance with the laws of the State of Indiana, excluding there from any principles of conflicts of laws. If any of the provisions of this Agreement shall be or become illegal or unenforceable under any law, the other provisions shall remain in full force and effect.

10.4 Further Assurances. Borrower hereby agrees to execute and deliver such further instruments and documents as may be reasonably requested by Lender in order to carry out fully the intent and accomplish the purposes of this Agreement and the transactions referred to herein. Borrower agrees to take any action which Lender may reasonably request in order to obtain and enjoy the full rights and benefits granted to Lender by this Agreement and each other agreement, instrument and document delivered to Lender in connection herewith, including specifically, at Borrower's own cost and expense, the use of its best efforts to assist in obtaining consent of any government agency or self-regulatory organization for an action or transaction contemplated by this Agreement which is then required by law.

10.5 Survival of Agreements. Except as herein provided, all agreements, representations and warranties made herein and in any statement delivered pursuant hereto, shall survive the execution and delivery of this Agreement or any of the Loan Documents, and shall continue in full force and effect until the indebtedness of Borrower under the Loan Documents has been paid in full.

10.6 Entire Agreement. This Agreement and all other Loan Documents contain the entire agreement between the parties hereto and may be amended, changed or terminated only by an instrument in writing signed by the parties hereto.

10.7 Waivers. No failure to exercise and no delay in exercising, on the part of Lender, any right, power or privilege under this Agreement or under any of the Loan Documents, or any agreement or instrument delivered to Lender hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any such right, power or privilege preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver of any provision of this Agreement or in any of the Loan Documents shall be effective unless agreed to in writing by the Lender and any such waiver shall not constitute a waiver in the future of any of the provisions of any of the foregoing documents, except as may be specifically provided in any such waiver. No notice to Borrower from Lender shall entitle Borrower to any other or further notice in any circumstance unless expressly provided for in such notice or this Agreement. No course of dealing between Borrower and Lender shall operate as a waiver of any of the rights of Lender under this Agreement.

10.8 Gender and Number. Unless the context otherwise requires, when used herein, the singular includes the plural, and vice-versa, and the masculine includes the feminine and neuter, and vice-versa.

10.9 **Captions.** Captions used herein are inserted for convenience only and shall not be given any legal effect.

10.10 **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

10.11 **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the Lender and its respective successors and assigns. The rights and obligations of Borrower hereunder may not be assigned or transferred in any respect.

10.12 **Confidentiality.** This Agreement and the other Loan Documents are to be kept confidential and are not to be reproduced in any manner whatsoever for Persons other than the parties hereto. Each Party agrees not to circumvent the legitimate interests of the other party and to maintain this transaction in strict confidentiality. Each party agrees to maintain the confidentiality of any trade secrets, techniques, and contracts and contacts of the other party. Each party agrees not to engage in unauthorized communications (i.e. telephone calls, written inquiries, etc.) with the other party's banks, insurers, contracting parties and contacts.

10.13 **Consent to Jurisdiction: Venue; Jury Trial Waiver.** Borrower hereby consents to the jurisdiction of all the courts of the State of Indiana, including Federal Courts, for the purpose of any suit, action or other proceeding arising out of any of Borrower's obligations under or with respect to this Agreement, and expressly waives any and all objections Borrower may have as to venue in any of such courts. In addition, Borrower consents to the service of process by United States certified or registered mail, return receipt request, addressed to Borrower at the address provided herein. Borrower also, to the extent permitted by law, waives trial by jury in any action brought on or with respect to this Agreement and agrees that in the event this Agreement shall be successfully enforced by suit or otherwise, Borrower will reimburse the holder or holders of the Obligations, upon demand, for all reasonable expenses incurred in connection therewith, including, without limitation, reasonable attorneys' fees and expenses.

10.14 **Translations of Agreement.** In the event that this Agreement is translated into a language other than English, such translation is intended to assist the Borrower in understanding the terms and conditions of this Agreement and is not intended, and shall not comprise, an enforceable Agreement. To the extent that any conflict exists between a translation of this Agreement and the English language version of this Agreement, the English language version shall prevail and be conclusive. All notices, communications or documents exchanged under this Agreement or delivered under it shall be in the English language or accompanied by an English translation of it.

10.15 Not a Purpose Loan. No part of the proceeds will be used to:


(a) Purchase any Margin Stock which is subsequently used for a margin loan. Lender acknowledges that Borrower plans to use all or part of the loan proceeds to purchase Bacterin International Holdings, Inc. (BONE) securities.

(Remaining portion of page intentionally left blank)

IN WITNESS WHEREOF, the parties hereto have caused this Loan Agreement to be duly executed and delivered as of the day and year first above written.

BORROWER:

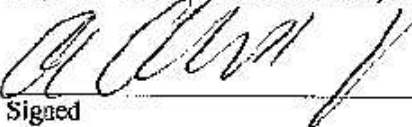
GUY S. COOK

Signed 

Printed Name Guy S. Cook

LENDER:

EQUITIES FIRST HOLDINGS, LLC

Signed 

Al Christy, Jr.
Printed Name

President
Title

IT IS SPECIFICALLY AGREED AND UNDERSTOOD THAT THE TRANSMITTAL OF THIS AGREEMENT DOES NOT CONSTITUTE AN OFFER BY THE PROPOSED LENDER AND THAT THE PROPOSED AGREEMENT SHALL NOT BE BINDING UPON THE PROPOSED LENDER UNLESS ACTUALLY SIGNED BY THE LENDER. MOREOVER, IT IS SPECIFICALLY AGREED THAT THE ENCLOSED DOES NOT REPRESENT A NOTE OR MEMORANDUM OF AGREEMENT UNTIL EXECUTED AND PERFORMED. THE LENDER SHALL BE UNDER NO OBLIGATION TO PROCEED WITH THE CONSUMMATION OF THIS TRANSACTION.



EQUITIES FIRST HOLDINGS LLC

10 West Market Street, Suite 3050
Indianapolis, IN 46204
(317) 429-3500

Closing Statement
_____ , 2012

Re: Loan Agreement dated June 4, 2012 (the "Agreement") by and between Guy S. Cook ("Borrower") and Equities First Holdings, LLC ("Lender")

To: Guy S. Cook
246 Painted Hills Road
Bozeman, MT 59715

This comprises the Closing Statement referred to in the Agreement. Capitalized terms used but not defined herein shall have the meanings given to such terms in the Agreement. No further or additional Closing Statement shall be provided with respect to the Loan set forth in the Agreement. The Closing Date of the Loan shall be _____, 2012.

On _____, 2012, you delivered and posted 1,000,000 shares of Bacterin International Holdings, Inc. (BONE) pursuant to the Agreement. The average of the last sale of Bacterin International Holdings, Inc. (BONE) on three consecutive Exchange Business Days (\$____, \$____, and \$____) is \$____. Accordingly, and calculated based upon a 70% LTV, the loan proceeds to be distributed to Borrower on the Closing Date under the Agreement will be as follows:

Principal Amount of the Loan	\$
Loan Origination Fee (5%)	\$
Net Loan Proceeds to Borrower	\$

The Net Loan Proceeds will be transmitted to you on the Closing Date in accordance with the payment instructions provided in the Agreement. Specifically, to the following:

Bank/Institution Name:	Valley Bank
ABA Routing Number:	092901641
Account Number:	3017044899
Account Name:	Guy S. Cook

The first quarterly interest payment due under the Loan Agreement will be due on August _____, 2012. Please ensure timely payment of this interest payment.

Equities First Holdings LLC appreciates your business and please do not hesitate to contact us at any time should you have any questions or concerns.

EXHIBIT 1

PLEDGE AGREEMENT

BETWEEN

Guy S. Cook, Pledgor

and

Equities First Holdings, LLC, as Lender

This Pledge Agreement is made as of this 4th day of June, 2012, by and between Guy S. Cook having an address of 246 Painted Hills Road, Bozeman, MT 59715 (hereinafter the "Pledgor") and Equities First Holdings, LLC, a Delaware limited liability company, with its principal office located at 10 West Market Street, Suite 3050, Indianapolis, IN 46204 (hereinafter the "Lender").

RECITALS:

The Pledgor and the Lender are entering into a Loan Agreement contemporaneously herewith (the "Loan Agreement") providing for the making of a loan to the Pledgor in the amount, and subject to the terms and conditions, specified in the Loan Agreement.

The Pledgor is the sole legal and beneficial owner of 1,000,000 shares of Bacterin International Holdings, Inc. (BONE).

The execution and delivery of this Pledge Agreement and the pledge by the Pledgor to the Lender of its rights in the Pledged Collateral (as hereinafter defined) constitute conditions precedent to the obligation of the Lender to make a loan to the Pledgor pursuant to the terms of the Loan Agreement.

ACCORDINGLY, in consideration of and in order to induce the Lender to execute and deliver the Loan Agreement and to make and maintain a loan thereunder, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Pledgor hereby agrees as follows:

SECTION 1

DEFINITIONS

1.1 **Defined Terms.** Capitalized terms that are not defined herein have the respective meanings ascribed to them in the Loan Agreement. The Definitions Section from the Loan Agreement, § 1, executed contemporaneous with this Pledge Agreement, is hereby incorporated by reference into the Pledge Agreement as if fully set forth herein. In addition, the following term has the following meaning:

"Uniform Commercial Code" means the Uniform Commercial Code as adopted and in effect from time to time in the State of Indiana.

1.2 **Use of Defined Terms.** Unless otherwise expressly specified herein, defined terms denoting the singular number shall, when in the plural form, denote the plural number of the matter or item to which such defined terms refer, and vice-versa. The Section, Schedule and Exhibit headings used in this Pledge Agreement are descriptive only and shall not affect the construction or meaning of any provision of this Agreement. Unless otherwise specified, the words "hereof," "herein," "hereunder" and other similar words refer to this Pledge Agreement as a whole and not just to the Section, subsection or clause in which they are used; and the words "this Agreement" refer to this Pledge Agreement. Unless otherwise specified, references to Sections, Recitals, Schedules and Exhibits are references to Sections of, and Recitals, Schedules and Exhibits to this Agreement.

1.3 **Statements as to Knowledge.** Any statements, representations or warranties which are based upon the knowledge of the Pledgor shall be deemed to have been made after due inquiry with respect to the matter in question.

SECTION 2

PLEDGE

2.1 **Pledge by Pledgor.** The Pledgor hereby pledges, and assigns to the Lender, and hereby transfers to the Lender all right, title, ownership and interest in and to (all the foregoing herein called the "Pledge"), the following described property hereinafter called the "Pledged Collateral": the 1,000,000 shares (or such lesser amount, up to the volume limitation of Rule 144 as of the date the Form 144 is filed) of Bacterin International Holdings, Inc. (BONE), whether physical or electronic, evidencing such shares (collectively, the "Pledged Shares") and all cash, instruments, securities or other property representing a dividend or other distribution on any of the Pledged Shares, or representing a distribution or return of capital upon or in respect of the Pledged Shares, or resulting from a split-up, revision, reclassification or other like change of the Pledged Shares or otherwise received in exchange therefore, and any warrants, rights or options issued to the holders of, or otherwise in respect of, the Pledged Shares, and all proceeds thereof (collectively, the "Pledged Collateral").

SECTION 3

NATURE OF LOAN AND PLEDGE

3.1 **Non-Recourse Loan and Pledge.** The Lender agrees, for itself, its representatives, successors and assigns that: (i) neither the Pledgor, nor any representative, successor, assign or affiliate of the Pledgor, shall be personally liable for the Principal Loan Amount; and (ii) the Lender, and any such representative, successor or assignee, shall look only to the property identified in this Pledge Agreement for payment of the Obligations and will not make any claim or institute any action or proceeding against the Pledgor, or any representatives, successors, assigns or affiliate of the Pledgor, for any deficiency remaining after collection upon the Pledged Collateral, except as provided below.

Provided, however, notwithstanding the foregoing, the Pledgor is and will remain personally liable for any deficiency remaining after collection of the Pledged Collateral to the extent of any loss suffered by Lender, or its representatives, successors, endorsees or assigns, is caused by Pledgor based in whole or in part upon damages arising from any fraud, misrepresentations or the breach of any representation, warranty or agreement in the Loan Documents.

SECTION 4

SCOPE OF PLEDGE AND REDELIVERY OF THE PLEDGED COLLATERAL

4.1 **Pledge Absolute**. The Pledgor hereby agrees that this Pledge Agreement shall be binding upon the Pledgor and that the Pledge of the Pledged Collateral hereunder shall be irrevocable and unconditional, irrespective of the validity, legality or enforceability of the Loan Agreement and any other Loan Document, even in the absence of any action to enforce the same, the waiver or consent by the Lender with respect to any provision thereof, or any action to enforce the same or any other similar circumstances. The Pledgor hereby waives diligence, presentment, demand of payment, filing of claims with a court in the event of merger or bankruptcy of the Pledgor, any notice to require a proceeding first against the Pledgor or any other Person, protest or notice with respect to indebtedness evidenced hereby and all demands whatsoever, and covenants that this Agreement will remain in full force and effect so long as any Obligations under the Loan Agreement remains unpaid.

4.2 **Termination and Redelivery of the Pledged Collateral**. This Agreement shall terminate when all of the Pledgor's Obligations have been paid in full. Within five business days of the Pledgor's satisfaction of the Obligations, the Lender shall reassign all right, title, ownership and interest in identical securities, as described in IRC § 1058 to the Pledgor and redeliver the Pledged Collateral, without recourse or warranty, at the sole expense of the Lender. The Lender shall also deliver appropriate instruments of reassignment and release. Provided, however, that this Agreement shall be reinstated if any payment in respect of the Obligations is rescinded, invalidated, declared to be fraudulent or preferential or otherwise required to be restored or returned by the Lender for any reason, including without limitation by reason of the insolvency or bankruptcy of the Pledgor or any other person. For the purpose of this Pledge Agreement and the Loan Documents, a return of identical securities means a return of the Pledged Shares as modified as a result of any split-up, revision, reclassification or other like change of the Pledged Shares. Any cash or shares tendered to buy down the Loan due to the occurrence of an Event of Default are not subject to redelivery and do not become part of the Pledged Collateral.

4.3 **Risk of Loss**. This Pledge Agreement and the Loan Documents are not intended to, nor do they, reduce the risk of loss or opportunity for gain for either the Pledgor or Lender, as transferor of the shares, at any given time, in the securities transferred. *See*, IRC § 1058(b)(3). The Pledgor, as transferor of the securities (specifically, the Pledged Collateral), retains all opportunity for gain or loss on the securities over the term of the Agreement and at its maturity and termination.

SECTION 5

REPRESENTATIONS AND WARRANTIES

5.1 **Representations and Warranties.** The Pledgor hereby represents and warrants as follows to the best of its knowledge and belief:

(a) The Pledgor has legal title to the Pledged Shares and is the sole record and beneficial owner of the Pledged Shares. The Pledgor has good and lawful authority to Pledge all of the Pledged Shares in the manner hereby done or contemplated. The Pledged Shares are not now subject to any Liens, security interests, charges or encumbrances of any kind or nature. The Pledged Shares are not subject to any contractual restriction upon the transfer thereof, and no right, warrant or option to acquire any of the Pledged Shares exists in favor of any other Person.

(b) When delivered to EFH the Pledged Shares shall be freely tradable and transferable securities and will not bear any restrictive legend. No authorizations, approvals and consents, and no filings or registrations with any governmental or regulatory authority or agency or any other Person are necessary for the execution, delivery or performance by the Pledgor of this Agreement or for the validity or enforceability hereof.

(c) The execution, delivery and performance of this Agreement by the Pledgor, the Pledge of the Pledged Collateral pursuant hereto and the incurrence and performance of the obligations provided for herein will not (1) violate any law or regulation applicable to the Pledgor or any of its assets, (2) violate or constitute (with due notice or lapse of time or both) a default under any provision of any indenture, agreement, license or other instrument to which the Pledgor is a party or by which he or any of his properties may be bound or affected, (3) violate any order of any court, tribunal or governmental agency binding upon the Pledgor or any of its properties or (4) result in the creation or imposition of any lien or encumbrance of any nature whatsoever upon any assets or revenues of the Pledgor.

(d) The Pledgor is not in violation of any applicable United States federal or state applicable law or regulation, or in default with respect to any order, writ, injunction or decree of any court, or in default under any order, license, regulation or demand of any governmental agency, which violation or default could affect the validity or enforceability of this Agreement or any related document or prevent the Pledgor from performing any of his obligations hereunder or under any related documents.

(e) if any additional item of collateral other than the Pledged Shares is pledged hereunder, the Pledgor represents and warrants that additional collateral is subject to and conforms to the aforementioned representations and warranties, § 5.1(a)-(d) herein.

(f) Any information, schedules, exhibits and reports furnished by the Pledgor to the Leader in connection with the negotiation and preparation of this Agreement did not contain any omissions or misstatements of fact which would make the statements contained therein misleading or incomplete in any material respect.

(g) This Agreement constitutes the legal, valid and binding obligation of the Pledgor, enforceable against the Pledgor in accordance with its terms.

SECTION 6

APPOINTMENT OF AGENTS AND ACTIONS BY LENDER

6.1 **Lender's Appointment of Agent and Lender's Rights.** The Lender shall have the right to appoint one or more agents for the purpose of receiving possession of the statements representing or evidencing the Pledged Collateral, which may be held in the name of the Lender or any nominee of the Lender or any agent appointed by the Lender. In addition to all other rights possessed by the Lender, the Lender may, at the Lender's sole discretion and without notice to the Pledgor, take any or all of the following actions: (a) sell some or all of the Pledged Collateral and take control of any proceeds from the sale of the Pledged Collateral; and (b) exchange statements or instruments representing or evidencing Pledged Collateral for statements or instruments of smaller or larger denominations for any purpose consistent with its rights under this Pledge Agreement. All powers of the Lender under this Section 6 shall be in addition to, and not supersede or replace, the rights of the Lender under Section 7 hereof and the rights of the Lender under the Loan Documents.

SECTION 7

SALE AND TREATMENT OF PLEDGED COLLATERAL

7.1 **Authority and Right to Sell and Buy Pledged Collateral.** The Pledgor acknowledges that the Lender has the absolute right to sell and buy any or all of the Pledged Collateral during the term of the Loan and this Agreement. In the event of a diminution in the fair market value of the Pledged Collateral, the failure of the Lender to dispose of the Collateral shall under no circumstances be deemed a failure to exercise reasonable care in the custody or preservation of the Pledged Collateral. Any such sale or other disposition of any Pledged Collateral shall be deemed to be commercially reasonable under the Uniform Commercial Code, fully authorized and approved by the Pledgor pursuant to this Pledge Agreement and the Loan Documents, and otherwise proper in all respects.

7.2 **Actions by Lender.** Pledgor further acknowledges and agrees that as long as the Loan Principal Amount or the Obligations remain due and outstanding, Lender may take any and all actions with respect to the Pledged Collateral as the Lender, in its sole and absolute discretion, may deem to be advisable, including, without limitation, selling and buying some or all of the Pledged Collateral, utilizing the Pledged Collateral as a part of hedging transactions, transferring the Pledged Collateral within or among one or more depository accounts, and creating and trading derivative instruments that are backed, in whole or in part, by the Pledged Collateral. Lender is under no obligation to sequester, hold, retain or escrow the Pledged Collateral in any manner, nor keep it apart from any other assets of Lender, and Lender may combine the Pledged Collateral, in whole or in part, with any other assets.

7.3 **No Obligation to Apply Money or Funds Received in Respect to the Use of Pledged Collateral.** Notwithstanding Section 9-207 of the UCC, Lender has no obligation to apply money or funds received in respect of the sale, pledge, assignment, investment, use, or other disposition of any Pledged Collateral to reduce the Loan Principal Amount, the Obligations, or any other obligation under the Loan Agreement.

7.4 **Rights Under Uniform Commercial Code.** In addition to the rights and remedies granted to the Lender in this Pledge Agreement and in any other instrument or agreement securing, evidencing or relating to any of the Obligations, the Lender shall have all the rights and remedies of a secured party under the Uniform Commercial Code. The Lender shall have the right in its sole discretion to determine which rights, security, liens, guaranties or remedies it shall retain, pursue, release, subordinate, modify or enforce, without in any way modifying, affecting or diminishing any of the other of them or any of the Lender's rights hereunder.

SECTION 8

DIVIDENDS AND VOTING RIGHTS

8.1 **Dividends, Interest and Other Distributions.** The Pledgor, as the transferor of the stock, shall receive from EFH a payment or credit against interest due of an amount equivalent to all interest dividends and other distributions which the beneficial owner of those securities is entitled to receive during the period of the loan which ends with the transfer of identical securities back to the Pledgor when all outstanding principal, interest and other amounts due under the Agreement are paid and all obligations of the Pledgor are extinguished. *See*, IRC § 1058(b)(2) (hereinafter referred to as the "Dividend Amount").

(a) The Dividend Amount shall be first credited against any interest due and unpaid for the quarter which is unpaid and accruing at the time the Dividend Amount is actually paid out to shareholders. To the extent the Dividend Amount is less than the quarterly interest payment owed by the Pledgor, the Pledgor shall remain obligated to pay the net amount of interest due to the Lender.

(b) To the extent the Dividend Amount exceeds the quarterly interest payment owed by the Pledgor after first crediting the Dividend Amount against any interest due and unpaid for the quarter as described in Section 8.1(a) above, the Lender shall so notify the Pledgor in writing and pay, in due course, any excess remaining after crediting the Dividend Amount to the Pledgor.

8.2 **Voting Rights and Powers.** All voting or other such consensual rights and powers transfer to the Lender. The Lender will not exercise any voting or other such consensual rights or powers under the terms of this Agreement.

SECTION 9

RIGHTS AND REMEDIES

9.1 **Rights Upon Default.** Upon the occurrence of an Event of Default under the Loan Agreement or under the Pledge Agreement which remains uncured, the Obligations, together with any accrued and unpaid interest thereon, shall be immediately due and payable without notice or demand, presentment, or protest, all of which are hereby expressly waived.

At any time after the occurrence of an Event of Default which remains uncured, Lender may exercise the rights and remedies afforded to it under the Loan Agreement, which rights and remedies are herein incorporated by reference. To the extent the Lender has not already done so, under Section 7 the Lender may sell or otherwise dispose of the Pledged Collateral as the Lender's own property. Pledgor agrees that Lender may or may not proceed, as it determines in its sole discretion, with any or all rights, benefits, and remedies which it may have against Pledgor and in regard to the Pledged Collateral.

SECTION 10

APPLICATION OF PROCEEDS OF PLEDGED COLLATERAL IN THE EVENT OF DEFAULT

10.1 **Application of Proceeds of Collateral Upon Sale.** In the event of a default, the Lender shall apply the proceeds of the sale of any Pledged Collateral held by the Lender at the time that the Lender chooses to exercise its rights in an event of default as follows:

- (i) first, if applicable, to the payment to or reimbursement of Lender for any reasonable fees and expenses for which it is entitled to be paid or reimbursed pursuant to the Loan Documents;
- (ii) second, if applicable, to the interest compounding at the Default Rate;
- (iii) third, to the payment of any accrued and unpaid interest due under the Loan Agreement; and
- (iv) fourth, to such use as the Lender may elect (it being understood that Lender shall have no obligation to credit such payment to principal except to the extent that principal is due).

This Section 10.1 does not modify or supersede the Lender's rights under Section 7 of this Pledge Agreement to sell any or all of the Pledged Collateral during the term of the Loan or otherwise take actions with respect to the Pledged Collateral nor does it require that the Lender apply the proceeds of the sale of any Pledged Collateral that may occur during the term of the Loan to reduce the Loan Principal Amount or any other Obligation.

SECTION 11

ARBITRATION

11.1 Any claim, dispute, or controversy ("Claim") arising from or relating to this Agreement or the relationships resulting from this Agreement, wherever and by whomever commenced, shall, upon delivery of a written notice demanding arbitration to the other party (including a written notice after the commencement of a lawsuit or a notice contained in court filings in any such lawsuit), be resolved by binding arbitration pursuant to the Federal Arbitration Act, 9 USC §§ 1 *et seq.*, this agreement, and the applicable rules of the American Arbitration Association ("AAA") or JAMS in effect at the time of the written notice demanding arbitration. The term "Claim" as used in this Agreement is to be given the broadest possible meaning, and includes but is not limited to claims, disputes, or controversies arising from or relating to soliciting, originating, closing, or enforcing the transaction that is the subject of the Loan Documents.

11.2 Pledgor may select which of AAA or JAMS to use for purposes of administering an arbitration governed by this Agreement. The address, telephone number, and web site containing applicable rules for each of these arbitration administrators is as follows:

AAA
Corporate Headquarters
1633 Broadway, 10th Floor
New York, New York 10019
212-716-5800
www.adr.com

JAMS
71 South Wacker Drive
Suite 3090
Chicago, IL 60606
312-655-0555
www.jams.adr.com

If Pledgor fails to select an arbitration administrator within thirty (30) days from the date it or we deliver notice demanding arbitration, Lender will choose one. Any arbitrator must be a commercial lawyer with more than ten (10) years of experience in a regionally recognized law firm or a retired Federal judge or judge who served as a regular member of a state court of intermediate or final appellate jurisdiction.

11.3 Arbitrations seeking monetary relief less than \$100,000.00 in the aggregate will be held within the federal judicial district encompassing the city where Pledgor resides or is located. Arbitrations seeking monetary relief of \$100,000.00 or more in the aggregate will be held in Indianapolis, Indiana.

11.4 Lender will pay up to \$2,500.00 in fees charged by the arbitration administrator for Claim(s) asserted by Pledgor in the arbitration, after Pledgor has paid an amount equivalent to the fee, if any, had such Claim(s) been filed in state or federal court (whichever is less) in the judicial district in which Pledgor resides or is located.

11.5 THIS AGREEMENT IS FULLY BINDING IN THE EVENT THAT A CLASS ACTION OR SIMILAR LAWSUIT IS FILED IN WHICH PLEDGOR WOULD BE A CLASS REPRESENTATIVE OR MEMBER. PLEDGOR AND LENDER AGREE THAT THERE SHALL BE NO CLASS OR CONSOLIDATED ARBITRATION OF ANY CLAIM. FURTHERMORE, CLAIMS BROUGHT BY OR ON BEHALF OF OTHER PLEDGORS MAY NOT BE CONSOLIDATED WITH OR ARBITRATED IN ANY ARBITRATION PROCEEDING THAT IS CONSIDERING PLEDGOR'S CLAIMS UNLESS SAID OTHER PLEDGORS ARE PARTIES TO THE SAME LOAN AGREEMENT. SIMILARLY, PLEDGOR MAY NOT JOIN WITH OTHER PLEDGORS TO BRING CLAIMS IN THE SAME ARBITRATION PROCEEDING UNLESS ALL OF SUCH OTHER PLEDGORS ARE PARTY TO THE SAME LOAN TRANSACTION.

SECTION 12

MISCELLANEOUS

12.1 **No Subrogation.** Notwithstanding any payment or payments made by the Pledgor hereunder, the receipt of any amounts by the Lender with respect to the Pledged Collateral or any setoff or application of funds of the Pledgor by the Lender, the Pledgor shall not be entitled to be subrogated to any of the rights of the Lender.

12.2 **No Waiver; Cumulative Remedies.** No course of dealing between the Pledgor and the Lender, no failure on the part of the Lender to exercise, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any such right, power or remedy by the Lender preclude any other or further exercise thereof or the exercise of any other right, power or remedy. All remedies hereunder are cumulative and not exclusive of any other remedies provided by law, including without limitation the rights and remedies of a secured party under the Uniform Commercial Code.

12.3 **Addresses for Notices.** All notices, requests, demands, instructions, directions and other communications provided for hereunder shall be in writing and shall be mailed (by registered or certified mail, postage prepaid) or delivered to the applicable party at the address specified for such party on the first page of this Agreement or, as to any party, to such other address as such party shall specify by a notice in writing to the other party hereto. Each notice, request, demand, instruction, direction or other communication provided for hereunder shall be deemed delivered (i) if by mail, five business days after being deposited in the mail, addressed to the applicable party at its address set forth above, (ii) if by hand or by overnight courier, when delivered to the applicable party at such address.

12.4 **Severability.** Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render such provision unenforceable in any other jurisdiction.

12.5 **Further Assurances.** The Pledgor agrees to do such further reasonable acts and things, and to execute and deliver such additional conveyances, assignments, agreements and instruments, as the Lender may at any time request in connection with the administration or enforcement of this Pledge Agreement in order better to assure and confirm unto the Lender rights, powers and remedies hereunder. The Pledgor hereby consents and agrees that any registrar or transfer agent for any of the Pledged Collateral shall be entitled to accept the provisions hereof as conclusive evidence of the right of the Lender to effect any sale or transfer notwithstanding any other notice or direction to the contrary given by the Pledgor.

12.6 **Binding Agreement; Assignment.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that the Pledgor may not and shall not assign this Agreement or any interest herein or in the Pledged Collateral or any part thereof, or otherwise pledge, encumber or grant any option with respect to the Pledged Collateral or any part thereof, without the prior written consent of the Lender. The Lender may assign this Agreement and its rights and remedies hereunder in whole or in part to any assignee of the Obligations or any portion thereof.

12.7 **Governing Law.** This Agreement shall be governed by, and shall be construed in accordance with, the laws of the State of Indiana without reference to its principles of Conflicts of Law.

12.8 **Consent to Jurisdiction; Venue; Jury Trial Waiver.** Subject to Section 11 of this Agreement, Pledgor hereby consents to the jurisdiction of all the courts of the State of Indiana, including Federal Courts, for the purpose of any suit, action or other proceeding arising out of any of Pledgor's obligations under or with respect to this Agreement, and expressly waives any and all objections Pledgor may have as to venue in any of such courts. In addition, Pledgor consents to the service of process by United States certified or registered mail, return receipt request, addressed to Pledgor at the address provided herein. Pledgor also, to the extent permitted by law, waives trial by jury in any action brought on or with respect to this Agreement and agrees that in the event this Agreement shall be successfully enforced by suit or otherwise, Pledgor will reimburse the holder or holders of the Obligations, upon demand, for all reasonable expenses incurred in connection therewith, including, without limitation, reasonable attorneys' fees and expenses.

12.9 **Amendments.** No provision of this Agreement may be amended, waived or modified, and (unless otherwise provided herein) no item of Pledged Collateral may be released, except in a writing signed by the Pledgor and the Lender.

12.10 **Expenses.** The Pledgor hereby agrees to reimburse the Lender for the enforcement of the Lender's rights under this Agreement, the sale of the Pledged Collateral or any part thereof and the collection of payments due under or in respect of the Pledged Collateral and all amounts due under this Agreement.

12.11 **Waiver of Notice of Acceptance.** The Pledgor hereby waives notice of the making of any Loan or the issuance of the Note and notice from the Lender of its acceptance of and reliance upon this Agreement.

12.12 **Execution in Counterparts.** This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, all of which when taken together shall constitute but one and the same agreement.

IN WITNESS WHEREOF, the Pledgor has duly executed this Agreement as of the date first above written.

PLEDGOR:

Name: A. Cook

Date: 5/25/2012

Printed Name: Guy S. Cook