

Contact: Sharon McCarter Phone: (202) 691-4016 sharon.mccarter@wilsoncenter.org

News Release

Release No. 70-07 August 8, 2007

Plenty of Clean Water at the NanoFrontier

Podcast and newsletter explore how nanotech can purify water and reduce rich, poor gap

WASHINGTON, DC—The single most important application of nanotechnology could be solving the global shortage of clean water—benefiting people in both industrialized and developing countries significantly.

A new podcast explores how Eric Hoek and his engineering research team at UCLA developed a new nanomembrane that promises to dramatically reduce the cost and energy needed to desalinate seawater and clean wastewater. In the near term, these membranes could work in municipal desalination plants in water-thirsty areas, such as those planned for the California coastline. In the future, this groundbreaking technology can be adapted to meet the clean water needs of poor countries and people who rely on low cost, decentralized water treatment systems.

This latest episode in the *Trips to the NanoFrontier* series is available at <u>www.penmedia.org/podcast</u> or through iTunes. The podcasts and a recent publication, *NanoFrontiers: Visions for the Future of Nanotechnology* (www.nanotechproject.org/114), are written by freelance science writer Karen F. Schmidt.

A new companion issue of the *Nano Frontiers* newsletter, "Developing Story: Nanotechnology and Low-Income Nations" (<u>www.nanotechproject.org/134</u>), explores whether developing nations will fully share in the anticipated benefits of nanotechnology—predicted to be the driving force for the next industrial revolution. It highlights the two major challenges confronting the developing world: improving access to health care and ensuring clean drinking water for the one in six people who lack access to reliable supplies. Examples include nanotechnology-related efforts aimed at therapeutic and preventive treatments for HIV/AIDS; "fog harvesting" in Thailand, China, and Nepal; and improved desalination technology to turn sea water into drinking water at dramatically lower costs.

Launched in April, the newsletter continues the discussion begun at the February 2006 *NanoFrontiers* forecasting workshop, co-sponsored by the National Science Foundation (NSF), National Institutes of Health (NIH), and the Project on Emerging Nanotechnologies.

About Nanotechnology

Nanotechnology is the ability to measure, see, manipulate and manufacture things usually between 1 and 100 nanometers. A nanometer is one billionth of a meter; a human hair is roughly 100,000 nanometers wide.

The **Project on Emerging Nanotechnologies**, an initiative of the Woodrow Wilson International Center for Scholars and The Pew Charitable Trusts, is dedicated to helping business, government and the public anticipate and manage possible health and environmental implications of nanotechnology. For more information, log on to www.nanotechproject.org.

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