

Center for Nanotechnology in Society University of California, Santa Barbara

www.cns.ucsb.edu

WEEKLY CLIPS

Feb. 16-28, 2011

Top Deck

What the nation's (& world's) top papers, news wires and sources have been saying about nanotechnology.

Big interest in 'small stuff'

The Press (New Zealand)

February 17

"The science of 'small stuff' drew a big crowd to a discussion on nanotechnology at Canterbury University last night."

It's a bird! It's a spy! It's both

Los Angeles Times

Feb. 17

"Backed by the Pentagon's research arm, Monrovia firm AeroVironment has developed the Nano Hummingbird, an experimental miniature drone that could one day do reconnaissance by landing on a window ledge."

Also noted by [The Seattle Times](#).

EPA Awards \$5.5 Million to Support Nanotechnology Research - Research to help determine whether health risks exist

EPA

Feb. 17

"The U.S. Environmental Protection Agency (EPA) has awarded \$5.5 million to three consortia to support innovative research on nanotechnology. EPA, in collaboration with the United Kingdom's Natural Environment Research Council, are leading this scientific

research effort to better understand the potential risks to people's health and the environment. The scientific information developed from the research can help guide EPA and other agencies in decisions about the safety of new materials and products that are made using nanotechnology."

[More Proposals for Nanotechnology in Addressing Oil Spills](#)

IEEE Spectrum Nanoclast blog

Dexter Johnson

Feb. 21

"Last May when the news cycle was providing non-stop coverage of the Gulf of Mexico oil spill, I [wondered how long it would take](#) for someone to ask how nanotechnology could be applied to solve the problem."

[It's Not the Bowlers, It's the Equipment](#)

The Wall Street Journal

Feb. 22

"The high rollers at your local bowling alley are scoring on par with the top professionals you'll see this week in the U.S. Open championship. But that doesn't mean the amateurs have closed the gap with the pros."

[Harvard Scientists Create Hand-Held Device to Detect Cancer at Bedside](#)

Bloomberg

Pat Wechsler

Feb. 23

"A hand-held scanner that can detect cancer at a patient's bedside using just a speck of tissue has been created by scientists from Harvard University and Massachusetts Institute of Technology."

[Water filter for disaster use developed](#)

UPI

Feb.23

"Canadian researchers say they're working on a cheap, portable, paper-based water filter coated with silver nanoparticles for use in emergencies and disasters."

[Riding a nano crest](#)

Irish Times

Feb. 25

'NANOTECHNOLOGY IS the relatively new science and engineering of nanometre scale objects. The word nano is derived from the greek for 'dwarf' and means one billionth: one nanometre is one billionth of a metre. Nanotechnology, therefore, refers to the science or technology of objects with features of 100 nanometres or less and

encompasses aspects of physics, chemistry, materials science, engineering, biology and medicine."

On Deck

What Local Sources are Reporting

[Global Nanobiotechnology Market to Reach US\\$4.4 Billion by 2014, According to New Report by Global Industry Analysts, Inc.](#)

San Francisco Chronicle (PR Web)

Feb. 22

"Given the current pace of nanotechnology infusion in medical sciences, giant strides will be taken, in the upcoming years, in the treatment of cancer, cardiovascular diseases, neurological diseases, diabetes, orthopedic ailments, and other infectious diseases. The toughest challenge that will test every functional nut and bolt of nanobiotechnology is finding a treatment solution for cancer, one of the most complex diseases confronting mankind. Involving a labyrinth of confounding molecular, and cellular processes, the disease is the result of compounded abnormal genetic changes in specific cells."

[Coming Soon: The Nano Bra](#)

The New Haven (CT) Independent

Gwyneth K. Shaw

Feb. 22

"Nanotechnology is a hot trend in clothes, from gym socks with anti-stink capabilities to chinos that repel those occasional coffee spills. Now the nano-textile industry is getting even more intimate: Bra behemoth Maidenform has inked a deal with a major fabric maker."

[Nanotechnology: Tiny is big business opportunity](#)

Highland (CA) Community News

Charles Roberts

Feb. 24

"The next rage in technology is nanotechnology, says Dr. Matthew Isaac, executive director of Economic Development and Corporate Training at the San Bernardino Community College District."

[Cellular-level research could bring cancer down to size](#)

Houston Business Journal

Heather Kfoury

Feb. 25

"The biggest hurdle facing cancer treatment, experts say, is that the foe is continuously evolving - and does so faster than the drugs made to fight it."

[Utah Innovation: Bomb-Sniffing Technology](#)

KUER Radio
Kim Schuske
Feb. 28

"With the increased threat of terrorism, airports, police, and the military are on high alert. Currently the most sensitive and reliable way to detect a bomb is with a well trained dog. But researchers at the University of Utah are using nanotechnology to develop a handheld device that could eventually put bomb-sniffing dogs out of work. Kim Schuske has this report in her series on innovative technologies being developed in Utah."

Nano Press

What nano-centered publications are reporting

[Reducing drug side effects with nanoparticles](#)

Nanowerk
Feb. 22

"Researchers at the Massachusetts Institute of Technology (MIT) and Brigham and Women's Hospital have shown that they can deliver the cancer drug cisplatin much more effectively and safely in a form that has been encapsulated in a nanoparticle targeted to prostate tumor cells. Using the new particles, the researchers were able to successfully shrink tumors in mice, using only one-third the amount of conventional cisplatin needed to achieve the same effect. Such a dose reduction, should these results hold in human clinical trials, could help reduce cisplatin's potentially severe side effects, which include kidney damage and nerve damage."

[Enabling nanoparticles to penetrate deeply in tumors](#)

Nanowerk
Feb. 22

"Too often, researchers designing nanoparticles capable of delivering effective doses of anticancer agents to tumors must balance the need to choose a nanoparticle that is small enough to escape the leaky blood vessels that surround tumors but large enough to avoid rapid clearance from the blood stream via the kidneys. Balancing these two requirements usually results in using nanoparticles that are indeed small enough to accumulate in the vicinity of tumors, but that are really too large to penetrate deeply enough into tumors to have the maximum therapeutic effect."

[Early tests find nanoshell therapy effective against brain cancer](#)

Nanowerk
Feb. 22

"Rice University bioengineers and physician-scientists at Baylor College of Medicine and Texas Children's Hospital have successfully destroyed tumors of human brain cancer cells in the first animal tests of a minimally invasive treatment that zaps glioma tumors with heat. The tests involved nanoshells, light-activated nanoparticles that are designed to destroy tumors with heat and avoid the unwanted side effects of drug and radiation therapies."

Other (science) issues related to nanotechnology

[Nanotechnology may lead to new treatment of liver cancer](#)

PhysOrg
Feb. 21

"Nanotechnology may open a new door on the treatment of liver cancer, according to a team of Penn State College of Medicine researchers. They used molecular-sized bubbles filled with chemotherapy drugs to prevent cell growth and initiate cell death in test tubes and mice."

[UNC Nano Researchers Work on 'Flexible' Synthetic Blood Cells](#)

NanoScienceWorks.org
Feb. 22

"A multidisciplinary research team at the University of North Carolina at Chapel Hill has created particles to mirror properties of red blood cells. The work could prove an important step forward in the development of synthetic blood, researchers said."

[Manipulating molecules for a new breed of electronics](#)

R&D Magazine
Feb. 22

"In research appearing in *Nature Nanotechnology*, Nongjian 'NJ' Tao, a researcher at the Biodesign Institute at Arizona State Univ., has demonstrated a clever way of controlling electrical conductance of a single molecule, by exploiting the molecule's mechanical properties."

[MIT tests new nanoparticle for vaccine delivery](#)

Fierce Drug Delivery.com
Ryan McBride
Feb. 22

"While there's been some progress to make synthetic vaccines for HIV that avoid the dangers of using the virus itself to spur the body's defenses, delivering the synthetic vaccines with existing technology hasn't elicited the desired immune responses. MIT researchers might have found one way to overcome this delivery challenge - a new nanoparticle made with bundles of liposomes that might be able to deliver synthetic vaccines for HIV and other diseases safely and effectively, according to an MIT News Office release."

[Nanoparticles Provide Lifelong Immunity in Mice](#)

DailyTech.com

Tiffany Kaiser

Feb. 24

"Nanoparticles activate two areas of the innate immune system, stimulating Toll-like receptors and providing lifelong immune protection in mice."