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

**SCHEDULE 13D**  
Under the Securities Exchange Act of 1934

**XTANT MEDICAL HOLDINGS, INC.**

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(Name of Issuer)

**Common Stock**

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(Title of Class of Securities)

**98420P100**  
(CUSIP Number)

**OrbiMed Advisors LLC**  
**Samuel D. Isaly**

**601 Lexington Avenue, 54th Floor**  
**New York, NY 10022**  
**Telephone: (212) 739-6400**

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

**May 19, 2017**

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(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 § 240.13d-1(e), 240.13d-1(f) or 240.13d-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 § 240.13d-7(b) 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 ("Act") 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).

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1	NAME OF REPORTING PERSONS OrbiMed Advisors LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 1,952,670 (1)
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 1,952,670 (1)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,952,670 (1)	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.9% (2)	
14	TYPE OF REPORTING PERSON (See Instructions) IA	

(1) Evidenced by (i) 475,439 shares of the Issuer’s Common Stock (“Shares”), (ii) 87,719 Shares issuable upon the exercise of warrants to purchase Shares (the “Warrants”), and (iii) 1,389,512 Shares issuable upon the exercise of convertible notes (the “Notes”). The Notes contain an issuance limitation that prohibits the holder from converting the Notes to the extent that after giving effect to such issuance after exercise the holder (together with the holder’s affiliates, and any other persons acting as a group together with the holder or any of the holder’s affiliates), would beneficially own in excess of 9.99% of the Shares outstanding immediately after giving effect to the issuance of the Shares issuable upon conversion of the Notes (the “Blocker”). As a result of the Blocker, as of the date hereof, 1,389,512 Shares are issuable upon conversion of the Notes and such Shares are included in the beneficial ownership calculations reported herein. Without giving effect to the Blocker, 14,386,229 Shares issuable upon the conversion of the Notes may be attributable to the Reporting Persons.

(2) This percentage is calculated based upon 18,092,603 Shares outstanding of the Issuer, as set forth in the Issuer’s Form 10-Q, filed with the Securities and Exchange Commission on May 15, 2017, and includes an additional 87,719 Shares issuable upon the exercise of the Warrants, and 1,389,512 Shares issuable upon the exercise of the Notes.

1	NAME OF REPORTING PERSONS Samuel D. Isaly	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 1,952,670 (1)
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 1,952,670 (1)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,952,670 (1)	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.9% (2)	
14	TYPE OF REPORTING PERSON (See Instructions) IN	

(1) Evidenced by (i) 475,439 shares of the Issuer's Common Stock ("Shares"), (ii) 87,719 Shares issuable upon the exercise of warrants to purchase Shares (the "Warrants"), and (iii) 1,389,512 Shares issuable upon the exercise of convertible notes (the "Notes"). The Notes contain an issuance limitation that prohibits the holder from converting the Notes to the extent that after giving effect to such issuance after exercise the holder (together with the holder's affiliates, and any other persons acting as a group together with the holder or any of the holder's affiliates), would beneficially own in excess of 9.99% of the Shares outstanding immediately after giving effect to the issuance of the Shares issuable upon conversion of the Notes (the "Blocker"). As a result of the Blocker, as of the date hereof, 1,389,512 Shares are issuable upon conversion of the Notes and such Shares are included in the beneficial ownership calculations reported herein. Without giving effect to the Blocker, 14,386,229 Shares issuable upon the conversion of the Notes may be attributable to the Reporting Persons.

(2) This percentage is calculated based upon 18,092,603 Shares outstanding of the Issuer, as set forth in the Issuer's Form 10-Q, filed with the Securities and Exchange Commission on May 15, 2017, and includes an additional 87,719 Shares issuable upon the exercise of the Warrants, and 1,389,512 Shares issuable upon the exercise of the Notes.

## Item 1. Security and Issuer

This Schedule 13D (the “Statement”) relates to the common stock, par value \$0.000001 per share (the “Shares”), of Xtant Medical Holdings, Inc. (formerly Bacterin International Holdings, Inc.), a Delaware corporation (the “Issuer”), with its principal offices located at 664 Cruiser Lane, Belgrade, Montana 59714. The Shares are listed on the NYSE MKT under the ticker symbol “XTNT”.

Between 2012 and 2017 the Reporting Persons acquired 475,439 Shares of the Issuer, warrants to purchase 87,719 Shares of the Issuer (the “Warrants”), and 14,386,229 Shares issuable upon the exercise of convertible notes (the “Notes”). However, the Notes contain an issuance limitation that prohibits the holder from converting the Notes to the extent that after giving effect to such issuance after exercise the holder (together with the holder’s affiliates, and any other persons acting as a group together with the holder or any of the holder’s affiliates), would beneficially own in excess of 9.99% of the Shares outstanding immediately after giving effect to the issuance of the Shares issuable upon conversion of the Notes (the “Blocker”). As a result of the Blocker, as of the date of this Statement, the number of Shares issuable upon conversion of the Notes that may be attributable to the Reporting Persons equals 1,389,512.

## Item 2. Identity and Background

(a) This Statement is being filed by OrbiMed Advisors LLC (“Advisors”), a limited liability company organized under the laws of Delaware, and Samuel D. Isaly (“Isaly”), an individual (collectively, the “Reporting Persons”).

(b) – (c) Advisors, a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the investment manager of Royalty Opportunities S.à.r.l (“ROS”) and OrbiMed Royalty Opportunities II, LP (“ORO II”), which hold the Shares as more particularly described in Item 1 above. Advisors is also the investment manager of ROS Acquisition Offshore LP (“ROS Acquisition”), a Cayman Islands exempted limited partnership, which is a wholly-owned subsidiary of ROS. Advisors has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

Isaly, a natural person, is the managing member of Advisors and owns a controlling interest in Advisors.

The directors and executive officers of Advisors are set forth on Schedule I, attached hereto. Schedule I sets forth the following information with respect to each such person:

(i) name;

(ii) business address;

(iii) present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted; and

(iv) citizenship.

(d) – (e) During the last five years, neither the Reporting Persons nor any person named in Schedule I have been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Isaly is a citizen of the United States.

**Item 3. Source and Amount of Funds or Other Consideration**

Not applicable. As described more fully in Item 4 below, the event giving rise to the obligations of the Reporting Persons to filed this Statement did not involve any transaction effected by one or more Reporting Persons with respect to the Shares.

**Item 4. Purpose of Transaction**

The Reporting Persons caused ROS and ORO II to acquire Shares and other securities of the Issuer for the purpose of making an investment in the Issuer and not with the intention of acquiring control of the Issuer's business on behalf of ROS and ORO II.

Recently, however, after reviewing their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Shares in particular, as well as other developments and other investment opportunities, the Reporting Persons have engaged in discussions with the Issuer's management regarding possible conversion of some or all of the Notes into common equity of the Issuer and/or exchange of some or all of the Notes for common equity of the Issuer at negotiated conversion or exchange ratios, financing strategies and governance topics which, depending on the outcome of such discussions, might result in the Reporting Persons acquiring a controlling interest in the Issuer. As of the date of this Report, such discussions are ongoing and no agreements have been reached. Any such transaction could include one or more of the matters disclosed in the last paragraph of this Item 4.

In addition to the foregoing, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of the Shares or otherwise, they may acquire Shares or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions.

Except as set forth in this Statement, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer; (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries; (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries; (d) any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board; (e) any material change in the Issuer's capitalization or dividend policy of the Issuer; (f) any other material change in the Issuer's business or corporate structure; (g) any change in the Issuer's charter or bylaws or other instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person; (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association; (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act; or (j) any action similar to any of those enumerated above.

**Item 5. Interest in Securities of the Issuer**

(a)-(b) As of the date of this filing, the Reporting Persons may be deemed, for purposes of Rule 13d-3 of the Act, directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares. Based upon information contained in the Issuer's Form 10-Q, filed with the Securities and Exchange Commission on May 15, 2017, such Shares deemed to be indirectly beneficially owned by the Reporting Persons constitutes approximately 9.9% of the issued and outstanding Shares. Advisors, pursuant to its authority as the investment manager of ROS and ORO II, may be deemed to indirectly beneficially own the Shares held by ROS and ORO II. Isaly, pursuant to his authority as the managing member of Advisors and owner of a controlling interest in Advisors, pursuant to its limited liability company agreement, may be deemed to also indirectly beneficially own the Shares attributable to Advisors. As a result, Isaly and Advisors share the power to direct the vote and to direct the disposition of the Shares held by ROS and ORO II, as described in Item 1 above.

- (c) The Reporting Persons have not effected any transactions in the Shares during the past sixty (60) days.
- (d) Not applicable.
- (e) Not applicable.

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

In addition to the relationships between the Reporting Persons described in Items 2, 3 and 5 above, Advisors is the investment manager of ROS and ORO II. Pursuant to these relationships, Advisors has discretionary investment management authority with respect to the assets of ROS and ORO II. Such authority includes the power of Advisors to vote and otherwise dispose of securities held by ROS and ORO II. The aggregate number of fully diluted Shares held by ROS and ORO II, after giving to the Blocker, is 1,952,670 (of which, includes Shares subject to Warrants and Shares issuable upon exercise of the Notes). Advisors may be considered to hold indirectly 1,952,670 Shares. Isaly, pursuant to his authority as the managing member of, and owner of a controlling interest in, Advisors, has shared discretionary power to direct the vote and the disposition of the securities of the Issuer held by Advisors, and consequently may be considered to have an indirect beneficial ownership of the Shares attributable to Advisors.

***Indenture***

On July 31, 2015, the Issuer completed an offering of \$65 million aggregate principal amount of 6.00% convertible senior unsecured notes in a private offering when it entered into an Indenture with Wilmington Trust, National Association (the "Indenture"). In connection with the offering, Advisors, pursuant to its authority as investment manager, caused ORO II and ROS Acquisition (collectively, the "OrbiMed Purchasers") to purchase \$52 million aggregate principal amount of the convertible notes. Pursuant to the terms of the notes, at any time prior to the close of business on the second business day immediately preceding July 15, 2021 (the "Maturity Date"), the holders may convert their notes into Shares (together with cash in lieu of fractional Shares) at an initial conversion price of approximately \$3.88 per Share. However, such notes will not be convertible to the extent that such conversion would result in the holder of that note or any of its affiliates being deemed to beneficially own in excess of 9.99% of the then-outstanding Shares.

***Securities Purchase Agreements***

On April 14, 2016, the Issuer and the OrbiMed Purchasers entered into a securities purchase agreement (the "2016 SPA"), pursuant to which the Issuer issued \$2,238,166 aggregate principal amount of convertible senior unsecured notes (the "Additional Notes") in a private placement to the OrbiMed Purchasers. The Additional Notes accrue interest at a rate equal to 6.00% per year and will mature on the Maturity Date. The OrbiMed Purchasers may convert the Additional Notes into Shares (together with cash in lieu of fractional Shares) at an initial conversion price of approximately \$2.90 per Share.

On January 17, 2017 (the "Closing Date"), the Issuer entered into an indenture notes securities purchase agreement (the "Indenture Notes SPA") and a convertible promissory notes securities purchase agreement (the "PIK Notes SPA") with the OrbiMed Purchasers, the terms of which are described more fully below.

***Indenture Notes SPA***

In order to satisfy interest obligations the Issuer owed to the OrbiMed Purchasers pursuant to \$52,000,000 of convertible promissory notes issued under the Indenture, the Issuer entered into the Indenture Notes SPA, pursuant to which ORO II and ROS Acquisition agreed to purchase a new series of 6% convertible senior notes in the aggregate principal amount of \$564,300 and \$995,700, respectively (the "Indenture Notes"). The Indenture Notes are convertible into Shares at a conversion price of \$0.7589 per Share at any time prior to the close of business on the second business day immediately preceding the Maturity Date. Interest under the Indenture Notes accrues at a rate of 6% per year.

In connection with the offering of the Indenture Notes and the Indenture Notes SPA, the Issuer and the OrbiMed Purchasers entered into a registration rights agreement (the “Indenture Notes Registration Rights Agreement”). Under the Indenture Notes Registration Rights Agreement, the Issuer is required to file a shelf registration statement providing for the registration of the offer and sale of the holders of the Indenture Notes and use its best efforts to cause such shelf registration statement to become effective no later than the 180th day after the Closing Date. The Issuer agreed to use its best efforts to keep the shelf registration statement continuously effective in order to permit the related prospectus to be usable by the counterparty from the date the shelf registration statement becomes effective until the earlier of (i) the 60th trading day following the Indenture Notes Maturity Date or (ii) the date upon which there are no longer any outstanding registrable securities.

#### *PIK Notes SPA*

In order to satisfy interest obligations the Issuer owed to the OrbiMed Purchasers pursuant to \$2,238,166 of convertible promissory notes issued under the 2016 SPA, the Issuer entered into the PIK Notes SPA, pursuant to which ORO II and ROS Acquisition agreed to purchase a new series of 6% convertible senior notes in the aggregate principal amount of \$24,288.41 and \$42,856.59, respectively (the “PIK Notes”). The PIK Notes are convertible into Shares at a conversion price of \$0.7589 per Share at any time prior to the close of business on the second business day immediately preceding the Maturity Date. Interest under the PIK Notes accrues at a rate of 6% per year.

In connection with the offering of the PIK Notes and the PIK Notes SPA, the Issuer and the OrbiMed Purchasers entered into a registration rights agreement (the “PIK Notes Registration Rights Agreement”). Under the PIK Notes Registration Rights Agreement, the Issuer is required to file a shelf registration statement providing for the registration of the offer and sale of the holders of the PIK Notes and use its best efforts to cause such shelf registration statement to become effective no later than the 180th day after the Closing Date. The Issuer agrees to use its best efforts to keep the shelf registration statement continuously effective in order to permit the related prospectus to be usable by the counterparty from the date the shelf registration statement becomes effective until the earlier of (i) the 60th trading day following the PIK Notes Maturity Date or (ii) the date upon which there are no longer any outstanding registrable securities.

#### ***Amended and Restated Credit Agreement***

On May 11, 2017, Bacterin International, Inc. (“Bacterin”), a Nevada corporation and wholly-owned subsidiary of the Issuer, X-Spine Systems, Inc. (“X-Spine”), an Ohio corporation and wholly-owned subsidiary of the Issuer, and Xtant Medical, Inc., a Delaware corporation and wholly-owned subsidiary of the Issuer (collectively, the “Guarantors”), and the OrbiMed Purchasers, entered into the Fourteenth Amendment to Amended and Restated Credit Agreement (the “Amendment”), which amended the existing Amended and Restated Credit Agreement (the “Facility”). The initial Credit Agreement was entered into on August 24, 2012, between ROS Acquisition and Bacterin, pursuant to which ROS Acquisition agreed to, among other things, provide an initial \$20 million term loan to Bacterin. The Credit Agreement was amended and restated on July 27, 2015, pursuant to which the OrbiMed Purchasers agreed to, among other things, provide an additional \$18 million term loan to Bacterin. Prior amendments to the Facility deferred Bacterin’s accrued interest payment date. The Amendment further defers Bacterin’s accrued interest payment date for the fiscal quarter ended on December 31, 2016 until June 30, 2017, while also deferring Bacterin’s accrued interest payment date for the fiscal quarter ended on March 31, 2017 until June 30, 2017. Additionally, the Amendment also allows for X-Spine to request additional term loans from the OrbiMed Purchasers in an aggregate amount of up to \$15,000,000, which may be provided at the discretion of the OrbiMed Purchasers. As of May 30, 2017, approximately \$10.5 million of additional term loans have been provided under the Amendment.

#### ***Waivers***

##### *Indenture Waiver*

On March 31, 2017, the Issuer and the OrbiMed Purchasers entered into a waiver letter (the “Indenture Waiver”), pursuant to which the OrbiMed Purchasers waived any non-compliance with the covenant set forth in Section 6.01(a)(vii) of the Indenture due to the going concern qualification included in the Issuer’s audit report for the year ended December 31, 2016.

## Notes Waiver

The OrbiMed Purchasers also entered into a waiver (the “Notes Waiver”) for defaults that occurred under the Additional Notes and the PIK Notes. Pursuant to the Notes Waiver, the OrbiMed Purchasers waived any non-compliance with the covenants set forth in Section 6.01(a)(vii) of their respective notes due to the going concern qualification included in the Issuer’s audit report for the year ended December 31, 2016.

The foregoing descriptions of the Indenture, the Indenture Notes SPA, the Indenture Notes Registration Rights Agreement, the Indenture Notes, the PIK Notes SPA, the PIK Registration Rights Agreement, the PIK Notes, the Indenture Waiver, the Notes Waiver and the Amendment do not purport to be complete and are qualified in their entirety by reference to the Indenture, the Indenture Notes SPA, the Indenture Notes Registration Rights Agreement, the Indenture Notes, the PIK Notes SPA, the PIK Registration Rights Agreement, the PIK Notes, the Indenture Waiver, the Notes Waiver and the Amendment, which are attached hereto as Exhibits 2, 3, 4, 5-6, 7, 8, 9-10, 11, 12 and 13, respectively, and are incorporated by reference herein. Other than as described in this Statement, to the best of the Reporting Persons’ knowledge, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

### Item 7. Materials to Be Filed as Exhibits

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC and Samuel D. Isaly.
2.	Indenture dated as of July 31, 2015, between Xtant Medical Holdings, Inc. and Wilmington Trust, National Association, a national banking association, as Trustee (incorporated by reference to Exhibit 10.2 to the Form 8-K filed by Xtant Medical Holdings, Inc. on August 3, 2015).
3.	Securities Purchase Agreement (for sale of the Indenture Notes), dated January 17, 2017, among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.6 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
4.	Registration Rights Agreement (for Common Stock underlying the Indenture Notes), dated January 17, 2017, among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.9 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
5.	Convertible Promissory Note in the principal amount of \$564,300, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.8 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
6.	Convertible Promissory Note in the principal amount of \$995,700, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of ROS Acquisition Offshore LP (incorporated by reference to Exhibit 10.7 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
7.	Securities Purchase Agreement (for sale of the PIK Notes), dated January 17, 2017, among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.10 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
8.	Registration Rights Agreement (for Common Stock underlying the PIK Notes), dated January 17, 2017, among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.13 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
9.	Convertible Promissory Note in the principal amount of \$24,288.41, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.12 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
10.	Convertible Promissory Note in the principal amount of \$ 42,856.59, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of ROS Acquisition Offshore LP (incorporated by reference to Exhibit 10.11 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
11.	Waiver Letter, dated as of March 31, 2017, by and among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.2 to the Form 8-K filed by Xtant Medical Holdings, Inc. on April 6, 2017).
12.	Waiver, dated as of March 31, 2017, by ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.3 to the Form 8-K filed by Xtant Medical Holdings, Inc. on April 6, 2017).
13.	Fourteenth Amendment and Waiver to Amended and Restated Credit Agreement, dated as of May 11, 2017, by and among Bacterin International, Inc., Xtant Medical Holdings, Inc., X-Spine Systems, Inc., Xtant Medical, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by Xtant Medical Holdings, Inc. on May 12, 2017).



**SIGNATURE**

After reasonable inquiry and to the best of each of the undersigned's knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: May 30, 2017

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly  
Name: Samuel D. Isaly  
Title: Managing Member

Samuel D. Isaly

By: /s/ Samuel D. Isaly  
Name: Samuel D. Isaly

**Schedule I**

The name and present principal occupation of each of the executive officers and directors of OrbiMed Advisors LLC are set forth below. Unless otherwise noted, each of these persons are United States citizens and have as their business address 601 Lexington Avenue, 54th Floor, New York, NY 10022.

Name	Position with Reporting Person	Principal Occupation
Samuel D. Isaly	Managing Member	Managing Member OrbiMed Advisors LLC
Carl L. Gordon	Member	Member OrbiMed Advisors LLC
Sven H. Borho German and Swedish Citizen	Member	Member OrbiMed Advisors LLC
Jonathan T. Silverstein	Member	Member OrbiMed Advisors LLC
W. Carter Neild	Member	Member OrbiMed Advisors LLC
Geoffrey C. Hsu	Member	Member OrbiMed Advisors LLC
Evan D. Sotiriou	Chief Financial Officer	Chief Financial Officer OrbiMed Advisors LLC

**EXHIBIT INDEX**

<b>Exhibit</b>	<b>Description</b>
1.	Joint Filing Agreement among OrbiMed Advisors LLC and Samuel D. Isaly.
2.	Indenture dated as of July 31, 2015, between Xtant Medical Holdings, Inc. and Wilmington Trust, National Association, a national banking association, as Trustee (incorporated by reference to Exhibit 10.2 to the Form 8-K filed by Xtant Medical Holdings, Inc. on August 3, 2015).
3.	Securities Purchase Agreement (for sale of the Indenture Notes), dated January 17, 2017, among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.6 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
4.	Registration Rights Agreement (for Common Stock underlying the Indenture Notes), dated January 17, 2017, among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.9 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
5.	Convertible Promissory Note in the principal amount of \$564,300, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.8 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
6.	Convertible Promissory Note in the principal amount of \$995,700, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of ROS Acquisition Offshore LP (incorporated by reference to Exhibit 10.7 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
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9.	Convertible Promissory Note in the principal amount of \$24,288.41, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.12 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
10.	Convertible Promissory Note in the principal amount of \$ 42,856.59, dated January 17, 2017, made by Xtant Medical Holdings, Inc. in favor of ROS Acquisition Offshore LP (incorporated by reference to Exhibit 10.11 to the Form 8-K filed by Xtant Medical Holdings, Inc. on January 20, 2017).
11.	Waiver Letter, dated as of March 31, 2017, by and among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.2 to the Form 8-K filed by Xtant Medical Holdings, Inc. on April 6, 2017).
12.	Waiver, dated as of March 31, 2017, by ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.3 to the Form 8-K filed by Xtant Medical Holdings, Inc. on April 6, 2017).
13.	Fourteenth Amendment and Waiver to Amended and Restated Credit Agreement, dated as of May 11, 2017, by and among Bacterin International, Inc., Xtant Medical Holdings, Inc., X-Spine Systems, Inc., Xtant Medical, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by Xtant Medical Holdings, Inc. on May 12, 2017).

**JOINT FILING AGREEMENT**

The undersigned hereby agree that the Statement on this Schedule 13D, dated May 30, 2017 (the "Schedule 13D"), with respect to the Shares of Xtant Medical Holdings, Inc. is filed, and all amendments thereto will be filed, on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities and Exchange Act of 1934, as amended, and that this Agreement shall be included as an Exhibit to this Schedule 13D. Each of the undersigned agrees to be responsible for the timely filing of the Schedule 13D, and for the completeness and accuracy of the information concerning itself contained therein. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 30<sup>th</sup> day of May, 2017.

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly  
Name: Samuel D. Isaly  
Title: Managing Member

Samuel D. Isaly

By: /s/ Samuel D. Isaly  
Samuel D. Isaly

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