Lantheus Medical Imaging Announces FDA Accepts for Review DEFINITY® Supplemental New Drug Application for Use in Stress Echocardiography

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No. BILLERICA, Mass. (December 13, 2010) – Lantheus Medical Imaging, Inc., a worldwide leader in diagnostic medical imaging, today announced that the U.S. Food and Drug Administration (FDA) has accepted for review the company's supplemental New Drug Application (sNDA) for DEFINITY® (Perflutren Lipid Microsphere) Injectable Suspension for use in stress echocardiography. DEFINITY® is currently indicated for use in patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border[1]. With this acceptance, the FDA will now review the sNDA to determine whether or not to broaden the FDA-approved indication for DEFINITY® to include its use with exercise and pharmacologic stress testing.

"The submission of the sNDA reaffirms our commitment to expanding the indication for the use of DEFINITY® in patients with suboptimal echocardiograms, and emphasizes the important role that contrast echocardiography can play in the diagnosis and management of cardiac conditions, particularly among difficult-to-image patients or when the clinical question at hand cannot be easily answered," said Don Kiepert, President and Chief Executive Officer, Lantheus Medical Imaging. "DEFINITY® has a proven safety profile and demonstrated efficacy, and we look forward to the FDA's review of our application for the expanded use of DEFINITY® for stress echocardiography."

Echocardiography is widely used for the diagnosis and management of coronary heart disease, congestive heart failure and other cardiopulmonary conditions. Echocardiograms, also called heart ultrasounds, can be performed with and without contrast at rest or combined with either exercise or pharmacologic stress testing. Approximately 25 million echocardiograms are performed each year (more than 2.5 million in the stress setting and more than 22 million in the rest setting)[2]. Numerous patient factors such as body habitus and lung disease can limit the quality of left ventricular images[3]. As obesity is another common contributing factor to poor image quality, it is likely that the percentage of suboptimal echocardiograms can be expected to increase given the rapidly increasing prevalence of obesity in the U.S[4]. In the stress echocardiography setting, the proportion of technically limited studies may be as high as 30 percent[3,5].

Poor image quality limits the amount of diagnostic information available from an echocardiogram[6,7]. Echocardiography contrast agents can be used to improve left ventricular opacification and delineation of the left ventricular endocardial border[1].

"Contrast echocardiography is well-tolerated, non-invasive, and is a widely available diagnostic tool that provides physicians with critical patient information at the time and point of care and allows physicians to make improved patient management decisions, often helping to avoid other procedures with greater overall risk," said Mark G. Hibberd, M.D., Ph.D., Senior Medical Director, Medical Affairs and Pharmacovigilance, Lantheus Medical Imaging. "Expanding the use of DEFINITY® to the stress setting would help physicians make a more informed diagnostic evaluation of patients with known or suspected cardiac disease, particularly in difficult-to-image patients with obesity and other complicating factors."

The safety data included in the submission is based on 22 clinical trials in stress echocardiography with 2,445 patients. A systematic review of the clinical safety of DEFINITY® in stress echocardiography identified seven independent peer-reviewed publications on the safety of contrast agents, including DEFINITY® (DMP 115) during 110,299 stress echocardiograms. A review of the safety data from these trials showed that the safety profiles of contrast echocardiography and non-contrast echocardiography were similar.

In addition, Lantheus completed three post-approval, FDA-required safety studies requested of all microbubble contrast manufacturers. These safety commitments include the CaRES (Contrast echocardiography REgistry for Safety Surveillance) prospective safety registry among 1,053 patients undergoing contrast, a retrospective observational study of safety in 15,798 critically ill patients undergoing DEFINITY® echocardiography in the ICU setting, and an open-label safety study prospectively evaluating the effect of DEFINITY® on pulmonary and systemic artery hemodynamics in patients with either normal or increased baseline pulmonary artery pressure. The result of these studies also showed that the safety profiles of contrast echocardiography and non-contrast echocardiography were similar in patients with known or suspected cardiac disease in a broad range of outpatient and inpatient care settings.

About DEFINITY®
DEFINITY® Vial For (Perflutren Lipid Microsphere) Injectable Suspension is an ultrasound contrast agent for use in patients with suboptimal cardiograms (see Indications below)[1]. Since its launch in 2001, activated DEFINITY® has been administered to over 2.6

million patients[8].

CURRENTLY APPROVED INDICATIONS
Activated DEFINITY® (Perflutren Lipid Microsphere) Injectable Suspension is indicated for use in patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border. The safety and efficacy of DEFINITY® with exercise stress or pharmacologic stress testing have not been established.

CONTRAINDICATIONS
Do not administer DEFINITY® to patients with known or suspected right-to-left, bi-directional or transient right-to-left cardiac shunts, by intra-arterial injection, or to patients with known hypersensitivity to perflutren.

IMPORTANT SAFETY INFORMATION

WARNING: Serious Cardiopulmonary Reactions
Serious cardiopulmonary reactions, including fatalities, have occurred during or following perflutren-containing microsphere administration.

- **Assess all patients for the presence of any condition that precludes DEFINITY® administration (see CONTRAINDICATIONS).**
- **In patients with pulmonary hypertension or unstable cardiopulmonary conditions, monitor vital sign measurements, electrocardiography and cutaneous oxygen saturation during and for at least 30 minutes after DEFINITY® administration (see WARNINGS).**
- **Always have resuscitation equipment and trained personnel readily available.**

In post marketing use, rare but serious cardiopulmonary or anaphylactoid reactions have been reported during or shortly following perflutren-containing microsphere administration (see ADVERSE REACTIONS). The risk for these reactions may be increased among patients with pulmonary hypertension or unstable cardiopulmonary conditions. It is not always possible to reliably establish a causal relationship to drug exposure due to the presence of underlying cardiopulmonary disease.

About Lantheus Medical Imaging, Inc.
Lantheus Medical Imaging, Inc., a worldwide leader in diagnostic medicine for more than 50 years, is dedicated to creating and providing pioneering medical imaging solutions to improve the treatment of human disease. The company's proven success in discovering, developing and marketing innovative medical imaging agents 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, 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 more than 600 employees worldwide with headquarters in North Billerica, Massachusetts, and offices in Puerto Rico, Canada and Australia. For more information, visit www.lantheus.com.

[1] DEFINITY® (Package Insert), North Billerica, MA, Lantheus Medical Imaging, Inc.,2009. [2]The Echocardiography Market Guide, U.S. Editions, 2001 – 2009. ©Arlington Medical Resources, Inc. All rights reserved. Reproduction, distribution, transmission or publication is prohibited.
[3]Mulvagh S et al. American Society of Echocardiography Consensus Statement on the Clinical Applications of Ultrasonic Contrast Agents in Echocardiography. *J Am Soc Echocardiogr*, November 2008.
[4]Vital Signs: State-Specific Obesity Prevalence Among Adults — United States, 2009: Centers for Disease Control and Prevention; 2010 August 3, 2010.
[5] Dolan MS, et al. Safety and Efficacy of Commercially Available Ultrasound Contrast Agents for Rest and Stress Echocardiography. *AM J Cardiol*. 2009;53:32-8.
[6] Kurt M et al. Impact of contrast echocardiography on evaluation of ventricular function and clinical management in a large prospect cohort. *J Am Coll Cardiol*. 2009; 53: 802-810.
[7] Kitzman DW et al. Efficacy and safety of the novel ultrasound contrast agent perflutren (Definity) in patients with suboptimal baseline left ventricular echocardiographic images. *AM J Cardiol.* 2000; 86: 669-674.
[8] *The Echocardiography Monthly Monitor: U.S. Editions, 2001 – June 2010.* ©Arlington Medical Resources, Inc. All rights reserved. Reproduction, distribution, transmission or publication is prohibited.