GLUCOWATCH® BIOGRAPHER MAY POTENTIALLY PREVENT NUMEROUS INCIDENCES OF SEVERE DIABETIC COMPLICATIONS

Additional Biographer Data Presented at the American Diabetes Association’s Annual Meeting Demonstrates Reading Correlation with Mealtime Blood Glucose Measurements and A1c

Parsippany, NJ, and Redwood City, CA, June 16, 2003 – Data presented today at the American Diabetes Association’s 63rd Annual Scientific Sessions (ADA) in New Orleans showed that standard diabetes care in children and adolescents (aged 7 to 17) assisted by regular use of the GlucoWatch Biographer in conjunction with self-monitoring blood glucose testing, is predicted through computer modeling to result potentially in fewer severe diabetic complications, including retinopathy, blindness, neuropathy and renal disease.¹ This study is also being published in the June issue of *Pediatric Diabetes*.

The computer analysis was based on a randomized controlled trial conducted at the Barbara Davis Center for Childhood Diabetes. The investigators used the Diabetes Control and Complications Test (DCCT) computer model modified to simulate cohorts and treatment effects of Biographer-assisted standard care in children and adolescents with Type 1 Diabetes. Cohorts of 10,000 patients aged 7 to 17, with different demographics, baseline complications and A1c,¹ were simulated to accumulate statistics on average treatment costs and complications. The computer model predicts that treating 100 subjects under Biographer-guided standard care, which includes self-monitoring blood glucose testing, if maintained for the life of the cohort, could potentially prevent 20 cases of proliferative retinopathy, 4 cases of macular edema, 6 cases of blindness, 12 cases of clinical albuminuria, 8 cases of end-stage renal disease, 6 cases of neuropathy and 1 amputation.

“This computer model analysis shows that if you incorporate the Biographer into your diabetes management regimen, you could potentially avoid many of the detrimental consequences of diabetes,” said Professor H. Peter Chase, M.D., Clinical Director Emeritus, Barbara Davis Center for Childhood Diabetes, University of Colorado and one of the authors of the analysis.

¹ A1c is a test for glycosylated hemoglobin that is one method for evaluating the management of diabetes.
Peri-meal Blood Glucose and A1c Study

According to an additional study presented at the meeting, GlucoWatch Biographer readings correlate significantly with mealtime blood glucose readings and with A1c. This study is the first of its kind to correlate Biographer readings with mealtime blood glucose or A1c.3

“Understanding glucose trends and patterns after meals is a key aspect of intensive diabetes care. Knowing their glucose trends and patterns can help patients manage their therapy and lifestyle to minimize fluctuations,” said Richard C. Eastman, M.D., Medical Director at Cygnus, Inc. “Correlation of Biographer readings to A1c demonstrates that when the Biographer is used in conjunction with self-monitoring blood glucose testing, potential improvements in glycemic control may be observed.”

The multi-center home use study was conducted with 124 insulin-taking subjects (60% Type 1, 40% Type 2) at 6 geographically diverse clinical sites over a period of 5 days. A blood glucose meter was used to take hourly measurements and to calibrate the Biographer. Meal timing was logged, and A1c measured. (A1c measurements were taken as part of screening within 6 weeks of enrollment.) Significant correlation was observed between mean Biographer reading and blood glucose before meals (r=0.87, p<0.0001), 1 hour after meals (r=0.78, p<0.0001), and 2 hours after meals (r=0.82, p<0.0001). Further, Biographer readings correlated significantly with A1c before meals, 1 hour after meals and 2 hours after meals (r=0.48, 0.40, 0.39, respectively, p<0.0001). A total of 99 subjects had Biographer, blood glucose and A1c measurements.

About the GlucoWatch® G2™ Biographer

The data presented at ADA were conducted with Cygnus’ first FDA-approved glucose monitoring device, the GlucoWatch® Automatic Glucose Biographer. Since then, FDA has approved the second-generation GlucoWatch® G2™ Biographer, for use in adults (March 2002), and children and adolescents aged 7-17 (August 2002).

The GlucoWatch G2 Biographer has several improvements and additional features over the first-generation Biographer, and differs from conventional blood glucose monitoring devices in several important ways:

- It measures and displays glucose levels frequently (up to every 10 minutes), automatically and non-invasively, collecting glucose through the skin, not from blood.
- It also creates an “electronic diary,” storing more than 8,500 glucose values that can be reviewed at the touch of a button, or uploaded into a software program (GlucoWatch® Analyzer), helping detect trends and track patterns in glucose levels.
- In addition, users can set personal glucose alert levels, an alarm can sound if readings are below or above their alert levels, or likely to be too low within 20 minutes.

- more -
The device consists of two main parts: the durable GlucoWatch® G2™ Biographer, which is worn on a person's forearm, and the AutoSensor, a disposable single-use component (attached to the back of the device) that allows for glucose monitoring for up to 13 hours.

The GlucoWatch G2 Biographer is available in the United States (by prescription only) and in the United Kingdom. The Biographer is a glucose monitoring device intended for detecting trends and tracking patterns in glucose levels in adults (aged 18 and older) and children/adolescents (aged 7 to 17) with diabetes. The device is intended for use as an adjunctive device to supplement, not replace, information obtained from standard home glucose monitoring devices. The device can detect and assess episodes of hyperglycemia (high blood sugar) and hypoglycemia (low blood sugar), facilitating both immediate and long-term therapy adjustments, which may minimize these events. Interpretation of G2 Biographer results should be based on the trends and patterns seen within several sequential readings over time.

Additional information about the GlucoWatch G2 Biographer can be obtained by calling the toll-free number, 1-866-GLWATCH, or by visiting http://www.glucowatch.com.

Sankyo/Cygnus

Under the Sales, Marketing and Distribution Agreement effective July 2002, Sankyo Pharma is responsible for marketing, managed care and government contracting, and distribution of the GlucoWatch G2 Biographer in the United States, in addition to promoting the product to healthcare professionals. Sankyo promotes the Biographer with a specialty sales force of 100 representatives, and utilizes its national sales force as well. Cygnus is responsible for research and development, regulatory and clinical activities, and manufacturing of the GlucoWatch® G2™ Biographer product line.

About Sankyo

Sankyo Pharma Inc. is dedicated to developing and marketing important pharmaceutical products for the U.S. market. A national sales force of 550 representatives promotes Sankyo Pharma products, and they are supported by dedicated managed care personnel.

Sankyo Pharma launched WelChol® (colesevelam HCI), a non-systemic lipid-lowering agent, in September 2000. Currently, WelChol is the number one prescribed agent in its category with 2002 sales in excess of $100 million dollars. In addition, Sankyo Pharma launched Benicar® (olmesartan medoxomil), an angiotensin II receptor blocker (ARB) indicated for the treatment of hypertension, in April 2002. Sankyo co-promotes Benicar with Forest Laboratories.

Sankyo Pharma's parent company, Sankyo Co. Ltd. of Tokyo, is one of Japan's largest pharmaceutical companies, with annual worldwide sales of $4.5 billion. Sankyo has a long history of discovering new classes of drugs, including the statin class of lipid-lowering drugs, with its discovery of - more -
the first statin, mevastatin, and the co-discovery of lovastatin, the first statin to be marketed. Additionally, Sankyo discovered, co-developed and manufactures pravastatin sodium.

About Cygnus, Inc.

Cygnus develops, manufactures and commercializes new and improved glucose-monitoring devices. The Company’s products are designed to provide more data to individuals and their physicians and enable them to make better-informed decisions on how to manage diabetes. The GlucoWatch® Biographer was Cygnus’ first FDA approved medical device product. The device and its second-generation model are the only products approved by the FDA that provide continuous, automatic and non-invasive measurement of glucose levels. The GlucoWatch® G2™ Biographer is worn on the forearm and provides up to six glucose measurements per hour for up to 13 hours. Cygnus believes its product represents the most significant commercialized technological advancement in self-monitoring of glucose levels since the advent of “finger-stick” blood glucose measurement approximately 20 years ago.

Some of the statements in this news release are forward-looking statements that involve risks and uncertainties. These forward-looking statements include statements about Cygnus’ plans, objectives, expectations, intentions and assumptions and other statements contained in this news release that are not statements of historical fact. Forward-looking statements include, but are not limited to, statements about Cygnus’ ability to manufacture and commercially scale up the GlucoWatch Biographer, Cygnus’ plans for commercialization alliances, Cygnus’ ability to achieve market acceptance of the GlucoWatch Biographer, and Cygnus’ plans for enhancements and possible manufacturing changes through the regulatory process. In some cases, you can identify these statements by words such as “may,” “will,” “should,” “estimates,” “predicts,” “potential,” “continues,” “strategy,” “believes,” “anticipates,” “plans,” “expects,” “intends” and similar expressions. Cygnus cannot guarantee future results, levels of activity, performance or achievements. Actual results and the timing of certain events may differ significantly from the results discussed in the forward-looking statements. Cygnus refers you to the documents Cygnus files from time to time with the Securities and Exchange Commission, including Cygnus’ Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, which contain descriptions of certain factors that could cause Cygnus’ actual results to differ from Cygnus’ current expectations and any forward-looking statements contained in this news release.

Note: GlucoWatch is a registered trademark and G2 is a trademark of Cygnus, Inc.

# # #

i Eastman, RC, Petien, A, Chase, HP. Cost Effectiveness of Use of the GlucoWatch Biographer in Children and Adolescents with Type 1 Diabetes: An Analysis Based on a Randomized Controlled Trial. Pediatric Diabetes. 2003 June.