

# Center for Nanotechnology in Society University of California, Santa Barbara

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## WEEKLY CLIPS

Jan. 1-15, 2011

### Top Deck

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

[Nanotech and 'tea bag' to clean up drinking water](#)

CNN International

Jan. 3

Matt Ford

"Lack of access to clean water is still a problem for millions of people across the world, but new developments in nanotechnology and a water filter that resembles a humble tea bag could prove to be effective solutions."

[From clean water to detecting ailments, nanotech holds key](#)

*Times of India*

Jan. 3

"CHENNAI: Nanotechnology could hold the key to affordable clean water, sustainable energy solutions, sequestration of greenhouse gases and a host of other things, said experts at the 98th Indian Science Congress. 'Interaction of nanotechnology with biology has produced some exciting results and can be used to create new materials. The bio-nano interface could help solve problems of water, food, health and environment,' said Dr T Pradeep of IIT Madras, talking about the scope of nanochemistry."

[Researchers working on pesticides that use nanoparticles](#)

LiveMint.com (*Wall Street Journal*)

Jan. 6

Jacob P. Koshy

"Indian scientists are working on developing the next generation of pesticides that employ nanoparticles, have potentially reduced toxicity, and can dramatically slash costs and in the next few years challenge the Rs. 2,000 crore pesticide market in India."

[Is Determining the Impact of Nanotechnology a Useful Exercise?](#)

*IEEE Spectrum* Nanoclast blog

Jan. 10

Dexter Johnson

"The latest organization to take a crack at sorting out how nanotechnology is going to make its impact is the Organization for Economic Cooperation and Development (OECD), which has just published a report entitled [\*The Impacts of Nanotechnology on Companies.\*](#)"

[Beware, nano particles could be a double-edged sword, says scientist](#)

*Times of India*

Jan. 12

"Scientists fear that despite nanotechnology holding the answers to various ailments and solutions to man's everyday problems there is a high possibility of nano particles turning toxic as asbestos. Care should be taken to see that natural nano particles that do not harm the environment or humans are used, the scientific community feels."

[IIT B develop a heart defect detection device](#)

International Business News (CNN)

Jan. 11

"India will have a 100 million heart patients by the end of the decade. What's worse - the Cardiological Society estimates heart defects go undiagnosed in four out of ten cases."

[Yarn goes high-tech and nano-small](#)

MSNBC Cosmic Log

Jan. 12

John Roach

"High-tech clothes that function as batteries and fuel cells, some of them even self-cleaning, may all be possible - thanks to a new type of yarn developed by nanotechnologists."

**On Deck**

What Local Sources are Reporting

[Nanotechnology emerging in Oklahoma](#)

*The Oklahoman*

Jan. 9

Jim Mason

"Oklahoma, historically a land sustained by energy and agriculture, is enjoying the emergence of a new industry that promises to impact every aspect of our lives. Nanotechnology has captured the attention of researchers, empowering the state to lead the way in applications of nanotechnology."

[She's Sussing Nano-Safety From The Inside](#)

*New Haven (CT) Independent*

Jan. 10

Gwyneth K. Shaw

"Sara Brenner loves nanotechnology."

[Scientists Find Nanomaterials Accumulate in Small Predators](#)

*The Daily Nexus (UC Santa Barbara)*

Jan. 13

Tim Hoegerman

"Researchers at UCSB have found that certain nanoparticles may have not-so-nano impacts within simple food chains."

[Caltech geeks out, invoking Feynman's spirit](#)

*San Gabriel Valley (CA) Tribune*

Jan. 14

Beige Luciano-Adams

"PASADENA - If legendary physicist Richard Feynman has a ghost, it surely summers at Caltech - or at least indulges in a regular nightcap there among the manicured lawns."

**Nano Press**

What nano-centered publications are reporting

[A nanoscale biofuel cell for self-powered nanotechnology devices](#)

Nanowerk

Jan. 2

"Nanotechnology researchers working on self-powered nanodevices - nanoscale systems that scavenge energy from their surrounding environment - have been experimenting with various power sources ranging from piezoelectric systems . . . to sound."

#### [Breathalyzers coming to a doctor near you?](#)

PhyOrg

Jan. 3

"Nobody driving an automobile wants to come face-to-face with a breathalyzer. But if research now under way proves out, patients visiting their doctors will welcome the devices."

#### [Nanopathology: A New Word to Describe the Nanoparticle-Human Body Interaction](#)

Azonano

Jan. 10

Antonietta M. Gatti

"Nanotechnologies are rampant disciplines, exponentially growing beyond any intelligent expectation. Discoveries once unimaginable, based on new properties of matter at nanoscale are appearing at a rapid rate, driven by the enthusiasm of the scientists working in new directions at the border of the knowledge."

#### [New insights from the nano world: Direct observation of carbon monoxide binding](#)

Nanowerk

Jan. 10

"Carbon monoxide is highly toxic since it blocks the binding site for oxygen in hemoglobin. This very principle - a porphyrin ring with a central iron or cobalt atom that the poisonous gas attaches to - can be used to implement sensors to warn against carbon monoxide. Physicists headed by Professor Johannes Barth from the Technische Universitaet Muenchen (TUM) have, in collaboration with theorists in Lyon and Barcelona, deciphered the mechanism for binding of gas molecules to iron and cobalt porphyrins. They present the unexpected phenomena they discovered in the current issue of *Nature Chemistry* (['Cis-dicarbonyl binding at cobalt and iron porphyrins with saddle-shape conformation'](#))."

### **Other (science) issues related to nanotechnology**

#### [Revolutionary cancer test undergoing study in Boston](#)

NECN

Jan. 4

"A revolutionary cancer testing device is undergoing tests in Boston that doctors hope

will allow them to find cancers earlier and provide more individualized treatment."

[New medical iPhone hardware: monitoring your heart at the palm of your hand](#)

Examiner.com

Jan. 5

Ruben Daga

"[AliveCor](#) just recently claimed to have finished creating a new peripheral device available for the iPhone4 that will allow the user to measure, record and analyze electrocardiographic ([ECG](#)) data in order to assess a patient's heart electrical conductivity. Although the prototype for the device has been developed and finished, the product won't hit stores until AliveCor is cleared by the FDA and has been tested in clinical trials. The product will be displayed at the Consumer Electronic Show this year."

[New Nanomaterial Could Dramatically Speed Plug-in Vehicle Charging](#)

Plug-In Cars.com

Jan. 6

Zach McDonald

"Researchers at Rensselaer Polytechnic Institute have developed what they believe could be a solution to one of the fundamental challenges facing advanced vehicle battery engineers: increasing power and reducing charge times without creating additional anode wear, which depletes the energy storage of a battery and the range of an electric vehicle."

[Study: Nanofibre materials vs steel in car panels](#)

Recycling Portal

Jan. 7

"A new study combining life cycle analysis and risk assessment methods has tried to evaluate the impact of nanomaterials entering the environment with the risk of exposure to nanomaterials. As a case study, the researchers considered the life cycle energy requirements of replacing vehicle exterior closure panels, traditionally made of steel, with different lightweight materials, including carbon nanofibre reinforced polymer composite material."

[Nanoparticles build up](#)

RSC

Jan. 7

"New research suggests that nanomaterials that are released into the environment could accumulate in food chains. Studies by groups working on two different types of nanoparticle - gold nanoparticles and cadmium selenide (CdSe) quantum dots - show that they can be transferred from species lower down in food chains to those that feed on them, concentrating at the higher level."

[Delivering a potent cancer drug with nanoparticles can lessen side effects](#)

EurekAlert

Jan. 11

"Researchers at 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 and is activated once it reaches its target."

[Study highlights flaw in common approach of public opinion surveys about science](#)

Bioscience Technology

Jan. 13

"A new study from North Carolina State University highlights a major flaw in attempting to use a single survey question to assess public opinion on science issues. Researchers found that people who say that risks posed by new science fields outweigh benefits often actually perceive more benefits than risks when asked more detailed questions."

[Another peek into how carbon nanotubes may interfere with the human immune system](#)

Nanowerk

Jan. 13

"The toxicity issues surrounding carbon nanotubes (CNTs) are highly relevant for two reasons: Firstly, as more and more products containing CNTs come to market, there is a chance that free CNTs get released during their life cycles, most likely during production or disposal, and find their way through the environment into the body. Secondly, and much more pertinent with regard to potential health risks, is the use of CNTs in biological and medical settings. CNTs interesting structural, chemical, electrical, and optical properties are explored by numerous nanomedicine research groups around the world with the goal of drastically improving performance and efficacy of biological detection, imaging, and therapy applications. In many of these envisaged applications, CNTs would be deliberately injected or implanted in the body. For instance, CNT-based intercellular molecular delivery vehicles have been developed for intracellular gene and drug delivery *in vitro* (see: '[Nanotechnology based stem cell therapies for damaged heart muscles](#)')."

[EFSA publishes draft guidance on nano risk assessment](#)

Guy Montague-Jones

Jan. 14

"The European Food Safety Authority (EFSA) has today published draft guidance giving more specific risk assessment information regarding the use of nanotechnology in food."