FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF

OMB APPROVAL

OMB Number: 3235-0104

Estimated average burden
hours per response: 0.5

SECURITIES

1. Name and Address of Reporting Person ORBIMED ADVISORS LLC	I Requiring Sta	atement Year)	3. Issuer Name and Ticker or Trading Symbol Xtant Medical Holdings, Inc. [XTNT]							
(Last) (First) (Middl 601 LEXINGTON AVENUE, 54TH (Street) NEW YORK NY 1002 (City) (State) (Zip)	FLOOR		4. Relationship of Reporting F (Check all applicable) Director Officer (give title below)	Perso	n(s) to Issuer 10% Owner Other (spec below)	r	(Mon	th/Day/Year) lividual or Joint cable Line) Form filed by	date of Original Filed /Group Filing (Check y One Reporting Person y More than One erson	
(5.5)	Table I - N	lon-Deriva	 ative Securities Benefic	iall	v Owned		<u> </u>			
1. Title of Security (Instr. 4)			2. Amount of Securities Beneficially Owned (Instr. 4)		3. Ownershi Form: Direc or Indirect ((Instr. 5)	i (D)	4. Nati		Beneficial Ownership	
Common Stock	1,927,977		I Se		See F	See Footnotes ⁽¹⁾⁽³⁾				
Common Stock			823,207		I Se		See F	See Footnotes ⁽²⁾⁽³⁾		
			ve Securities Beneficia rants, options, converti			s)				
1. Title of Derivative Security (Instr. 4)	2. Date Exerc Expiration Da (Month/Day/Y	ate	3. Title and Amount of Securities Derivative Security (Instr. 4)		Co		ersion ercise	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)	
	Date Exercisable	Expiration Date	N		mount or umber of hares		ative			
Warrant to Purchase Common Stock	12/05/2013	12/05/2020	Common Stock	Π	87,719	6	.4	I	See Footnotes ⁽¹⁾⁽³⁾	
		07/15/2021	Common Stock	\$3	33,190,000	3.88		I	See Footnotes ⁽¹⁾⁽³⁾	
Convertible Note	(4)(5)								I	
	(4)(5)	07/15/2021	Common Stock	\$1	8,810,000	3.	.88	I	See Footnotes ⁽²⁾⁽³⁾	
Convertible Note		07/15/2021	Common Stock Common Stock	1	1,428,553		.9	I	See Footnotes ⁽²⁾⁽³⁾ See Footnotes ⁽¹⁾⁽³⁾	

1. Name and Address of ORBIMED AD									
(Last)	(First)	(Middle)							
601 LEXINGTON AVENUE, 54TH FLOOR									
(Street)									
NEW YORK	NY	10022							
(City)	(State)	(Zip)							
1. Name and Address of Reporting Person* ISALY SAMUEL D									
(Last)	(First)	(Middle)							
601 LEXINGTON AVENUE, 54TH FLOOR									
(Street)									
NEW YORK	NY	10022							
(City)	(State)	(Zip)							

Explanation of Responses:

^{1.} These securities are held of record by ROS Acquisition Offshore LP ("ROS Acquisition"). OrbiMed Advisors LLC ("Advisors"), a registered adviser under the Investment Advisors Act of 1940, as amended, is the investment manager of ROS Acquisition. Samuel D. Isaly ("Isaly"), a natural person, is the managing member of, and holder of a controlling interest in, Advisors. Advisors is also the investment manager of Royalty Opportunities S.a.r.l., of which ROS Acquisition is a wholly-owned subsidiary. By virtue of such relationships, Advisors and Isaly may be deemed to have voting and investment power with respect to the securities held by ROS Acquisition noted above and as a result may be deemed to have beneficial ownership over such securities.

^{2.} These securities are held of record by OrbiMed Royalty Opportunities II, LP ("ORO II"). OrbiMed ROF II LLC ("ROF II") is the sole general partner of ORO II, and Advisors is the sole managing member of ROF II. Isaly, a natural person, is the managing member of, and holder of a controlling interest in, Advisors. By virtue of such relationships, Advisors and Isaly may be deemed to have voting and investment

power with respect to the securities held by ORO II noted above and as a result may be deemed to have beneficial ownership over such securities.

- 3. This report on Form 3 is jointly filed by Advisors and Isaly. Each of the reporting persons disclaims beneficial ownership of the securities reported herein for purposes of Rule 16a-1(a) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), except to the extent of its or his pecuniary interest therein, if any. This report shall not be deemed an admission that any of the reporting persons is a beneficial owner of such securities for the purposes of Section 16 of the Exchange Act, or for any other purposes.
- 4. These convertible notes (collectively, the "Notes") may be converted into shares of common stock ("Shares") of the Issuer at any time prior to the close of business on the second business day immediately preceding July 15, 2021. However, the Notes will not be convertible to the extent that such conversion would result in the holder of each Note or any of its affiliates being deemed to beneficially own in excess of 9.99% of the then-outstanding Shares.
- 5. Pursuant to the Restructuring and Exchange Agreement entered into on January 11, 2018 among the Issuer, ORO II, ROS Acquisition and certain other parties, which agreement is filed as an exhibit to the Issuer's Form 8-K filed with the Securities and Exchange Commission on January 12, 2018 (the "Form 8-K"), the Issuer, ORO II and ROS Acquisition have agreed to amend the Notes to clarify 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 (as described in the Form 8-K).

<u>/s/ Samuel D. Isaly</u> 01/19/2018

Date

** Signature of Reporting Person

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 5 (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.