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): March 15, 2013

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.)

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))

Item 1.01 Entry into a Material Definitive Agreement.

On March 15, 2013, the registrant, Lantheus Medical Imaging, Inc. (the "Company"), entered into a Fission Mo-99 Supply Agreement, effective January 1, 2013 (the "Agreement"), with the Institute for Radioelements ("IRE"). Under the terms of the Agreement, which has an initial term of five years expiring on December 31, 2017, the Company is committed to purchase a supply of molybdenum-99 ("Mo-99") based upon a percentage of the Company's total volume requirements. The Agreement provides for certain increased quantities of Mo-99 during periods of supply shortage or failure. The Agreement also provides for increased quantities of Mo-99 during the Uranium (LEU) targets upon IRE's completion of its ongoing conversion program to modify its facilities and processes in accordance with Belgian nuclear security commitments. The Agreement allows for termination upon the occurrence of certain events, including failure by IRE to provide the Company's required amount of Mo-99, material breach of any provision by either party, bankruptcy by either party and force majeure events.

A copy of the press release announcing the Agreement is filed herewith as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit	
Number	Description of Exhibit
99.1	Press Release, dated March 19, 2013, announcing the Agreement between the Company and IRE

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:
 /s/ Michael P. Duffy

 Name:
 Michael P. Duffy

 Title:
 Vice President and General Counsel

Date: March 19, 2013

EXHIBIT LIST

Exhibit	
Number	Description of Exhibit
99.1	Press Release, dated March 19, 2013, announcing the Agreement between the Company and IRE



CONTACTS:

Lantheus Medical Imaging Linda Lennox 978-671-8854 331 Treble Cove Road North Billerica, MA 01862 800.362.2668 www.lantheus.com

Pure Communications Michele Rozen 617-730-8284

Meara Murphy 978-671-8508

FOR IMMEDIATE RELEASE

Lantheus Medical Imaging Announces Molybdenum-99 Supply Contract with Institute for Radioelements

Agreement Reinforces Lantheus' Ongoing Commitment to Ensuring Reliable Access to Important Medical Isotope

No. BILLERICA, Mass. (March 19, 2013) — Lantheus Medical Imaging, Inc., a global leader in developing, manufacturing and distributing innovative diagnostic imaging agents, today announced a new supply contract with the Institute for Radioelements (IRE) to receive a supply of molybdenum-99 (Mo-99), the parent isotope of technetium-99m (Tc-99m), for use in its TechneLite® (Technetium Tc 99m Generator) generators. Under the terms of the five-year agreement, IRE will provide an increasing supply of Mo-99 through December 31, 2017, which will further strengthen Lantheus' global Mo-99 supply chain strategy designed to make the Company less vulnerable to supply shortages. The new agreement also provides for the transition to Mo-99 sourced from Low-Enriched Uranium (LEU) targets during the period of the agreement upon IRE's completion of its ongoing conversion program to modify its facilities and processes in accordance with Belgian nuclear security commitments.

"Our agreement with IRE further demonstrates our ongoing efforts and commitment to maximizing global access to Mo-99," said Jeff Bailey, President and CEO, Lantheus Medical Imaging. "We are focused on enhancing our balanced and diverse supply chain for this important medical isotope to ensure that we consistently meet the needs of customers and their patients. Over the course of this agreement, IRE will also help support our strategic initiatives related to supply chain stability and the conversion to 100 percent LEU-derived Mo-99."

As a leader in the radiopharmaceutical business, Lantheus has developed a world class, globally diversified and balanced Mo-99 supply chain for the procurement of Mo-99. The Company receives Mo-99 from four of the five major processors and seven of the eight associated reactors. Additionally, Lantheus actively supports the U.S. Government initiative to encourage the use of LEU in the

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manufacture of medical isotopes. Lantheus recently added the LEU TechneLite ® generator to its portfolio of nuclear medicine products.

About Molybdenum-99 and Technetium-99m

Mo-99 is the parent isotope of technetium-99m (Tc-99m), which is the radioisotope most widely used for nuclear medicine diagnostic imaging tests. Tc-99m is a critical component of many medical tests, including scans of the heart, brain, kidneys and some types of tumors. Tc-99m is used in Lantheus Medical Imaging's TechneLite[®] generators, which are distributed to hospitals and radiopharmacies as a source of Tc-99m for diagnostic imaging procedures. Tc-99m is also used with Cardiolite[®] (Kit for the Preparation of Technetium Tc 99m Sestamibi for Injection), the most successful radiopharmaceutical agent, which has been used to image more than 40 million patients.(1) In diagnostic use, Tc-99m is attached to a specific molecule and injected into the patient, where it emits gamma radiation that can be used to produce an image of the region.

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. The Company's proven success in the field of diagnostic imaging provides a strong platform from which to bring forward breakthrough new tools for the diagnosis and management of 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, TechneLite[®] (Technetium Tc 99m Generator), Cardiolite[®] (Kit for the Preparation of Technetium Tc 99m 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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References

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