

MEETING ON ADVANCES AND CHALLENGES IN NANOMEDICINE

APRIL 12, 2021

EST – Eastern Standard Time
(Boston Time)

- 08:30-08:45 **A/V Check**
- 08:45-09:00 **Welcome Speech by Chair:**
Anu Puri, National Cancer Institute -Frederick, NIH, MD
- 09:00-09:30 **RNA-based Nanoparticles: How Size, Shape and Dynamics Affect their Functionality**
Bruce A. Shapiro, National Cancer Institute -Frederick, NIH, MD
- 09:30-10:00 **Understanding The Complexities of Nanomedicine Pharmacokinetic, Bioequivalence and Lot Drug Release Testing**
Stephan T. Stern, Frederick National Laboratory for Cancer Research, NIH, MD
- 10:00-10:30 **Clinical Applications of Magnetic Nanoparticles**
Quentin Pankhurst, University College London, United Kingdom
- 10:30-11:00 **Bio-Nanocomposites: Synthesis, Properties and Application**
Boguslaw Buszewski, Nicolaus Copernicus University, Poland

11:00-11:20 Break & Poster Session

- P1** **Metal-based Nanomaterials for Detection of Bio-hazards**
Sayani Mukherjee, IISER Thiruvananthapuram, India
- P2** **It is Time to Use Quantum Dots for Bio-Medical Applications: A Call to the Medical Community**
Grigory Liubchenko, University of Oxford, UK
- 11:20-11:45 **Gold Nanoparticle Mediated Radiation Response Among Key Cell Components of The Tumor Microenvironment for The Advancement of Cancer Nanotechnology**
Devika Chithrani, University of Victoria, Canada
- 11:45-12:10 **High-performance Manipulative Nanomedicine for Personalized Healthcare**
Ajeet Kaushik, Florida Polytechnic University, FL
- 12:10-12:35 **Non-ionic Based Vesicular Drug Carrier Production by a Supercritical CO₂ Assisted Process**
Lucia Baldino, University of Salerno, Italy
- 12:35-13:00 **Carbon Nanocapsules Toolkit for Cancer Diagnosis and Therapy**
Gil Gonçalves, University of Aveiro, Portugal

13:00-13:20 Break & Poster Session

- P3** **Antibacterial Study of Silver Nanoparticles Against Gram-positive and Gram-negative Bacteria**
Ntolia Anastasia, Aristotle University of Thessaloniki, Greece
- 13:20-13:40 **Effective Optical Ratiometric Microsensors for pH Mapping in Microenvironment of 3D *In Vitro* Systems**
Helena Luele, CNR NANOTEC Institute of Nanotechnology, Italy
- 13:40-13:55 **Supramolecular Magnetolipogels: A Co-assembly Strategy for On-demand Drug Release**
Sergio Veloso, University of Minho, Portugal
- 13:55-14:10 **Tailored Nanomedicines for Retinal Degeneration**
Ilaria Ottonelli, University of Modena and Reggio Emilia, Italy
- 14:10-14:25 **Engineering Nanoparticles to Penetrate Pulmonary Epithelial Monolayers**
Md Golam Jakaria, University of Rhode Island, RI