

American Society for Nanomedicine

Translational Nanomedicine: New solutions to Address Unmet Medical Needs

Meeting Registration and Society Details: <https://amsocnanomed.org/>

Location: Hilton Crystal City, 2399 Jefferson Davis Hwy, Arlington, VA 22202
(Near Washington National Airport)

Dates: October 15 to 17, 2015

Thursday PM

2:00 Opening remarks: Esther H. Chang, Ph.D.

Chairman's Opening Session Presentation

2:05 *Theranostic Nanomedicine: "We've come a long way baby!"*

Gregory M. Lanza, M.D. Ph.D., Professor of Medicine and Bioengineering, Oliver M. Langenberg Distinguished Professor of Science and the Practice of Medicine, Washington University Medical School

3:00 – 5:30 **TOPIC: Nanomedicine Approaches to Vaccines and Anti-microbials**

Moderator: James R. Baker, Jr. M.D

Keynote Speaker Presentation

3:00 *Nanoparticle Vaccines; Shaping the Immune Response*

Keynote Speaker - James R. Baker, Jr. M.D., Ruth Dow Doan Professor of Biologic Nanotechnology, Professor Emeritus of Internal Medicine and Biomedical Engineering, University of Michigan

3:30 *Cationic Lipid Nanoparticles as Efficient Delivery Systems for Vaccines and Immunomodulatory Molecules*

Danilo Casimiro, Ph.D., Executive Director, Infectious Diseases and Vaccines, Merck Research Laboratories, Merck & Co

3:55 **Break**

4:15 *Tolerogenic nanoparticles for the prevention of anti-drug antibodies and the treatment of autoimmune disease*

Takashi Kei Kishimoto, Ph.D., Chief Scientific Officer, Selecta Biosciences, Inc.

Updated 7/11/2015

4:40 *Attacking Leishmania, a protozoan parasite ravaging 12 million patients in poverty, with nanotechnology*

Gul Shahnaz, Ph.D., Department of Pharmacy, Faculty of Biological Sciences, Quaid-I-Azam University, Islamabad, Pakistan. Pakistan-US Science and Technology Cooperation Program and an UNESCO awardee

5:05 *Long-acting cell targeted nanoformulated anti-retroviral therapy*

Benson Edagwa, Ph.D., Assistant Professor, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center

End of Session

5:30 - 7:00 **Reception and Poster review (Cash Bar)**

Friday AM

8:30 **Meet-the-Expert Breakfast**

Moderator: Esther H. Chang, Ph.D.

9:30 - 12:00 **TOPIC: Next Generation Preclinical Nanomedicine**

Moderator: Kuan Wang, Ph.D.

9:30 *A CRISPR look at gene editing: using CRISPR/Cas9 technology to make genetically modified cell lines and model organisms.*

Shondra M. Pruett-Miller, Ph.D., Director of the Genomic Engineering and iPSC Center at Washington University School of Medical, Saint Louis, MO

9:55 *Interactions between tumor microenvironment factors and nanomedicines influence efficacy*

William Zamboni, PharmD. Ph.D., Associate Professor, Division of Pharmacotherapy and Experimental Therapeutics in the Eshelman School of Pharmacy and Molecular Therapeutics in the Lineberger Comprehensive Cancer Center, University of North Carolina

10:20 *Targeted image-guided therapy of pancreatic cancer with stroma breaking nanoparticles*

Lily Yang, M.D. Ph.D., Professor of Surgery and Nancy Panoz Chair of Surgery in Cancer Research, Department of Surgery, Emory University School of Medicine

10:45 – 11:00 Break

11:00 *Treatment of glioblastoma using a nanochain particle system*

Stathis Karathanasis, Ph.D., Assistant Professor of Biomedical Engineering and Radiology
Director of the Cancer Nanotechnology Lab, Department of Biomedical Engineering, Case Western Reserve University

11:25 *Breaking the depth dependency of phototherapy with Cerenkov radiation and low-radiance-responsive nanophotosensitizers*

Samuel Achilefu, Ph.D., Director of Optical Radiology Lab, Professor of Radiology, Biochemistry & Molecular Biophysics and Biomedical Engineering, Department of Radiology, Washington University School of Medicine

11:50 *Addressing the need for nanomedicines targeting hydrophobic compounds*

Gert Storm, Ph.D., Professor of targeted drug delivery at the University of Utrecht and Professor of targeted therapeutics at the MIRA institute of the University of Twente.

12:15 – 1:30 Box Lunch

12:20 – 1:10 Nanomedicine Translational Issues – Panel discuss audience Q&A
Moderator: Raj Bawa, Ph.D.

Friday Afternoon Session

1:30 – 5:00 TOPIC: Clinical Translation of Nanomedicines

Moderator: Michelle S. Bradbury, M.D. Ph.D.

Keynote and Lifetime Achievement Award to Ruth Duncan, Ph.D.

1:35 *Effective Translation of Innovative Medicinal Products: Understanding the Landscape, Asking the Right Questions, and Use of Robust Scientific Methodology*

Ruth Duncan, Ph.D., Professor Emerita, prior Director of the Centre for Polymer Therapeutics at the Welsh School of Pharmacy, Cardiff University, UK

2:10 *NCI Alliance for Nanotechnology in Cancer - a Model for Stimulating Transitions from Academic Research to Clinical Applications*

Piotr Grodzinski, Ph.D., Director NCI Office of Cancer Nanotechnology Research, National Institute of Health

2:35 *The NanoTherm Therapy – Fighting Cancer with Nanotechnology*

Hoda Tawfik, M.D. Ph.D., Chief Medical Officer and Chief Operating Officer for Therapy Development, MagForce AG.

3:00 *Development of liposome-based cancer nanomedicines - DOXIL and beyond*

Alberto A. Gabizon, M.D. Ph.D., Director, Oncology Institute, Shaare Zedek Medical Center, and Professor of Oncology, The Hebrew University of Jerusalem; President and Founder, LipoMedix Pharmaceuticals.

3:25 – 3:45 **Break**

3:45 *New Developments in Targeted Gold Nanomedicines*

Steven K. Libutti, M.D., Professor and Vice Chair, Department of Surgery, Associate Director for Clinical Services of the Albert Einstein Cancer Center, Albert Einstein College of Medicine

4:10 *Translation of an effective cancer nanomedicine: is a targeting moiety truly necessary?*

Esther H. Chang, Ph.D., Professor, Department of Oncology, Lombardi Comprehensive Cancer Center, Georgetown University Medical Center ND and Founder of SynerGene

4:35 *Ultrasmall Dual-Modality C dots as Image-Guided Therapeutic Platforms for Oncology*

Michelle S. Bradbury, M.D. Ph.D., Director, Intraoperative Imaging, Member, Molecular Pharmacology and Chemistry Program, and Associate Professor of Radiology, Weill Cornell Medical College and Memorial Sloan Kettering Cancer Center

End of Session

5:00 – 6:00 Moderated Posters: Howard E. Gendelman, M.D.

Saturday AM

8:30 Meet-the-Expert Breakfast

Moderator: Esther Chang, Ph.D.

9:30 – 11:40 TOPIC: Enabling the Business side of translation

Moderator: Raj Bawa, Ph.D.

9:30 Overview (IP, FDA, regulatory, critical current related issues)

Raj Bawa, Ph.D., Patent Agent, Bawa Biotech LLC (Ashburn, VA)
Adjunct Professor of Biological Sciences, Rensselaer Polytechnic Institute (Troy, NY)

9:50 Translational Pipeline to the Clinic – Navigating Key Challenges and Regulatory Guidances

Michelle S. Bradbury, M.D. Ph.D., Associate Member, Memorial Sloan Kettering Cancer Center (New York, NY) Associate Professor of Radiology, Weill Medical College of Cornell University (New York, NY), and **Ulrich Wiesner, Ph.D.**, Spencer T. Olin Professor of Engineering, Department of Materials, Science & Engineering, Cornell University (Ithaca, NY), Co-founders, Claymore Technologies

10:15 Patent Issues for an Academic Inventor – What, Why and How?

Brian Reese, Ph.D. J.D. M.B.A., Associate, Choate, Hall & Stewart LLP (Boston, MA)

10:40 Roadmap to the Clinic – What, Why and How in Nanotox Assessment?

János Szebeni, M.D. Ph.D. D.Sc. Professor of Nanobiotechnology, Miskolc University (Budapest, Hungary); Professor and Head, Nanomedicine Research and Education Center Semmelweis University School of Medicine (Budapest, Hungary)

11:05 Investigational New Drug (IND) Applications – What, Why and How?

William Haulbrook, Ph.D. J.D. Partner, Choate, Hall & Stewart, LLP (Boston, MA)

11:25 Licensing Medical Intellectual Property – What, Why and How?

Annette I. Kahler, J.D., Senior Counsel, Heslin Rothenberg Farley & Mesiti PC (Albany, NY)

End of Session

11:45 - 1:00 Best Poster Awards and Presentations

Moderator: Lajos P. Balogh, Ph.D.

1:00 Closing remarks: Esther H. Chang, Ph.D.

2015 Conference Chair:

Gregory Lanza, M.D., Ph.D.

American Society for Nanomedicine Board of Directors:

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Gary Harris, Ph.D. P.E.

Gregory Lanza, M.D. Ph.D.

Kuan Wang, Ph.D.