



MEMBER SPOTLIGHT: ANDREA HANEFELD



Dr. Andrea Hanefeld joined Merck Serono, Germany in 2006. She is currently Associate Director and heads the Drug Delivery and Innovation Group in the Chemical & Pharmaceutical Development Department. She managed several public-private interdisciplinary research consortia focused on nanoparticle formulations. Her group is responsible for the scouting, evaluation and establishment of new drug delivery technologies according to the pipeline needs of Merck Serono. This includes managing external collaborations with universities and research institutes. Based in Germany now, Andrea previously worked in New Jersey, USA for three years.

Andrea obtained her Ph.D. in Pharmaceutics from Martin-Luther University of Halle-Wittenberg, working on the physico-chemical characterization of polymeric nanocapsules. The work was awarded with the APV Award for the most outstanding doctoral thesis in the pharmaceutical sciences in the years 2008/2009. She studied Pharmacy at Philipps University of Marburg, Germany and University of Kuopio in Finland and held internships at Hoffmann-La Roche / Switzerland, Leiras Oy / Finland and Eli Lilly / Germany.

REGULATORY AND LEGISLATIVE DEVELOPMENTS

French Agency Calls for More Nanomaterial Regulation

The French Agency for Food, Environmental, and Occupational Health & Safety (ANSES) issued a report in May 2014 analyzing available information on health and environmental issues related to manufactured nanomaterials. ANSES' report encourages a strengthened European regulatory framework for categorization of nanomaterials and their uses.

<http://www.anses.fr/en/documents/PRES2014CPA05.pdf>

European Research Council Award Nanomedicine Grant

The European Research Council (ERC) has provided Dr. Manuel Arruebo with a grant for his work on a new drug delivery system that allows

a device to inject a nanocapsule that releases drugs on demand. The precise drug delivery may help patients with diabetes, hormonal disorders, sciatica, or localized cancers. Dr. Arruebo received the 4000th ERC grant and will conduct his research at the University of Zaragoza in Spain.

<http://www.etp-nanomedicine.eu/public/news-events/news/european-research-council-erc-awarded-its-4000th-grant-to-a-nanomedicine-project>

NIOSH Report on Worker Protection

NIOSH recently released a report "Protecting the Nanotechnology Workforce: NIOSH Nanotechnology Research and Guidance Strategic Plan, 2013 – 2016". The report outlined strategic goals to increase understanding of risks to nanomaterial workers,

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support the creation of guidance materials for education about risks and risk management, support epidemiological studies for nanomaterials workers, and promote national and international adherence to nanomaterial risk guidance.

<http://www.cdc.gov/niosh/docs/2014-106/pdfs/2014-106.pdf>

EU Consultation on Nanomaterial Transparency

The European Commission is launching an "impact assessment" to identify the best way to implement regulatory oversight of nanomaterials and nanomaterial products, as well as transparency for the public. The European Commission has simultaneously launched a public consultation to learn stakeholder views on publicly available knowledge about commercialized nanomaterials.

<http://ec.europa.eu/DocsRoom/documents/5282/attachments/1/translations/en/renditions/native>

REVIEWS AND OTHER PUBLICATIONS OF INTEREST

Silicon nanograss based impedance biosensor for label free detection of rare metastatic cells among primary cancerous colon cells, suitable for more accurate cancer staging. Biosensors and Bioelectronics, Vol. 59, pp. 151 – 159, May 2014. Mohammad Abdolahad, Hani Shashaani, Mohsen Janmaleki, Shams Mohajerzadeh.

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Nanoprobe-based genetic testing. Nanotoday, May 2014. Yanbing Zu, Min-Han Tan, Balram Chowbay, Soo Chin Lee, Hiling Yap, Ming Ta Michael Lee, Liang-Suei Lu, Chun-Ping Chang, Jackie Y. Ying.

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Folding graft copolymer with pendant drug segments for co-delivery of anticancer drugs. Biomaterials, May 2014. Wanyi Tai, Ran Mo, Yue Lu, Tianyue Jiang, Zhen Gu.

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High-Resolution Microtubule Structures Reveal the Structural Transitions in $\alpha\beta$ -Tubulin upon GTP Hydrolysis. Cell, Vol. 157, Issue 5, pp. 1117 – 1129, May 2014. Gregory M. Alushin, Gabriel C. Lander, Elizabeth H. Kellogg, Rui Zhang, David Baker, Eva Nogales.

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Multi-enzyme complexes on DNA scaffolds capable of substrate channelling with an artificial swinging arm. Nature Nanotechnology, May 2014. Jinglin Fu, Yuhe Renee Yang, Alexander Johnson-Buck, Minghui Liu, Yan Liu, Nils G. Walter, Neal W. Woodbury, Hao Yan.

<http://www.nature.com/nnano/journal/vaop/ncurrent/full/nnano.2014.100.html>

Pen-on-Paper Approach Toward the Design of Universal Surface Enhanced Raman Scattering Substrates.

Small, May 2014. Lakshminarayana Polavarapu, Andrea La Porta, Sergey M. Novikov, Marc Coronado-Puchau, Luis M. Liz-Marzán.

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A self-reconfiguring metamorphic nanoinjector for injection into mouse zygotes.

Review of Scientific Instruments, Vol. 85, May 2014. Quentin T. Aten, Brian D. Jensen, Sandra H. Burnett, Larry L. Howell.

<http://scitation.aip.org/content/aip/journal/rsi/85/5/10.1063/1.4872077>

In vivo endothelial siRNA delivery using polymeric nanoparticles with low molecular weight.

Nature Nanotechnology, May 2014. James E. Dahlman, Carmen Barnes, Omar Khan, Aude Thiriot, Siddharth Jhunjunwala, Taylor E. Shaw, Yiping Xing, Hendrik B. Sager, Gaurav Sahay, Lauren Speciner, Andrew Bader, Roman L. Bogorad, Hao Yin, Tim Racie, Yizhou Dong, Shan Jiang, Danielle Seedorf, Apeksha Dave, Kamaljeet S. Sandu, Matthew J. Webber, Tatiana Novobrantseva, Vera M. Ruda, Abigail K. R. Lytton-Jean, Christopher G. Levins, Brian Kalish, Dayna K. Mudge, Mario Perez, Ludmila Abezgauz, Partha Dutta, Lynelle Smith, Klaus Charisse, Mark W. Kieran, Kevin Fitzgerald, Matthias Nahrendorf, Dganit Danino,

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CONFERENCES AND WORKSHOPS**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.nanotechnology.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

ETP Nanomedicines Annual Event 2014, October 15 – 16, 2014, San Sebastian, Spain

Nanomedicine developments
Diagnostics & imaging
Nanotherapeutics
Regenerative medicine
Clinical interface
Toxicology & Characterization

<http://www.etp-nanomedicine.eu/public/news-events/events/etp-nanomedicine-annual-event-2014-1/etp-annual-event-2014-programme>

Trends in Nanotechnology International Conference, October 27 – 31, 2014, Barcelona, Spain

Nanofabrication tools
Nanoscale integration
Toxicity
Regulation
Nanobiotechnology

<http://www.tntconf.org/2014/topics.php?conf=14>

Proteins and Nanoparticles @ Membranes 2014, 19 – 22 October, 2014, Juelich, Germany

Nanoparticles
Biological systems

http://www.fz-juelich.de/ics/ics-2/EN/Leistungen/ConferencesAndWorkshops/Particles@Membranes/_node.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/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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