

Conference Agenda
5th Annual Personalized Nanomedicine Symposium
Miami, FL

November 1st, 2018

Registration – Welcome Breakfast

7:30 AM – 8:00 AM **TBA**

Master of Ceremony Karla S. Munoz, M.B.A., M.S.

8:00 AM – 8:05 AM **Kenneth Furton, Ph.D.**
*Provost and Executive Vice President, Florida International University
Chief Operating Officer*

8:05 AM – 8:10 AM **Andres G. Gil, M.S.W., Ph.D.**
*Vice President for Research and Economic Development,
Dean of University Graduate School
Florida International University*

8:10 AM – 8:15 AM **John Rock, M.D., M.S.P.H.**
*Founding Dean, FIU Herbert Wertheim College of Medicine
Senior Vice President for Health Affairs
Herbert Wertheim College of Medicine
Florida International University*

8:15 AM – 8:20 AM **Madhavan Nair, Ph.D.**
SPNM Founding President

Keynote Speaker

8:20 AM – 9:00 AM **“Laser ART”**

Howard E. Gendelman, M.D.
*Chair, Department of Pharmacology & Experimental Neuroscience
University of Nebraska Medical Center*

Introduced by **Carolyn D. Runowicz, M.D.**
*Professor of Obstetrics and Gynecology
Executive Associate Dean of Academic Affairs
Herbert Wertheim College of Medicine
Florida International University*

Symposium I

Design and Development of Nanoparticles for Personalized Nano-Medicine

Chair: Abraham Bautista, Ph.D.

*Director
Office of Extramural Activities
NIAAA/NIH*

Chair: John L. Volakis, Ph.D.

*Dean and Professor
College of Engineering and Computing
Florida International University*

9:00 AM – 9:20 AM

“Engineering Changes in Healthcare: Bringing transformative impact to NanoMedicine”

S1: Larry Nagahara, Ph.D.

*Associate Dean for Research
Whiting School of Engineering
Johns Hopkins University
Former Associate Director, Division of Cancer Biology, NCI/NIH*

9:20 AM – 9:40 AM

“Regenerative nanomedicine based on rare-earth nanoparticles.”

S2: Sudipta Seal, Ph.D.

*Trustee Chair
Chair, Materials Science and Engineering
Pegasus and University Distinguished Professor
University of Central Florida*

9:40 AM – 10:00 AM

“Use of nanoparticles and exosomes for therapeutics and delivery into infected cells”

S3: Fatah Kashanchi, Ph.D.

*Professor and Director
Laboratory of Molecular Virology
George Mason University*

10:00 AM – 10:20 AM

“Molecular engineering of interfaces for nanomedicine”

S4: Thomas Thundat, Ph.D.

*SUNY Empire Innovation Professor
Department of Chemical and Biological Engineering
University of Buffalo*

10:20 AM – 10:40 AM

SNACK/COFFEE BREAK

Symposium II

Personalized Nano-Medicine for Cancer and CNS degenerative diseases

Chair: Piotr Grodzinski, Ph.D.

*Program Director, NCI Nanotechnology Alliance
National Cancer Institute*

Chair: Norma Sue Kenyon, Ph.D.

*Vice Provost for Innovation
Chief Innovation Officer
University of Miami Miller School of Medicine*

10:40 AM – 11:15 AM

“Affinity Chemistry Based Nanotechnology for Proteomics and Personalized Therapy.”

Plenary Speaker: Lance Liotta, M.D., Ph.D.

*Tenured University Professor
Co-Director Center for Applied Proteomics and Molecular
Medicine
Medical Director
College of Science
George Mason University*

Introduced by **Fatah Kashanchi, Ph.D.**

*Professor
Laboratory of Molecular Virology
George Mason University*

11:15 AM – 11:35 AM

“TBA.”

S2: Jay P. McLaughlin, Ph. D.

*Department of Pharmacodynamics
College of Pharmacy
University of Florida*

11:35 AM – 11:55 AM

“Detection of colorectal cancer in the era of precision medicine.”

S3: Wellington Pham, Ph.D.

*Associate Professor of Radiology and Radiological Sciences
Associate Professor of Biomedical Engineering*

Vanderbilt University School of Medicine

11:55 AM – 12:15 PM

“Polymeric Nanocarriers for combination therapy”

S4: Jinjun Shi, Ph.D.

*Associate Professor
Harvard Medical School
Center for Nanomedicine
Brigham and Women’s Hospital*

12:15 PM – 12:35 PM

“Activation of GPR55 induces neuroprotection of hippocampal neurogenesis and immune responses of neural stem cells following chronic, systemic inflammation.”

S5: Yuri Persidsky, M.D., Ph.D.

*Professor and Chairman
Department of Pathology and Laboratory Medicine
Temple University*

12:35 PM – 1:35 PM

LUNCH BREAK

1:35 PM – 2:35 PM

Poster Session

Symposium III

Personalized Nano-Medicine approach for Opioid Addiction/Substance Abuse

Chair: Rao S. Rapaka, Ph.D.

*Brand Chief
Chemistry and Pharmacology Branch
NIDA/NIH*

Chair: Marcus Kaul, Ph.D.

*Assistant Professor
Infectious and Inflammatory Disease Center
Sanford-Burnham Medical Research Institute
Director, Project 5
Chief, Neuroscience and Animal Models
Core-Animal Models Unit*

2:35 PM – 2:45 PM

“Introductory talk: Opioid Epidemic”

S1: Rao S. Rapaka, Ph.D.

Brand Chief

*Chemistry and Pharmacology Branch
NIDA/NIH*

2:45 PM – 3:05 PM

“MRGPR-Based analgesics - 1”

S2: Corey Hopkins, Ph.D.

*Associate Professor
Department of Pharmaceutical Sciences
College of Pharmacy
University of Nebraska Medical Center*

3:05 PM – 3:25 PM

Fibroblast growth factor 21 as a possible treatment for Opioid use disorder.

S3: Jean M. Bidlack, Ph.D.

*Professor of Pharmacology and Physiology and Associate Chair
Dept. of Pharmacology and Physiology
University of Rochester School of Medicine and Dentistry*

3:25 PM – 3:45 PM

“The current status of consciousness science and its relevance to Nano-Medicine”

S4: Subhash Kak, Ph. D.

*Regents Professor
School of Electrical and Computer Engineering
Oklahoma State University*

3:45 PM – 4:05 PM

“Development of Non-addicting Analgesics: Summary and Update”

S5: Laura Bohn, Ph.D.

*Professor
Ph.D., Biochemistry & Molecular Biology
St. Louis University School of Medicine
Department of Molecular Medicine
Department of Neuroscience
The Scripps Research Institute*

4:05 PM – 4:25 PM

“Nasal drug delivery”

S5: Predrag Cudic, Ph.D.

*Professor
Department of Chemistry and Biochemistry
PH.D. University of Zagreb, Croatia*

4:25 PM – 4:40 PM

BREAK

Symposium IV

Gut-Brain Axis: Role of Micro-Biome in Personalized Nano-Medicine

Chair: Sabita Roy, Ph.D.

*Professor and Associate Vice-Chair of Career Development and Mentoring
Department of Surgery
University of Miami*

Chair: Babak Kateb, M.D.

*Founding Chairman of the Board of Directors
CEO and Scientific Director
Society for Brain-Mapping and Therapeutics (SBMT)*

4:40 PM – 5:00 PM

“Role of Gut Micro-Biome in Opioid Associated Comorbidities.”

S1: Sabita Roy, Ph.D.

*Professor and Associate Vice-Chair of Career Development and Mentoring
Department of Surgery
University of Miami*

5:00 PM – 5:20 PM

“Role of Microbial Dysbiosis in HIV Drug Pharmacokinetics.”

S2: Nichole Klatt, Ph.D.

*Vice Chair of Research
Adrienne Arsht Endowed Chair in Pediatric Clinical Research
Associate Professor
University of Miami*

5:20 PM – 5:40 PM

“Microbial Dysbiosis in Ulcerative Colitis: Role of Acetylcholinesterase inhibitor.”

S3: Mohan Sopori, Ph.D.

*Director Immunology Program
Lovelace Respiratory Research Institute*

5:40 PM – 6:00 PM

“Role of Gut Microbiome in Cancer Immunotherapy.”

S4: Vikas Dudeja, M.D.

*Assistant Professor of Surgery
Divisions of Surgical Oncology and Basic and Translational Research
University of Miami Miller School of Medicine*

6:15 PM – 8:00 PM

DINNER at TBA

November 2nd, 2018

8:00 AM – 8:25 AM **BREAKFAST**

8:25 AM – 8:30 AM **Karla S. Munoz, M.B.A., M.S.**
Secretary, SPNM
Master of Ceremony

Symposium V

Application of CRISPR technology in nanomedicine

Chair: Jeymohan Joseph, Ph.D.

Chief, HIV Neuropathogenesis, Genetics and Therapeutics Branch
Division of AIDS Research
National Institute of Mental Health

Chair: Lidia Kos, Ph.D

Associate Dean, University Graduate School
Associate Vice President, Office of Research and Economic Development
Professor, Biological Science
Florida International University

8:30 AM – 8:55 AM

“Toward HIV/AIDS Cure”

Plenary Speaker: Kamel Khalili, Ph.D.

Laura H. Carnell Professor and Chair
Department of Neuroscience
Director, Center for Neurovirology and Comprehensive
NeuroAIDS Center
Co-Director, Center for translational AIDS Research
Lewis Katz School of Medicine
Temple University

8:55 AM – 9:15 AM

“Personalized approaches to HIV therapy and cure.”

S2: Jonathan Karn, Ph.D.

Reinberger Professor of Molecular Biology
Chairman

*Department of Molecular Biology and Microbiology
Director
Case Center for AIDS Research*

9:15 AM – 9:35 AM

“Personalized and broad-spectrum gRNAs for targeting HIV quasispecies using CRISPR/Cas9 therapeutics.”

S3: Brian Wigdahl, Ph.D.

*Professor and Chair, Microbiology and Immunology
Director, Institute for Molecular Medicine and Infectious Disease
Drexel University College of Medicine*

9:35 AM – 9:55 AM

“Personalized Organoid Development.”

S4: Kaiming Ye, Ph.D.

*Professor and Chair, Department of Biomedical Engineering
Director, STEM Cell and Tissue Engineering Laboratory
Fellow, American Institute of Medical and Biological Engineering
Binghamton University, State University of New York*

9:55 AM – 10:15 AM

“HIV-1 and methylphenidate abuse.”

S5: Rosemarie Booze, Ph.D.

*Professor and Bicentennial Endowed Chair in Behavioral
Neuroscience
University of South Carolina*

10:15 AM – 10:35 AM

“Safety considerations for engineered nanomaterials: case studies for poly (amido amine) dendrimers and silica nanoparticles.”

S6: Hamid Ghandehari, Ph.D.

*USTAR Professor, Departments of Pharmaceutics &
Pharmaceutical Chemistry, and Bioengineering
Co-Director, Nano Institute of Utah
Director, Utah Center for Nanomedicine
University of Utah*

10:35 AM – 10:55 AM

BREAK

Symposium VI

Nanomedicine for emerging infections

Chair: Kendall J. Bryant, Ph.D.

*Director, HIV/AIDS Research
National Institutes of Health (NIH)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)*

Chair: Nazira El-Hage, Ph.D.

*Associate Professor
Department of Immunology and Nano-Medicine
Herbert Wertheim College of Medicine
Florida International University*

11:00 AM – 11:20 AM

“Nanomedicine for treating infectious disease that are prominent in third world countries.”

S1: Jessica L. Reynolds, Ph.D.

*Research Associate Professor Scientific Review Chair Associate
Director for Workforce Development- UB CTSA
Proposal Development Officer
Department of Medicine
University at Buffalo, The State University of New York*

11:20 AM – 11:40 AM

“Host-Virus Interaction in Zika Virus.”

S2: Sidappa Byrareddy, Ph.D.

*Associate Professor
Department of Pharmacology & Experimental Neuroscience
College of Medicine
University of Nebraska Medical Center*

11:40 AM – 12:00 PM

OPEN

S3:

12:00 PM – 12:20 PM

“Identifying Antiviral Therapies for the Treatment of Arboviral Infections.”

S4: Ashley N. Brown, Ph.D.

*Assistant Professor
Institute for Therapeutic Innovation*

*Department of Medicine
College of Medicine
University of Florida*

12:20- 1:20 PM

LUNCH

Symposium VII

Personalized Nano-Medicine in HIV and Drugs of Abuse

Chair: Anthony J. McGoron, Ph.D.

*Professor and Associate Dean
Department of Biomedical Engineering
College of Engineering and Computing*

Chair: OPEN

1:20 PM – 1:40 PM

“The dopamine transporter: An unrecognized nexus for dysfunctional peripheral immunity.”

S1: Habibeh Khoshbouei, Ph.D., PharmD

*Associate Professor
Department of Neuroscience
Center for Addiction Research and Education
University of Florida College of Medicine*

1:40 PM – 2:00 PM

“Involvement of IRF7 in modulation of the immune related genes by the addictive substances.”

S2: Sulie L. Chang, Ph.D.

*Professor
Department of Biological Sciences
Seton Hall University*

2:00 PM – 2:20 PM

“Organelar consequences of nanoparticles endocytosis.”

S3: Jonathan D. Geiger, Ph.D.

*Chester Fritz Distinguished Professor, Biomedical Sciences
University of North Dakota*

2:20 PM – 2:40 PM

“Polymeric Nano-formulations for delivery of drugs and neuroprotectants”

S4: Nagesh Kolishetti, Ph.D.

*Assistant Professor
Department of Immunology and Nano-Medicine
Florida International University
Herbert Wertheim College of Medicine*

Symposium VIII

Early Career Investigators in Nanomedicine

Chair: OPEN

Chair: Shilpa Buch, Ph.D.

*Professor and Vice Chair for Research
Director, NE Center for Substance Abuse Research
Community Pride of Nebraska Professorship of Neuroscience
Chair, Women's Mentoring Program
Department of Pharmacology and Experimental Neuroscience
University of Nebraska Medical Center*

2:40 PM – 2:55 PM

“Eradication of HIV-1 infection using MENPs bound therapy in the context of opioids in a murine model of HIV.”

S1: Umakant Sharma, Ph.D.

*Associate Scientist
Department of Surgery
University of Miami*

2:55 PM – 3:10 PM

“Multifunctional Nanotherapeutics for the Treatment of neuroAIDS in Drug Abusers.”

S2: Rahul Dev Jayant, Ph.D.

*Assistant Professor
Department of Pharmaceutical Sciences, School of Pharmacy
Texas Tech University Health Sciences Center (TTUHSC)*

3:10 PM – 3:25 PM

“Engineering of Nanodrugs as Therapeutic Agents for the Treatment of Biomedical Conditions.”

S3: Suzana Hamdan, Ph.D.

*Analytical Chemist/Materials Scientist
Postdoctoral Associate, Daunert Research Group Department of
Biochemistry & Molecular Biology
University of Miami Miller School of Medicine*

3:25 PM – 3:40 PM

“Nanoformulations targeting latent reservoirs in the brain for the HIV-1 treatment.”

S4: Purnima Gupta, Ph.D.

*Postdoctoral Research Associate
Department of Immunology and Nano-Medicine
Herbert Wertheim College of Medicine
Florida International University*

3:40 PM – 3:55 PM

“Nano-based Antiretroviral Drug Therapy for Targeting HIV-infected Macrophages and Microglia in the Central Nervous System (CNS).”

S5: Yuqing Gong, M.S.

*Graduate Student
Pharmaceutical Sciences
University of Tennessee Health Science Center*

3:55 PM – 4:10 PM

“Molecular Dynamics of amyloid- β protein binding with the potential neuroprotectant, Withaferin A.”

S6: Sneham Tiwari, M.S.

*Graduate Student
Department of Immunology and Nano-Medicine
Herbert Wertheim College of Medicine
Florida International University*

4:10 PM – 4:25 PM

Q & A Section

4:25 PM – 4:45 PM

Award Ceremony

4:45 PM – 4:50 PM

Closing Remarks