STMicroelectronics and Debiotech debut disposable insulin jewel pump at ADA Congress in US

I-Micronews

Debiotech and STMicroelectronics (NYSE: STM) today announced that they will publicly showcase their novel insulin “Jewel Pump” at the Debiotech stand at the American Diabetes Association 70th Scientific Sessions (June 25-29) in Orlando, Florida.

Representing the most advanced use of microfluidic MEMS (Micro-Electro-Mechanical Systems) technology in diabetes treatment, the tiny device, for which FDA clearance is now pending, can be mounted on a disposable skin patch to provide continuous insulin infusion, enabling substantial improvements in the treatment efficiency and the quality of life of diabetic patients.

The highly miniaturized disposable insulin pump combines Debiotech’s expertise in insulin delivery systems with ST’s strengths in manufacturing high-volume silicon-based microfluidic devices. The Jewel Pump is smaller, thinner and lighter than currently available insulin pumps and can be worn as a nearly invisible patch on the skin, while providing 4.5 milliliters of insulin, suitable for a 6-day treatment. Microfluidic technology also provides better control of the administered insulin doses, more closely imitating the natural secretion of insulin from the pancreas, while detecting potential malfunctions of the pump to further protect patients. As a disposable device manufactured using high-volume semiconductor processing technologies, the MEMS-based Jewel Pump is also much more affordable, allowing the patient or the healthcare system to avoid the substantial up-front investment typically associated with current pump solutions.

“The collaboration with ST has produced key contributions to the industrialization success of this very innovative MEMS technology for the treatment of diabetes,” said **Dr. Frédéric Neftel**, President and CEO of Debiotech. *“We are now able to demonstrate a real breakthrough in insulin delivery that combines the highest level of reliability and performance, while enhancing the safety for the patient and improving overall Quality of Life.”*

Insulin pump therapy, or Continuous Subcutaneous Insulin Infusion (CSII), is an increasingly attractive alternative to individual insulin injections that must be administered several times a day. With CSII, the patient is connected to a programmable pump including a storage reservoir, from which insulin is infused into the tissue under the skin throughout day and night according to the specific needs of the patient.

“The success of the cooperation with Debiotech to bring their visionary concept to a high performance and affordable commercial product underlines the enormous

contribution that semiconductor companies can make in the areas of healthcare and well being," said **Benedetto Vigna**, Group Vice President and General Manager of ST's MEMS, Sensor and High Performance Analog Division. *"Working with partners such as Debiotech, we are able to deploy our world-leading MEMS design and manufacturing strengths to improve the health and well being of millions of people around the world."*

During the ADA Congress, Debiotech will demonstrate the commercial version of the Jewel Pump and ST engineers will be on hand to explain the MEMS microfluidics components that have enabled this breakthrough in diabetes management.

About Debiotech
Debiotech has specialized, for twenty years, in the research and development of innovative medical devices in the field of implantable and external drug delivery systems for the treatment of severe diseases such as diabetes, renal failure, cardiovascular diseases and cancer. The Company's products are based on micromechanics and nanotechnologies as well as novel technologies. Debiotech has numerous exclusive license agreements with leading companies in the medical device and pharmaceutical fields and holds over 500 patents worldwide. Further information on Debiotech can be found at www.debiotech.com [1].

About STMicroelectronics
STMicroelectronics is a global leader serving customers across the spectrum of electronics applications with innovative semiconductor solutions. ST aims to be the undisputed leader in multimedia convergence and power applications leveraging its vast array of technologies, design expertise and combination of intellectual property portfolio, strategic partnerships and manufacturing strength. In 2009, the Company's net revenues were $8.51 billion. Further information on ST can be found at www.st.com. [2]

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Links:
[1] http://www.debiotech.com
[2] http://www.st.com.
[3] http://www.i-micronews.com/lectureArticle.asp?id=5029