

Lantheus Holdings, Inc.
331 Treble Cove Road
North Billerica, MA 01862

June 24, 2015

VIA EDGAR AND EMAIL

Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-3561
Attn: Christina De Rosa

Re: Lantheus Holdings, Inc.
Registration Statement on Form S-1
(File No. 333-196998)

Ladies and Gentlemen:

We refer to the registration statement on Form S-1 (File No. 333-196998) (as amended, the "Registration Statement"), of Lantheus Holdings, Inc. (the "Company"), relating to the registration of the Company's common stock, par value \$0.01 per share.

In accordance with Rule 461 under the Securities Act of 1933, as amended, the Company hereby respectfully requests the acceleration of the effectiveness of the Registration Statement so that it may become effective at 4:00 p.m. (Eastern time) on Wednesday, June 24, 2015 or as soon as practicable thereafter.

The Company hereby acknowledges the following:

- should the Securities and Exchange Commission (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 staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, the Company hereby confirms that it is aware of its responsibilities under the Securities Act and the Securities Exchange Act of 1934, as amended, as they relate to the proposed public offering of the securities specified in the Registration Statement.

Please call Heather L. Emmel at (212) 310-8849, of Weil, Gotshal & Manges LLP, to confirm the effectiveness of the Registration Statement.

Very truly yours,

Lantheus Holdings, Inc.

By: /s/ Michael P. Duffy

Name: Michael P. Duffy

Title: Vice President, General
Counsel and Secretary

[SIGNATURE PAGE TO ACCELERATION REQUEST]

VIA EDGAR

June 24, 2015

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Lantheus Holdings, Inc. (the "Company")
Registration Statement on Form S-1 (File No. 333-196998)

Ladies and Gentlemen:

As representatives of the several underwriters of the Company's proposed public offering of common stock, we hereby join the Company's request that the effective date of the above-referenced Registration Statement be accelerated so that the above-referenced Registration Statement will be declared effective at 4:00 p.m. (ET) on June 24, 2015, or as soon thereafter as is practicable.

Pursuant to Rule 460 of the General Rules and Regulations of the Securities and Exchange Commission under the Securities Act of 1933, as amended, we wish to advise you that we have effected the following distribution of the Company's Preliminary Prospectus dated June 16, 2015, through the date hereof:

Preliminary Prospectus dated June 16, 2015:

3,354 copies to prospective underwriters, institutional investors, dealers and others

The undersigned advise that they have complied and will continue to comply, and that they have been informed by the participating underwriters and dealers that they have complied with and will continue to comply, with the requirements of Rule 15c2-8 under the Securities Exchange Act of 1934, as amended.

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Very truly yours,

As Representatives of the several Underwriters

CREDIT SUISSE SECURITIES (USA) LLC

By: /s/ Joseph Suriani
Name: Joseph Suriani
Title: Director

JEFFERIES LLC

By: /s/ Jesse Mark
Name: Jesse Mark
Title: Managing Director

[Signature Page to Acceleration Request]