



Nanomedicines ALLIANCE

NanoMed Digest

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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

Regulatory and Legislative Developments

Startup Challenge in Cancer Nanomedicine

The National Cancer Institute and Center for Advancing Innovation are partnering to sponsor a [challenge for the public](#) to develop a business plan around cancer nanotechnology inventions. The goal of this challenge is to accelerate translation and commercialization of nanomedicines. The proposal deadline has been extended to March 1, 2016.

Reviews and Other Publications of Interest

Tumor Microenvironment-Mediated Construction and Deconstruction of Extracellular Drug-Delivery Depots. Nano Letters, Vol. 16, Issue 2, pp. 1118 – 1126, January 2016. Quanyin Hu, Wujin Sun, Yue Lu, Hunter N. Bomba, Yanqi Ye, Tianyue Jiang, Ari J. Isaacson, Zhen Gu.

Three-dimensional controlled growth of monodisperse sub-50 nm heterogeneous nanocrystals. Nature Communications, Vol. 7, Article No. 10254, January 2016. Deming Liu, Xiaoxue Xu, Yi Du, Xian Qin, Yuhai Zhang, Chenshuo Ma, Shihui Wen, Wei Ren, Ewa M. Goldys, James A. Piper, Shixue Dou, Xiaogang Liu, Dayong Jin.

Modular degradable dendrimers enable small RNAs to extend survival in an aggressive liver cancer mode. Proceedings of the National Academy of Sciences, Vol. 113, No. 3, January 2016. Kejin Zhou, Liem H. Nguyen, Jason B. Miller, Yunfeng Yan, Petra Kos, Hu Xiong, Lin Li, Jing Hao, Jonathan T. Minnig, Hao Zhu, Daniel J. Siegart.

Quantitative Profiling of Protein S-Glutathionylation Reveals Redox-Dependent Regulation of Macrophage Function during Nanoparticle-Induced Oxidative Stress. ACS Nano, Volume 10, Issue 1, pp. 524 – 538, December 2015. Jicheng Duan, Vamsi K. Kodali, Matthew J. Gaffrey, Jia Guo, Rosalie K. Chu, David G. Camp, Richard D. Smith, Brian D. Thrall, Wei-Jun Qian.

Photoexcited quantum dots for killing multidrug-resistant bacteria. Nature Materials, January 2016. Colleen M. Courtney, Samuel M. Goodman, Jessica A. McDaniel, Nancy E. Madinger, Anushree Chatterjee, Prashant Nagpal.

Bioinspired fluorescent dipeptide nanoparticles for targeted cancer cell imaging and real-time monitoring of drug release. Nature Nanotechnology, January 2016. Zhen Fan, Leming Sun, Yujian Huang, Yongzhong Wang, Mingjun Zhang.

Cell-free 3D scaffold with two-stage delivery of miRNA-26a to regenerate critical-sized bone defects. Nature Communications, Vol. 7, Article No. 10376, January 2016. Xiaojin Zhang, Yan Li, Y. Eugene Chen, Jihua Chen, Peter X. Ma.

Synthesis of Iron Nanometallic Glasses and Their Application in Cancer Therapy by a Localized Fenton Reaction. Angewandte Chemie, January 2016. Chen Zhang, Wenbo Bu, Dalong Ni, Shenjian Zhang, Qing Li, Zhenwei Yao, Jiawen Zhang, Heliang Yao, Zheng Wang, Jianlin Shi.

Steady cone-jet mode in compound-fluidic electro-flow focusing for fabricating multicompartment microcapsules. Applied Physics Letters, Vol. 108, January 2016. Ting Si, Chuansheng Yin, Peng Gao, Guangbin Li, Hang Ding, Xiaoming He, Bin Xie, Ronald X. Xu.

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[A biomimetic DNA-based channel for the ligand-controlled transport of charged molecular cargo across a biological membrane](#). Nature Nanotechnology, Vol. 11, pp. 152 – 156, January 2016. Jonathan R. Burns, Astrid Seifert, Niels Fertig, Stefan Howorka.

[Eliminating Size-Associated Diffusion Constraints for Rapid On-Surface Bioassays with Nanoparticle Probes](#). Small, January 2016. Junwei Li, Pavel Zrazhevskiy, Xiaohu Gao.

Conferences and Workshops

[Nanotechnology in the Healthcare Industry, 2 March 2016, Waltham, MA](#)
Nanomaterial Characterization
Nano-based diagnostics
Targeted delivery

[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

[International Conference on Nanosciences & Nanotechnologies, 5-8 July 2016, Thessaloniki, Greece](#)
Biological systems
Self-assembly and self-organization
Cell/nanomaterial interactions

[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
Nanocommercialization

[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

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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