

LANTHEUS HOLDINGS, INC.

331 Treble Cove Road
North Billerica, MA 01862

January 3, 2017

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
450 Fifth Street, N.W.
Washington, D.C. 20549

Attention: Jeffrey Gabor
Joseph McCann

Re: Lantheus Holdings, Inc.
Registration Statement on Form S-3 (File No. 333-215055)
Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Lantheus Holdings, Inc. (the "Company") hereby requests that the Securities and Exchange Commission (the "Commission") accelerate the effective date of the Company's Registration Statement on Form S-3 (File No. 333-215055) (the "Registration Statement"), so that it will be declared effective at 4:00 p.m. Eastern Time on January 4, 2017, or as soon as possible thereafter. The Company hereby authorizes Craig Marcus and John Donnelly of Ropes & Gray LLP, counsel to the Company, to orally modify or withdraw this request for acceleration.

It would be appreciated if, as soon as the Registration Statement is declared effective, you would inform John Donnelly of Ropes & Gray LLP, counsel to the Company, at (617) 235-4773.

Very truly yours,

LANTHEUS HOLDINGS, INC.

By: /s/ Daniel Niedzwiecki

Daniel Niedzwiecki
Assistant Secretary