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Echo Therapeutics Starts Clinical Study of Its Symphony™ Continuous Transdermal Glucose Monitoring System

Franklin, MA – January 2, 2008 – Echo Therapeutics, Inc. (OTCBB: ECTE) announced today that it has started the second clinical study of its current Symphony™ Continuous Transdermal Glucose Monitoring System (CTGM System) at the Tufts-New England Medical Center (Tufts-NEMC). The Company expects to announce the results of the study in the first quarter of 2008. Echo's current generation Symphony CTGM System consists of the FDA-cleared SonoPrep® skin permeation device that incorporates patented and leading-edge permeation control technology, together with wireless conductivity and proprietary transdermal sensor technologies. In addition to providing glucose monitoring benefits to diabetes patients, Symphony is designed to help patients and healthcare teams in hospital critical care settings to better control glucose levels with accurate, needle-free, continuous glucose readings.

“We have made significant progress in the development of our core components of both current and next generation Symphony CTGM Systems. Our permeation control technology is a competitively unique element of our non-invasive, transdermal skin permeation approach for the Symphony system. The primary goal of this study is to expand the strong data set we generated with our current Symphony CTGM System in our prior study at Tufts-NEMC, while also focusing on further advancements to our transdermal sensor technologies we currently expect to bring to market in 2009,” stated Patrick T. Mooney, M.D., Echo's Chief Executive Officer. “We believe that non-invasive, transdermal continuous glucose monitoring in the critical care setting is a large and emerging market for Symphony. In addition, we believe that Symphony will offer diabetes patients in the home use market a convenient, needle-free and cost-effective continuous glucose monitoring system to help avoid complications related to poor glycemic control by providing better predictive information regarding glucose trends. We are very excited about our progress, and we look forward to important advancements related to Symphony in early 2008.”

Stanley A. Nasraway, M.D., Director of Surgical Intensive Care Units at Tufts- NEMC and Principal Investigator of the study, noted the following about the application of Symphony in the hospital setting, “We need to improve the monitoring of blood glucose, from the current standard of once every 1- 2 hours. It is clear that critical care patients need tighter glycemic control in order to minimize morbidity and mortality in the critical care setting. Echo's ability to provide patients a continuous, needle-free blood glucometry is very attractive. When this happens, blood glucose measurements will become the 5th Vital Sign, and tighter glycemic control, without serious hypoglycemia, will be the standard of care for all seriously ill hospitalized patients, worldwide.”

Echo's study at NEMC will enroll twenty-five (25) patients undergoing cardiac bypass graft surgery and will evaluate the safety and efficacy of its current generation Symphony CTGM System in a

hospital setting by comparing Symphony's wireless, needle-free, real-time blood glucose (BG) monitoring to results of traditional BG monitoring in the intra-operative and post-operative critical care settings. A secondary goal will evaluate the reliability of Symphony in adverse conditions, such as during cardioplegia, use of vasopressors, transfused blood elements, diaphoresis, obesity, hypothermia and significant peripheral edema.

The skin permeation feature of Echo's current generation of Symphony CTGM System involves SonoPrep, Echo's FDA-cleared device using ultrasound-mediated skin poration technology. Pursuant to a license agreement, Echo granted Bayer an exclusive license to the current generation Symphony CTGM System in the worldwide markets. The parties subsequently agreed to an amendment to the license agreement whereby Bayer agreed to a co-exclusive license with Echo to the current generation Symphony CTGM System in the hospital intensive care unit market. Based on Echo's recent internal technical advances relating to its next generation Symphony CTGM System, Echo will expand its offerings of skin permeation devices beyond its SonoPrep System used in its current generation Symphony CTGM System. Currently, Echo and Bayer do not intend to utilize ultrasound techniques for skin permeation in future transdermal glucose monitoring devices for the home use market. As such, Bayer was not obligated to make a \$2 million milestone payment to the Company on or before December 31, 2007 under Echo's agreement with Bayer. Bayer retains a co-exclusive license to Echo's current generation Symphony CTGM System using ultrasound skin permeation techniques in the worldwide markets, but no longer has a right of first refusal for the marketing of Echo's CTGM System that makes use of ultrasound skin permeation methods. Bayer does not have commercial rights to Echo's next generation Symphony CTGM System.

Echo expects to announce its progress with respect to its next generation Symphony CTGM System, including its advanced skin permeation strategy, in the first-half of 2008. Echo's discussions with prospective strategic partners for development and marketing of its next generation Symphony CTGM System are ongoing.

About Echo Therapeutics

Echo Therapeutics is a platform-enabled specialty therapeutics and diagnostics company developing a broad pipeline of both advanced topical reformulations of FDA-approved products using its proprietary AzoneTS™ dermal penetration technology, and Symphony™, a next generation wireless, needle-free, continuous transdermal glucose monitoring (CTGM) system for the diabetes and hospital critical care markets.

Safe Harbor Statement

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks related to regulatory approvals and the results of Echo's ongoing studies regarding the efficacy of Echo's current and next generation Symphony™ CTGM System, which include delays in enrolling patients and volunteers into clinical studies, lower than anticipated retention rates of patients and volunteers in clinical studies, the need to repeat clinical studies as a result of inconclusive or negative results or poorly executed testing, insufficient supply or deficient quality of product candidate materials or other materials necessary to

conduct clinical studies, serious and unexpected adverse device effects experienced by participants in clinical studies, or the suspension of clinical studies, any of which could delay or prevent commercialization of Echo's Symphony™ CTGM System product candidates; the failure of future development and preliminary marketing efforts related to Echo's next generation Symphony™ CTGM System; risks and uncertainties relating to Echo's ability to develop, market and sell diagnostic products based on its skin permeation platform technologies; the availability of substantial additional equity capital to support robust research, development and product commercialization activities; and the success of research, development, and regulatory approval, marketing and distribution plans and strategies, including those plans and strategies related to both Echo's current and next generation Symphony™ Continuous Transdermal Glucose Monitoring System.

These and other factors are identified and described in more detail in Echo's filings with the Securities and Exchange Commission, including, without limitation, Echo's respective annual reports on Form 10-KSB for the year ended December 31, 2006, Echo's most recent quarterly reports on Form 10-QSB, and Echo's current reports on Form 8-K. The foregoing list of factors is not exhaustive. Echo Therapeutics, Inc. undertakes no obligation to publicly update or revise any forward-looking statements.

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