

Center for Nanotechnology in Society University of California, Santa Barbara

www.cns.ucsb.edu Weekly Clips

April 16-30, 2011

Top Deck

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

[Nanotechnology to Boost Oil Recovery in Russia Up to 60-65 Percent](#)

Oil and Gas Eurasia

April 2011

"According to the International Energy Agency (EIA), the world will see an increase in oil consumption, which would require almost 50 percent oil production growth by 2025. The increase in global oil consumption will be linked to environmental assessments of the nuclear power industry in aftermath of the tragedy in Japan. From this point of view, oil production in Russia is becoming increasingly important."

[Cancer breath test step closer](#)

BBC

April 19

"A breath test that can sniff-out cancer is a step closer to reality, according to a preliminary study."

[The Nanodermatology Society Releases First Position Statement on the Safety of Nanotechnology in Sunscreens](#)

PR Newswire

April 20

"The Nanodermatology Society (NDS), a physician-led organization dedicated to the scientific and medical aspects of nanotechnology and dermatology, released its first position statement on the safety of nanotechnology in sunscreens."

[Is the Future of Nanotechnology Limited to Three Nanometers?](#)

IEEE Spectrum Nanoclast blog
April 22
Dexter Johnson

"I was a bit stunned when I saw that Professor Mike Kelly at Cambridge University for Advanced Photonics and Electronics had claimed that structures with dimensions three nanometers or less could not be mass-produced."

[Carbon nanotubes bring 'synthetic' brains closer to reality](#)

ANI (India)
April 24

"Engineering researchers at the University of Southern California have developed a carbon nanotube synapse circuit that functions like a neuron, the building block of the brain."

['Ground Breaking' Research in Nanotechnology Doesn't Appear to be Related to Nanotechnology At All](#)

IEEE Spectrum Nanoclast blog
April 27
Dexter Johnson

"About 12 years ago, the world of physics was abuzz with the news that researchers led by Lene Hau had slowed down the speed of light from 186,282 miles a second to about the speed of grandma on the highway (38 miles an hour)."

[Ice cream as healthy as celery and chocolate with no calories - welcome to nanofood](#)

Daily Mirror (U.K.)
April 27
Ruki Sayid

"IMAGINE a world where ice cream is as healthy as a celery stick, chocolate has no calories and one bar of it fills you up. Where crisps are packed with vitamins and the carton knows when the eggs inside it are turning bad."

[Now a nano tent to save you from water and fire](#)

Daily News and Analysis (India)
April 28
Kinjal Desai

"Everybody wants a roof above their heads. So, imagine a roof that is able to store solar energy, is water proof, fire proof and cleans itself! It's much, much more than what you had yearned for."

Nano Press

What nano-centered publications are reporting

['Good cholesterol' nanoparticles seek and destroy cancer cells](#)

Nanowerk

April 20

"High-density lipoproteins (HDL) haul excess cholesterol to the liver for disposal, but new research suggests so-called 'good cholesterol' can also act as a special delivery vehicle that can help destroy tumors. According to research published in the journal *Neoplasia* ('Targeted Delivery of Small Interfering RNA Using rHDL Nanoparticles'), synthetic HDL nanoparticles loaded with small interfering RNA (siRNA) can silence cancer-promoting genes selectively, shrinking or destroying ovarian cancer tumors in mice. The team that carried out this study was led by Anil Sood of The University of Texas MD Anderson Cancer Center and Andras Lacko of the University of North Texas Health Science Center."

[Nanoscale approaches to designing contrast agents for cancer detection](#)

Nanowerk

April 20

"X-rays are not the only way to peer inside the body without cutting into it: visible and especially infrared light can also be used to image human tissue. The effectiveness of optical imaging processes can be significantly improved with suitable dyes used as contrast agents. Now, as reported in the journal *Angewandte Chemie International Edition* ('Phosphorescent Nanoscale Coordination Polymers as Contrast Agents for Optical Imaging'), a team led by Wenbin Lin at the University of North Carolina has introduced a novel contrast agent that marks tumor cells in vitro. The dye is a phosphorescent ruthenium complex incorporated into nanoparticles of a metal-organic coordination polymer, which allows an extraordinarily high level of dye loading."

[Nanotechnology paper is stronger than steel](#)

Nanowerk

April 20

"In work recently published in the *Journal of Applied Physics* ('Advanced mechanical properties of graphene paper'), a University of Technology Sydney (UTS) research team supervised by Professor Guoxiu Wang has developed reproducible test results and nanostructural samples of graphene paper, a material with the potential to revolutionise the automotive, aviation, electrical and optical industries."

[Gutenberg printing goes nanoscale](#)

Nanotechweb

April 21

"Researchers in Australia and the US have developed a new way to print nanoparticle arrays. The technique, which is inspired by Gutenberg book printing, could be used to mass-produce nanotechnology components for solar cells, biosensors and other electronics devices."

[Silica Nano-particles to Deliver Multiple Drugs to Destroy Cancer Cells](#)

Azonano

April 21

"Sandia National Laboratories, the University of New Mexico, and the UNM Cancer Research and Treatment Center have jointly combined nanotechnology and medical research to develop a technique to use nano-particles to destroy cancer cells with multiple drugs."

[EPA Closing in On Nanopesticide Reporting Policy](#)

Nanotechnology Now

April 29

Lynn L. Bergeson

"About a year ago, the U.S. Environmental Protection Agency (EPA) announced its intent to adopt a policy presuming that an active or inert ingredient will be considered 'new' under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) if the ingredient is or contains a 'nanoscale material' and requiring any registrant of a pesticide product registered under FIFRA that is aware the product contains a nanoscale material to submit the information to EPA pursuant to FIFRA Section 6(a)(2). The 'classification' policy came as no surprise and many believe it reflects a legally defensible interpretation of FIFRA. The 'reporting' policy, however, was greeted with immediate and strong resistance. A logical inference of EPA's new reporting policy is that EPA must regard the mere presence of a nanoscale material to be 'adverse' since EPA regulations generally limit the obligation of a registrant to report information pursuant to FIFRA Section 6(a)(2) to information that concerns 'adverse effects.'"

Other (science) issue related to nanotechnology

[Researchers create super-small transistor](#)

R&D Magazine

April 19

"A Univ. of Pittsburgh-led team has created a single-electron transistor that provides a building block for new, more powerful computer memories, advanced electronic materials, and the basic components of quantum computers."

[Nanotechnology risks going same way as GM, FSA study](#)

Food Manufacture (U.K.)

April 21

Freddie Dawson

"Manufacturers risk new nanotechnology-based food products being rejected in a similar way to genetically modified (GM) foods, unless they start engaging with consumers over their perceptions of the risks involved, a new Food Standards Agency

(FSA) commissioned study has warned."

[Researchers construct RNA nanoparticles to safely deliver long-lasting therapy to cells](#)

PhysOrg

April 21

Kay Cosse

"Nanotechnology researchers have known for years that RNA, the cousin of DNA, is a promising tool for nanotherapy, in which therapeutic agents can be delivered inside the body via nanoparticles. But the difficulties of producing long-lasting, therapeutic RNA that remains stable and non-toxic while entering targeted cells have posed challenges for their progress."

[Nanotechnology in sunscreens is safe, says Nanodermatology Society](#)

News-Medical.net

April 22

"The Nanodermatology Society (NDS), a physician-led organization dedicated to the scientific and medical aspects of nanotechnology and dermatology, released its first position statement on the safety of nanotechnology in sunscreens."

[New Polymer-Based Device Generates Power from Heat and Solar Energy](#)

Azom.com

April 27

"A research team at the Center for Nanotechnology and Molecular Materials of Wake Forest University has designed a new polymer-derived solar-thermal device that is capable of capturing both heat and solar energy to generate electricity. This innovation could reduce the cost of heating a home by around 40%."

[Scientists Using A Virus To Improve Solar Panel Technology](#)

GizMag

April 28

Nick Broughall

"Solar panels have been around for decades, but they haven't changed too much in terms of efficiency. Now, scientists at MIT have discovered that by combining a modified virus with nanotechnology, they can improve solar panel efficiency by about a third."