



NANOMEDICINES ALLIANCE SYMPOSIUM PROCEEDINGS

Nanomedicine Drug Development: A Scientific Symposium Entitled “Charting a Roadmap to Commercialization”

The Nanomedicines Alliance is pleased to announce the publication in the AAPS Journal of the proceedings paper from its March 2013 symposium, *Charting a Roadmap to Commercialization*. The paper describes presentations and discussion on five sessions held at the symposium. AAPS Journal subscribers can access the publication here:

<http://www.pharmagateway.net/ArticlePage.aspx?doi=10.1208/s12248-014-9608-5>

REGULATORY AND LEGISLATIVE DEVELOPMENTS

EU Interactive Nano-Platform

The German Social Accident Insurance has released an interactive nano-platform on the safe handling of nanomaterials that presents current information on occupational safety and health involving nanomaterials. The platform also allows virtual learning of occupational risks and preventive measures. The first platform released is on construction, but it will be followed by a nano-platform on safety in a chemical laboratory.

<https://osha.europa.eu/en/news/eu-first-interactive-nano-platform-on-2014safe-handling-of-nanomaterials>

Belgian Nanomaterial Register

Belgium has become the second European Union nation (after France) to approve a register of nanomaterials and products containing them. The register is intended to ensure traceability of nanoparticles, as well as both public and workplace safety. The registry is scheduled to open at the beginning of 2016. Registration of materials will become mandatory on January 1, 2017.

<https://osha.europa.eu/en/news/belgium-sets-up-a-register-of-nanomaterials>

European Industry Position on Nanomaterial Regulation

Several European organizations have published a joint document proposing revisions to current regulations in order to take the potential risks of nanomaterials into account. The paper expresses concern that nanomaterials have significantly different intrinsic properties from their bulk counterparts. The paper also expresses support for the creation of a comprehensive, public registry for nanomaterials and all commercial products containing them, as well as chemical safety assessment of nanomaterials.

http://www.ciel.org/Chem/Nano_2Apr2014.html

REVIEWS AND OTHER PUBLICATIONS OF INTEREST

Scaling behaviour for the water transport in nanoconfined geometries.

Nature Communications, Vol. 5, Article No. 4565, April 2014. Eliodoro Chiavazzo, Matteo Fasano, Pietro Asinari, Paolo Decuzzi.

<http://www.nature.com/ncomms/2014/140403/ncomms4565/full/ncomms4565.html>

Biodegradable Polymeric Nanoparticles Show High Efficacy and Specificity at DNA Delivery to Human Glioblastoma in Vitro and in Vivo.

ACS Nano, April 2014. Hugo Guerrero-Cázares, Stephany Y. Tzeng, Noah P. Young,

For further information, or if you have any questions about the Nanomedicines Alliance, please contact the Nanomedicines Alliance Secretariat at 1-202-230-5653.

Ameer O. Abutaleb, Alfredo Quiñones-Hinojosa, Jordan J. Green.

<http://pubs.acs.org/doi/abs/10.1021/nn501197v>

Organ Repair, Hemostasis, and In Vivo Bonding of Medical Devices by Aqueous Solutions of Nanoparticles. *Angewandte Chemie*, April 2014. Anne Meddahi-Pellé, Aurélie Legrand, Alba Marcellan, Liliane Louedec, Didier Letourneur, Ludwik Leibler. <http://onlinelibrary.wiley.com/doi/10.1002/anie.201401043/abstract;jsessionid=2BEE8AE8819C766453ED3F78721A4E72.f03t01>

Quantitative imaging of single mRNA splice variants in living cells. *Nature Nanotechnology*, April 2014. Kyuwan Lee, Yi Cui, Luke P. Lee, Joseph Irudayaraj. <http://www.nature.com/nnano/journal/vaop/ncurrent/full/nnano.2014.73.html>

Nanoanesthesia: A Novel, Intravenous Approach to Ankle Block in the Rat by Magnet-Directed Concentration of Ropivacaine-Associated Nanoparticles. *Anesthesia & Analgesia*, April 2014. Venkat Mantha, Harsha K. Nair, Raman Venkataramanan, Yuan Yue Gao, Krzysztof Matyjaszewski, Hongchen Dong, Wenwen Li, Wenwen, Doug Landsittel, Elan Cohen, William R. Lariviere. <http://journals.lww.com/anesthesia-analgesia/pages/articleviewer.aspx?year=9000&issue=00000&article=98517&type=abstract>

A Convergent Synthetic Platform for Single-Nanoparticle Combination Cancer Therapy: Ratiometric Loading and Controlled Release of Cisplatin, Doxorubicin, and Camptothecin. *Journal of the American Chemical Society*, Vol. 136, No. 16, pp. 5896 – 5899, April 2014. Longyan Liao, Jenny Liu, Erik C. Dreaden, Stephen W. Morton, Kevin E. Shopsowitz, Paula T. Hammond, Jeremiah A. Johnson. <http://pubs.acs.org/doi/abs/10.1021/ja502011g>

Size evolution of highly amphiphilic macromolecular solution assemblies via a distinct bimodal pathway. *Nature Communications*, Vol. 5, Article No. 3599, April 2014. Elizabeth G. Kelley, Ryan P. Murphy, Jonathan E. Seppala, Thomas P. Smart, Sarah D. Hann, Millicent O. Sullivan, Thomas H. Epps. <http://www.nature.com/ncomms/2014/140407/ncomms4599/full/ncomms4599.html>

High-Throughput Screening Platform for Engineered Nanoparticle-Mediated Genotoxicity Using CometChip Technology. *ACS Nano*, Vol. 8, No.3, pp. 2118 – 2133, April 2014. Christa Watson, Jing Ge, Joel Cohen, Georgios Pyrgiotakis, Bevin P. Engelward, Philip Demokritou. <http://pubs.acs.org/doi/abs/10.1021/nn404871p>

Thermal ablative therapy with novel gold nanorods in an orthotopic model of urinary bladder cancer. AACR Annual Meeting Presentation, April 2014. Xiaoping Yang, Lih-Jen Su, Francisco G. La Rosa, Elizabeth Erin Smith, Suehyun Katherine Cho, Brian Kavanagh, Won Park, Thomas W. Flaig. <http://www.abstractsonline.com/Plan/ViewAbstract.aspx?mID=3404&sKey=159c05b8-2847-42fb-9c0e-4d8a73f51cad&cKey=b5e23f18-fd6e-45fd-b38a-fe7d3eec7094&mKey=6ffe1446-a164-476a-92e7-c26446874d93>

Near-Infrared-Induced Heating of Confined Water in Polymeric Particles for Efficient Payload Release. *ACS Nano*, April 2014. Mathieu L. Viger, Wangzhong Sheng, Kim Doré, Ali H. Alhasan, Carl-Johan Carling, Jacques Lux, Caroline de Gracia Lux, Madeleine Grossman, Roberto Malinow, Adah Almutairi. <http://pubs.acs.org/doi/abs/10.1021/nn500702g>

CONFERENCES AND WORKSHOPS

NanoBio Europe, June 2 – 4, 2014, Münster, Germany

Toxicology
Characterization
Regenerative Medicine
Therapeutics

<http://www.nanobio-europe.com/>

Nanotech: Advanced Materials and Applications, June 15 – 19, 2014, Washington, DC
Bionanomaterials

Drug and gene delivery
Cancer nanotechnology
Biosensing, diagnostics, and imaging
<http://www.techconnectworld.com/Nanotech2014/>

Functional DNA Nanotechnology Workshop, June 19 – 20, 2014, Rome, Italy

Nanostructures
DNA Origami
Bioengineering
Synthetic biology
DNA-based sensing
<http://www.fdn2014.com/>

5th International Conference on Advanced Nanomaterials, July 2 – 4, 2014, Aveiro, Portugal

Nanobiomaterials
 Drug delivery
 Tissue engineering
 Nanoimaging
 Health impact

<http://anm2014.com/topics.php>

11th International Conference on Nanosciences and Nanotechnologies, July 8 – 11, 2014, Thessalonica, Greece

Nanofabrication
 Self-assembly and self-organization
 Clinical Applications
 Nanobiotechnology

http://www.nanotextology.com/index.php?option=com_content&view=article&id=48&Itemid=54

NANOSMAT Conference, September 8 – 11, 2014, Dublin, Ireland

Drug delivery
 Diagnostics
 Imaging
 Biosensors
 Biomarkers
 Biomaterials

<http://www.nanosmat-conference.com/default.asp>

Physical Chemistry of Functionalized Biomedical Nanoparticles, September 17 – 19, 2014, Bristol, UK

Magnetic nanoparticles
 In vivo targeting

http://www.rsc.org/conferencesandevents/rscconferences/fd175/index.asp?utm_content=chemistry-conf&utm_source=non-rsc-website&utm_medium=link&utm_campaign=mkt-eet-fd175

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/home0>

Nanomedicine:

<http://www.futuremedicine.com/page/about.jsp>

Nature Nanotechnology:

http://www.nature.com/nnano/focus/highlights/index.html?WT.mc_id=NM1110CT01

CONTACT

For further information, or if you have any questions about the Nanomedicines Alliance, please contact the Nanomedicines Alliance Secretariat at 1-202-230-5653 or info@nanomedicines-alliance.org.

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