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## **NanoHorizons Wins National Science Foundation Grant**

### ***Research Project Focuses on Use of Nanoscale Silver as Antifouling Composite for Ocean Renewable Energy Systems***

Bellefonte, PA — July 27, 2011 — NanoHorizons Inc., a provider of nanoscale additives for healthcare, textile and industrial applications, today announced that the National Science Foundation (NSF) has awarded the company a six-month research grant to determine the optimal combination of reinforced composite material and nanoscale silver antimicrobial additives that meet antifouling performance specifications of the marine environment and ocean renewable energy systems. The project's novel composites are reinforced with conductive carbon nanotube-infused glass fiber and, as such, have the potential to be the first electro-activated "on demand" antifouling solution, thereby dramatically reducing the amount of antifouling agent required to maintain ocean energy infrastructures.

Along with requirements of strength, light weight and durability, antifouling (the prevention of surface growth of marine organisms) is a key challenge in developing the components of systems that can successfully produce ocean renewable energy. Ocean renewable energy--ranging from wave, tidal and ocean current to wind, salinity gradient and thermal gradient—is emerging as a promising alternative energy source to fossil fuels. According to the Electric Power Research Institute, ocean renewable energy may possibly supply up to 400 terawatt hours of clean power annually or roughly ten percent of today's global demand.

"Beyond the need for a viable energy renewal source," states James Delattre, Vice President Global Marketing, NanoHorizons, "long-lasting marine composites with an effective antifouling solution could also have a beneficial impact on the US shipping industry and military. The US Navy

alone, for example, spends over \$2.1 billion a year in fleet maintenance. Thus, our NSF study may have both short and long-term significance.”

#### About NanoHorizons Inc.

NanoHorizons Inc. ([www.nanohorizons.com](http://www.nanohorizons.com)) is a leader in the emerging, cutting-edge field of practical nanotechnology for a broad range of healthcare, commercial, and industrial applications. The company’s nanoscale silver antimicrobial additives are entirely developed and manufactured in the USA and marketed globally to customers in the apparel, health care, and coatings and plastics industries under the SmartSilver® brand ([www.smartsilver.com](http://www.smartsilver.com)). SmartSilver offers highly durable, safe and cost-effective bacterial control in a variety of products, including natural and synthetic fibers and fabrics as well as coatings, foams and polymer applications. SmartSilver technology is EPA registered and its additives are Oeko-Tex® certified as being free of harmful substances according to the Oeko-Tex® 100 Standard. SmartSilver also has a Device Master File with the FDA to facilitate that agency’s review of antimicrobial treated medical devices and combination product candidates that reference the use of SmartSilver. NanoHorizons’ experienced team of scientists, engineers, and operational managers provide product research, design, development, laboratory testing, manufacture, and customer technical and sales support. NanoHorizons is a private equity funded company, headquartered in Bellefonte, Pennsylvania, near The Pennsylvania State University.