

PROGRAM

Third Annual Conference of the American Society for Nanomedicine

Universities at Shady Grove, Rockville, Maryland

Wednesday - November 9, 2011

7:30 am-
6 pm **Registration** (outside the auditorium)

8:30 am **Welcome and Introduction**

8:40 am **Session 1: Novel Nanobiomedical Applications**

Chair: **Marianna Foldvari**, *University of Waterloo*

Speakers:

Justin Hanes, *Johns Hopkins University*

“Nanomedicines that Bypass the Mucus Barrier”

Anu Puri, *NCI/NIH*

“Design Considerations and Mechanisms of Light-Activated Drug Release from Liposomes Containing a Photoactivable Diacetylenic Lipid”

Jan E. Schnitzer, *Proteogenomics Research Institute for Systems Medicine*

“Overcoming In Vivo Barriers to Nanodelivery”

Yuliang Zhao, *Chinese Academy of Sciences*

“Low-Toxic Cancer Chemotherapy with Nanostructure Materials”

10:20 am **Break and Poster viewing**

10:40 am **Session 2: Multifunctional Nanoplatfoms**

Chair: **Lily Yang**, *Emory University*

Speakers:

Nicholas Borys, *Celsion Corporation*

“Lyso-Thermosensitive Liposomal Doxorubicin: A Nanodelivery Adjuvant to Increase the Cure Rate of Thermal Ablation in Liver Cancer”

Hamid Ghandehari, *University of Utah*

“Gold Nanorod-Induced Hyperthermia Enhances the Delivery of Multifunctional HPMA Copolymers to Prostate Tumors”

Sonke Svenson, *Cerulean Pharma, Inc.*

“Docetaxel Nanopharmaceuticals: A New Class of Tumor-Targeted Anticancer Agents”

Lily Yang, *Emory University*

“Image-Guided and Targeted Cancer Therapy Using Theranostic Nanoparticles”

12:20 pm **Lunch and Poster viewing**

1:20 pm **Session 3: Vision for Nanomedicine Advancement**

Chair: **Kuan Wang**, *Academia Sinica*

Speakers:

Shawn Chen, *NIBIB/NIH*

“Theranostic Nanomedicine Program at NIBIB Intramural Program”

Piotr Grodzinski, *NCI/NIH*

“Cancer Nanotechnology – Current Status and Future Prospects – View from the NCI Alliance for Nanotechnology in Cancer”

Gary Harris, *NNIN/NSF - Howard University*

“NNIN: A National Resource for Nanomedicine and Nanotechnology”

Lloyd Whitman, *NIST*

“Nanotechnology at NIST: Addressing the Nation’s Nanoscale Measurement Needs”

3:00 pm **Break and Poster viewing**

3:20 pm **Keynote Lecture**

Introduction: Esther H. Chang, *Georgetown University*

Keynote Speaker: Roger Y. Tsien, *UC – San Diego*

“In Vivo Imaging of Tumor-Associated Proteases for Early MRI Detection and Fluorescence-Guided Resection”

4:20 pm **Session 4: Nanomedicine Safety, Characterization and FDA Regulation**

Chair: **Lajos P. Balogh**, *Nanomedicine: Nanotechnology, Biology and Medicine*

Speakers:

Mark Hoover, *CDC/NIOSH*

“Confirming Approaches to Nanosafety and Characterization through Field and Toxicity Studies”

Valerian Kagan, *University of Pittsburgh*
"Redox Adventures of Carbon Nanotubes – From Oxidative Lipidomics to Biodegradation"
Günter Oberdörster, *University of Rochester*
"Nanotoxicological Concepts and Challenges"
Nakissa Sadrieh, *FDA*
"FDA/CDER Perspective on Characterization of Nanomedicine"
Stephan Stern, *NCI Nanotechnology Characterization Laboratory*
"Evaluation of Animal Models for Preclinical Nanomedicine"

6:20 pm – 8:10 pm **Reception and Poster viewing**

Thursday – November 10, 2011

8 am- 6 pm **Registration** (outside the auditorium)

8:40 am **Session 5: Molecular Imaging in Nanomedicine**

Chair: **Gary Harris**, *NNIN/NSF - Howard University*

Speakers:

Dmitri Artemov, *Johns Hopkins University*
"Image-Guided HER-2/neu Receptor Targeted Nanoplatfrom for Cancer Therapy"
James Basilion, *Case Western Reserve University*
"Therapeutic Nanoparticles to Combat Brain Tumors"
Matthew Dreher, *NCI/NIH*
"Dose Painting With MR Image-Able Low Temperature Sensitive Liposomes and MR-Guided High Intensity Focused Ultrasound"
Greg Lanza, *Washington University School of Medicine*
"Image-Guided Drug Delivery: Realizing the Opportunity"

10:20 am **Break and Poster viewing**

10:40 am **Session 6: Nanotechnology-Based-Targeted Delivery of Therapeutics and Imaging Contrast Agents**

Chair: **Esther H. Chang**, *Georgetown University*

Speakers:

Keon Kang, *Seoul National University College of Medicine*
"In Vivo Nano-Molecular Imaging of Cancer"

Kimberly Kelly, *University of Virginia*
"Molecular Imaging and Biomarker Discovery in Pancreatic Ductal Adenocarcinoma"

Philip Low, *Purdue University*
"Ligand-Targeting of Nanoparticles and Low Molecular Weight Drugs to Cancer Tissues and Sites of Inflammation"

Thomas Meade, *Northwestern University*
"Theranostic Magnetic Nanostructures for the Molecular Imaging of Cancer"

12:20 pm **Lunch and Poster viewing**

1:40 pm **Session 7: Diagnostics and Treatment: Image-Guided Targeted Delivery**

Chair: **Keyvan Farahani, NCI/NIH**

Speakers:

Behnam Badie, *City of Hope*
"Optimizing Brain Tumor Immunotherapy with Nanoparticles"

Zaver Bhujwalla, *Johns Hopkins University*
"Theranostic Imaging of Cancer"

Michelle Bradbury, *Memorial Sloan Kettering Cancer Center*
"Clinical Multimodal Silica Nanoparticles: Linking Bioimaging to Nanomedicine, Drug Delivery, and Cancer Biology"

Kathleen Ferrara, *UC - Davis*
"Image-Guided Nanodelivery"

3:20 pm **Break and Poster viewing**

3:35 pm **Group Photo**

3:50 pm **Session 8: Nanoinformatics: Ontology, nano-TAB, caNanoLab, nanoHUB**

Chair: **Raj Bawa, Bawa Biotechnology Consulting LLC**

Speakers:

Nathan Baker, *Pacific Northwest National Lab*
"Informatics and Standards for Nanomedicine Technology"

Yoram Cohen, *UCLA*

“Tools for Nanoinformatics and Knowledge Extraction from High Throughput Screening Data of Nanoparticle Toxicity”

Sharon Gaheen, *SAIC/NCI*

“caNanoLab: Data Sharing Solution for Expediting and Validating the Use of Nanotechnology in Biomedicine”

Mark Hoover, *CDC/NIOSH*

“Anticipating, Recognizing, Evaluating, Controlling and Confirming an Effective Nanoinformatics Roadmap”

Announcement of Poster Awards

5:30 pm **ASNM Business meeting** (members and non-members all welcome)

6:00 pm **Poster viewing**

Friday – November 11, 2011

8 am-12pm **Registration** (outside the auditorium)

8:20 am **Session 9: Top 4 Poster Submissions from Young Investigators, Oral Presentations and Award Ceremony**

Chair: **Greg Lanza**, *Washington University School of Medicine*

Review Panel: Hamid Ghandehari, *University of Utah*
Kimberly Kelly, *University of Virginia*
Greg Lanza, *Washington University School of Medicine*

The four awardees will give 10 minute oral presentations and 5 minutes Q&A.

9:40 am **Break and Poster Viewing**

10:00 am **Session 10: Recent Clinical Application of Nanomedicine: Diagnosis, Treatment and Prevention**

Chair: **Howard Gendelman**, *University of Nebraska*

Speakers:
Julia Y. Ljubimova, *Cedars-Sinai Medical Center*

“Nanobioconjugate Designing for Delivery and Treatment of Primary and Metastatic Brain Tumors”

Kathleen Pirollo, *Georgetown University*

“A Tumor-Targeting Nanodelivery Platform for Cancer Diagnosis and Therapy: Results of a Phase I Clinical Trial for p53 Gene Therapy”

Thomas Schluep, *Calando Pharmaceuticals*

“Development of CALAA-01, A Targeted Nanoparticle for Systemic siRNA Therapy in Cancer”

John Wright, *CTEP/NCI*

12:00 pm

Conference Adjourns