



DIVISION OF
CORPORATION FINANCE

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

June 2, 2014

Via E-mail

Michael P. Duffy
Vice President, General Counsel and Secretary
331 Treble Cove Road, Building 600-2
North Billerica, Massachusetts 01862

**Re: Lantheus MI Holdings, Inc.
Amendment No. 2 to
Draft Registration Statement on Form S-1
Submitted May 23, 2014
CIK No. 0001521036**

Dear Mr. Duffy:

We have reviewed your amended draft registration statement and have the following comment.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to this comment and your amended draft registration statement or filed registration statement, we may have additional comments.

Consolidated Financial Statements
Notes to Consolidated Financial Statements
2. Summary of Significant Accounting Policies
Revenue Recognition, page F-10

1. We acknowledge your response to prior comment 4. Please revise your disclosure to clarify your basis for recognizing revenue under this arrangement using the average selling price as the units are shipped.

General

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at <http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm>.

Michael P. Duffy
Lantheus MI Holdings, Inc.
June 2, 2014
Page 2

You may contact Donald Abbott at (202) 551-3608 or Andrew Mew at (202) 551-3377 if you have questions regarding comments on the financial statements and related matters. Please contact Christina De Rosa at (202) 551-3577, John Krug at (202) 551-3862 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Heather Emmel
Weil, Gotshal & Manges LLP
767 Fifth Avenue
New York, NY 10153