Legislation urged for nano based materials

Switzerland’s Centre for Technology Assessment (TA-Swiss) has called for the existing legislation on foods and chemicals to be adapted to meet the demands of nanotechnology.

The Bern-based TA-SWISS, which describes its role as imparting knowledge that is as independent as possible on the repercussions, opportunities and risks of new technologies, has conducted a study into nano packaging materials and food additives already in use in Switzerland.

The report, Nanotechnology in the food sector, concludes that in view of the international flows of goods, global or at least Europe-wide regulation is required in relation to nano-particles in packaging and products.

First University Program to Tackle Need for Two Million Nanotechnology Workers

San Diego, CA (PRWEB) January 26, 2009 -- According to the National Science Foundation (NSF), more than two million industry nano-tech savvy workers will be needed in the U.S. by the year 2014. But, students aren't prepared for these careers, and a skilled workforce shortage has left research universities and companies challenged to secure the talent needed to meet this demand. NanoTecNexus (NTN), a leading nanotech education organization dedicated to collaboration and knowledge exchange, is launching the first program of-its-kind this February -- unveiling a new NTN Chapter University program to tackle this problem head on. Also launching this spring is a kid's K-12 community outreach series to help grow the next generation of nano-scientists.

The first university chapter kicks off at the UC San Diego (USCD)'s NanoEngineering department, arming students with the leadership skills, industry readiness, and career path knowledge needed for these careers. The program will include leadership skills training and career development as well as an opportunity to integrate with industry through special projects and activities.

http://www.prweb.com/releases/2009/01/prweb1911084.htm

WMHT, UAlbany NanoCollege Partner to Feature Nanotechnology on Statewide ‘New York Now’ PBS Program

WMHT Educational Telecommunications ("WMHT") and the College of Nanoscale Science and Engineering ("CNSE") of the University at Albany today announced the launch of a first-of-its-kind segment to air on the statewide "New York Now" PBS television program that will highlight the growing impact of nanotechnology on society.

"Report from the NanoDesk," which is produced and hosted by WMHT's Susan Arbetter and debuts on Friday, January 30, will examine the public policy implications of the technology advances being enabled by nanotechnology - described by the National Nanotechnology Initiative as "leading to the next Industrial Revolution" - through the resource of the pioneering educational curriculum and innovative research and development at the UAlbany NanoCollege, ranked by Small Times magazine as the world's number one college for nanotechnology.

Tiny Particles Take Aim at Cancer Tumors

With the help of particles too small to be seen, cancer research may be taking giant leaps.

Researchers are trying to use nanoparticles (side by side, 100,000 of them are the width of a human hair) to target tumors more efficiently and safely.

CytImmune Sciences, a Rockville company, has developed a solid-gold nanoparticle, called Aurimune, that is coated with a tumor-weakening agent.

Because blood vessels around cancerous tumors are leaky, Aurimune nanoparticles can slip out of the vessels near a tumor and cluster around it.

If injected directly into the body, the agent, called tumor necrosis factor, would cause massive organ failure. But the nanoshells can be highly focused to aim for the tumor without affecting the rest of the body. The company believes the agent can weaken a tumor's blood vessels, making follow-up chemotherapy more effective.

Aurimune will enter its second phase of human trials at the National Institutes of Health this summer.

Recent action in Congress to reauthorize the U.S. federal nanotechnology research program offers the chance to address the social and ethical issues concerning the emerging scientific field, experts say.

“It is crucial to address social and ethical issues now as we consider both the substantial potential risks of nanotechnology and its possible significant contributions to our well-being and environmental sustainability,” says Ronald Sandler, Northeastern University philosophy professor and author of a new report funded by the Project and the National Science Foundation.

The report, Nanotechnology: The Social and Ethical Issues, emphasizes ways in which such topics intersect with governmental functions and responsibilities, including science and technology policy, as well as research funding, regulation and work on public engagement.

House introduces nanotech bill

By Trudy Walsh

Jan 16, 2009

The House Science and Technology Committee introduced a bill Jan. 15 about the need to strengthen federal efforts to better comprehend the potential environmental, health and safety effects of nanotechnology. Nanotechnology receives $1.5 billion annually in federal research funding, said representatives of the Project on Emerging Nanotechnologies, an initiative launched by the Woodrow Wilson International Center and the Pew Charitable Trusts in 2005.

The new bill, H.R. 554, is nearly identical to legislation that passed the House last year. The Senate was expected to come up with similar legislation, but lawmakers ran out of time.

The introduction of the bill comes a few months after former Environmental Protection Agency official J. Clarence "Terry" Davies wrote a report that made a series of recommendations for improving federal risk research and oversight of engineered nanomaterials at EPA, the Food and Drug Administration and the Consumer Product Safety Commission. The report, titled "Nanotechnology Oversight: An Agenda for the Next Administration," makes proposals for how Congress, federal agencies and the White House can improve oversight of engineered nanomaterials. The report was sponsored by the Project on Emerging Nanotechnologies.

DNA Technology goes 3-D

DNA, the fundamental building block of life, has become an intense nanotechnology research field. DNA molecules can serve as precisely controllable and programmable scaffolds for organizing functional nanomaterials in the design, fabrication, and characterization of nanoscale devices such as sensors and electronics (see: "Nanotechnology cut and paste with single molecules") or "DNA electronics in nanotechnology").

Most DNA research on controlled self-assembly deals with two-dimensional, i.e. flat, patterns and an expansion of these arrays into the third dimension has been challenging. New research coming out of UC Santa Barbara describes the self-assembly of multilayer hexagonal DNA arrays through highly regular interlayer packing.

http://www.nanowerk.com/spotlight/spotid=9081.php

$200k gift supports the 21st Century Nanotechnology Fellows Program

(Nanowerk News) The MathScience Innovation Center announced a two-year pledge of $200,000 from Altria Group to support the 21st Century Nanotechnology Fellows Program. Dr. Julia Cothron, Executive Director, announced the grant at a recent meeting of the MathScience Innovation Center's Board of Directors.

The Nanotechnology Fellows Program is a capacity-building workforce program for K-12 educators. Through the program and a pair of associated conferences, the Center will expand math and science teachers’ opportunities to learn about the emerging field of nanotechnology and effective ways to integrate it within the curriculum.

Brian K. Wells, Manager of Production for Philip Morris USA, an Altria company, serves on the board of directors for the MathScience Innovation Center Foundation. Mr. Wells noted, “As leading employers based in central Virginia, Altria is committed to helping spark students’ interest in the study of math and science, which are the basis of so many career disciplines. We commend the MathScience Innovation Center for focusing on teacher training in order to raise the level of local math and science instruction and contribute to Central Virginia’s
competitiveness in the global marketplace.”