



REGULATORY AND LEGISLATIVE DEVELOPMENTS

ANVISA Nanotechnology Committee

Brazil's drug and device regulatory authority, ANVISA, has established an internal committee on nanotechnology to develop standards and guides for nanotechnology safety assessment, monitoring, and control processes. The committee will also formulate specific nanomedicine risk classification and develop research to overcome regulatory gaps in nanomedicine. The Nanotechnology Committee is responsible for coordinating all nanomedicine-focused actions with ANVISA.

<http://pesquisa.in.gov.br/imprensa/jsp/visualiza/index.jsp?jornal=1&pagina=44&data=21/08/2014>

NAMDIATREAM Project

An effort funded by the European Commission, NAMDIATREAM (Nanotechnological Toolkits for Multi-Modal Disease Diagnostics and Treatment Monitoring), has recently completed its proof-of-concept work in developing a nanotechnology-based early cancer detection toolkit. The toolkit uses detection and imaging of biomarkers. The project involves 22 participating institutions from eight EU countries and Switzerland. NAMDIATREAM is currently working on experimental testing of prototypes.

http://cordis.europa.eu/project/rcn/94840_en.html

REVIEWS AND OTHER PUBLICATIONS OF INTEREST

Design and self-assembly of simple coat proteins for artificial viruses.

Nature Nanotechnology, Vol. 9, pp. 698 - 702, August 2014. Armando Hernandez-Garcia, Daniela J. Kraft, Anne F. J. Janssen, Paul H. H. Bomans, Nico A. J. M. Sommerdijk, Dominique M. E. Thies-Weesie, Marco E. Favretto, Roland Brock, Frits A. de Wolf, Marc W. T. Werten, Paul van der Schoot, Martien Cohen Stuart, Renko de Vries.

<http://onlinelibrary.wiley.com/doi/10.1002/anie.201402827/abstract;jsessionid=353F7F2BD25B66AACB9EEF6195B2A9E3.f03t03>

A smart and versatile theranostic nanomedicine platform based on nanoporphyrin.

Nature Communications, Vol. 5, Article No. 4712, August 2014. Yuanpei Li, Tzu-yin Lin, Yan Luo, Qiangqiang Liu, Wenwu Xiao, Wenchang Guo, Diana Lac, Hongyong Zhang, Caihong Feng, Sebastian Wachsmann-Hogiu, Jeffrey H. Walton, Simon R. Cherry, Douglas J. Rowland, David Kukis, Chongxian Pan, Kit S. Lam.

<http://www.nature.com/ncomms/2014/140826/ncomms5712/full/ncomms5712.html>

Super-Resolution Imaging of Plasma Membrane Glycans. *Angewandte Chemie*, August 2014. Sebastian Letschert, Antonia Göhler, Christian Franke, Nadja Bertleff-

Zieschang, Elisabeth Memmel, Sören Doose, Jürgen Seibel, Markus Sauer.

<http://onlinelibrary.wiley.com/doi/10.1002/ange.201406045/abstract;jsessionid=8E28894C1B9766FD365D260242788C71.f04t04>

pH-Sensitive Nanoformulated Triptolide as a Targeted Therapeutic Strategy for Hepatocellular Carcinoma.

ACS Nano, Vol. 8, Issue 8, pp. 8027 – 8039, August 2014. Daishun Ling, Hongping Xia, Wooram Park, Michael J. Hackett, Changyeong Song, Kun Na, Kam Man Hui, Taeghwan Hyeon.

<http://pubs.acs.org/doi/abs/10.1021/nn502074x>

Bioengineered Vaults: Self-Assembling Protein Shell–Lipophilic Core Nanoparticles for Drug Delivery.

ACS Nano, Vol. 8, Issue 8, pp. 7723 – 7732, July 2014. Daniel C. Buehler, Matthew D. Marsden, Sean Shen, Daniel B. Toso, Xiaomeng Wu, Joseph A. Loo, Z. Hong Zhou, Valerie A. Kickhoefer, Paul A. Wender, Jerome A. Zack, Leonard H. Rome.

<http://pubs.acs.org/doi/abs/10.1021/nn5002694>

Knotting and Unknotting Dynamics of DNA Strands in Nanochannels. *ACS Macro Letters*, Vol. 3, pp. 876 – 880, August 2014. Cristian Micheletti and Enzo Orlandini.

<http://pubs.acs.org/doi/abs/10.1021/mz500402s>

DNA impedance biosensor for detection of cancer, TP53 gene mutation, based on gold nanoparticles/aligned carbon nanotubes modified electrode. *Analytica Chimica Acta*, Vol. 836, pp. 34 – 44, July 2014. H. Fayazfar, A. Afshar, M. Dolati.

<http://www.sciencedirect.com/science/article/pii/S0003267014006370>

Adaptive growth factor delivery from a polyelectrolyte coating promotes synergistic bone tissue repair and reconstruction.

Proceedings of the National Academy of Sciences, Vol. 111, No. 35, September 2014. Nisarg J. Shah, Md. Nasim Hyder, Mohiuddin A. Quadir, Noémie-Manuelle Dorval Courchesne, Howard J. Seeherman, Myron Nevins, Myron Spector, Paula T. Hammond.

<http://www.pnas.org/content/111/35/12847>

Manipulation of cell membrane using carbon nanotube scaffold as a photoresponsive stimuli generator.

Science and Technology of Advanced Materials, Vol. 15, No. 4, August 2014. Takao Sada, Tsuyohiko Fujigaya, Naotoshi Nakashima.

<http://iopscience.iop.org/1468-6996/15/4/045002/>

A single-stranded architecture for cotranscriptional folding of RNA nanostructures.

Science, Vol. 345, No. 6198, pp. 799 – 804, August 2014. Cody Geary, Paul W. K. Rothmund, Ebbe S. Andersen.

<http://www.sciencemag.org/content/345/6198/799>

A carbon nanotube–polymer composite for T-cell therapy.

Nature Nanotechnology, Vol. 9, pp. 639 – 647, August 2014. Tarek R. Fadel, Fiona A. Sharp, Nalini Vudattu, Ragy Ragheb, Justin Garyu, Dongin Kim, Enping Hong, Nan Li, Gary L. Haller, Lisa D. Pfefferle, Sune Justesen, Kevan C. Herold, Tarek M. Fahmy.

<http://www.nature.com/nnano/journal/v9/n8/full/nnano.2014.154.html>

Cisplatin-tethered gold nanospheres for multimodal chemo-radiotherapy of glioblastoma.

Nanoscale, Issue 18, 2014. Sonali Setua, Myriam Ouberai, Sara G. Piccirillo, Colin Watts, Mark Welland.

<http://pubs.rsc.org/en/Content/ArticleLanding/2014/NR/C4NR03693J#!divAbstract>

Multimonth controlled small molecule release from biodegradable thin films.

Proceedings of the National Academy of Sciences, Vol. 111, No. 33, August 2014. Bryan B. Hsu, Myoung-Hwan Park, Samantha R. Hagerman, Paula T. Hammond.

<http://www.pnas.org/content/111/33/12175>

Convex lens-induced nanoscale templating. release from biodegradable thin films.

Proceedings of the National Academy of Sciences, August 2014. Daniel J. Berard, François Michaud, Sara Mahshid, Mohammed Jalal Ahamed, Christopher M. J. McFaul, Jason S. Leith, Pierre Bérubé, Rob Sladek, Walter Reisner, Sabrina R. Leslie.

<http://www.pnas.org/content/early/2014/07/31/1321089111>

Nanotechnology Law & Guidelines: A Practical Guide for the Nanotechnology Industries in Europe. Springer 2014, Anthony Bochon.

http://www.amazon.com/Nanotechnology-Law-Guidelines-Practical-Industries/dp/3319018922/ref=sr_1_1?ie=UTF8&qid=1410464697&sr=8-1&keywords=Nanotechnology+Law+%26+Guidelines%3A+A+Practical+Guide+for+the+Nanotechnology+Industries+in+Europe.

Responsibility in Nanotechnology Development (The International Library of Ethics, Law and Technology). Springer 2014.

Simone Araldi, Arianna Ferrari, Paolo Magaudda, Francesca Marin.

http://www.amazon.com/gp/product/9401791023/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=9401791023&linkCode=as2&tag=nanowerk-20

Horizons in Clinical Nanomedicine. Pan Stanford 2014. Varvara Karagkiozaki and Stergios Logothetidis.

http://www.amazon.com/gp/product/9814411566/ref=as_li_tl?ie=UTF8&camp=1789&creative=9325&creativeASIN=9814411566&linkCode=as2&tag=nanowerk-20&linkId=L6UWNEN4DW2LFIV3

CONFERENCES AND WORKSHOPS

NanoDDS, October 6 – 8, 2014, Chapel Hill, NC, USA

Targeted drug delivery
Cancer nanotechnology
Nanomedicine and education

Applied nanomedicine
Theranostic & imaging
Gene & SiRNA delivery

<https://pharmacy.unc.edu/news/events/nanodds14>

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/etpn-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

Nanoinformatics for Environmental Health and Biomedicine, 2 – 5 November 2014, Belfast, UK

Data management
Nanomaterial characterization
Computing applications for nanomedicine

<http://nanoinfo2014.weebly.com/>

NanoCon 2014, 5 – 7 November 2014, Brno, Czech Republic

Tissue engineering
Biochemical applications
Nano-implants
Anti-tumor therapy

<http://www.nanocon.eu/en/topics/>

1st European Conference on Pharmaceutics: Drug Delivery, 13 – 15 April 2015, Reims, France

Targeting
Liposomes and nanoparticles

<http://www.apgi.org/Reims2015.htm>

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>

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

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

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