

July 6, 2016

VIA EDGAR AND FACSIMILE

United States Securities and Exchange Commission
Division of Corporation Finance
100 F. Street, N.E.
Washington, D.C. 20549
Attention: Suzanne Hayes
Tara Keating Brooks

Re: Xtant Medical Holdings, Inc. (the "Company")
Post-Effective Amendment No. 2 to Registration Statement on Form S-1
File No. 333-203492

Ladies and Gentlemen:

In accordance with Rule 461 under the Securities Act of 1933, as amended, the undersigned respectfully requests that the effective date for the Registration Statement referred to above be accelerated so that it will be declared effective at 9:00 AM on July 7, 2016, or as soon thereafter as is practicable.

The Company hereby acknowledges that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Company may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

XTANT MEDICAL HOLDINGS, INC.

/s/ John Gandolfo
John Gandolfo
Chief Financial Officer

cc: Travis Leach, Ballard Spahr LLP