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Celladon Corporation Receives Notice of Allowance by U.S. Patent and Trademark Office for Broad Patent Covering Lead Drug Candidate MYDICAR®

Patent to Cover Use of All Adeno-Associated Viral Vectors and Routes of Administration for Delivery of SERCA2a Gene for Treatment of Heart Failure

LA JOLLA, Calif., March 23, 2010 – Celladon Corp. announced today that the United States Patent and Trademark Office (USPTO) has granted a notice of allowance for a broad patent covering the company's lead drug candidate MYDICAR®, a genetically targeted enzyme replacement therapy for advanced heart failure. The patent will be issued to The Regents of the University of California and licensed exclusively to Celladon.

When issued, the patent will cover the use of all adeno-associated viral vectors (AAV) and routes of administration, including intracoronary, for delivery of the SERCA2a gene for the treatment of heart failure. The patent will have a term extending to at least 2023, depending on further possible time extensions due to any regulatory delays. This patent is part of Celladon's broad intellectual property portfolio for MYDICAR® and related technologies for the treatment of heart failure. Corresponding patent applications are currently pending in Europe, China, Japan and other countries.

"The new patent solidifies Celladon's intellectual property position in the U.S. for MYDICAR®," said Krisztina M. Zsebo, Ph.D., the company's president and chief executive officer. "Our lead drug candidate represents an innovative approach to treating advanced heart failure. Specifically, MYDICAR® treatment involves a one-time outpatient infusion in a cardiac catheterization laboratory, similar to what patients experience when undergoing an angiogram. MYDICAR® is designed to restore levels of the SERCA2a enzyme, which is known to play a key role in the progression of heart failure. In the current Phase 2 portion of the Phase 1/2 clinical trial, we intend to demonstrate the safety of MYDICAR® and provide evidence that the drug candidate has the potential to halt or reverse the progression of heart failure in patients."

The Phase 1/2 trial is a randomized, double-blind, placebo-controlled study designed to examine the effect of MYDICAR® (AAV1/SERCA2a) in the treatment of patients with advanced heart failure. The trial, known as CUPID (Calcium Up-regulation by Percutaneous administration of gene therapy In cardiac Disease), has enrolled 39 patients with severe forms of ischemic and dilated cardiomyopathies who had New York Heart Association Class III or IV heart failure, significantly impaired pumping function of their hearts, and less than half the normal ability to transport and utilize oxygen during cardiopulmonary exercise testing. Treatment involves one of three doses of MYDICAR® or placebo via a single intracoronary infusion. Patients will be followed for 12 months. The effects of treatment will be assessed by changes in how the heart contracts, a blood test of an important marker of heart failure called NT-proBNP, symptoms of heart failure and patients' ability to exercise.

MYDICAR® is an enzyme replacement therapy intended to restore levels of SERCA2a, which regulates calcium cycling and contractility. The SERCA2a gene is delivered using recombinant AAV, which is a naturally occurring virus that is not associated with any disease in humans. AAV vectors can efficiently deliver genetic information to numerous cell types and can be engineered to carry a variety of DNA sequences. These vectors are highly stable, persist in cells for extended periods of time and, in recombinant form, do not appreciably integrate into host-cell DNA.

About Heart Failure

Chronic heart failure is an increasingly important health problem. It is the leading medical cause of hospitalization and is expected to result in an estimated direct and indirect cost to the healthcare system in 2009 of \$37.2 billion. About 5 million people in the United States have heart failure, and another 550,000 new cases are diagnosed each year. Heart failure contributes to or causes about 280,000 deaths annually. The most common symptoms of heart failure are shortness of breath, fatigue and swelling in the ankles, feet, legs and sometimes the abdomen. There is no cure for heart failure.

About Celladon

Celladon Corp. is focused on developing molecular therapies for the treatment of heart failure. The company's products target calcium cycling and contractility deficit in heart muscle cells. In addition to lead drug candidate MYDICAR®, which is a genetically targeted enzyme replacement therapy, Celladon's pipeline includes traditional small molecule activators of the enzyme SERCA2a for the treatment of heart failure. For more information, visit www.celladon.net.