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

**PRE-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-3**
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

XTANT MEDICAL HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-5313323
(I.R.S. Employer
Identification Number)

**664 Cruiser Lane
Belgrade, Montana 59714
(406) 388-0480**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Sean E. Browne
President and Chief Executive Officer
Xtant Medical Holdings, Inc.
664 Cruiser Lane
Belgrade, Montana 59714
(406) 388-0480**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Amy E. Culbert, Esq.
Emily Humbert, Esq.
Fox Rothschild LLP
City Center
33 South Sixth Street, Suite 3600
Minneapolis, Minnesota 55402
(612) 607-7000**

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective as determined by the selling stockholders.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said section 8(a), may determine.

EXPLANATORY NOTE

This Pre-Effective Amendment No. 1 (this "Amendment") to the Registration Statement on Form S-3 (File No. 333-273169) (the "Registration Statement") of Xtant Medical Holdings, Inc. (the "Company") is being filed solely to file an additional consent of Plante & Moran, PLLC, the Company's independent registered public accounting firm, as Exhibit 23.3 to the Registration Statement. Accordingly, this Amendment consists solely of the facing page, this Explanatory Note, Item 16 of Part II of the Registration Statement, the signature page, Exhibit 23.1 and Exhibit 23.3. The prospectus and the balance of Part II of the Registration Statement are unchanged and have been omitted.

PART II — INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
3.1	<u>Amended and Restated Certificate of Incorporation of Xtant Medical Holdings, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 13, 2018 (SEC File No. 001-34951) and incorporated by reference herein)</u>
3.2	<u>Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Xtant Medical Holdings, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 31, 2019 (SEC File No. 001-34951) and incorporated by reference herein)</u>
3.3	<u>Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Xtant Medical Holdings, Inc., as amended (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 1, 2020 (SEC File No. 001-34951) and incorporated by reference herein)</u>
3.4	<u>Third Amended and Restated Bylaws of Xtant Medical Holdings, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on May 19, 2023 (SEC File No. 001-34951) and incorporated by reference herein)</u>
4.1	<u>Form of Common Stock Certificate (filed as Exhibit 4.2 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 8, 2022 (SEC File No. 001-34951) and incorporated by reference herein)</u>
4.2	<u>Investor Rights Agreement dated February 14, 2018 by and among Xtant Medical Holdings, Inc., OrbiMed Royalty Opportunities II, LP, ROS Acquisition Offshore LP, Park West Partners International, Limited and Park West Investors Master Fund, Limited (filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the SEC on February 16, 2018 (SEC File No. 001-34951) and incorporated by reference herein)</u>
4.3	<u>Registration Rights Agreement (for Common Stock underlying the Indenture Notes) dated January 17, 2017 by and among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP. (filed as Exhibit 10.9 to the Registrant's Current Report on Form 8-K filed with the SEC on January 20, 2017 (SEC File No. 001-34951) and incorporated by reference herein)</u>
4.4	<u>Registration Rights Agreement (for Common Stock underlying the PIK Notes) dated January 17, 2017 by and among Xtant Medical Holdings, Inc., ROS Acquisition Offshore LP and OrbiMed Royalty Opportunities II, LP. (filed as Exhibit 10.13 to the Registrant's Current Report on Form 8-K filed with the SEC on January 20, 2017 (SEC File No. 001-34951) and incorporated by reference herein)</u>
4.5	<u>Registration Rights Agreement (for Common Stock issued upon the exchange of the Notes and pursuant to the Private Placement) dated as of February 14, 2018 by and among Xtant Medical Holdings, Inc., OrbiMed Royalty Opportunities II, LP, ROS Acquisition Offshore LP, Telemetry Securities, L.L.C., Bruce Fund, Inc., Park West Investors Master Fund, Limited, and Park West Partners International, Limited (filed as Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the SEC on February 16, 2018 (SEC File No. 001-34951) and incorporated by reference herein)</u>
4.6	<u>Registration Rights Agreement dated October 1, 2020 by and among Xtant Medical Holdings, Inc., OrbiMed Royalty Opportunities II, LP, and ROS Acquisition Offshore LP (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on October 1, 2020 (SEC File No. 001-34951) and incorporated by reference herein)</u>

- 4.7 [Registration Rights Agreement dated February 24, 2021 by and between Xtant Medical Holdings, Inc. and the investor party thereto \(filed as Exhibit 4.4 to the Registrant's Registration Statement on Form S-3 filed with the SEC on April 6, 2021 \(SEC File No. 333-255074\) and incorporated by reference herein\)](#)
- 4.8 [Registration Rights Agreement, dated as of August 25, 2022, by and among Xtant Medical Holdings, Inc. and the investors party thereto \(filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on August 31, 2022 \(SEC File No. 001-34951\) and incorporated by reference herein\)](#)
- 4.9 [Registration Rights Agreement, dated as of July 6, 2023, by and among Xtant Medical Holdings, Inc. and the investors party thereto \(filed as Exhibit 4.9 to the Registrant's Registration Statement on Form S-3 filed with the SEC on July 7, 2023 \(SEC File No. 333-273169\) and incorporated by reference herein\)](#)
- 4.10 [Form of Investor Warrant \(filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 22, 2021 \(SEC File No. 001-34951\) and incorporated by reference herein\)](#)
- 4.11 [Form of Placement Agent Warrant \(filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the SEC on February 22, 2021 \(SEC File No. 001-34951\) and incorporated by reference herein\)](#)
- 4.12 [Form of Warrant \(filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on August 24, 2022 \(SEC File No. 001-34951\) and incorporated by reference herein\)](#)
- 5.1 [Opinion of Fox Rothschild LLP \(filed as Exhibit 5.1 to the Registrant's Registration Statement on Form S-3 filed with the SEC on July 7, 2023 \(SEC File No. 333-273169\) and incorporated by reference herein\)](#)
- 10.1 [Securities Purchase Agreement, dated as of July 3, 2023, by and among Xtant Medical Holdings, Inc. and the investors party thereto \(filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 3, 2023 \(SEC File No. 001-34951\) and incorporated by reference herein\)](#)
- 23.1* [Consent of Independent Registered Public Accounting Firm, Plante & Moran, PLLC](#)
- 23.2 [Consent of Fox Rothschild LLP \(included in Exhibit 5.1 to the Registrant's Registration Statement on Form S-3 filed with the SEC on July 7, 2023 \(SEC File No. 333-273169\) and incorporated by reference herein\)](#)
- 23.3* [Consent of Independent Registered Public Accounting Firm, Plante & Moran, PLLC](#)
- 24.1 [Power of Attorney \(included on signature page to the Registrant's Registration Statement on Form S-3 filed with the SEC on July 7, 2023 \(SEC File No. 333-273169\) and incorporated by reference herein\)](#)
- 107 [Calculation of Filing Fee Tables \(filed as Exhibit 107 to the Registrant's Registration Statement on Form S-3 filed with the SEC on July 7, 2023 \(SEC File No. 333-273169\) and incorporated by reference herein\)](#)

* Filed herewith

(b) Financial Statement Schedules

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Pre-Effective Amendment No. 1 to registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Belgrade, State of Montana, on July 11, 2023.

XTANT MEDICAL HOLDINGS, INC.

By: /s/ Sean E. Browne
Name: Sean E. Browne
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Pre-Effective Amendment No. 1 to registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Capacity	Date
<u>/s/ Sean E. Browne</u> Sean E. Browne	President and Chief Executive Officer and Director (Principal Executive Officer)	July 11, 2023
<u>/s/ Scott Neils</u> Scott Neils	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	July 11, 2023
<u>*</u> Stavros Vizirgianakis	Chair of the Board of Directors	July 11, 2023
<u>*</u> John K. Bakewell	Director	July 11, 2023
<u>*</u> Jonh Beeson	Director	July 11, 2023
<u>*</u> Robert McNamara	Director	July 11, 2023
<u>*</u> Lori Mitchell-Keller	Director	July 11, 2023
* By: <u>/s/ Sean E. Browne</u> Sean E. Browne Attorney-in-fact		

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3, as amended, of our report dated March 7, 2023 with respect to the consolidated financial statements of Xtant Medical Holdings, Inc. included in its Annual Report on Form 10-K as of and for the years ended December 31, 2022 and 2021. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ PLANTE & MORAN, PLLC

Denver, Colorado
July 11, 2023

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3, as amended, of our report dated May 16, 2023 with respect to the abbreviated financial statements of Suralign SPV, Inc., which report appears in the Form 8-K/A of Xtant Medical Holdings, Inc. filed May 16, 2023.

/s/ PLANTE & MORAN, PLLC

Denver, Colorado
July 11, 2023
