



REGULATORY AND LEGISLATIVE DEVELOPMENTS

EC's Joint Research Centre (JRC) and European Academies Science Advisory Council (EASAC) Issue Nano Safety Report

The JRC and the EASAC has issued a report entitled "Impact of Engineered Nanomaterials on Health: Considerations for Benefit-Risk Assessment." The document discusses research conducted on the safety of engineered nanomaterials and concludes that currently there is only limited scientific evidence to suggest that nanomaterials are a risk to health. The report recommends an international harmonisation of test protocols and application of the principle of "safety-by-design" to reduce risks associated with nanomaterials.

The full report can be found here:

http://ihcp.jrc.ec.europa.eu/our_activities/nanotechnology/nanoreport-10-11/JRC-EASAC-report.pdf

German Society for Chemical Engineering and Biotechnology (DECHEMA) and the Chemical Industry Association (VCI) Releases Overview Report on Nanosafety Studies

A joint report of DECHEMA and VCI reviews research conducted on nanosafety in the last ten years, including six Swiss, 40 German, one US, and 25 EU projects.

The full report can be found here (in German):

http://www.innovationsgesellschaft.ch/media/archive2/RisikobewertungNano_2011.pdf

EPA Grants First Approval for Nanopesticide

The US EPA has granted a four year "conditional registration" for a antimicrobial nanosilver used in fabrics. As the EPA considers nanosilver a pesticide, this is the EPA's first approval for a pesticide based on nanomaterial. Some stakeholders welcome the EPA's move as a step toward regulatory approval of nanotechnology based products, while others believe the EPA's decision was premature and the agency should have waited until it receives the results of the toxicology studies required under the conditional registration.

<http://www.innovationsgesellschaft.ch/index.php?section=news&cmd=details&newsid=558&teaserId=13>

Danish EPA Funding Development of Risk Assessing Tool for Nanotechnology

The Danish EPA is funding the Technical University of Denmark and National Research Centre for the Working Environment to develop a tool called NanoRiskCat, which will assess the risks associated with nanomaterials in products for professional and private use. This tool will utilise currently available data on the conventional form as well as the nanoform of the chemical.

http://www.innovationsgesellschaft.ch/media/archive2/20111209_News_NanoRiskCat_Report.pdf

REVIEWS AND OTHER PUBLICATIONS OF INTEREST

A Special Issue on Nanotechnology in China.

Journal of Nanoscience and Nanotechnology, November 2011, Vol. 11, No. 11, pp. 9341-9344. Wei Chen, Zhanguo Wang, Dai-wen Pang, Yu Fang, and Hairong Zheng.

<http://openurl.ingenta.com/content?genre=article&issn=1533-4880&volume=11&issue=11&spage=9341&epage=9344>

Review: Controllable Synthesis and Biomedical Applications of Silver Nanomaterials.

Journal of Nanoscience and Nanotechnology, November 2011, Vol. 11, No. 11, pp. 9395-9408. Zhihai Huang, Xiaoli Jiang, Dawei Guo, and Ning Gu.

<http://openurl.ingenta.com/content?genre=article&issn=1533-4880&volume=11&issue=11&spage=9395&epage=9408>

Synthetic Enzyme Inhibitor: A Novel Targeting Ligand for Nanotherapeutic Drug Delivery Inhibiting Tumor Growth Without Systemic Toxicity. Nanotechnology, Biology, and Medicine, December 2011, Vol. 7, No. 6, pp.665-673. Debbi Liao, Ze Liu, Wolfgang Wrasidlo, Tingmei Chen, Yunping Luo, Rong Xiang, Ralph A. Reisfeld.

<http://www.nanomedjournal.com/article/PIIS1549963411000980/abstract>

Methodologies to Anchor Dendrimeric Nanoconjugates to Solid Phase: Toward an Efficient in Vitro Detection of Allergy to β -lactam Antibiotics. Nanotechnology, Biology, and Medicine, December 2011, Vol. 7, No. 6, pp. 682-685. Maria I. Montañez, Cristobalina Mayorga, Maria J. Torres, Miguel Blanca, Ezequiel Perez-Inestrosa.

<http://www.nanomedjournal.com/article/PIIS1549963411002851/abstract>

Polycationic Amphiphilic Cyclodextrin-based Nanoparticles for Therapeutic Gene Delivery. Nanomedicine, December 2011, Vol. 6, No. 10, pp. 1697-1707. Alejandro Mendez-Ardoy, Koldo Urbiola, Cristina Aranda, Carmen Ortiz-Mellet, Jose Manuel Garcia-Fernandez, Conchita Tros de Ilarduya.

<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.11.59>

Carbon Nanotube-mediated Wireless Cell Permeabilization: Drug and Gene Uptake.

Nanomedicine, December 2011, Vol. 6, No. 10, pp. 1709-1718. Vittoria Raffa, Lisa Gherardini, Orazio Vittorio, Giuseppe Bardi, Afshin Ziaei, Tommaso Pizzorusso, Cristina Riggio, Stephanos Nitodas, Theodoros Karachalios, Khuloud T Al-Jamal, Kostas Kostarellos, Mario Costa, Alfred Cuschieri.

<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.11.62>

Review: Nanostructured Porous Silicon-polymer-based Hybrids: from Biosensing to Drug Delivery. Nanomedicine, December 2011, Vol. 6, No. 10, pp. 1755-1770. Lisa M. Bonnano, Ester Segal.

<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.11.153>

Review: Grand Challenges in Modulating the Immune Response with RNAi Nanomedicines.

Nanomedicine, December 2011, Vol. 6, No. 10, pp. 1771-1785. Meir Goldsmith, Shoshy Mizrahy, Dan Peer.

<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.11.162>

Review: Challenges and Opportunities for Structural DNA Nanotechnology.

Nature Nanotechnology, December 2011, Vol. 6, No. 12, pp. 763-772. Andre V. Pinheiro, Dongran Han, William M. Shih, and Hao Yan.

<http://www.nature.com/nnano/journal/v6/n12/pdf/nnano.2011.187.pdf>

CONFERENCES AND WORKSHOPS

International Conference on Biomedical Engineering. December 10-12, 2011, Manipal Karnataka, India

Medical applications of nanotechnology will be one of focus areas at this event

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

International Conference on Nanotechnology & Biosensors. December 28-30, 2011, Dubai, UAE

Aims to foster cross-pollination between nanotechnology and biosensors

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

Bionanotechnology III: From Biomolecular Assembly to Applications. January 4-6, 2012, Cambridge, UK

Large natural and designed assemblies
Single-molecule studies

Nanomaterials and devices in vitro

Nanomaterials and devices in vivo

Biomolecular self-assembly

<http://www.biochemistry.org/Conferences/AllConferences/tabid/379/View/Conference/MeetingNo/SA121/Default.aspx>

Nano Health. January 15-16, 2012, Egypt, Cairo

To address the future of nanotechnology, 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>

International Conference on Nanoscience and Technology. January 20-23, 2012, Hyderabad, India

Advances in nanomaterial synthesis
Technology and commercialization
Energy applications
Biotechnology and biomedical applications
CNTs and graphene
Physics of nanomaterials
NEMS, lithography, etc.
Catalysis
Nanocomposites
Surface engineering and tribology applications
Advances in nanomaterials characterization
Nanotoxicology and nanoregulatory aspects

<http://www.iconsat2012.com/>

Miami 2012 Winter Symposium: Nanotechnology in Biomedicine. February 26-29, 2012, Miami, FL

Bionanomaterials
Imaging
Sensors
Sequencing
Drugs and diagnostics

<http://www.nature.com/natureconferences/miami/mws2012/index.html>

BioNanoMed 2012. March 1-2, 2012, Krems, Austria

Personalized medicine
Cancer
Regenerative medicine
Diagnostics and therapy
Multidisciplinary nano-technologies

<http://www.bionanomed.at/>

Nanotechnology, Biotechnology, and Spectroscopy International (ICNBS 2012)

March 1-3, 2012, Cairo, Egypt

Nanotechnology
Biotechnology
Spectroscopy

<http://ises-nakaa-conf.webs.com/>

EEE 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, automation
Molecular sensors, actuators, and systems
MEMS/NEMS and molecular sensors
Microfluidics and nanofluidics

Micro and nano heat transfer
Nanobiology, bio-informatics, nanomedicine
Micro and nano fabrication
Micro/nano sensors and actuators
Micro/nanoelectromechanical systems

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

NANO 2012 March 12-14, 2012, Omaha, NE

Nanomaterials
Nanoparticles
Nanotech biomarker detection
Applications of nanotechnology
Drug delivery
Antimicrobial activity of metals
Nanotechnology
Nano-arrays for cancer
Nanomedicine
Nano-sensors
Nano-electronics
Nano-devices

<http://www.omicsonline.org/nano2012/>

Nanomedicine: Visions, Risks, Potential. April 19-20, 2012, Berlin, Germany

Will discuss trends in nanotechnological methods in medical applications, focusing on both scientific and technical aspects.

<http://www.nanodiara.eu/spring-conference-2012/>

The Joint European Summit for Clinical Nanomedicine 2012 (CLINAM 2012). May 7-9, 2012, Basel, Switzerland

Clinical trials for nanomedicines
Regulation, toxicology, ethics, sustainability
Transition from research to industrial products
Strategic instruments in nanomedicines

<http://www.clinam.org/conference.html>

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/>

Colloids and Nanomedicine 2012. July 15-17, 2012, Amsterdam, Netherlands.

Biomaterials
Tissue engineering and regenerative medicine
Drug delivery
Biosensors

Surfaces and colloids in imaging and diagnostics
 Microfluidics with colloidal systems
 Toxicology and risk assessment of nanomedicine systems
 Responsive colloids and materials
 Lipid and biomimetic membranes
 Proteins and peptides at interfaces
 Soft matter, surfactants, polymers in biological systems
 Adsorption, catalysis, and electrochemistry in biological systems
 Interfacial processes, capillarity, and wetting in biological systems
 Novel phenomena and techniques

<http://www.colloidsandnanomedicine.com/index.html>

European Congress of Molecular Spectroscopy

August 26-31, 2012, Cluj-Napoca, Romania

Spectroscopic methods and techniques
 Computational and theoretical approaches
 Structure and dynamics of molecular systems

<http://www.nanowerk.com/nanotechnology-event.php?eventid=3484>

REFERENCE SECTION

Nanobio- and Nanomedicine Companies

Listed alphabetically:

http://www.nanowerk.com/nanotechnology/nanomaterial/nanobiomedicine_a.php

Nano Organizations

National Center for Toxicological Research (NCTR):
<http://www.fda.gov/AboutFDA/CentersOfices/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>

Nature Nanotechnology:

http://www.nature.com/nnano/focus/highlights/index.html?WT.mc_id=NM1110CT010

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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