

**Program for NANOBIO Summit  
October 15-16, 2015  
University of Alabama at Birmingham (UAB)**

**Thursday - October 15<sup>th</sup>, 2015**

<b>UAB Alumni House</b>	
7:30 a.m. – Noon	Registered Guest Check-in
7:30 a.m. – 8:45 a.m.	Continental Breakfast
9:00 a.m.	Introductions –Yogesh Vohra Welcome Remarks by Dean Robert Palazzo, UAB Provost Linda Lucas and VP Dick Marchase
9:30 a.m. – 10:30 a.m.	Plenary Talk I – Session Chair – Dr. Yogesh K. Vohra <b>Dr. Charles Lieber, Harvard University</b> “Nanoelectronic Tools for Brain Science”
10:30 a.m. – 10:45 a.m.	Coffee Break
10:45 a.m. – 11:30 a.m.	Session I – Session Chair – Dr. Vladimir Parpura <b>Dr. Robert Haddon, University of California, Riverside</b> “Applications of Carbon Nanotubes in Biology and Medicine”
11:30 a.m. – 12:15 pm.	Contributed Talks – Session I <b>Dr. Daneesh Simien:</b> Sorting of Single Walled Carbon Nanotubes En Route to Exploring Nano-scale Molecular Cloaking in Hydrocarbon Based Structures <b>Manoj Gottipati:</b> Probing Astrocytes with Carbon Nanotubes and Assessing Their Effects on Astrocytic Structural and Functional Properties
<b>Abroms-Engel Institute for the Visual Arts</b>	
10:45 a.m. – 11:30 a.m.	Session II - Session Chair – Dr. Shree Singh <b>Dr. Shreekumar Pillai, Alabama State University</b> “Nanotechnology based approaches to counter antimicrobial resistance”
11:30 a.m. – 12:15 pm.	Contributed Talks – Session II <b>R. Jayachandra Babu:</b> Formulation of Genistein Nanoemulsion for Enhanced Transdermal Delivery <b>Sumit Arora:</b> Preclinical evaluation of chemopreventive efficacy of silver nanoparticles against ultraviolet radiation-induced skin carcinogenesis.
<b>UAB Alumni House</b>	
12:15 p.m. – 1:30 p.m.	Lunch
1:30 p.m. – 2:15 p.m.	Session III - Session Chair – Dr. Namasivayam Ambalavanan <b>Dr. William Gerthoffer, University of South Alabama</b> “Lipid nanoparticles in RNAi-based therapy of lung diseases”
2:15 p.m. – 3:00 p.m.	Contributed Talks – Session III <b>Dieudonné R Baganizi:</b> Functionalized Gold and Silver Nanoparticles inhibit Respiratory Syncytial Virus (RSV) <b>Budhwani, Karim I.:</b> Lab-On-a-Brane: A Novel Nanofluidics Biomimetic Platform for Pharmacokinetic Evaluation

Abroms-Engel Institute for the Visual Arts	
1:30 p.m. – 2:15 p.m.	Session IV - Session Chair – Dr. Robert D. Arnold <b>Dr. Aaron Catledge, University of Alabama at Birmingham</b> “Nanostructured Diamond for use in Biomedical Devices”
2:15 p.m. – 3:00 p.m.	Contributed Talks – Session IV <b>Muhammed S. Khan:</b> Hybrid Nanopore Biosensor: In Vitro Label-Free Electrochemical Detection of Epithelial Na <sup>+</sup> Channel  <b>Matthew Noor:</b> Comparing covalent and non-covalent lysozyme functionalized single-walled carbon nanotubes
3:00	<b>Poster setup</b> at Abroms-Engel Institute for the Visual Arts
3:30 p.m. – 5:00 p.m.	<b>Poster Session</b> – Session Chairs - Session Chairs – Dr. Ajay Singh and Dr. Yogesh Vohra
UAB Alumni House	
6:30 p.m.	Conference Banquet/Awards

### Friday - October 16, 2015

UAB Alumni House	
7:30 a.m. – 9 am	Registered Guest Check-in
7:30 a.m. – 8:45 a.m.	Continental Breakfast
9:00 a.m. – 10:00 a.m.	Plenary Talk II – Session Chair - Dr. Ho-Wook Jun <b>Dr. Paul Weiss, University of California, Los Angeles</b> “Nanoscience Approaches to Heterogeneity in Biological Systems”
10:00 a.m. – 10:15 a.m.	Coffee Break
10:15 a.m. – 11:00 a.m.	Session V – Session Chair – Dr. Mahesh Hosur <b>Dr. Sergey Sheiko, University of North Carolina Chapel Hill</b> “From superflexible molecules to supersoft and superelastic”
11:00 a.m. – 11:45 a.m.	Contributed Talks – Session V <b>Jun Chen:</b> Biocompatible Shaped Particles from Dried Multilayer Polymer Capsules  <b>Patrick Hwang:</b> The development of a bio-inspired hybrid nanosack for enhancing the efficacy of pancreatic islet transplantation in the omentum
Abroms-Engel Institute for the Visual Arts	
10:15 a.m. – 11:00 a.m.	Session VI - Session Chair – Dr. Patty Sobecky <b>Dr. Yuping Bao, The University of Alabama</b> “Nanomaterials – Biological Scaffolds”
11:00 a.m. – 11:45 a.m.	Contributed Talks – Session VI <b>Dr. Vinoy Thomas:</b> Drug eluting fibro-porous 3D tubular conduits for vascular graft applications  <b>Casey Durfey:</b> Incorporation of nanoparticles within mammalian spermatozoa using in vitro capacitation

UAB Alumni House	
11:45 a.m. – 1:00 p.m.	Lunch – UAB Alumni House
1:00 p.m. – 1:45 p.m.	Session VII – Session Chair – Dr. Eugenia Kharlampieva <b>Dr. Valeria Milam, Georgia Tech</b> “A faster, yet reliable non-SELEX screening approach to identify DNA aptamers for non-nucleotide targets”
1:45 p.m. – 2:30 pm	<b>Graduate/Undergraduate Presentations</b> <b>Seantel Hopkins:</b> Effects of Non-Aggregating Chemically Functionalized Carbon Nanotubes on the Morphology of Astrocytes and D54 Human Glioma Cells  <b>Chemar Huntley:</b> The Influence of Strong Acid Hydrolyses on the Crystal Structure and Thermal Stability of Cellulose Fibers  <b>Ejovwoke Dosunmu:</b> The antimicrobial and transcriptional effect of AgCNTs on Pseudomonas aeruginosa
2:30 p.m.	Conclusion