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

SCHEDULE 13D
Under the Securities Exchange Act of 1934
(Amendment No. 1)*

XTANT MEDICAL HOLDINGS, INC.

(Name of Issuer)

Common Stock

(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

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

January 11, 2018

(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).

SCHEDULE 13D

CUSIP No. 98420P100

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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 2,838,903 (1) |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 2,838,903 (1) |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,838,903 (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) 13.82% (2) | |
| 14 | TYPE OF REPORTING PERSON (See Instructions) IA | |

(1) Evidenced by (i) 2,751,184 shares of the Issuer’s Common Stock (“Shares”) and (ii) 87,719 Shares issuable upon the exercise of warrants to purchase Shares (the “Warrants”).

(2) This percentage is calculated based upon 18,178,792 Shares of the Issuer outstanding on January 11, 2018, as set forth in the Issuer’s preliminary proxy statement dated January 11, 2018 relating to its special meeting of stockholders to be held on February 13, 2018, and includes an additional 87,719 Shares issuable upon the exercise of the Warrants, and 2,275,745 Shares issued on January 17, 2018 upon conversion of \$1.627 million original principal amount, plus accrued interest, of the Issuer’s convertible notes.

CUSIP No. 98420P100

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|---|---|---|
| 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 2,838,903 (1) |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 2,838,903 (1) |
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| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.82% (2) | |
| 14 | TYPE OF REPORTING PERSON (See Instructions) IN | |

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Item 1. Security and Issuer

This Amendment No. 1 (“Amendment No. 1”) to Schedule 13D supplements and amends the Statement on Schedule 13D of OrbiMed Advisors LLC and Samuel D. Isaly originally filed with the Securities and Exchange Commission (the “SEC”) on May 30, 2017 (the “Statement”). 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 American LLC (formerly the NYSE MKT) under the ticker symbol “XTNT”.

This Amendment No. 1 is being filed to report that on January 11, 2018, the Issuer entered into a Restructuring and Exchange Agreement (the “Restructuring Agreement”) with ROS Acquisition Offshore LP (“ROS Acquisition”), OrbiMed Royalty Opportunities II, LP (“ORO II”) and, together with ROS Acquisition, the “OrbiMed Purchasers”) and certain other parties, and into certain related agreements. The terms of the Restructuring Agreement and related agreements are summarized in Item 6 below.

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 convertible notes (“Notes”) upon exercise into 14,386,229 newly issued Shares. 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 condition to the closing of the transactions contemplated by the Restructuring Agreement, the Issuer and the OrbiMed Purchasers are required to enter into amendments to the Notes removing the Blocker. On January 17, 2018, the Issuer and the OrbiMed Purchasers entered into the 2017 Notes Amendment (as defined below), which removed the Blocker for the 2017 Notes (as defined below). On January 17, 2018, following entering into of the 2017 Notes Amendment the OrbiMed Purchasers converted the 2017 Notes and received 2,275,745 newly issued Shares.

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, 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 file this Amendment No. 1 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.

Earlier in 2017, however, as reported in the original Statement, the Reporting Persons, 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, 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. Such discussions continued following the filing of the original Statement. The Restructuring Agreement and related agreements summarized in Item 6 below resulted from such discussions.

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 (the "Board") 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 preliminary proxy statement dated January 11, 2018 (the "Special Meeting Proxy Statement") relating to its special meeting of stockholders to be held on February 13, 2018 (the "Special Meeting"), which preliminary proxy statement was filed with the SEC on January 11, 2018, 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, ROS Acquisition and ORO II, may be deemed to indirectly beneficially own the Shares held by ROS, through its ownership of ROS Acquisition, 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 Acquisition 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, ROS Acquisition and ORO II. Pursuant to these relationships, Advisors has discretionary investment management authority with respect to the assets of ROS Acquisition and ORO II. Such authority includes the power of Advisors to vote and otherwise dispose of securities held by ROS Acquisition and ORO II. The aggregate number of fully diluted Shares held by ROS, through its ownership of ROS Acquisition, and ORO II is 2,838,903 (of which, includes Shares subject to Warrants and Shares issuable upon exercise of the Notes). Advisors may be considered to hold indirectly 2,838,903 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.

Restructuring Agreement

On January 11, 2018, the OrbiMed Purchasers entered into the Restructuring Agreement with the Issuer and certain other investors in the Issuer. Pursuant to the Restructuring Agreement, the OrbiMed Purchasers agreed to convert an aggregate of \$1.627 million original principal amount, plus accrued interest, of the Issuer's outstanding 2017 Notes (as such term is defined below under "Background of the Transactions -- Securities Purchase Agreements -- Indenture Notes SPA") issued to ROS Acquisition and ORO II in January 2017 at the \$0.7589 per Share conversion rate originally provided thereunder in January 2018 (the "Tier 1 Transaction"). On January 17, 2018, the Issuer, ROS Acquisition and ORO II entered into an amendment to the 2017 Notes (the "2017 Notes Amendment"), which amended the 2017 Notes by removing the limitations on stock ownership that would prevent any holder or any of its affiliates from effecting a conversion of the 2017 Notes if such conversion would result in the holder or any of its affiliates beneficially owning in excess of 9.99% of the then outstanding Shares and providing that the Conversion Consideration (as defined therein) shall be payable upon all outstanding principal amount plus accrued and unpaid interest of the 2017 Notes. The 2017 Notes Amendment was required to enable ROS Acquisition and ORO II to convert the 2017 Notes pursuant to the Tier 1 Transaction. On January 17, 2018, following entering into of the 2017 Notes Amendment, ROS Acquisition ORO II converted the 2017 Notes and received 2,275,745 newly issued Shares, thereby consummating the Tier 1 Transaction.

After completion of the Tier 1 Transaction and after giving effect to a reverse stock split at a 1:12 ratio, upon approval of the stockholders of the Issuer, the remaining \$70.238 million aggregate principal amount of the Issuer's outstanding Notes (the "Remaining Notes") held by the OrbiMed Purchasers and the other holders of outstanding Notes (collectively, the "Noteholders"), plus accrued and unpaid interest, will be exchanged for newly-issued Shares at an exchange rate of 138.8889 shares per \$1,000 principal amount of notes, for an exchange price of \$7.20 per share (which, on a pre-reverse stock split basis, equates to an exchange price of \$0.60 per share) (the "Tier 2 Transaction").

Assuming that the proposals described in the Special Meeting Proxy Statement (the “Proposals”) are approved by the Issuer’s stockholders and the Tier 2 Transaction is consummated on February 15, 2018, the Remaining Notes would be exchanged for approximately 10.4 million newly-issued Shares (which, on a pre-reverse stock split basis, equates to approximately 124.6 million Shares) in the Tier 2 Transaction. Furthermore, if the Proposals are approved by the Issuer’s stockholders, the OrbiMed Purchasers have also agreed to purchase from the Issuer in a private placement, simultaneously with the consummation of the Tier 2 Transaction, an aggregate of \$6,809,887 of Shares at a price per Share of \$7.20 (which, on a pre-reverse stock split basis, equates to a price per Share of \$0.60) (the “Private Placement”) and, together with the Tier 1 Transaction and the Tier 2 Transaction, the “Transactions”). Assuming that the Tier 2 Transaction and the Private Placement are consummated on February 15, 2018, following the consummation of the Transactions, the OrbiMed Purchasers would own, in the aggregate, approximately 70.4%.

In connection with the Transactions, the Issuer is also seeking to raise financing through a rights offering, as described in the Special Meeting Proxy Statement.

Support Agreement

On January 11, 2018, the OrbiMed Purchasers and the Noteholders, the Issuer’s executive officers and directors and certain of the Issuer’s stockholders (collectively the “Support Equityholders”), entered into a support agreement (the “Support Agreement”) simultaneously with the execution of the Restructuring Agreement. Under the Support Agreement, the Support Equityholders agreed to vote their Shares in favor of the approval of: (i) the amendment to the Issuer’s certificate of incorporation and issuance of Shares pursuant to the exchange of the Notes under the Tier 2 Transaction, (ii) any proposal to adjourn or postpone the Special Meeting to a later date, if there are not sufficient votes for the approval of the such proposals on the date on which such meeting is held, and (iii) any other proposal included in Special Meeting Proxy Statement that relates to the consummation of the transactions contemplated by the Restructuring Agreement that the Board recommended the stockholders approve. The Support Equityholders also appointed ROS Acquisition and ORO II as attorney-in-fact and proxy to vote all applicable shares of the Support Equityholders consistent with the provisions of the Support Agreement.

Background of the Transactions

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 (the “Indenture”) with Wilmington Trust, National Association (the “Trustee”). In connection with the offering, Advisors, pursuant to its authority as investment manager, caused 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, the Indenture included the Blocker, which provided that the notes would 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.

As a condition to the closing of the Transactions, the Issuer and the Trustee are required to enter into an amendment to the Indenture (the “Indenture Amendment”) that will amend the Indenture by clarifying that the restriction that prevents any holder or any of its affiliates from effecting a conversion thereof if such conversion would result in such holder or any of its affiliates beneficially owning in excess of 9.99% of the then outstanding Shares shall not be applicable to the Tier 2 Transaction. The Indenture Amendment is required to enable the OrbiMed Purchasers to convert their Notes pursuant to the Tier 2 Transaction.

Securities Purchase Agreements

2016 Notes

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 “2016 Notes”) in a private placement to the OrbiMed Purchasers. The 2016 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 2016 Notes into Shares (together with cash in lieu of fractional Shares) at an initial conversion price of approximately \$2.90 per Share.

As a condition to the closing of the Transactions, the Issuer, the OrbiMed Purchasers are required to enter into an amendment to the 2016 Notes (the “2016 Notes Amendment”), which will amend the 2016 Notes by clarifying that the restriction that prevents any holder or any of its affiliates from effecting a conversion thereof if such conversion would result in the holder or any of its affiliates beneficially owning in excess of 9.99% of the then outstanding Shares shall not be applicable to the Tier 2 Transaction. The 2016 Notes Amendment is required to enable the OrbiMed Purchasers to exchange the 2016 Notes pursuant to the Tier 2 Transaction.

Indenture Notes SPA

On January 17, 2017, 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.

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 the OrbiMed Purchasers 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 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 the OrbiMed Purchasers 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” and, collectively with the Indenture Notes, the “2017 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.

As described more fully above, as a condition to the closing of the Transactions, the Issuer and the OrbiMed Purchasers are required to enter into the 2017 Notes Amendment to enable the OrbiMed Purchasers to convert the 2017 Notes pursuant to the Tier 1 Transaction.

Registration Rights Agreement

As a condition to the closing of the Transactions, the Issuer is required to enter into a Registration Rights Agreement (the “Registration Rights Agreement”) with the Noteholders. Upon demand by the Noteholders, the proposed Registration Rights Agreement requires the Issuer to, among other things, file with the SEC a shelf registration statement (which, initially, will be on Form S-1 and, as soon as the Issuer is eligible, will be on Form S-3) covering the resale, from time to time, of the Shares issuable upon conversion or exchange of the Notes or issued in the Private Placement within 90 days of such demand and to use its best efforts to cause the shelf registration statement to become effective under the Securities Act no later than the 180th day after such demand.

Investor Rights Agreement

As a condition to the closing of the Transactions, the Issuer is required to enter into an Investor Rights Agreement (the “Investor Rights Agreement”) with ROS Acquisition, ORO II and certain other investors. Under the proposed Investor Rights Agreement, ROS Acquisition and ORO II are permitted to nominate a majority of the directors and designate the chairperson of the Board at subsequent annual meetings, as long as they maintain an ownership threshold in the Issuer of at least 40% of the then outstanding Shares (the “Ownership Threshold”). If the OrbiMed Purchasers are unable to maintain the Ownership Threshold, the Investor Rights Agreement contemplates a reduction of nomination rights commensurate with the Issuer ownership interests. At the request of the Reporting Persons, the Issuer has nominated Matthew Rizzo and Michael Eggenberg, both of whom are employees of Advisors, for election to the Board at the Special Meeting.

For so long as the Ownership Threshold is met, the Issuer must obtain the approval of a majority of the Shares held by ROS Acquisition and ORO II to proceed with the following actions: (i) issue new securities; (ii) incur over \$250,000 of debt in a fiscal year; (iii) sell or transfer over \$250,000 of assets or businesses of the Issuer or its subsidiaries in a fiscal year; (iv) acquire over \$250,000 of assets or properties in a fiscal year; (v) make capital expenditures over \$125,000 individually, or \$1.5 million in the aggregate during a fiscal year; (vi) approve the Issuer’s annual budget; (vii) hire or terminate the Issuer’s chief executive officer; (viii) appoint or remove the chairperson of the Board; and (ix) make, loans to, investments in, or purchase, or permit any subsidiary to purchase, any stock or other securities in another entity in excess of \$250,000 in a fiscal year. As long as the Ownership Threshold is met, the Issuer may not increase the size of the Board beyond seven directors without the approval of a majority of the directors nominated by the OrbiMed Purchasers.

The Investor Rights Agreement grants ROS Acquisition and ORO II the right to purchase from the Issuer a pro rata amount of any new securities that the Issuer may propose to issue and sell. The Investor Rights Agreement may be terminated (a) upon the mutual written agreement of all the parties, (b) upon written notice of any party if ROS Acquisition and ORO II’s ownership percentage of the Shares is less than 10%, or (c) upon written notice of ROS Acquisition and ORO II.

Credit Agreement Amendment

As a condition to the closing of the Transactions, the Issuer is required to enter into an amendment to the Amended and Restated Credit Agreement among the Issuer and the OrbiMed Purchasers entered into on July 31, 2015 (the “Credit Facility”) which will amend the Credit Facility as follows:

- (a) Through December 31, 2018, the Issuer will have the option at its sole discretion (i) to pay “payment-in-kind” (“PIK”) interest at LIBOR plus 12% or (ii) pay cash interest at LIBOR plus 10%.
- (b) Beginning January 1, 2019 through June 30, 2019, the Issuer will have the option at its sole discretion to either (i) pay PIK interest at LIBOR plus 15% or (ii) pay cash interest at LIBOR plus 10%.
- (c) Beginning July 1, 2019 through the maturity date of the New Facility, the Issuer will pay cash interest at LIBOR plus 10%.
- (d) All prepayment or repayment fees under the New Facility will be reduced from 9% to 1%.
- (e) The following financial covenants will be revised as follows:
 - (i) The Issuer will be required to maintain a minimum Adjusted EBITDA as follows:

| Testing Period | Minimum Adjusted EBITDA |
|---|---|
| Three quarter period ended September 30, 2018 | \$2.2 million |
| Four quarter period ended December 31, 2018 | \$4.0 million |
| Four quarter period ended March 31, 2019 | \$5.5 million |
| Four quarter period ended June 30, 2019 | \$7.0 million |
| Four quarter period ended September 30, 2019 | \$8.5 million |
| Four quarter period ended December 31, 2019 | \$10 million |
| Four quarter period ended March 31, 2020 | The greater of (a) \$10 million or (b) 75% of projected Adjusted EBITDA for such period pursuant to projections, based on good faith estimates and assumptions believed to be reasonable at the time made, delivered to ROS no later than December 31, 2019 |
| Four quarter period ended June 30, 2020 | The greater of (a) \$10 million or (b) 75% of projected Adjusted EBITDA for such period pursuant to projections, based on good faith estimates and assumptions believed to be reasonable at the time made, delivered to ROS no later than December 31, 2019 |

- (ii) The minimum liquidity of the Issuer shall be \$500,000 at all times.
- (iii) The minimum revenue base covenant will not be applicable for quarters ended after December 31, 2017.
- (iv) The Issuer will maintain a consolidated senior leverage ratio as follows:

| Four Fiscal Quarters Ended | Consolidated Senior Leverage Ratio |
|----------------------------|------------------------------------|
| June 30, 2019 | 10.00:1.00 |
| September 30, 2019 | 10.00:1.00 |
| December 31, 2019 | 8.00:1.00 |
| March 31, 2020 | 7.00:1.00 |
| June 30, 2020 | 7.00:1.00 |

Private Placement

As referenced above, the OrbiMed Purchasers have also agreed to purchase from the Issuer in the Private Placement, upon terms and conditions reasonably satisfactory to the OrbiMed Purchasers and the Issuer, simultaneously with the consummation of the Tier 2 Transaction, an aggregate of \$6,809,887 of Shares at a price per share of \$7.20 (which, on a pre-reverse stock split basis, equates to a price per share of \$0.60).

The foregoing descriptions of the Restructuring Agreement, the Indenture, the Indenture Amendment, the 2016 SPA, the 2016 Notes, the 2016 Notes Amendment, the Indenture Notes SPA, the Indenture Notes, the PIK Notes SPA, the PIK Notes, the Registration Rights Agreement, the Investor Rights Agreement and the Facility Amendment do not purport to be complete and (i) in the case of the Indenture, the Indenture Notes SPA, the Indenture Notes, the 2016 SPA, the 2016 Notes, the PIK Notes SPA, the PIK Notes, the Restructuring Agreement, the Support Agreement, the Investor Rights Agreement, the Registration Rights Agreement and the 2017 Notes Amendment are qualified in their entirety by reference to such documents that are attached hereto as Exhibits 2, 3, 4-5, 6, 7-8, 9, 10-11, 12, 13, 14, 15 and 16, respectively, and are incorporated by reference herein and (ii) in the case of the Indenture Amendment, the 2016 Notes Amendment, and the Facility Amendment are qualified in their entirety by reference to the definitive forms of such documents that will be filed by amendment to this Statement. 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 with the SEC 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 with the SEC by Xtant Medical Holdings, Inc. on January 20, 2017). |
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| 9. | 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 with the SEC by Xtant Medical Holdings, Inc. on January 20, 2017). |
| 10. | 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 with the SEC by Xtant Medical Holdings, Inc. on January 20, 2017). |
| 11. | 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 with the SEC by Xtant Medical Holdings, Inc. on January 20, 2017). |
| 12. | Restructuring and Exchange Agreement (the "Restructuring Agreement") among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP, OrbiMed Royalty Opportunities II, LP, Bruce Fund, Inc., Park West Partners International, Limited, Park West Investors Master Fund, Limited, and Telemetry Securities, L.L.C. (incorporated by reference to Exhibit 10.1 to the Form 8-K filed with the SEC by Xtant Medical Holdings, Inc. on January 12, 2018). |
| 13. | Support Agreement, dated January 11, 2018, by and among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP, OrbiMed Royalty Opportunities II, LP and the equityholders of Xtant Medical Holdings, Inc. scheduled therein (incorporated by reference to Annex B to the Preliminary Proxy Statement filed with the SEC by Xtant Medical Holdings, Inc. on January 11, 2018). |
| 14. | Form of Investor Rights Agreement among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP, OrbiMed Royalty Opportunities II, LP, Park West Partners International and Limited, Park West Investors Master Fund, Limited (incorporated by reference to Exhibit D to Exhibit 10.1 to the Form 8-K filed with the SEC by Xtant Medical Holdings, Inc. on January 12, 2018). |
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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: January 17, 2018

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

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

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JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on this Schedule 13D, dated January 17, 2018 (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 17th day of January, 2018.

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

SIXTH AMENDMENT

This **SIXTH AMENDMENT** (this "**Amendment**") is effective as of January 17, 2018 by **XTANT MEDICAL HOLDINGS, INC.**, a Delaware corporation (the "**Company**"), **ROS ACQUISITION OFFSHORE LP**, a Cayman Islands Exempted Limited Partnership ("**ROS**") and **ORBIMED ROYALTY OPPORTUNITIES II, LP**, a Delaware limited partnership ("**Royalty Opportunities**") and, together with ROS, collectively, the "**Holder**s").

WHEREAS, ROS is the registered holder of Convertible Promissory Notes in the aggregate principal amounts of \$995,700 and \$42,856.59 issued on January 17, 2017 (collectively, the "**ROS Notes**"), in each case, by the Company;

WHEREAS, Royalty Opportunities is the registered holder of Convertible Promissory Notes in the aggregate principal amounts of \$564,300 and \$24,288.41 issued on January 17, 2017, in each case, by the Company (collectively, the "**Royalty Opportunities Notes**" and together with the ROS Notes, collectively, the "**Notes**");

WHEREAS, the Company and the Holders are party to that certain Amendment and Waiver, dated as of August 15, 2017, that certain Second Amendment and Waiver, dated as of September 29, 2017, that certain Third Amendment and Waiver, dated as of October 31, 2017, that certain Fourth Amendment and Waiver, dated as of November 30, 2017, and that certain Fifth Amendment and Waiver, dated as of December 28, 2017, pursuant to which interest accrued on the Notes was deferred until January 31, 2018 and the Holders waived any Event of Default that occurred as a result of the Company's failure to pay interest due on July 15, 2017 or January 15, 2018;

WHEREAS, the Company and the Holders are party to that certain Restructuring and Exchange Agreement, dated as of January 11, 2018, pursuant to which the Company and the Holders have agreed to amend the Notes as provided hereby; and

WHEREAS, pursuant to Section 10.13 of the Notes, the terms and conditions of the Notes may be amended or waived by the written consent of each affected holder of the Notes.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. **Definitions.** Capitalized terms used herein without definition shall have the meanings assigned to such terms in the Notes.

2. **Amendments to Section 8.02(f).** Section 8.02(f) of each of the Notes is hereby amended and restated in its entirety to read as follows:

(f) [Reserved].

3. **Amendments to Section 8.03(b).** Section 8.03(b) of each of the Notes is hereby amended and restated in its entirety to read as follows:

(b) *Settlement of Accrued Interest and Deemed Payment of Principal.* If the Holder converts this Note, the Conversion Consideration due in respect of such conversion shall account for any accrued and unpaid interest on this Note to and including the Conversion Date, and, except as provided in Section 8.02(d), the Company's delivery of the Conversion Consideration due upon such conversion will be deemed to satisfy and discharge in full the Company's obligation to pay the principal of this Note and accrued and unpaid interest, if any, on, this Note to and including the Conversion Date. As a result, except as provided in Section 8.02(d), any accrued and unpaid interest with respect to this Note, in the event that it is converted, will be deemed to be paid in full rather than cancelled, extinguished or forfeited.

4. **Conversion Date.** For the avoidance of doubt, the parties hereby agree that, if the Conversion Date is January 17, 2018, the Conversion Consideration in respect of the Notes shall be 2,275,745 shares of Common Stock in the aggregate (of which 1,452,538 of such shares of Common Stock shall be issued to ROS in the aggregate and 823,207 of such shares of Common Stock shall be issued to Royalty Opportunities in the aggregate).

5. **No Implied Waiver.** Except as expressly set forth in this Amendment, this Amendment shall not, by implication or otherwise, limit, impair, constitute a waiver of or otherwise affect any rights or remedies of the Holders under the Notes or alter, modify, amend or in any way affect any of the terms, obligations or covenants contained in the Notes, all of which shall continue in full force and effect. Nothing in this Amendment shall be construed to imply any willingness on the part of the Holders to agree to or grant any similar or future consent or waiver of any of the terms and conditions of the Notes.

6. **Governing Law.** THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (INCLUDING FOR SUCH PURPOSE SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK).

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment and Waiver to be executed as of the day and year first above written.

XTANT MEDICAL HOLDINGS, INC.,

By: /s/ Carl D. O'Connell

Name: Carl D. O'Connell

Title: Chief Executive Officer

ROS ACQUISITION OFFSHORE LP,

By OrbiMed Advisors LLC,

solely in its capacity as Investment Manager

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly

Title: Managing Member

ORBIMED ROYALTY OPPORTUNITIES II, LP,

By OrbiMed ROF II LLC,
its General Partner

By OrbiMed Advisors LLC,
its Managing Member

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly

Title: Managing Member
