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Echo Therapeutics Announces Positive Results of a Clinical Study of its Symphony™ Transdermal Continuous Glucose Monitoring System in Patients with Type 1 and Type 2 Diabetes

Franklin, MA – July 29, 2008 – Echo Therapeutics (OTCBB: ECTE) today announced positive results of a clinical study of its Symphony™ Transdermal Continuous Glucose Monitoring (tCGM) System in patients with Type 1 and Type 2 Diabetes. Echo's non-invasive Symphony tCGM System consists of its wireless transmission and transdermal biosensor technologies and the Prelude™ SkinPrep System, which incorporates leading-edge, needle-free skin permeation control. Echo's Symphony tCGM System is designed to provide both diabetics and hospital patients with a reliable, affordable, comfortable-to-wear, and easy-to-use, needle-free continuous glucose monitoring device.

“This study represents another major advancement in our Prelude and Symphony development programs,” stated Patrick Mooney, M.D., Echo's Chairman and CEO. “We have now successfully used Prelude, our new needle-free skin preparation system, in combination with our non-invasive Symphony tCGM technology. Data from this study demonstrate that Symphony, using Prelude, is safe, accurate and reliable at monitoring glucose levels. We look forward to continuing progress with our Symphony development program throughout the year.”

Study Design

After Prelude skin permeation, Symphony tCGM biosensors were applied to ten subjects with Type 1 or Type 2 diabetes. Venous reference blood samples were taken from intravenous lines at 15-minute intervals for 24 hours and measured on a YSI 2300STAT PLUS laboratory analyzer. At the conclusion of the 24-hour observation period, the test skin sites were inspected for redness or any other undesirable effects.

Analytical Methods

The primary statistical analysis tools used to evaluate the performance of the Symphony tCGM System relative to the reference measurements were the Clarke error grid, mean absolute relative difference (MARD) and linear regression, each of which are widely used to evaluate the performance of glucometers. The Clarke error grid is a plot of all data pairs categorized into five discrete areas: A, B, C, D and E. The A and B areas are the most clinically desirable zones and D and E are the least clinically desirable zones. Devices with a higher combined A and B zone percentage (closer to 100%) and lower combined D and E zone percentage (closer to 0%) are considered to have better performance. Continuous Glucose Monitoring (CGM) system performance, including tCGM system performance, is competitive if at least ninety-five percent (95%) of the data points fall within the combined A/B zones, along with negligible or no data points in the combined D/E zones. Mean absolute relative difference (MARD) is a standard error calculation tool that is used to measure the average absolute value of the relative (or

percentage) difference between two measurements. A low MARD error, below 20%, is generally considered competitive.

Study Results

Using 1,292 reference blood glucose measurements from the ten subjects in the study, Clarke error grid analysis of the study data showed that Echo's Symphony tCGM System had approximately 99% of the data in the combined A/B zones, with 76.4% in the A zone and 22.4% in the B zone, and only 0.2% and 0.9% in the C zone and D zone, respectively. The MARD for the study was 13.8%. The correlation coefficient (R) for the data was 0.89. There were no adverse events reported from Prelude skin permeation or the Symphony tCGM biosensor.

Conference Call and Webcast Information

Echo will host a conference call today at 11:00 AM ET to discuss the data from its recent clinical study and to provide an update on its Symphony development program. To access the conference call, please dial 866-394-4716 (domestic) or 706-634-5164 (international) and reference the conference ID 58102479. A replay of the call will be available from 12:00 PM. ET on July 29, until August 12, 2008, at midnight. To access the replay, please dial 800-642-1687 (domestic) or 706-645-9291 (international) and reference the conference ID 58102479. A live audio webcast of the call and the archived webcast will be available in the Investors section of the Echo Therapeutics website www.echotx.com.

About Echo Therapeutics

Echo Therapeutics is focused on transdermal medical devices and specialty pharmaceuticals. Echo is developing a non-invasive, wireless, transdermal continuous glucose monitoring (tCGM) system for diabetics and for use in hospital critical care units, together with a wide range of novel transdermal reformulations of FDA-approved products.

Forward Looking Statements

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 success of Echo's ongoing studies regarding the efficacy of Echo's Symphony tCGM System, the failure of future development and preliminary marketing efforts related to Echo's tCGM systems, risks and uncertainties relating to Echo's ability to develop, market and sell diagnostic products based on its skin permeation platform technologies, including the Prelude SkinPrep System, the availability of substantial additional equity or debt capital to support its research, development and product commercialization activities, and the success of its research, development, and regulatory approval, marketing and distribution plans and strategies, including those plans and strategies related to its tCGM systems.

These and other factors are identified and described in more detail in Echo's filings with the Securities and Exchange Commission, including, without limitation, its annual report on Form 10-KSB for the year ended December 31, 2007, its quarterly reports on Form 10-Q, and its 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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