From:	Cathy Boggs
To:	Cathy Boggs
Subject:	Fwd: [CNS-weekly-clips] CNS-UCSB News Clips, September 16-30, 2011
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Subject: [CNS-weekly-clips] CNS-UCSB News Clips, September 16-30, 2011
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From: CNS - Weekly News Clips from UCSB <cns-weekly-clips@lists.isber.ucsb.edu>
Reply-To: cns-weekly-clips@lists.isber.ucsb.edu
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CNS-UCSB
Center for Nanotechnology in Society

University of California, Santa Barbara
www.cns.ucsb.edu

News Clips

September 16-30, 2011

Top Deck

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

CSIRO says risks worth taking with nanotechnology
ABC - AM with Tony Eastley (Australia)
Sept. 16

"The head of the Federal Government's nanosafety program has hit back at claims the increased use of nanotechnology is breeding drug resistant super bugs."

Nanoparticles May Cause Kidney and Brain Damage
Forbes
Sept. 20
Alex Knapp

"Nanoparticles pose some interesting possibilities for the future of medicine and other technologies."

Metrics for Nanotechnology's Development Are Just Pieces of the Puzzle
IEEE Spectrum Nanoclast blog
Sept. 26
Dexter Johnson

"I am the type who can easily fall prey to 'told-you-so' syndrome. Today is just such an instance."

New computer memory uses nanotechnology
UPI
Sept. 27

"U.S. experts say a new kind of computer memory using nanotechnology could be faster than current technology and use far less power than flash memory devices."

Australian scientists develop 'needle-free' vaccination
The Hindu
Sept. 28

"Good news for the needle-phobic."

NY Natives Getting Restless with Nanotech Promises

IEEE Spectrum Nanoclast blog
Sept. 30
Dexter Johnson

"The State of New York has been aggressively pursuing the promise of an economic boom brought on by nanotechnology for a decade now. There's even a website called New York Loves Nanotech in which the over $13 billion that has been invested in nanotech within the state is glorified."

Local

Tiny big work
The City Wire (For Smith, Arkansas)
Sept. 16

"Investment in nanotechnology research at the university began 16 years ago, and during those years, the number of nanotechnology researchers has expanded to 25 tenure-track faculty members in fields including physics, engineering, chemistry and biology. The new building on Dickson Street puts much of that interdisciplinary research under one roof."

A Heart of Gold: Better Tissue Repair After Heart Attack
The Sacramento Bee
Sept. 26

"Gold nanowires in engineered patches enhance electrical signaling and contraction."

Nano press

What nanotechnology related publications are reporting

Nanotechnology sensor could provide a much earlier warning signal for lung cancer
Nanowerk
Sept. 20

"Every aspect of cellular activities, including cell proliferation, differentiation, metabolism and apoptosis, can be regulated by a class of tiny but very important nucleic acids fragments called microRNAs (miRNAs). They bind to specific messenger RNAs and cause messenger RNA degradation or inhibit translation, thereby regulate gene expression at the post-translational level. In cancer cells, the homeostasis of these normal biological processes is disrupted, partially by dysregulated miRNAs, therefore the level of microRNAs is an indicator to the disease development, and miRNAs in cancer tissues or biofluids, either whole spectrum or a set of miRNAs, can be utilized as a diagnostic biomarker for cancer detection."

A heart of gold
Nanowerk
Sept. 26

"A team of researchers at MIT and Children's Hospital Boston has built cardiac patches studded with tiny gold wires that could be used to create pieces of tissue whose cells all beat in time, mimicking the dynamics of natural heart muscle. The development could someday help people who have suffered heart attacks."

Cheap and efficient solar cell made possible by linked nanoparticles
Nanowerk
Sept. 26

"Researchers of the Chemical Engineering department and the Kavli institute of the TU DElft have demonstrated that electrons can move freely in layers of linked semiconductor nanoparticles under the influence of light. This new knowledge will be very useful for the development of cheap and efficient quantum dot solar cells. The researchers published their findings on Sunday 25 September on the website of the scientific journal *Nature Nanotechnology*."

Other (science) issue related to nanotechnology

Why carbon nanotubes spell trouble for cells

EurekAlert
Sept. 18

"It's been long known that asbestos spells trouble for human cells. Scientists have seen cells stabbed with spiky, long asbestos fibers, and the image is gory: Part of the fiber is protruding from the cell, like a quivering arrow that's found its mark."

Also noted by Scientific American.

Study indicates that nanoparticles cause brain damage in fish
Gizmodo
Sept. 19
Ben Coxworth

"In just the past few years, nanotechnology has brought technological advances in almost every field imaginable - patches that regenerate heart tissue, water-powered batteries and better biofuels are just a few examples. As with just about any new technology, however, concerns have been raised regarding its safety. We've never experienced anything quite like it before, so how far should we trust it? According to a recent study conducted at the University of Plymouth, the answer to that question might be 'Not very far.' In tests on rainbow trout, titanium oxide nanoparticles were found to cause damage to the brain and other parts of the central nervous system."

UCSB develops breakthrough technology in identification of prostate cancer cells
EurekAlert
Sept. 19

"A team of researchers at UC Santa Barbara has developed a breakthrough technology that can be used to discriminate cancerous prostate cells in bodily fluids from those that are healthy. The findings are published this week in the *Proceedings of the National Academy of Sciences."*

How Scientists View the Public, the Media, and the Political Process
Big Think
Sept. 20
Matthew C. Nisbet

"Most scientists in the US and UK blame public ignorance of science for flawed policy preferences and political choices. They tend to be critical of media coverage, yet rate favorably their own experience with the media. Scientists say policy-makers and journalists are the most important groups to engage and view the public as having secondary importance in political decision-making. Among scientists, perceptions of science-related policy debates are likely to be influenced by ideology and like-minded information sources such as blogs."

Experts Warn of Nano Resistance, Call for Oversight

ENews Park Forest
Sept. 28
Friends of the Earth

"Overuse of antibacterial agents contributes to promoting the development of more powerful bacteria that are resistant to treatment. This, according to a new report released by Friends of the Earth in which leading microbiologists warn that the rapid rise in household antibacterial products containing nanosilver could put public health at risk. The report emphasizes that as the numbers of deaths caused by bacterial resistance to antimicrobials and antibiotics in hospitals continues to rise, as well as increasing allergy incidents, the need to regulatory oversight is urgently needed."