



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4720

June 27, 2016

John Gandolfo  
Chief Financial Officer  
Xtant Medical Holdings, Inc.  
664 Cruiser Lane  
Belgrade, Montana 59714

**Re: Xtant Medical Holdings, Inc.  
Post-Effective Amendment No. 3 to  
Registration Statement on Form S-1  
Filed June 17, 2016  
File No. 333-203492**

Dear Mr. Gandolfo:

We have limited our review of your post-effective amendment to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Directors and Executive Officers, page 57

1. We note your footnote disclosure on page 57 that Paul R. Buckman, Rudy A. Mazzocchi and Eric B. Timko will be appointed as members of your board of directors effective July 2, 2015. Please revise, if true, that these directors will be appointed effective July 2, 2016 and file each nominee's written consent to be named in the prospectus. Refer to Securities Act Rule 438.

Signatures

2. Please revise to provide a current signature of Mr. Gandolfo on behalf of the registrant. In this regard, we note the registrant's signature remains dated April 29, 2016. In addition, to the extent you include the signature of director David Kirschman, please

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either file an executed power of attorney for Mr. Kirschman or revise the signature page to eliminate the implication that the attorney-in-fact has signed on his behalf.

Please contact Tara Keating Brooks at (202) 551-8336 or Mary Beth Breslin at (202) 551-3625 with any questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance

cc: Travis Leach, Ballard Spahr LLP