Nanostart-Holding Nanosys: Distribution Agreement with Multi-Billion Dollar Cooperation Sigma-Aldrich

Medical Design Technology

- Distribution agreement to supply materials to the research community
- Global availability of Nanosys´ silicon nanowires
- New applications in technologies such as solid-state lighting, electronics and energy storage

Under the agreement, Sigma-Aldrich, through its Aldrich Material Science business, is now distributing Nanosys-created silicon nanowires to the global scientific research community for the development of new applications in technologies such as solid-state lighting, electronics and energy storage.

"Architected and synthesized at the atomic level, our materials deliver exponential improvements in efficiency and performance," says **Jason Hartlove**, CEO of Nanosys. *"This new distribution agreement with Sigma-Aldrich puts our technology directly into the hands of researchers who are doing exciting work in labs around the world, driving the use of architected material solutions in a new generation of markets and applications."*

"As Aldrich Materials Science continues to expand its nanomaterials offer, we are pleased to introduce an innovative line of silicon nanowires that includes undoped silicon nanowires as well as the higher conductivity, boron-doped nanowires," said **Dr. Kaushik Patel**, Product Manager, Aldrich Materials Science. *"The applications of these nanowires are, we believe, truly innovative and revolutionary. The fabrication of nanowires is challenging; therefore, a consistent and high-quality supply of these materials from Aldrich Materials Science is expected to enable scientists to accelerate their research to further develop a variety of new high-technology applications that can continue to open up exciting end product markets. In all aspects of the Aldrich Materials Science business, from manufacturing and custom R&D to distribution of materials from leading-edge technology companies such as Nanosys, we strive to fulfill our mission of focusing on materials so that our research customers can focus on results."*

Nanosys silicon nanowires, which demonstrate semiconductor properties, are comprised of single crystal silicon grown using the vapor liquid solid (VLS) process to a diameter of 150 nm and a length of 20 micrometer.

The materials are available undoped or as activated boron-doped p-type silicon nanowires with 1x10(19) /cm(3) doping at ends and a 3 micrometer intrinsic region in the center of the wire. Polydispersed silicon nanowires of various lengths that are designed for use in energy research are also expected to be available beginning January 2011.

Across an increasingly diverse range of applications, silicon nanowires can deliver tangible benefits and significant advances.

Examples include:

- Electronics applications - sensors can be constructed from nanowire arrays that act as a highly sensitive 'e-skin' which could be used to restore the sense of touch to patients with prosthetic limbs or to enable robotic systems to 'sense' pressure.
- Solar cells - Research conducted earlier in 2010 found that fabricating thin films from ordered arrays of vertical silicon nanowires significantly increased the light-trapping properties in solar cells, compared to conventional silicon thin film photovoltaics.
- Batteries – Nanowire technology is enabling the production of batteries that are more economical, longer lasting, smaller and more environmentally friendly. Nanowires are used to increase the surface area for electrolyte reaction, thereby enabling greater power in a smaller overall footprint.

About Nanostart:
Nanostart AG (OTCQX: NASRY), headquartered in the German financial capital of Frankfurt, is the world’s leading nanotechnology investment company, with portfolio companies spanning the globe from Silicon Valley to Singapore. The company provides venture capital financing for nanotechnology companies in various growth phases with a focus on innovation-driven industries of the future such as cleantech, life sciences and IT/electronics. Through its subsidiary and venture capital fund in Singapore, Nanostart is proud to be the investment partner of the Singaporean government. For further information, please visit www.nanostart.de.

About Nanosys:
Nanosys, Inc. is an advanced material architect, harnessing the fundamental properties of inorganic materials into process ready systems that can integrate into existing manufacturing to produce vastly superior products in lighting, electronic displays and energy storage. In 2010, Nanosys commercialized its quantum dot technology with the QuantumRail(TM), a process-ready component that improves LED backlit display color gamut and efficiency, signing partnerships with LG Innotek and Samsung. Nanosys is currently working with major battery manufacturers to improve lithium-ion battery capacity using its SiNANOde(TM) silicon composite additive that, when added to the anode side, improves capacity by 40 percent. SiNANOde(TM) –enhanced batteries are expected to be available in 2011. For further Information please visit www.nanosysinc.com.

About Sigma-Aldrich:
Sigma-Aldrich is a leading Life Science and High Technology company committed to Enabling Science to Improve the Quality of Life. Its chemical and biochemical products and kits are used in scientific research, including genomic and proteomic research, biotechnology, pharmaceutical development and as key components in pharmaceutical, diagnostic and other high technology manufacturing. The Company has customers in life science companies, university and government institutions, hospitals, and in industry. Over one million scientists and technologists use its products. Sigma-Aldrich operates in 40 countries and has 7,700 employees

providing excellent service worldwide. For more information about Sigma-Aldrich, please visit its award-winning Website at www.sigma-aldrich.com.

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