Hitachi Developing Non-Invasive Blood Sugar Monitoring Device —Proprietary Technologies Would Take the Pain and Hassle Out of Measuring Blood Sugar Levels —

Tokyo, February 23, 2004 --- Hitachi, Ltd. (NYSE:HIT / TSE:6501) announced development of a non-invasive blood sugar monitoring device for diabetics using Hitachi's unique measuring technologies. Requiring no blood specimen, the cutting-edge device is intended to compute blood sugar levels by using special sensors to detect physiological parameters related to the body's metabolism, such as thermal energy, oxygen supply, and blood flow. While not yet approved for sale, the device will undergo clinical testing to support a premarket submission to the U.S. Food and Drug Administration (FDA) and the Japan Ministry of Health, Labour and Welfare.

Diabetes is a disease in which the body does not produce or properly use insulin, and where blood glucose levels can undergo significant fluctuations. Without proper medical treatment, it can cause blood vessel problems, neuropathy, retinopathy, nephropathy, and other complications. The treatment of diabetes involves moderating blood sugar levels through diet, exercise, and medication. To assure effective treatment, diabetics must measure their blood sugar levels periodically and continually. Conventional monitoring devices require patients to collect blood from their fingertips or other extremities, which is painful, and the use of disposable test strips. Accordingly, a non-invasive blood sugar monitoring device that eliminates the need for a blood sample has long been sought after by diabetics.

Hitachi has conducted extensive research concerning the thermal energy generated by metabolic reactions in the human body, which reflect a balance between blood sugar levels and local oxygen supply. Hitachi has determined that it is possible to compute the level of blood sugar by measuring parameters such as the thermal energy generated by metabolic reactions, the level of oxygen saturation of hemoglobin, and blood flow.

Hitachi's investigational device uses special sensors that accurately measure various temperatures and light characteristics in a person's fingertip. The device is intended to compute blood sugar levels based on the analysis of various physiological parameters involved in the generation of metabolic thermal energy, and would therefore eliminate the need to obtain a blood sample. Hitachi's device is compact by virtue of the development of a complex sensor pick-up, which contains a contact thermometer, a radiation thermometer, and a multi-wavelength reflective dispersion photometer, all in one unit. Hitachi's goal is to use these technologies to dramatically improve the quality of life of diabetics by making it, easier to measure blood sugar levels, which would greatly contribute to the prevention and treatment of lifestyle-related diseases, such as diabetes. A 2002 survey found that there were approximately 150 million diabetics in the world and it is estimated that there will be as many as 300 million by 2025.¹ In Japan, a 2002 survey found that 7.4 million people are strongly suspected to have diabetes.²

Hitachi plans to gather further experimental data and, after conducting clinical trials, file for regulatory approval under the Pharmaceutical Affairs Law in Japan and to the FDA. Targeted plans call for the device to go on sale in 2005, subject to regulatory approval. Hitachi is targeting sales of this device of 15,000 million yen in 2007.

Hitachi is endeavoring to expand its health solution business, which is aimed at the prevention and treatment of lifestyle-related diseases. The new blood glucose monitoring device will be a key product in this strategy. Hitachi's aim is to further develop its personal healthcare business as the core of its medical business, alongside its existing medical system and diagnostic equipment businesses.

Note

1 World Health Organization (WHO), 2002 survey.

2 Japan Ministry of Health, Labour and Welfare, 2002 diabetes survey.

About Hitachi, Ltd.

Hitachi, Ltd. (NYSE: HIT), headquartered in Tokyo, Japan, is a leading global electronics company, with approximately 340,000 employees worldwide. Fiscal 2002 (ended March 31, 2003) consolidated sales totaled 8,191.7 billion yen (\$68.3 billion). The company offers a wide range of systems, products and services in market sectors, including information systems, electronic devices, power and industrial systems, consumer products, materials and financial services. For more information on Hitachi, please visit the company's Web site at http://www.hitachi.com.



Investigational Prototype Unit

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