

July 11, 2014

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3010
Attn: Mr. Jeffrey P. Riedler

**Re: Lantheus Holdings, Inc.
Registration Statement on Form S-1, as amended
File No. 333-196998**

Dear Mr. Riedler:

This letter relates to the Registration Statement on Form S-1 (Registration No. 333-196998) (the “**Registration Statement**”), as amended through Amendment No. 1 on July 9, 2014 (“**Amendment No. 1**”), of Lantheus Holdings, Inc., a Delaware corporation (the “**Company**”). The Company hereby provides the following proposed price range and share number information expected to be included in the Company’s preliminary prospectus (the “**Preliminary Prospectus**”) forming part of the Registration Statement which relates to the Company’s proposed initial public offering (the “**Offering**”) for the Staff’s review. Such Preliminary Prospectus is expected to state that the initial offering price to the public of the Company’s shares of common stock (the “**Shares**”) is to be between \$12.00 and \$15.00 per Share, 9,259,259 Shares offered to the public in connection with the Offering (or 10,648,147 Shares should the underwriters’ option to purchase additional shares be exercised in full) and 27,340,203 Shares expected to be outstanding upon completion of the Offering (or 28,729,091 Shares should the underwriters’ option to purchase additional shares be exercised in full). Please find enclosed the relevant sections of the Registration Statement updated to reflect (i) the price range and share number information, (ii) the anticipated use of proceeds, and (iii) disclosure related to estimates of our results of operations for the six months ended June 30, 2014, all of which we expect to include in Amendment No. 2 to the Registration Statement to be filed on or about July 17, 2014.

Should any questions arise in connection with the filing or this letter, please contact the undersigned at (212) 310-8849 or Noah B. Kressler, Esq. at (212) 310-8360.

Sincerely yours,

/s/ Heather L. Emmel

Heather L. Emmel, Esq.