



SAVE THE DATES: Nanomedicines Alliance Symposium

The Nanomedicines Alliance is hosting an industry symposium 6-7 March 2013 in Rockville, MD, USA, entitled “**Nanomedicines: Charting a Roadmap to Commercialization.**”

Speakers include industry members, FDA representatives, and academia.

See page 5 of the newsletter for more details. Check the website for updated information: <http://www.nanomedicines-alliance.org/>

REGULATORY AND LEGISLATIVE DEVELOPMENTS

OSHA Publishes Fact Sheet on Nanomaterials Safety

OSHA has recently issued a new fact sheet that provides information for employees on safety issues when working with nanomaterials. The fact sheet begins with an explanation on what nanomaterials are and how workers may be exposed to nanomaterials. Measures to control exposure to nanomaterials and potential hazards of exposure are also highlighted in the document.

The fact sheet can be downloaded here: http://www.innovationsgesellschaft.ch/media/archive2/news/20130211_News_OSHA_Factsheet.pdf

Bioprotocols for Nanoparticles

SciClips has put together a comprehensive list of nanoparticle related protocols linked to open access journal articles and patents. The categories include nanoparticle-based drug delivery and assays, imaging and theranostics, immunoassays, preparation and characterization.

The list can be found here: http://www.sciclips.com/sciclips/bio-protocols.do?catName=Nanoparticles:%20Drug%20delivery,%20Imaging%20and%20Theranostics&goback=%2Egmp_2203606%2Egde_2203606_member_98931317

Integrating Legal Liabilities in Nanomanufacturing Risk Management

An article published in Environmental Science & Technology in 2012 explores the legal risks associated with the uncertainties and potential toxicity of nanomaterials. Using nanoscale titanium dioxide as a case study, the article provides a framework for building in legal as well as environmental, health, and safety risks associated with nanomaterials into the stages in the life-cycle of a nanomaterial. The authors envision that such a framework will allow investors and managers to compare technologies and practices.

The article can be found here: <http://pubs.acs.org/doi/abs/10.1021/es3003266>

250 Nanomedicines Are in Use or in Testing in Humans

An article published in the January 2013 issue of Nanotechnology, Biology, and Medicine concluded that almost 250 nanomedicines are now in use or in testing in humans. The authors conducted a comprehensive inventory of nanomedicines through a keyword search of literature, registries, and the internet. This article chronicles the trends in nanomedicines, including the dimensions, FDA classification, approval status, and structure of these products.

The article can be found here: <http://download.journals.elsevierhealth.com/pdfs/journals/1549-9634/PIIS1549963412002882.pdf>

REVIEWS AND OTHER PUBLICATIONS OF INTEREST

Nanomechanical Sensors: Bent on Detecting Cancer. Nature Nanotechnology, February 2013, Vol. 8, No. 2, pp. 77-78. Gajendra S. Shekhawat and Vinayak P. Dravid.

<http://links.ealart.nature.com/ctt?kn=38&ms=NDA5MzY0NjYs1&r=NzQ3MDc4MDQ5MgS2&b=0&j=MTc2NzU4MzMwS0&mt=1&rt=0>

Nanoparticles: Pushed off Target with Proteins. Nature Nanotechnology, February 2013, Vol. 8, No. 2, pp. 79-80. Rogério Gaspar

<http://links.ealart.nature.com/ctt?kn=38&ms=NDA5MzY0NjYs1&r=NzQ3MDc4MDQ5MgS2&b=0&j=MTc2NzU4MzMwS0&mt=1&rt=0>

REVIEW: Application of Drug Nanocrystal Technologies on Oral Drug Delivery of Poorly Soluble Drugs. AAPS Pharmaceutical Research, February 2013, Vol. 30, No. 2. Lei Gao, Guiyang Liu, Jianli Ma, Xiaoqing Wang, Liang Zhou, Xiang Li, and Fang Wang.

<http://springer.r.delivery.net/r/r?2.1.Ee.2Tp.1jdAG3.C4%2abjk..H.ZRNm.40JU.bW89MQ%5f%5fCUNKFMe0>

REVIEW: Nanocarriers Targeting Dendritic Cells for Pumonary Vaccine Delivery. AAPS Pharmaceutical Research, February 2013, Vol. 30, No. 2. Nitesh K. Kunda, Satyanarayana Somavarapu, Stephen B. Gordon, Gillian A. Hutcheon, and Imran Y. Saleem.

<http://springer.r.delivery.net/r/r?2.1.Ee.2Tp.1jdAG3.C4%2abjk..H.ZRNs.40JU.bW89MQ%5f%5fCVBGFNE0>

Effect of PEGylation on Biodistribution and Gene Silencing of siRNA/Lipid Nanoparticle Complexes. AAPS Pharmaceutical Research, February 2013, Vol. 30, No. 2. Yanjie Bao, Yi Jin, Padmanabh Chivukula, Jun Zhang, Yun Liu, Jian Liu, Jean-Pierre Clamme, Ram I. Mahato, Dominic Ng, Wenbin Ying, Yiting Wang, and Lei Yu.

<http://springer.r.delivery.net/r/r?2.1.Ee.2Tp.1jdAG3.C4%2abjk..H.ZRNy.40JU.bW89MQ%5f%5fCVVCFNKO>

Rapid Lymph Accumulation of Polystyrene Nanoparticles Following Pulmonary Administration. AAPS Pharmaceutical Research, February 2013, Vol. 30, No. 2. Abdul Khader Mohammad, Lenah K. Amayreh, John M. Mazzara, and Joshua J. Reineke.

<http://springer.r.delivery.net/r/r?2.1.Ee.2Tp.1jdAG3.C4%2abjk..H.ZROc.40JU.bW89MQ%5f%5fCTPSFMV0>

REVIEW: Preparation and Biomedical Applications of Gold-Coated Magnetic Nanocomposites. Journal of Nanoscience and

Nanotechnology, March 2013, Vol. 13, No. 3, pp.1617-1625. Hongrong Jiang, Xin Zeng, Nongyue He, Yan Deng, Guangming Lu, and Kai Li.

<http://openurl.ingenta.com/content?genre=article&issn=1533-4880&volume=13&issue=3&spage=1617&epage=1625>

Nanomedicine Applications Towards the Cure of HIV. Nanotechnology, Biology, and Medicine, January 2013, Vol. 9, No. 1, pp.28-38. Julianna Liscziewicz and Enikő R. Tőke.

<http://download.journals.elsevierhealth.com/pdfs/journals/1549-9634/PIIS1549963412002870.pdf>

Nanoparticle Uptake in Tumors is Mediated by the Interplay of Vascular and Collagen Density with Interstitial Pressure.

Nanotechnology, Biology, and Medicine, February 2013, Vol. 9, No. 2, pp.151-158. Sason Torosean, Brendan Flynn, Johan Axelsson, Jason Gunn, et al.

<http://download.journals.elsevierhealth.com/pdfs/journals/1549-9634/PIIS1549963412004030.pdf>

REVIEW: Polymeric Nanogels as Vaccine Delivery Systems. Nanotechnology, Biology, and Medicine, February 2013, Vol. 9, No. 2, pp. 159-173. Silvia A. Ferreira, Francisco M. Gama, and Manuel Vilanova.

<http://download.journals.elsevierhealth.com/pdfs/journals/1549-9634/PIIS1549963412003978.pdf>

REVIEW: Mesenchymal Stem Cells: A Potential Targeted-delivery Vehicle for Anti-Cancer Drug, Loaded Nanoparticles.

Nanotechnology, Biology, and Medicine, February 2013, Vol. 9, No. 2, pp. 174-184.

<http://download.journals.elsevierhealth.com/pdfs/journals/1549-9634/PIIS1549963412003991.pdf>

REVIEW: Nucleic Acid Nanostructures for Biomedical Applications. Nanomedicine, January 2013, Vol. 8, No. 1, pp. 105-121. David Smith, Verena Schüller, Christian Engst, Joachim Rädler, and Tim Liedl.

<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.12.184>

REVIEW: Nanoparticles for Imaging and Treating Brain Cancer. Nanomedicine, January 2013, Vol. 8, No. 1, pp. 123-143. Joseph D. Meyers, Tennyson Doane, Clemens Burda, James P. Babilion.

<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.12.185>

REVIEW: Multiplexed Detection of Molecular Biomarkers with Phase-Change

Nanoparticles. Nanomedicine, February 2013, Vol. 8, No. 2, pp. 253-263. Ming Su.
<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.12.212>

REVIEW: Bacterial Cellulose Scaffolds and Cellulose Nanowhiskers for Tissue

Engineering. Nanomedicine, February 2013, Vol. 8, No. 2, pp. 287-298.
<http://www.futuremedicine.com/doi/pdf/10.2217/nnm.12.211>

CONFERENCES AND WORKSHOPS

**1st IBN International Symposium—
Nanosystems for Biomedical Applications,
January 11-13, 2013, Singapore, Singapore**

Drug and gene delivery
 Cell and tissue engineering
 Biodevices and Diagnostics
 Pharmaceutical synthesis and green chemistry

<http://www.ibn-is.com/>

**Nanoparticle and Microparticle Combinations
in Modified Release Oral Suspensions,
January 31, 2013 (Webmeeting)**

Coated nanoparticles and microparticles
 for limited sustained-release oral
 suspensions

[https://www.aaps.org/eLearning/Webinars/2013/Nanoparticle
and Microparticle Combinations in Modified Release Or
al Suspensions/](https://www.aaps.org/eLearning/Webinars/2013/Nanoparticle_and_Microparticle_Combinations_in_Modified_Release_Oral_Suspensions/)

**ASME 2013 2nd Global Congress on
NanoEngineering for Medicine and Biology
(NEMB 2013), February 4-6, 2013, Boston, MA**

Bioengineering for medical diagnostics,
 therapeutics, and imaging
 Nanoengineering for regenerative
 medicine and tissue engineering
 Manufacturing and materials for
 nanomedicine, biology, and
 nanoengineering
 Biological nanomechanics: materials
 factors in physiology, disease, and
 treatment

[http://www.asmeconferences.org/NEMB2013/TrackKeynotes
.cfm](http://www.asmeconferences.org/NEMB2013/TrackKeynotes.cfm)

**Nanotechnology for Multi-Modality Imaging
and Theranostics, February 21, 2013
(Webmeeting)**

Issues with state-of-art imaging modalities
 Potential of nanotechnology and
 challenges in imaging

[http://www.aaps.org/eLearning/Webinars/2013/Nanotechnol
ogy for Multi-modality Imaging and Theranostics/](http://www.aaps.org/eLearning/Webinars/2013/Nanotechnology_for_Multi-modality_Imaging_and_Theranostics/)

**48th AAPS Annual Arden Conference, March
4-6, 2013, Rockville, MD**

Review fundamental mechanical
 properties of pharmaceutical solids and
 methods to measure them
 Review theoretical modeling of particle
 mixing and simulation tools of powder
 compaction
 Apply mechanical properties in drug
 product developing with QbD approach

<http://www.aaps.org/Arden/>

**BioNanoMed 2013, March 13-15, 2013, Krems,
Austria.**

Novel nanomedical solutions-advances in
 nanomedicine
 Regenerative nanomedicine
 Nano-bio-technology based diagnostics
 Nano-bio-technology based therapy
 Aspects of nano safety
 Nano-imaging technologies in medicine

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

**2013 International Conference of RNA
Nanotechnology and Therapeutics, April 3-5,
2013, Lexington, KY**

RNA Nanoparticle Assembly
 RNA Nanoparticles in Therapeutics
 RNA Systems Biology and Engineering

<http://nanobio.uky.edu/RNA2013/index.html#topics>

**19th Congress of the International Society for
Aerosols in Medicine, April 6-10, 2013,
Chapel Hill, North Carolina.**

Inhaling nanoparticles by accident on
 purpose—challenges and opportunities for
 toxicology and therapeutics

<http://www.med.unc.edu/isam2013/scientific-program>

**Sydney International Nanomedicine
Conference, July 1-3, 2013, Sydney, Australia.**

Target Delivery
 Sensing
 Diagnostics
 Regenerative Medicine
 Imaging
 Translational Medicine
 NanoSafety

<http://www.oznanomed.org/>

**Cancer Nanotechnology, July 14-19, 2013,
West Dover, VT**

Materials synthesis
Characterisation
Biocompatibility

<http://www.grc.org/programs.aspx?year=2013&program=cncnano>

**6th International Symposium on
Nanotechnology, Occupational and
Environmental Health, October 28-31, 2013,
Nagoya, Japan**

Nanomaterial processing and
characterization
Health effects and toxicity
ADME
Environmental toxicity
Risk assessment and management

<http://square.umin.ac.jp/nanoeh6/index.html>

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/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>

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

This newsletter is provided as a public service and resource to the scientific and regulatory community interested in nanomedicines. The mention of any organizations, conferences or other events in this newsletter IS FOR INFORMATIONAL PURPOSES ONLY and does not represent an endorsement by the Nanomedicines Alliance or any of its members.



Nanomedicines Alliance

www.nanomedicines-alliance.org

Register and Invite Your Colleagues!!

Nanomedicines Alliance Industry Symposium

NANOMEDICINES: CHARTING A ROAD TO COMMERCIALIZATION

Wed-Thurs, 6-7 March 2013

Hilton Washington DC/Rockville, Maryland USA

<http://www.nanomedicines-alliance.org/events.html>

Symposium will address:

- Designing nanomedicines
- Preclinical pharmacology
- Chemistry, Manufacturing, and Controls
- Toxicology/ADME
- Clinical Studies

through

- Podium presentations
- Breakout sessions
- Poster session

You will benefit from this Symposium if you work in

- Pharmaceutical industry
- Biotech industry
- Regulatory agency

Or are interested in

- Industry perspectives
- Manufacturing nanomedicines
- Future of nanomedicines
- Fostering dialogue and networking

Participants include FDA and NCI representatives, international industry leaders, and cutting-edge academics

To Register: <https://www.signmeup.com/86831>

\$650 (industry)

\$500 (academia)

\$250 (government)

Please contact the Alliance Secretariat at dede.godstrey@dbr.com or +1-202-230-5607 for more information