Xtant Medical Holdings, Inc.
Form FWP
September 29, 2016
FREE WRITING PROSPECTUS

Filed Pursuant to Rule 433

Issuer Free Writing Prospectus dated September 29, 2016

Registration No. 333-213350

FREE WRITING PROSPECTUS

Xtant Medical Holdings, Inc. Company Presentation

This presentation highlights basic information about Xtant Medical Holdings, Inc. Because it is a summary, it does not contain all the information you should consider before investing.

We have filed a registration statement (including a prospectus) with the SEC for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the prospectus included in the registration statement (including the risk factors described therein) and other documents we have filed with the SEC for more complete information about us and the offering. You may get these documents for free by visiting EDGAR on the SEC website at http://www.sec.gov.

The preliminary prospectus, dated September 28, 2016, can also be accessed through the following link:

https://www.sec.gov/Archives/edgar/data/1453593/000114420416125750/v449443_s1a.htm.

Alternatively, Xtant Medical Holdings, Inc. or the dealer-manager participating in the offering will arrange to send you the prospectus if you contact Maxim Group, LLC, Maxim Group LLC, Prospectus Department, 405 Lexington Ave., New York, NY, 10174; Telephone: (212)-895-3745: Email: syndicate@maximgrp.com.

Encompassing Excellence NYSE MKT: XTNT September/October 2016 Investor Presentation NYSE MKT: XTNT | September/October 2016 1

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Introduction NYSE MKT: XTNT | September/October 2016 3 The Company's comprehensive portfolio serves the specialized needs of orthopedic and neurological surgeons including: Orthobiologics for the promotion of bone healing, and Implants and instrumentation for the treatment of spinal diseases Xtant operates its B iologics business out of Belgrade, MT, its Fixation and implant business out of Miamisburg, OH, and additional administrative support functions out of Louisville, CO Xtant Medical Holdings, Inc. develops, manufactures and markets outstanding regenerative medicine products and medical devices for the global spine market

Comprehensive and Diversified Product Portfolio NYSE MKT: XTNT | September/October 2016 4 ANTERIOR CERVICAL FIXATION POSTERIOR CERVICAL/THORACIC SACROILIAC FUSION FIXATION BIOLOGICS THORACOLUMBAR INTERBODY This image cannot currently be displayed. THORACOLUMBAR STRUCTURAL ALLOGRAFT ANTERIOR CERVICAL INTERBODY THORACOLUMBAR FIXATION CERVICAL STRUCTURAL ALLOGRAFT CERVICAL, THORACOLUMBAR & SACROILIAC FUSION BIOLOGICS

Large US Market Opportunity 1 Source: BioMed GPS 2014 2 Source: iData 2014 NYSE MKT: XTNT | September/October 2016 5

Revenue Mix NYSE MKT: XTNT | September/October 2016 6

Operating Results NYSE MKT: XTNT | September/October 2016 7 Increasing Gross Margins \$20.9M 3Q15* \$22.3M 4Q15 \$21.0M 1Q16 \$21.5M 2Q16 65.5% 3Q15* 67.0% 4Q15 67.2% 1Q16 68.5% 2Q16 Revenue Gross Margin * 3Q15 Results are presented as pro forma consolidated, all other data is as reported; all are unaudited

Full Year 2016 Guidance NYSE MKT: XTNT | September/October 2016 8 **The Company defines earnings before interest, taxes, depreciation and amortization ("EBITDA") as net income/loss from operations bef ore depreciation, amortization, impairment charges, non - recurring expenses and non - cash stock - based compensation . See reconciliation of EBITDA at the back of this presentation. (\$000's) Full Year 2015 Results* Full Year 2016 Guidance Low - High Total Revenue \$86,518 \$87,000 - \$90,000 OEM Revenue \$5,093 \$1,000 - \$1,000 Core Revenue \$81,425 \$86,000 - \$89,000 EBITDA** (\$33) \$2,300 - \$3,300 *Full Year 2015 Results are presented as pro forma consolidated, all other data is as reported

Growth Drivers NYSE MKT: XTNT | September/October 2016 9 Now that the integration of X - spine is complete, management is focused on driving growth Portfolio sales (Biologics sold through the legacy X - spine channel and Fixation products sold through the legacy Bacterin c hannel) could provide substantial growth in the second half of 2016 Selling existing products to existing customers Investment in consigned inventory and surgical instrumentation in the first half of 2016 will begin to generate revenue in the second half of 2016 New products in development that leverage our call point in spine surgery

NYSE MKT: XTNT | September/October 2016 10 Portfolio Selling Example: Posterior Lumbar Solutions \$1.5M 2Q16 Revenue from portfolio selling, 6.6% of total revenue, up from \$935K in 1Q16 10 - 12% Management goal for portfolio selling

Growing Demand for 3Demin since launch NYSE MKT: XTNT | September/October 2016 11 3Demin Revenue \$905,983 1Q16 \$746,678 4Q15 \$667,019 3Q15 \$461,700 2Q15 \$221,525 1Q15 \$1,020,766 2 Q16

New Products Announced Since Completion of the X - spine Acquisition NYSE MKT: XTNT | September/October 2016 12 • \$75,000+ revenue in 2Q16 (Pilot Launch) • Total Addressable Market approximately \$282M • 510(k) clearance Announced March 30, 2016 • Total Addressable Market approximately \$110M • Revenue Contribution Expected in 2H16 • Total Addressable Market approximately \$400M • \$87,000+ revenue in 2Q16 (Pilot Launch) • Total Addressable Market approximately \$160M

NYSE MKT: XTNT | September/October 2016 13 Announced March 24, 2016 \$252 million total addressable market* Unique, viable cell line (MIAMI) Launched end of Q2 2016 *Source: BioMed GPS 2014

FINANCIAL OVERVIEW NYSE MKT: XTNT | September/October 2016 14

Financial Overview Second Quarter 2016 Summary (\$000's) **The Company defines earnings before interest, taxes, depreciation and amortization ("EBITDA") as net income/loss from operations before depreciation, amortization, impairment charges and non - cash stock - based compensation . See the reconciliation of EBITDA at the back of this presentation. (000's), unaudited Three Months Ended June 30, 2016 Six Months Ended June 30, 2016 Total Revenue \$21,462 \$42,439 OEM Revenue \$436 \$790 Core Revenue \$21,026 \$41,649 Gross Profit \$14,703 \$28,804 Gross Margin 68.5% 67.9% Operating Loss (\$2,122) (\$4,485) EBITDA** Gain (Loss) \$333 \$188 NYSE MKT: XTNT | September/October 2016 15 Six Consecutive Quarters of Y/Y Increase in Core Sales Six Consecutive Quarters of Expanding Gross Margin, Increase of 3.1% over FY15 GM Four Consecutive Quarters of Increasing EBITDA - \$1.2M increase from 3Q16

Capitalization NYSE MKT: XTNT | September/October 2016 16 *Results listed under "As Of June 30, 2016" are unaudited (000's) As of June 30, 2016* Cash & Cash Equivalents \$2,217 Debt: Revolving Line of Credit \$5,481 Non - Convertible Debt \$47,072 Convertible Debt (Conv. Prices: ~\$ 2.2MM at \$2.90 and ~\$ 68.0MM at \$3.88) \$70,238 Capital Lease Obligations \$961 Total Debt \$123,752 Shares Outstanding: Common Stock 12,135 Options (Wtd . Avg. Strike of \$10.83) 562 Warrants (Wtd . Avg Strike of \$7.65) 1,236 Total Common Stock, Options and Warrants 13,933

2016 Non - GAAP Profitability & Break Even Non - GAAP profitability is defined as EBITDA adjusted for cash based interest expense Revised guidance for full year 2016 non - GAAP profitability is (\$3.2M) to (\$2.2M) Break even revenues occur at approximately \$24.2M per quarter NYSE MKT: XTNT | September/October 2016 17 After break even, on an incremental basis the Company anticipates approximately 45% contribution margin

Estimated Incremental Revenue Flow Through NYSE MKT: XTNT | September/October 2016 18 (\$000's) Break Even Incremental Quarterly Revenue \$24,250 \$1,000 Gross Profit \$16,611 \$750 Gross Margin 68.5% 75% Commissions \$7,275 \$300 All Other Operations & Cash - Based Interest Expense \$9,336 \$0 Income From Operations - \$450 Operating Margin 0% 45%

SUMMARY NYSE MKT: XTNT | September/October 2016 19 JG2

Financial Guidance **The Company defines earnings before interest, taxes, depreciation and amortization ("EBITDA") as net income/loss from operations before depreciation, amortization, impairment charges and non - cash stock - based compensation. NYSE MKT: XTNT | September/October 2016 20 (\$000's) Full Year 2016 Guidance Low - High Revenue \$87,000 - \$90,000 EBITDA** \$2,300 - \$3,300 Cash Bas ed Interest Expense \$5,450 - \$5,450 Non - GAAP Profitability (\$3,150) - (\$2,150)

Growth Drivers Xtant is a substantial revenue stage, spine - product business with expanding margins Sales growth in 2016 and 2017 driven by Portfolio Sales and additional inventory and surgical instrumentation to service existing accounts and open new ones Meaningful contribution from new products in second half of 2016 and through 2017 NYSE MKT: XTNT | September/October 2016 21

664 Cruiser Ln. Belgrade, MT 59714 1.406.388.0480 info@xtantmedical.com CONTACT US xtantmedical.com Investor Relations CG Capital 1.877.889.1972 investorrelations@cg.capital c g.capital NYSE MKT: XTNT

Reconciliation of EBITDA NYSE MKT: XTNT | September/October 2016 Appendix A (000's) Three Months Ended June 30, 2016 Three Months Ended June 30, 2015* Twelve Months Ended December 31, 2015 Net Loss from Operations (\$2,122) (\$1,375) (\$12,475) Impairment of Assets \$0 \$0 \$234 Acquisition and Integration related expenses \$450,756 \$0 \$4,936 Gain from the Extinguishment of Debt \$0 \$0 (\$2,345) Non - Cash Compensation \$135 \$214 \$794 Depreciation & Amortization \$1,869 \$2,109 \$8,823 EBITDA Gain (Loss) \$333 \$949 (\$33)