



Nanomedicines ALLIANCE

NanoMed Digest

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Nanobiotix • NanoCarrier Co. Ltd. • NanoViricides, Inc. • Pfizer

Join the Nanomedicines Alliance. Contact us at info@nanomedicines-alliance.org.

- Meet with industry colleagues, government partners, and other stakeholders
- Help define the issues of science, regulation, and policy
- Participate in our ongoing advocacy, regulatory, and scientific efforts
- Join as a trial member for six months at half the annual fee

Highlights

The Nanomedicines Alliance on Capitol Hill

The Nanomedicines Alliance Advocacy Working Group in partnership with the [District Policy Group](#) at Drinker, Biddle & Reath, LLP held a series of meetings at Congress on March 22 to educate policymakers on nanomedicine. In ten meetings with congressional members and staff, our members explained the potential of nanotechnology, highlighted recent successes in the field, and stressed the need for continuous support of advancing research to commercialization.

If you are interested in more information on our advocacy efforts and on public education in nanotechnology, contact the Nanomedicines Alliance at info@nanomedicines-alliance.org.

Nanomedicine Strategic Research & Innovation Agenda 2016 - 2030

EuroNanoMed II, a European Commission initiative, and the European Technology Platform on Nanomedicine (ETPN) have jointly published a [paper on fostering nanomedical innovation](#) in the next fifteen years. Recommendations include focusing on areas where only nanomedicines can address unmet medical needs and matching nanotechnology features with other Key Enabling Technologies. The Strategic Research & Innovation Agenda aligns critical diseases with proposed nanomedical solutions.

CLINAM Conference

Save the date for the upcoming [CLINAM conference](#) on June 26 – 29, 2016 in Basel, Switzerland. This year's theme is "Enabling Technologies for Personalized Medicine." The conference will feature tracks on clinical and targeted nanomedicine research, translation, enabling technologies, and regulatory affairs. Nanomedicines Alliance members Dr. Marianne Ashford and Dr. Frank Malinoski will also present on emerging scientific advancements and on the synergies achieved through industry collaboration.

Reviews and Other Publications of Interest

[Quantitative Magnetic Separation of Particles and Cells Using Gradient Magnetic Ratcheting](#). Small, February 2016. Coleman Murray, Edward Pao, Peter Tseng, Shayan Aftab, Rajan Kulkarni, Matthew Rettig, Dino Di Carlo.

[DNA Origami: Daunorubicin-Loaded DNA Origami Nanostructures Circumvent Drug-Resistance Mechanisms in a Leukemia Model](#). Small, January 2016. Patrick D. Halley, Christopher R. Lucas, Emily M. McWilliams, Matthew J. Webber, Randy A. Patton, Comert. Kural, David M. Lucas, John C. Byrd, Charles E. Castro.

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Tailoring nanoparticle designs to target cancer based on tumor pathophysiology. Proceedings of the National Academy of Sciences, Vol. 113, No. 9, March 2016. Edward A. Sykes, Qin Dai, Christopher D. Sarsons, Juan Chen, Jonathan V. Rocheleau, David M. Hwang, Gang Zheng, David T. Cramb, Kristina D. Rinker, Warren C. W. Chan.

Sequence-Specific Recognition of MicroRNAs and Other Short Nucleic Acids with Solid-State Nanopores. Nano Letters, Vol. 16, No. 3, pp. 2033 – 2039, January 2016. Osama K. Zahid, Fanny Wang, Jan A. Ruzicka, Ethan W. Taylor, Adam R. Hall.

Cubical Shape Enhances the Interaction of Layer-by-Layer Polymeric Particles with Breast Cancer Cells. Advanced Healthcare Materials, Vol. 4, Issue 17, pp. 2657 – 2666, December 2015. Jenolyn F. Alexander, Veronika Kozlovskaya, Jun Chen, Thomas Kuncewicz, Eugenia Kharlampieva, Biana Godin.

WO₃/Pt nanoparticles are NADPH oxidase biomimetics that mimic effector cells in vitro and in vivo. Nanotechnology, Vol. 27, No. 6, December 2015. Andrea J Clark, Emma L Coury, Alexandra M Meilhac, Howard R Petty.

A Tunable Protein Piston That Breaks Membranes to Release Encapsulated Cargo. ACS Synthetic Biology, January 2016. Jessica K. Polka and Pamela A. Silver.

X-ray induced singlet oxygen generation by nanoparticle-photosensitizer conjugates for photodynamic therapy: determination of singlet oxygen quantum yield. Scientific Reports, 6, Article No. 19954, January 2016. Sandhya Clement, Wei Deng, Elizabeth Camilleri, Brian C. Wilson, Ewa M. Goldys.

Chemically activatable viral capsid functionalized for cancer targeting. Nanomedicine, Vol. 11, No. 4, pp. 377 – 390, February 2016. Chun-Chieh Chen, Li Xing, Marie Stark, Tingwei Ou, Prasida Holla, Kai Xiao, Shizuo G Kamita, Bruce D Hammock, Kit Lam, R Holland Cheng.

Highly robust crystalsome via directed polymer crystallization at curved liquid/liquid interface. Nature Communications, Vol. 7, Article No. 10599, February 2016. Wenda Wang, Hao Qi, Tian Zhou, Shan Mei, Lin Han, Takeshi Higuchi, Hiroshi Jinnai, Christopher Y. Li.

Monodispersed calcium carbonate nanoparticles modulate local pH and inhibit tumor growth in vivo. Nanoscale, 2016. Avik Som, Ramesh Raliya, Limei Tian, Walter Akers, Joseph E. Ippolito, Srikanth Singamaneni, Pratim Biswas, Samuel Achilefu.

Conferences and Workshops

International Conference on Nanomedicine, Drug Delivery, and Tissue Engineering, 1 – 2 April 2016, Prague, Czech Republic
Cancer and Nanotechnology
Clinical Application of Nanotechnology
Gene Delivery Systems
Nanomaterial Technologies

10th World Meeting on Pharmaceutics, Biopharmaceutics, and Pharmaceutical Technology, 4 – 7 April 2016, Glasgow, United Kingdom
2D and 3D printing in drug delivery
Nanoparticles
Cellular drug transport

7th International Congress: Nanotechnology in Biology & Medicine, 6 – 8 April 2016, Krems, Austria
Nanomaterials for Biomedical Applications
Regenerative Nanomedicine - Nanotechnology and Stem Cells

Nanotechnology for Detection, Diagnosis, Imaging & Sensing
NanoPharmaceuticals & Drug Design
Nano Oncology: Drug Delivery & Therapeutics

Bionanomaterials Conference, 8 – 11 May 2016, Varna, Bulgaria
Synthesis
Characterization
Toxicity
Therapeutics

International Nanotechnology Congress, 1 – 4 June 2016, Boston, MA
Regulatory landscape
Biomedical applications

Nano in Bio 2016, 31 May – 5 June 2016, Le Gosier, French West Indies
Biosensors & nanobioelectronics
Bio-inspired materials & drug delivery
Nanobiomechanics & nanomedicine
Tissue engineering & regenerative medicine
Nanotechnologies & biomedical applications

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CLINAM Conference, 26 – 29 June 2016, Basel, Switzerland

Enabling technologies for personalized medicine
Clinical applications
Translation

International Conference on Nanosciences & Nanotechnologies,

5-8 July 2016, Thessaloniki, Greece

Biological systems
Self-assembly and self-organization
Cell/nanomaterial interactions

International Conference on Nanomedicine and Nanobiotechnology, 28 – 30 September 2016, Paris, France

Targeted drug delivery and nanocarriers
Nanomedicine for cancer diagnosis & therapy
Biological & medical nanodevices and biosensors
Tissue engineering and regenerative nanomedicine
Toxicology and risk assessment of nanomedicine systems
Nano-Imaging for diagnosis, therapy and delivery
Bionanocatalysis and nanobiosystems
Microfluidics in nanomedicine and nanobiology

Reference Section

Nano Organizations

[National Center for Toxicological Research \(NCTR\)](#)

[National Nanotechnology Initiative \(NNI\)](#)

[Nano Science and Technology Consortium \(NSTC\)](#)

[Nano Science and Technology Institute \(NSTI\)](#)

[The Nanotechnology Institute \(NTI\)](#)

Nano Journals

[American Chemical Society -- Nano Letters](#)

[Institute of Physics – Nanotechnology](#)

[Journal of Nanoscience and Nanotechnology](#)

[NanoTrends - A Journal of Nanotechnology and its Applications](#)

[BCC Research -- Nanotechnology Reports](#)

[Nanomedicine: Nanotechnology, Biology, and Medicine](#)

[Future Medicine](#)

[Nature Nanotechnology](#)

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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