



REGULATORY AND LEGISLATIVE DEVELOPMENTS

German Advisory Council on the Environment (SRU) publishes special report “Precautionary Strategies for Managing Nanomaterials”

The report, released 1 September, makes recommendations for responsible and precautionary development of nanotechnology for early risk identification. It urges reform of nanomaterial regulation and more transparency on the use of nanomaterials in consumer products. In particular, the SRU is pushing for a uniform definition of nanomaterials and consequently to treat them as separate substances in risk assessments.

The press release can be found here:

http://www.umweltrat.de/SharedDocs/Pressemitteilungen/EN/CurrentPressReleases/2011/2011_09_PressRelease_More_precaution_in_the_management_of_nanomaterials.html

Nanomaterials included in “Advancing Regulatory Science at FDA: A Strategic Plan”

Nanomaterials and nanotechnology is highlighted in one priority area that the Strategic Plan identifies, “Support New Approaches to Improve Product Manufacturing and Quality.” Recognising nanotechnology’s contribution to medical products, the FDA seeks to better understand the use of nanomaterials in these products and has established Nanotechnology Core Centres. These centres will conduct research to support regulatory decision making and establish standards for nanomaterials.

The full report can be downloaded here: <http://eprints.internano.org/1691/>

EC Joint Research Centre Institute for Health and Consumer Protection argues for nanomaterials regulatory definition

In a recent letter to *Nature*, Hermann Stamm from the Joint Research Centre argues for a regulatory definition of nanomaterials. He notes that size is the appropriate parameter for a definition because while nanomaterials vary in characteristics, they all have structures on the nanoscale that change their other properties. Citing the necessity of a regulatory definition for labeling purposes, Stamm argues that a definition would in fact be beneficial to both industry and regulators to identify areas for more rigorous risk assessments.

The article can be found here:

<http://www.nature.com/nature/journal/v476/n7361/full/476399c.html>

Danish EPA Issues Report on Environmental and Health Risks for Nanomaterials

The Danish EPA recently issued a report entitled “Survey on Basic Knowledge About Exposure and Potential Environmental and Health Risks for Selected Nanoparticles,” discussing the use of and risk associated with commonly used nanomaterials. Namely, the nanomaterials they examine are titanium dioxide, cerium dioxide, fullerenes,

nanosilver, zero-valent iron, silicium dioxide, and nanoclay. The report concludes that more information and research is necessary to assess the risks associated with nanomaterials.

The report can be found here (in English):

<http://www.nanolawreport.com/uploads/file/Survey%20on%20basic%20knowledge%20about%20exposure%20and%20potential%20environmental%20and%20health%20risks%20for%20selected%20nanoparticles.pdf>

South African Council for Scientific and Industrial Research (CSIR) and Kenya to Collaborate on Nanomedicine for Communicable Diseases

South Africa and Kenya will be collaborating to develop nanotechnology to improve the efficiency of drugs used to treat communicable diseases such as HIV/AIDS, TB, and malaria. By developing a more efficient delivery system for drugs such as premaquine which are potent but are not soluble and toxic, researchers hope to increase patient compliance and combat drug resistance.

http://www.africasciencenews.org/en/index.php?option=com_content&view=article&id=101:s-africa-research-council-to-help-kenya-on-nano-technology&catid=45:hitech&Itemid=116

REVIEWS AND OTHER PUBLICATIONS OF INTEREST

1. **Nanoscience and Nanotechnology: Evolving Definitions and Growing Footprint on the Scientific Landscape.** Small, August 2011, M.L. Grieneisen and M. Zhang
<http://onlinelibrary.wiley.com/doi/10.1002/sml.201100387/abstract;jsessionid=A7230BFF13DCDB3E8D836AE0C51A4CC5.d03t03>
2. **Upconversion Fluorescent Nanoparticles as a Potential Tool for In-depth Imaging.** Nanotechnology, 30 September 2011, Vol. 22, No. 39. Sounderya Nagarajan and Yong Zhang. <http://iopscience.iop.org/0957-4484/22/39/395101/refs>
3. **Cytoprotective Properties of a Fullerene Derivative Against Copper.** Nanotechnology, 7 October 2011, Vol. 22, No. 40. Tatsiana A. Ratnikova, Mark J. Bebbler, George Huang, Lyndon L. Larcom and Pu Chun Ke.
<http://iopscience.iop.org/0957-4484/22/40/405101>
4. **How Do We Develop Nanopharmaceuticals Under Open Innovation?** Nanomedicine: Nanotechnology, Biology, and Medicine, August 2011, Vol. 7, No. 4, pp 371-375. Michael A.W. Eaton. [http://www.nanomedjournal.com/article/S1549-9634\(11\)00187-0/abstract](http://www.nanomedjournal.com/article/S1549-9634(11)00187-0/abstract)
5. **Research Highlights in Nanomedicine.** Nanomedicine, August 2011, Vol. 6, No. 6, pp. 953-955. E Israel Rubinstein.
<http://www.futuremedicine.com/doi/pdf/10.2217/nm.11.81>

CONFERENCES AND WORKSHOPS

Biological Responses to Nanoscale Particles

September 11-15, 2011, Essen, Germany

- Organised by Priority Programme (SPP1313) of Deutsche Forschungsgemeinschaft (DFG) and University of Duisburg-Essen (UDE)
- Topics include interactions of nanoscale particles with biomolecules and membranes, mechanisms of cellular uptake and intercellular trafficking, biological impacts of nanoscale particles, synthesis and characterisation of nano particles, in-vivo and in-vitro imaging and diagnostic techniques, biodegradation of nanoscale particles, life cycle analysis and risk assessment

http://www.spp1313.de/website/program/general/programm_82/en/en_programm_univer_1.php

NANOCON 2011

September 21-23, 2011, Brno, Czech Republic

- Two sessions on biotechnology, nanomaterials in medicine, and health, safety and environmental challenges

<http://www.nanocon.cz/>

International Symposium on Scanning Probe Microscopy & Optical Tweezers in Life Sciences

October 5-6, 2011, Berlin, Germany

- Microscopy for biological systems
- Nanomedicine applications
- Biophotonics and nanotechnology

<http://www.nanobioviews.net/spm-optical-tweezers.html>

Nanoscale Bioceramics in Healthcare and High Performance Ceramics

October 12-13, 2011, Stoke-on-Trent, Staffordshire, UK

- Hosted by Institute of Nanotechnology and CERAM
- Focus on application of bioactive glass and ceramics to orthopaedics, regenerative medicine, dentistry, biosensing, controlled drug release, high performance coatings, and functionalized biomaterials.

<http://www.nano.org.uk/events/ion-events>

NanoDDS 2011

October 15-16, 2011, Salt Lake City, UT

- Advanced nanomaterials
- Theranostics
- Drug delivery
- Translational nanomedicine

<http://www.nanoinstitute.utah.edu/portal/site/nanoinstitute/menuitem.bd784eb820e465c65b2c5b69c1e916b9/?vgnnextoid=f5295a86d2a96210VgnVCM1000001c9e619bRCRD>

International Symposium on Bioelectronics and Bioinformatics

November 3-5, 2011, Suzhou, China

- Biomedical engineering
- Nano and micro electronics
- E-health
- Bioinformatics
- Bio-signal processing

<http://isbb2011.wmah.org/index.html>

NanoMedicine – 2011

November 3 – 5, 2011, Shenzhen, China

- Breaking Research of Nanomedicines
- Versatile Nanotech and Nanomaterials in Biomedicine
- Nanodevices and Diagnostic
- Nanomedicine Targeting Major Diseases
- Regenerative Nanomedicine
- Culturing Public Environment for Healthy Growth

<http://www.bitconferences.com/NanoMedicine2011/>

IEEE International Conference on Nano/Molecular Medicine and Engineering

November 9-12, 2011, Jeju, South Korea

- Nano and molecular technologies in medical diagnosis and therapy
- Nanotechnology in drug delivery
- Biomedical imaging
- Nano and molecular technologies in medical diagnosis and therapy
- Nano-technology in drug delivery
- Biochips and Bio-MEMS
- Biomechatronics
- Biological interface
- Cell at the nanoscale
- Frontiers in nanobiotechnology

BioNanoTox and Applications International Research Conference

November 10-14, 2011, Mobile, AL

- Multidisciplinary focus on biology, nanotechnology, and toxicology
- Joint research between nanomaterials and biological systems

<http://sites.google.com/site/bntconference/>

International Conference on Biomedical Engineering

December 10-12, 2011, Manipal Karnataka, India

- Medical applications of nanotechnology one of focus areas

<http://uic.manipal.edu/icbme/#contact>

International Conference on Nanotechnology and Biosensors

December 28-30, 2011, Dubai, UAE

- Aims to foster cross-pollination between nanotechnology and biosensors

<http://www.icnb.org/index.htm>

Nano Health

January 15-16, 2012, Egypt, Cairo

- To address the future of nanotechnology, as well as potential risks and regulatory issues
- New frontiers in drug delivery and therapeutics
- New frontiers in imaging and diagnosis
- Nanotechnology and the developing world
- Roadmapping new technologies
- Novel medical materials and products

<http://www.clocate.com/conference/Nano-Health-2012/13170>

IEEE International Conference on Nano/Micro Engineered and Molecular Systems

March 5-8, 2012, Kyoto, Japan

- Nanophotonics
- Nanomaterials
- Carbon nanotube based devices and systems
- Nanoscale robotics, assembly, and automation
- Molecular sensors, actuators, and systems
- Integration of MEMS/NEMS with molecular sensors/actuators
- Microfluidics and nanofluidics
- Micro and nano heat transfer
- Nanobiology, nano-bio-informatics, nanomedicine
- Micro and nano fabrication
- Micro/nano sensors and actuators
- Micro/nanoelectromechanical systems

http://www.ieee-nems.org/2012/general_info/introduction/

77th Prague Meetings on Macromolecules: Polymers in Medicine

July 8-12, 2012, Prague, Czech Republic

- Polymers for Nanomedicine
- Stimuli responsive polymers
- Polymers for Advanced Drug Delivery
- Polymers for Biomedical Applications
- Biomaterials for Tissue Engineering

<http://www.imc.cas.cz/sympo/pmm2012/>

REFERENCE SECTION**Nano Organizations**

- National Center for Toxicological Research (NCTR): <http://www.fda.gov/AboutFDA/CentersOffices/NCTR/default.htm>
- National Nanotechnology Initiative (NNI): <http://www.nano.gov/>
- Nano Science and Technology Consortium (NSTC): <http://www.nstc.in/>
- Nano Science and Technology Institute (NSTI): <http://www.nsti.org/>
- The Nanotechnology Institute (NTI): <http://nanotechinstitute.org/>

Nano Journals

- American Chemical Society -- Nano Letters: <http://pubs.acs.org/journal/nalefd>

- Institute of Physics – Nanotechnology: <http://iopscience.iop.org/0957-4484/>
- Journal of Nanoscience and Nanotechnology: <http://www.aspbs.com/jnn/>
- NanoTrends - A Journal of Nanotechnology and its Applications:
<http://www.nstc.in/journal/default.aspx>
- BCC Research -- Nanotechnology Reports:
<http://www.bccresearch.com/index/category/code/nanotechnology>
- Nanomedicine: Nanotechnology, Biology, and Medicine:
<http://www.nanomedjournal.com/home>
- Nanomedicine: <http://www.futuremedicine.com/page/about.jsp>

CONTACT

For further information, or if you have any questions about the Nanomedicines Alliance, please contact the Nanomedicines Alliance Secretariat at 1-202-230-5607 or info@nanomedicines-alliance.org

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