

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

February 27, 2018

Carl O'Connell Chief Executive Officer Xtant Medical Holdings, Inc. 664 Cruiser Lane Belgrade, Montana 59714

> Re: Xtant Medical Holdings, Inc. Registration Statement on Form S-1 Filed February 7, 2018 File No. 333-222918

Dear Mr. O'Connell:

We have limited our review of your registration statement 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.

Form S-1 Filed February 7, 2018

Material U.S. Federal Income Tax Consequences, page 30

1. We note your belief that the receipt of subscription rights pursuant to the rights offering should not be treated as a taxable distribution for U.S. federal income tax purposes. A tax opinion must be filed whenever the tax consequences of a transaction are material to an investor and a representation as to tax consequences is set forth in the filing. Please file a tax opinion as an exhibit to the filing pursuant to Item 601(b)(8) of Regulation SK. For guidance, please refer to Section III.A.2, including footnote 39, of Staff Legal Bulletin No. 19 (October 14, 2011).

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Incorporation of Certain Information by Reference, page 38

2. Since you have not yet filed your Form 10-K for the fiscal year ended December 31, 2017, you are not eligible to incorporate by reference. See General Instruction VII.C to Form S-1. Please amend the registration statement to include all disclosure required by Form S-1, or, in the alternative, file your Form 10-K for the fiscal year ended December 31, 2017 and revise this section accordingly.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Jeffrey Gabor at 202-551-2544 or Irene Paik at 202-551-6553 with any questions.

Division of Corporation Finance Office of Healthcare & Insurance

cc: Wesley Robinson