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

FORM 8-K

CURRENT REPORT Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of report (Date of earliest event reported): May 16, 2017

XTANT MEDICAL HOLDINGS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

001-34951 (Commission File Number)

20-5313323 (IRS Employer Identification No.)

664 Cruiser Lane Belgrade, Montana (Address of Principal Executive Offices)

59714 (Zip Code)

(406) 388-0480 (Registrant's Telephone Number, Including Area Code)

Not applicable (Former Name or Former Address, if Changed Since Last Report)

| Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below): |
|---|
| ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425) |
| □ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12) |
| □ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)) |
| □ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)) |
| Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2). |
| Emerging growth company \square |
| 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 13(a) of the Exchange Act. \Box |
| |

Item 7.01

Regulation FD Disclosure.

The Company has issued a press release on May 16, 2017, entitled "Xtant Medical Enters into Licensing Agreement for Sites Medical's OsteoSync Ti Technology," which is attached as Exhibit 99.1 and incorporated herein.

The information in this Item 7.01 and the document attached as Exhibit 99.1 are being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), nor otherwise subject to the liabilities of that section, nor incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No. Description

99.1 Press Release of Xtant Medical Holdings, Inc. dated May 16, 2017, entitled "Xtant Medical Enters into Licensing Agreement for SitesMedical's OsteoSync Ti Technology."

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: May 16, 2017

By: /s/ John Gandolfo

Name: John Gandolfo Title: Chief Financial Officer

EXHIBIT INDEX

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Xtant Medical Enters into Licensing Agreement for Sites Medical's OsteoSync Ti Technology

BELGRADE, Mont., May 16, 2017 (GLOBE NEWSWIRE) -- Xtant Medical Holdings, Inc. (NYSE MKT:XTNT), a leader in the development, manufacturing and marketing of orthopedic products for domestic and international markets, today announced it has entered into a licensing agreement with Sites Medical LLC, for utilization of their proprietary OsteoSync™ Ti technology, a best-in-class porous titanium scaffold.

"We are very excited to work with Sites Medical," said Carl O'Connell, CEO of Xtant Medical. "As market dynamics shift towards emerging titanium technologies, Sites Medical's OsteoSync Ti technology places us firmly at the forefront of this trend. This technology exhibits great synergy with our entire line of spinal implants further enhancing the value of this relationship as well as Xtant's potential impact in its core market."

"We are thrilled to be partnering with Xtant Medical, a company with a rich history of innovation in the spine field," said Greg Stalcup, President/CEO of Sites Medical. "We look forward to working with the Xtant team to combine our respective technologies to deliver a new generation of high performance, high value products to the market."

OsteoSync Ti technology is a highly porous titanium scaffold designed to meet the needs of today's patients from both clinical and economic standpoints. Its high friction coefficient ensures high initial implant stability and its open pore geometry and micro-texturing facilitate superior bone ingrowth. Preclinical testing has demonstrated bone attachment strength nearly twice that of titanium plasma spray and approximately seven times that of PEEK material at the 5-week follow up period, a performance differential that can impact clinical outcomes, especially in spinal fusion patients. OsteoSync Ti technology has also been engineered to reduce the potential for abrasion debris generation during implant insertion, offering an additional measure of safety for the patient. The material is manufactured using highly innovative methods and offers substantial value in today's cost-conscious healthcare environment.

Utilizing Q2 Metrics data, Xtant Medical estimates the total addressable US market for its technologies that can utilize OsteoSync Ti at \$2.5B with a 5 year CAGR approaching 4.75%. Xtant Medical's first devices to utilize the technology will be featured at this year's NASS annual meeting to be held on October 25-28 in Orlando, FL.

About Xtant Medical Holdings

Xtant Medical Holdings, Inc. (NYSE MKT:XTNT) develops, manufactures and markets class-leading regenerative medicine products and medical devices for domestic and international markets. Xtant products serve the specialized needs of orthopedic and neurological surgeons, including orthobiologics for the promotion of bone healing, implants and instrumentation for the treatment of spinal disease, tissue grafts for the treatment of orthopedic disorders, and biologics to promote healing following cranial, and foot and ankle surgeries. With core competencies in both biologic and non-biologic surgical technologies, Xtant can leverage its resources to successfully compete in global neurological and orthopedic surgery markets. For further information, please visit www.xtantmedical.com.

About Sites Medical

Sites Medical has recognized the shift in healthcare reimbursement paradigms and is entirely focused on Value-Driven Innovation in orthopedics. With its suite of proprietary orthopedic implant technologies and manufacturing process improvements, Sites aims to deliver improved clinical outcomes and reduced cost to all stakeholders. SITES can further serve the needs of its OEM partners through its Concept-to-Launch capability, where we conduct all necessary R&D activity and use state-of-the-art manufacturing equipment and techniques to deliver the highest quality product. Additional information about the company can be found at www.sitesmedical.com.

Important Cautions Regarding Forward-looking Statements

This press release contains certain disclosures that may be deemed forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to significant risks and uncertainties. Forward-looking statements include statements that are predictive in nature, that depend upon or refer to future events or conditions, or that include words such as "continue," "efforts," "expects," anticipates," "intends," "plans," "believes," "estimates," "projects," "forecasts," "strategy," "will," "goal," "target," "prospects," "potential," "optimistic," "confident," "likely," "probable" or similar expressions or the negative thereof. Statements of historical fact also may be deemed to be forward-looking statements. We caution that these statements by their nature involve risks and uncertainties, and actual results may differ materially depending on a variety of important factors, including, among others: the ability to comply with covenants in the Company's senior credit facility and to make deferred interest payments; the ability to maintain sufficient liquidity to fund operations; the ability to remain listed on the NYSE MKT; the ability to obtain financing on reasonable terms; the ability to increase revenue; the ability to continue as a going concern; the ability to maintain sufficient liquidity to fund operations; the ability to achieve expected results; the ability to remain competitive; government regulations; the ability to innovate and develop new products; the ability to obtain donor cadavers for products; the ability to engage and retain qualified technical personnel and members of the Company's management team; the availability of Company facilities; government and thirdparty coverage and reimbursement for Company products; the ability to obtain regulatory approvals; the ability to successfully integrate recent and future business combinations or acquisitions; the ability to use net operating loss carry-forwards to offset future taxable income; the ability to deduct all or a portion of the interest payments on the notes for U.S. federal income tax purposes; the ability to service Company debt; product liability claims and other litigation to which we may be subjected; product recalls and defects; timing and results of clinical studies; the ability to obtain and protect Company intellectual property and proprietary rights; infringement and ownership of intellectual property; the ability to remain accredited with the American Association of Tissue Banks; influence by Company management; the ability to pay dividends; and the ability to issue preferred stock; and other factors.

Additional risk factors are listed in the Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q under the heading "Risk Factors." The Company undertakes no obligation to release publicly any revisions to any forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events, except as required by law.

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