

May 30, 2018

VIA EDGAR AND E-MAIL

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attn: Ada D. Sarmento
Erin Jaskot

**Re: Xtant Medical Holdings, Inc.
Registration Statement on Form S-1
Filed May 15, 2018
Amendment No. 1 to Registration Statement on Form S-1
Filed May 16, 2018
File No. 333-224940**

Dear Ms. Sarmento and Ms. Jaskot:

This letter sets forth the responses of Xtant Medical Holdings Inc. (the Company, we, us or our) to the comments of the staff (the Staff) of the Division of Corporation Finance, Securities and Exchange Commission (the Commission) in the letter dated May 23, 2018 from Ada D. Sarmento and Erin Jaskot to Carl O'Connell, the Company's Chief Executive Officer.

For the convenience of the Staff's review, we have restated the Staff's original comment in italicized print prior to the Company's response.

Amendment No. 1 to Registration Statement on Form S-1
Incorporation of Certain Documents by Reference, page 24

- Please incorporate by reference your Definitive Proxy Statement on Schedule 14A filed on January 22, 2018, the amendment to your Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017 filed on March 30, 2018 and the amendment to your Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017 filed on March 30, 2018.*

Company Response:

The Company has filed a responsive Pre-Effective Amendment No. 2 to its registration statement on Form S-1 to incorporate by reference to include our Definitive Proxy Statement on Schedule 14A filed on January 22, 2018, the amendment to our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017 filed on March 30, 2018 and the amendment to our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017 filed on March 30, 2018.



We hope that this response satisfactorily addresses your comments. If you have any further comments or questions or require any additional information concerning the filing or the matters discussed herein, please contact me (406) 388-0480, or our counsel, Amy E. Culbert of Fox Rothschild LLP, at (612) 607-7287.

Very truly yours,

/s/ Carl O'Connell

Carl O'Connell
Chief Executive Officer

cc: Amy E. Culbert, Fox Rothschild LLP
