



## MESSAGE FROM THE CHAIR: HENRY HAVEL



I am honored to be elected as the first Chair of the Nanomedicines Alliance and appreciate the trust and support from my colleagues on the Board of Directors. It is clear to me that the work of the Alliance is important and can catalyze further exploration and commercialization of nanomedicines. As a charter member of the Alliance, I have seen first-hand how the early days of the Alliance have brought together companies and individuals with a common purpose – what we have been able to accomplish as a group would have been much more difficult in isolation. For 2013, my primary goals are to lead the Nanomedicines Alliance Board of Directors in three areas: grow the Alliance membership, broadly communicate outcomes from the March Symposium, and support greater partnership with FDA.

Biography of Henry Havel, PhD, Senior Research Fellow, Small Molecule Design & Development, Eli Lilly & Co., Chair, Nanomedicines Alliance

My academic credentials include a B.S. in chemistry from the University of Rochester and a Ph.D. in physical chemistry from the University of Minnesota. I started my career in the pharmaceutical industry at The Upjohn Company in Kalamazoo, MI working on analytical development of small molecules and proteins. For the past twenty-two years I have worked at Eli Lilly and Company where I have contributed to several small molecule and protein products such as Alimta, Forteo, Humalog, and Zyprexa Relprevv. I am a Senior Research Fellow in Small Molecule Design & Development and in my current role I have a responsibility to evaluate new formulation technologies to deliver Lilly's small molecule portfolio. The promise of nanotechnology to enable safer and more effective medicines has been my focus for several years -- it is an exciting area of science with potential to significantly advance therapeutic outcomes for patients.

## REGULATORY AND LEGISLATIVE DEVELOPMENTS

### ETPN White Paper on Nanomedicines

The European Technology Platform on Nanomedicine (ETPN), together with the NANOMED2020 project, has published the "White Paper on Contribution of Nanomedicine to Horizon 2020." The white paper provides recommendations for the European Commission to create a successful framework for nanotechnology. Among other things, the white paper recommends a Nanomedicine Translation Advisory Board, a European Nano-Characterization Laboratory, and a NanoMed SME instrument. The white paper also supports the initiative for a "strong SME based supply chain for innovative therapeutics and diagnostics." <http://www.etp-nanomedicine.eu/public/press-documents/publications/etpn-publications/etpn-white-paper-H2020>

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

## REVIEWS AND OTHER PUBLICATIONS OF INTEREST

**Site-specific gene delivery to stented arteries using magnetically guided zinc oleate-based nanoparticles loaded with adenoviral vectors.** The FASEB Journal, June 2013, Vol. 27, No. 6, pp. 2198-2206. Michael Chorny, Iliia Fishbein, Jillian E. Tengood, Richard F. Adamo, Ivan S. Alferiev, and Robert J. Levy.  
<http://www.fasebj.org/content/27/6/2198>

**Targeted Drug Delivery in Cancer Cells with Red-Light Photoactivated Mesoporous Silica Nanoparticles.** Nano Letters, May 2013. Stephan A. Mackowiak, Alexandra Schmidt, Veronika Weiss, Christian Argyo, Constantin von Schirnding, Thomas Bein, and Christoph Bräuchle.  
<http://pubs.acs.org/doi/abs/10.1021/nl400681f>

**Nanostructured lipid carriers as multifunctional nanomedicine platform for pulmonary co-delivery of anticancer drugs and siRNA.** Journal of Controlled Release, May 2013. Oleh Taratula, Andriy Kuzmov, Milin Shah, Olga B. Garbuzenko, Tamara Minko.  
<http://www.sciencedirect.com/science/article/pii/S016836591300237X>

**Delivery of therapeutic agents by nanoparticles made of grapefruit-derived lipids.** Nature Communications, May 2013, Vol. 4. Qilong Wang, Xiaoying Zhuang, Jingyao Mu, Zhong-Bin Deng, Hong Jiang, Xiaoyu Xiang, Baomei Wang, Jun Yan, Donald Miller, Huang-Ge Zhang.  
<http://www.nature.com/ncomms/journal/v4/n5/full/ncomms2886.html>

**Skin Dendritic Cell Targeting via Microneedle Arrays Laden with Antigen-Encapsulated Poly-D,L-lactide-co-Glycolide Nanoparticles Induces Efficient Antitumor and Antiviral Immune Responses.** ACS Nano, 2013, Vol. 7, Issue 3, pp. 2042-2055. Marija Zaric, Oksana Lyubomska, Olivier Touzelet, Candice Poux,

Sharifah Al-Zahrani, Francois Fay, Leah Wallace, Dorothea Terhorst, Bernard Malissen, Sandrine Henri, Ultan F. Power, Christopher J. Scott, Ryan F. Donnelly, and Adrien Kissenpfennig.  
<http://pubs.acs.org/doi/abs/10.1021/nn304235j>

**Nanoscale imaging reveals laterally expanding antimicrobial pores in lipid bilayers.** PNAS, May 2013, Vol. 110, No. 22, pp. 8918-8923. Paulina D. Rakowska, Haibo Jiang, Santanu Raya, Alice Pynea, Baptiste Lamarrea, Matthew Carre, Peter J. Judgef, Jascindra Ravia, Ulla I. M. Gerlingg, Beate

Kokschg, Glenn J. Martynah, Bart W. Hoogenboom, Anthony Watts, Jason Craina, Chris R. M. Grovenor, and Maxim G. Ryadnova.  
<http://www.pnas.org/content/110/22/8918>

**Innovation in Nanomedicine through Materials Nanoarchitectonics.** Langmuir, Article ASAP. Piotr Kujawa and Françoise M. Winnik.  
<http://pubs.acs.org/doi/abs/10.1021/la4014619>

**Atomic Force Microscopy Images Label-Free, Drug Encapsulated Nanoparticles In Vivo and Detects Difference in Tissue Mechanical Properties of Treated and Untreated: A Tip for Nanotoxicology.** PLOS One, May 2013, Vol. 8, Issue 5. Dimitrios A. Lamprou, Vinod Venkatpurwar, M. N. V. Ravi Kumar.  
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0064490>

**Effect of Functionalized Gold Nanoparticles on Floating Lipid Bilayers.** Langmuir, May 2013, Vol. 29, Issue 22, pp. 6606-6614. Sabina Tatur, Marco Maccarini, Robert Barker, Andrew Nelson, and Giovanna Fragneto.  
<http://pubs.acs.org/doi/abs/10.1021/la401074y>

## CONFERENCES AND WORKSHOPS

**EuroNanoForum 2013, June 18-20, 2013, Dublin, Ireland**  
Bionanotechnology  
Nanomedicines  
Nanosafety  
<http://www.euronanoforum2013.eu/>

**Nanoparticles and Nanotechnology in Medicine 2013, June 19-21, 2013, Milan, Italy**  
Toxicity  
Curing Alzheimer's disease  
Regenerative medicine  
European legislation  
<http://npmed13.eu/>

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**Sydney International Nanomedicine Conference, July 1-3, 2013, Sydney, Australia**

Target Delivery  
Sensing  
Diagnostics  
Regenerative Medicine  
Imaging  
Translational Medicine  
NanoSafety

<http://www.oznanomed.org/>

**NanoKorea 2013, July 10-12, 2013, Seoul, South Korea**

Nanomedicine  
Nanobiotechnology  
Molecular diagnostics  
Bionanosensor  
Cell manipulation

<http://sympoeng.nanokorea.or.kr/2013/>

**Cancer Nanotechnology, July 14-19, 2013, West Dover, VT**

Materials synthesis  
Characterization  
Biocompatibility

<http://www.grc.org/programs.aspx?year=2013&program=cncano>

**NanoGagliato, July 25-30, 2013, Gagliato, Italy**

Nanomedicine  
Nanobionics  
Theranostics  
Transport Oncophysics

<http://www.nanogagliato.org/>

**ICANM 2013: Advanced and Nanomaterials Conference, August 12-14, 2013, Quebec, Canada**

Nanomedicines  
Nanobiotechnology  
Nanotoxicology

<http://www.iaemm.com/ICANM2013/>

**NanoForum, September 18-20, 2013, Rome Italy**

Nanomedicines  
Nanotoxicology

<http://www.nanoforum.it/convegno/conference>

**Nanocon 2013, October 16-18, 2013, Brno, Czech Republic**

Bionanotechnology  
Antibacterial materials  
Molecular analysis  
Anti-tumor therapy  
Targeted drug transport  
Tissue engineering  
Nano-implants

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

**6th International Symposium on Nanotechnology, Occupational and Environmental Health, October 28-31, 2013, Nagoya, Japan**

Nanomaterial processing and characterization  
Health effects and toxicity  
ADME  
Environmental toxicity  
Risk assessment and management

<http://square.umin.ac.jp/nanoeh6/index.html>

**Carbon-Based Nano-Materials and Devices, November 3-8, 2013, Hualien, Taiwan**

Synthesis of carbon-based nanomaterials  
Characterization and processing of carbon-based nanomaterials  
Devices and Applications of carbon-based nanomaterials  
Multiscale modeling and computation

<http://www.engconfintl.org/13ap.html>

**NanoBIG: Nanotechnology in Healthcare, December 5-6, 2013, San Diego, CA**

Nanocomposites  
Medical devices  
Preventive healthcare applications

<http://www.tcbi.org/files/brochures/nanoBIGSanDiegoInformation.pdf>

## 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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