UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): September 10, 2012

LANTHEUS MEDICAL IMAGING, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

333-169785

(Commission File Number)

51-0396366 (IRS Employer Identification No.)

331 Treble Cove Road, North Billerica, MA 01862 (Address of principal executive offices) (Zip code)

Registrant's telephone number, including area code: (978) 671-8001

Not Applicable

(Former name or former address, if changed since last report.)

| | (Former name of former address, if entanged since has reported) | | |
|--|--|--|--|
| Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below): | | | |
| | Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425) | | |
| | Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12) | | |
| | Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)) | | |
| | Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)) | | |
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Item 8.01 Other Events

A copy of the press release issued by Lantheus Medical Imaging, Inc., the registrant, dated September 10, 2012, announcing the appointment of Brian A. Markison to the Board of Directors of Lantheus MI Holdings, Inc., the indirect parent of the registrant, is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

| Item 9.01 | Financial Statements and Exhibits |
|-------------------|---|
| (d) Exhibits | |
| Exhibit Number | Description of Exhibits |
| 99.1 | Press Release, dated September 10, 2012, announcing the appointment of Brian A. Markison. |
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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

LANTHEUS MEDICAL IMAGING, INC.

By: Name: /s/ Michael P. Duffy

Michael P. Duffy

Title: Vice President and General Counsel

Date: September 10, 2012

EXHIBIT INDEX

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331 Treble Cove Road North Billerica, MA 01862 800.362.2668 www.lantheus.com

FOR IMMEDIATE RELEASE

CONTACTS:

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Pure CommunicationsMichele Rozen
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Lantheus MI Holdings, Inc. Appoints Brian A. Markison to its Board of Directors

No. BILLERICA, Mass. (September 10, 2012) — Lantheus MI Holdings, Inc., parent company of Lantheus Medical Imaging, Inc. (the "Company"), a global leader in developing, manufacturing and distributing innovative diagnostic imaging agents, today announced the appointment of Brian A. Markison as a member of its Board of Directors.

Mr. Markison is a seasoned executive with more than 30 years of operational, marketing, commercial development and sales experience with international pharmaceutical companies. He most recently held the position of President and Chief Executive Officer and member of the Board of Directors of Fougera Pharmaceuticals Inc., a specialty pharmaceutical company in dermatology, prior to its sale to Sandoz, the generics division of Novartis AG. Prior to joining Fougera, Mr. Markison served as Chairman, President and Chief Executive Officer of King Pharmaceuticals, Inc., which he joined as Chief Operating Officer.

Prior to joining King, Mr. Markison served as President, Oncology/Virology and Oncology Therapeutics Network at Bristol-Myers Squibb. Mr. Markison also previously held a number of senior leadership positions throughout his 22-year tenure at Bristol-Myers Squibb, including Senior Vice President, Licensing & External Development and Mergers/Acquisitions; Vice President, Operational Excellence and Productivity; President, Neuroscience/Infectious Disease/Dermatology/U.S. Managed Care; and Vice President, Strategy and Economics U.S. Pharma.

"We are very pleased to welcome Brian to our Board of Directors," said Don Kiepert, President and Chief Executive Officer of the Company. "With his impressive leadership experience and extensive pharmaceutical business knowledge, Brian will be a valuable addition to our board. We look forward to working closely with him as we continue to execute our corporate strategy and identify new opportunities for growth."

"I am excited to join the Company's Board of Directors," said Mr. Markison. "I believe my prior experiences working with both small and large pharmaceutical companies to capitalize on opportunities, advance pipeline products and drive commercial growth will be a benefit to Lantheus and help support future growth."

Mr. Markison currently serves as Lead Director and Chair of the Compensation Committee for the Board of Directors of Immunomedics, Inc., a biopharmaceutical company focusing on antibody-based therapeutics for the treatment of cancer auto immune and other serious diseases); Chairman of the Board of Directors for Rosetta Genomics, a leading developer of microRNA-based molecular diagnostics; and Director and Compensation Committee Chair for PharmAthene, a bio-defense company developing medical countermeasures against biological and chemical threats. Additionally, Mr. Markison serves on the Board of Directors for the Komen Foundation for South/Central New Jersey and is a member of the Board of Trustees for the Pennington School. He received a B.S. degree from Iona College.

About Lantheus Medical Imaging, Inc.

Lantheus Medical Imaging, Inc., a global leader in developing, manufacturing and distributing innovative diagnostic imaging agents, is dedicated to creating and providing pioneering medical imaging solutions to improve the treatment of human disease. Lantheus imaging products include the echocardiography contrast agent DEFINITY® Vial for (Perflutren Lipid Microsphere) Injectable Suspension, an ultrasound contrast agent for use in patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border; ABLAVAR® (gadofosveset trisodium), a first-in-class magnetic resonance agent indicated for the evaluation of aortoiliac occlusive disease in adults with known or suspected peripheral vascular disease; TechneLite® (Technetium Tc99m Generator), Cardiolite® (Kit for the Preparation of Technetium Tc99m Sestamibi for Injection), and Thallium 201 (Thallous Chloride Tl 201 Injection). Lantheus has approximately 600 employees worldwide with headquarters in North Billerica, Massachusetts, and offices in Puerto Rico, Canada and Australia. For more information, visit www.lantheus.com.

Safe Harbor for Forward-Looking and Cautionary Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are subject to risks and uncertainties that may be described from time to time in our filings with the Securities and Exchange Commission. Readers are cautioned not to place undue reliance on the forward-looking statements contained herein, which speak only as of the date hereof. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

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