



## NANOMEDICINES ALLIANCE NEWS

The Nanomedicines Alliance is pleased to announce that AstraZeneca joined as a new member of the Alliance in January 2014. Dr. Vahe Bedian, Director of External Projects and Strategy in Oncology Innovative Medicines, and Dr. Detlev Biniszkiwicz, Vice President of Oncology Strategy, will serve as representatives from AstraZeneca on the Nanomedicines Alliance Board of Directors. We look forward to AstraZeneca's perspectives and active engagement in the Nanomedicines Alliance's efforts.

If your company is interested in joining the Alliance, please contact the Secretariat at [info@nanomedicines-alliance.org](mailto:info@nanomedicines-alliance.org).

## REGULATORY AND LEGISLATIVE DEVELOPMENTS

### **Nanoforce Recommendations for European Commission**

Nanoforce, a committee established by the European Union program for Central Europe, has published a document of recommendations to assist the European Commission in evaluating the use of guidances and regulations for nanotechnology. In the document, Nanoforce provides lab analysis of three marketable nanomaterials for the European Commission's Use. The recommendations also address the challenge of safety when working with nanomaterials.

[http://www.nanoforceproject.eu/docs/default-document-library/nanoforce\\_book\\_of\\_recommendations\\_longversion\\_final.pdf?sfvrsn=0](http://www.nanoforceproject.eu/docs/default-document-library/nanoforce_book_of_recommendations_longversion_final.pdf?sfvrsn=0)

### **NNCO Names Interim Director**

The US National Nanotechnology Coordination Office (NNCO) has appointed Dr. Lloyd Whitman at its Interim Director following the retirement of former NNCO Director Dr. Robert Pohanka. Dr. Whitman has recently held the position of Deputy Director of the Center for Nanoscale Science and Technology (CNST) at the National Institute of Standards and Technology. Dr. Whitman has also served as the Co-chair of a subcommittee of the National Science and Technology Council.

<http://nano.gov/node/1106>

## REVIEWS AND OTHER PUBLICATIONS OF INTEREST

### **DNA assembly of nanoparticle superstructures for controlled biological delivery and elimination.**

Nature Nanotechnology, January 2014. Leo Y. T. Chou, Kyril Zagorovsky, Warren C. W. Chan.

<http://www.nature.com/nnano/journal/vaop/ncurrent/full/nnano.2013.309.html>

**Synthesis and characterization of biocompatible nanodiamond-silk hybrid material.** Biomedical Optics Express, Vol. 5, Issue 2, pp. 596-608, January 2014. Asma Khalid, Rebecca Lodin, Peter Domachuk, Hu Tao, Jodie E. Moreau, David L. Kaplan,

Fiorenzo G. Omenetto, Brant C. Gibson, and Snjezana Tomljenovic-Hanic.

<http://www.opticsinfobase.org/boe/abstract.cfm?uri=boe-5-2-596>

### **Reconstitution of Cholesterol-Dependent Vaginolysin into Tethered Phospholipid Bilayers: Implications for Bioanalysis.**

PLOS One, December 2013. Rima Budvytyte, Milda Pleckaityte, Aurelija Zvirbliene, David J. Vanderah, Gintaras Valincius.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0082536>

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

**Therapeutic Inflammatory Monocyte Modulation Using Immune-Modifying Microparticles.** *Science Translation Medicine*, Vol. 6, Issue 219, pp. 219ra7, January 2014. Daniel R. Getts, Rachael L. Terry, Meghann Teague Getts, Celine Deffrasnes, Marcus Müller, Caryn van Vreden, Thomas M. Ashhurst, Belal Chami, Derrick McCarthy, Huiling Wu, Jin Ma, Aaron Martin, Lonnie D. Shae, Paul Witting, Geoffrey S. Kansas, Joachim Kühn, Wali Hafezi, Iain L. Campbell, David Reilly, Jana Say, Louise Brown, Melanie Y. White, Stuart J. Cordwell, Steven J. Chadban, Edward B. Thorp, Shisan Bao, Stephen D. Miller, Nicholas J. C. King. <http://stm.sciencemag.org/content/6/219/219a7>

**Biomimetic RNA-Silencing Nanocomplexes: Overcoming Multidrug Resistance in Cancer Cells.** *Angewandte Chemie*, January 2014. Zhongliang Wang, Zhe Wang, Dingbin Liu, Xuefeng Yan, Fu Wang, Gang Niu, Min Yang, Xiaoyuan Chen. <http://onlinelibrary.wiley.com/doi/10.1002/anie.201309985/abstract;jsessionid=A9C54C2E721815C6C41FD00CA0A6AAD3.f02t02>

**Site-specific targeting of enterovirus capsid by functionalized monodisperse gold nanoclusters.** *Proceedings of the National Academy of Sciences*, January 2014. Varpu Marjomäki, Tanja Lahtinen, Mari Martikainen, Jaakko Koivisto, Sami Malola, Kirsi Salorinne, Mika Pettersson, Hannu Häkkinen. <http://www.pnas.org/content/111/4/1277>

**Programmed assembly of polymer–DNA conjugate nanoparticles with optical readout and sequence-specific activation of biorecognition.** *Nanoscale*, Issue 4, January 2014. Johannes P. Magnusson, Francisco Fernández-Trillo, Giovanna Sicilia, Sebastian G. Spain, Cameron Alexander. <http://pubs.rsc.org/en/Content/ArticleLanding/2014/NR/c3nr04952c#!divAbstract>

**Breaking the diffraction-limited resolution barrier in fiber-optical two-photon fluorescence endoscopy by an azimuthally-polarized beam.** *Scientific Reports*, Vol. 4, January 2014. Min Gu, Hong Kang, Xiangping Li. <http://www.nature.com/srep/2014/140110/srep03627/full/srep03627.html>

**Luteolin Nanoparticle in Chemoprevention: In Vitro and In Vivo Anticancer Activity.** *Cancer Prevention Research*, Vol. 7, Issue 65, January 2014. Debatosh Majumdar, Kyung-Ho Jung, Hongzheng Zhang, Sreenivas Nannapaneni, Xu Wang, A.R.M. Ruhul Amin, Zhengjia Chen, Zhuo (G). Chen, Dong M. Shin. <http://cancerpreventionresearch.aacrjournals.org/content/7/1/65>

**Just-in-time vaccines: Biomaterialized calcium phosphate core-immunogen shell nanoparticles induce long-lasting CD8+ T cell responses in mice.** *Nanomedicine*, November 2013. Weibin Zhou, Albanus O. Moguche, David Chiu, Kaja Murali-Krishna, PhD, François Baneyx. [http://www.nanomedjournal.com/article/S1549-9634\(13\)00596-0/abstract](http://www.nanomedjournal.com/article/S1549-9634(13)00596-0/abstract)

**Gel–Liposome-Mediated Co-Delivery of Anticancer Membrane-Associated Proteins and Small-Molecule Drugs for Enhanced Therapeutic Efficacy.** *Advanced Functional Materials*, January 2014. Tianyue Jiang, Ran Mo, Adriano Bellotti, Jianping Zhou, Zhen Gu. <http://onlinelibrary.wiley.com/doi/10.1002/adfm.201303222/abstract>

**Silencing HoxA1 by Intraductal Injection of siRNA Lipidoid Nanoparticles Prevents Mammary Tumor Progression in Mice.** *Science Translational Medicine*, Vol. 6, Issue 217, p. 217ra2, January 2014. Amy Brock, Silva Krause, Hu Li, Marek Kowalski, Michael S. Goldberg, James J. Collins, Donald E. Ingber. <http://stm.sciencemag.org/content/6/217/217ra2>

## CONFERENCES AND WORKSHOPS

**Nano4Life 2014: Converging Nanotechnology with the Life Science Industry, March 5, 2014, London, United Kingdom**  
Applications of nanotechnology in medical devices, regenerative medicine and the pharmaceutical industry  
<https://connect.innovateuk.org/web/nanoktn/events-view/-/events/10555125>

**Nanomedicine 2014, March 26 – 27, 2014, Edinburgh, Scotland, United Kingdom**  
Aptamer targeted nanoparticles  
Cell and particle tracking  
Nanomaterial design  
Nanosuspensions  
<http://selectbiosciences.com/conferences/index.aspx?conf=NMUK2014>

**BioNanoMed 2014, March 26-28, 2014, Krems, Austria**

Nanomedicines innovation  
Diagnostics and therapy  
Regenerative medicine  
Imaging technology  
Nano safety

<http://www.bionanomed.at/index.php?id=26>

**American Society for Nanomedicine 4th Annual Scientific Conference, March 28 – 30, 2014, Rockville, MD, USA**

Target drug delivery  
Toxicology  
Nanoimaging  
Therapeutics

<http://amsocnanomed.org/conference-info>

**Nanotechnology for Health Care Conference, April 2-4, 2014, Petit Jean Mountain, Arkansas, USA**

Disease Diagnostics  
Therapeutics  
Prevention

<http://arkansasnanohhealth.com/>

**SCT-SF Nano Joint Meeting, April 8, 2014, Paris, France**

Drug delivery  
Targeting and activating  
Pharmacokinetics  
Pharmacodynamics

[http://www.ldorganisation.com/v2/produits.php?langue=englis&cle\\_menus=1238915758](http://www.ldorganisation.com/v2/produits.php?langue=englis&cle_menus=1238915758)

**7th International Nanotoxicology Congress, April 23 – 26, 2014, Antalya, Turkey**

Characterization  
Biomedicine applications  
Genotoxicity and cancer  
Risk assessment  
Harmonization

<http://www.nanotox2014.org/index.html>

**NANOSMAT USA 2014, May 19 – 22, 2014, Houston, Texas, USA**

Carbon-based nanomaterials  
Nanocomposites  
Self-assembly  
Modeling  
Interactive nanomaterials

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

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

Bio nanomaterials  
Drug and gene delivery  
Cancer nanotechnology  
Biosensing, diagnostics, and imaging

<http://www.techconnectworld.com/Nanotech2014/>

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

Nanofabrication  
Self-assembly and self-organization  
Clinical Applications  
Nanobiotechnology

[http://www.nanotexnology.com/index.php?option=com\\_content&view=article&id=48&Itemid=54](http://www.nanotexnology.com/index.php?option=com_content&view=article&id=48&Itemid=54)

## REFERENCE SECTION

**Nanobio- and Nanomedicine Companies**

Listed alphabetically:

[http://www.nanowerk.com/nanotechnology/nanomaterial/nanobiomedicine\\_a.php](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](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](mailto:info@nanomedicines-alliance.org).

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