FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

	OMB APPRO	OVAL						
	OMB Number:	3235-0287						
l	Estimated average burden							
l	hours per response:	0.5						

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* COOK GUY S						2. Issuer Name and Ticker or Trading Symbol Bacterin International Holdings, Inc. [BONE]									5. Relationship of Reporting Person(s) to Issuer (Check all applicable) $ \begin{array}{ccccccccccccccccccccccccccccccccccc$				
(Last) (First) (Middle) 600 CRUISER LANE						3. Date of Earliest Transaction (Month/Day/Year) 05/22/2012										Officer (give title Other (specify below) CEO			
(Street) BELGRA		T 5		4. If Amendment, Date of Original Filed (Month/Day/Year)									ne) X Fo Fo	dual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person					
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																			
1. Title of Security (Instr. 3) 2. Transac Date (Month/Da						Execution Date		n Date,	Code (Instr. 5)					d Secu Bend Own	nount of irities eficially ed Following	Form (D) o	vnership i: Direct r Indirect istr. 4)	7. Nature of Indirect Beneficial Ownership	
						Code	v	Amount (A)) or))	Price	Tran	Reported Transaction(s) (Instr. 3 and 4)			(Instr. 4)			
Common Stock 05					/2012		P		951 A		\$1.	58 12	12,897,088		D				
		Та	ble II - D								sed of, onvertib				/ Owne	d			
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	if any	xecution Date, any () Ionth/Day/Year)		3)		of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expiration Exercisable Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) Amoun or Numbe of Title Shares		ount ober	8. Price o Derivative Security (Instr. 5)		O F D O (I	0. ownership orm: oirect (D) r Indirect) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)

Explanation of Responses:

/s/ Guy Cook

05/22/2012

** Signature of Reporting Person

Date

 $Reminder: Report \ on \ a \ separate \ line \ for \ each \ class \ of \ securities \ beneficially \ owned \ directly \ or \ indirectly.$

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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 Number.