

Scientific Sessions, Saturday, November 16, 2013

1A Bioinformatics I

Location: Manning

Session Chairs: **Michael Bauer, Ph.D.**, University of Arkansas for Medical Sciences

Eric C. Rouchka, D.Sc., University of Louisville

- 10:30 AM **Highlight Speaker, Michael Bauer, Ph.D.**, University of Arkansas for Medical Sciences, *Leveraging the Old with the New: Integration of Historic Microarray Studies with Next Gen Sequencing for Multiple Myeloma*
- 11:00 AM **David Crossley**, Alcorn State University, *Characterizing the Function of the M46 Gene in the Pathogenic Fungus *Histoplasma capsulatum**
- 11:15 AM **Sarah M. Schrader**, Western Kentucky University, *Bioinformatic Analysis of Mycobacteriophage TiroTheta9*
- 11:30 AM **Devaun McFarland**, University of South Carolina, *Utility of msTALI in Protein Active Site Identification*
- 11:45 AM **Erich Peterson**, University of Arkansas for Medical Sciences, *Variant Consensus Reporter: Increasing the Confidence of Variants in Whole Exome Sequencing via a Consensus Approach*

1B Cancer I

Location: Salon A

Session Chairs: **Scott Weed, Ph.D.**, West Virginia University

Lori Hensley, Ph.D., Ouachita Baptist University, Arkansas

- 10:30 AM **Highlight Speaker, Seetharama Satyanarayanajois, Ph.D.**, University of Louisiana at Monroe, *EGFR heterodimerization: Dynamics, docking and inhibition of signaling for breast, lung and ovarian cancer*
- 11:00 AM **Stuart Grimes**, Clemson University, *Nanoparticle Delivery of Non-Toxic Drugs to Enhance the Efficacy of Chemotherapeutic Drugs*
- 11:15 AM **Greg Phelps**, Arkansas State University, *Effects of Ionizing Radiation on Guanine Triphosphate Cyclohydrolase 1 Activity*
- 11:30 AM **Lori L. Hensley, Ph.D.**, Ouachita Baptist University, *Antitumor effects of the synthetic cannabinoid ajulemic acid on Ewing's sarcoma*
- 11:45 AM **Donald J. Johann, Jr., Ph.D.**, University of Arkansas for Medical Sciences, *Towards computer assisted laser microdissection*

1C Cardiovascular Research

Location: Arkansas Ballroom

Session Chairs: **Daniel R. Kapusta, Ph.D.**, Louisiana State University

Dakota Pouncey, Hendrix College

- 10:30 AM **Highlight Speaker, Minolfa C. Prieto, M.D., Ph.D.**, Tulane University, School of Medicine, *Deletion of prorenin receptor in the collecting duct attenuates blood pressure in angiotensin II hypertensive mice*
- 11:00 AM **Dakota Pouncey**, Hendrix College, *Identifying Potential R/S-Warfarin Metabolite Biomarkers to Improve Anticoagulant Dosing Strategies in Children*
- 11:15 AM **Rachel N Stamp-Siegfried**, University of Arkansas for Medical Sciences, College of Medicine, *Effects of Daily Kangaroo Care on Cardiorespiratory Parameters in Preterm Infants*
- 11:30 AM **Sarah Bishop**, Ouachita Baptist University, *Protective effects of aqueous extract of Terminalia arjuna bark against doxorubicin-induced cardiotoxicity*
- 11:45 AM **Nalini Santanam, Ph.D., MPH**, Joan C. Edwards School of Medicine, Marshall University, *Perivascular Fat Relation to Hypertension and Coronary Artery Disease*

1D Cell Signalling

Location: Hoffman

Session Chairs: **Emilia Galperin, Ph.D.**, University of Kentucky

Helen Beneš, Ph.D., University of Arkansas for Medical Sciences

- 10:30 AM **Highlight Speaker, Guo-Lei Zhou, Ph.D.**, Arkansas State University, GSK3 phosphorylates the actin regulatory protein CAP1 to control the actin cytoskeleton and cell polarization
- 11:00 AM **Timothy M. Horton**, Ouachita Baptist University, Inhibiting recognition of the B-cell receptor by the tyrosine kinase Syk
- 11:15 AM **James A. Stahl**, University of Arkansas for Medical Sciences, Global phosphoproteomic analyses define host signaling networks usurped for gammaherpesvirus replication
- 11:30 AM **Jeffrey Sifford**, University of Arkansas for Medical Sciences, Productive MHV68 infection compromises the cellular p53 signaling pathway
- 11:45 AM **Emilia Galperin**, University of Kentucky, HUWE1 is a molecular link controlling RAF-1 activity supported by the Shoc2 scaffold

2A General Biomedical Sciences

Location: Hoffman

Session Chairs: **Angus MacNicol, Ph.D.**, University of Arkansas for Medical Sciences
Stephanie Byrum, Ph.D., University of Arkansas for Medical Sciences

- 2:45 PM **Highlight Speaker, Jeffrey Anker, Ph.D.**, Clemson University, *Luminescent sensing and imaging through tissue*
- 3:15 PM **Angus MacNicol, Ph.D.**, University of Arkansas for Medical Sciences, *A Novel Bioassay to Identify Chemical Regulators of Stem Cell Self-Renewal*
- 3:30 PM **Dustin Walter**, Ouachita Baptist University, *A Radial Diffusion Assay for the Rapid Evaluation of Antimicrobial Peptides*
- 3:45 PM **Ameya S Gokhale**, University of Louisiana Monroe, *Surface epitopes of CD2 protein to inhibit CD2-CD58 protein-protein interaction as therapeutic agent for arthritis*
- 4:00 PM **Stephanie Byrum, Ph.D.**, University of Arkansas for Medical Sciences, *Purification of a Specific Native Genomic Locus for Proteomic Analysis*

2B Infectious Disease/Immunology I

Location: Manning

Session Chairs: **Gus Konsoulas, Ph.D.**, Louisiana State University
Karl Boehme, Ph.D., University of Arkansas for Medical Sciences

- 2:45 PM **Highlight Speaker, Sanjay Batra, Ph.D.**, Louisiana State University, *Lipid rafts influence the formation of immunoproteasomes via RIP2/NLR pathway against Klebsiella pneumoniae*
- 3:15 PM **Carrie S. Yang**, Hendrix College, *Ibrutinib, a potential treatment for chronic Graft versus Host Disease inhibits T-helper 17 activation and release of IL-17A*
- 3:30 PM **Eduardo Salinas**, University of Arkansas for Medical Sciences, *Enhancement of Gammaherpesvirus Productive Infection by TRIM21 as Revealed through a Proteomics-based LANA Interaction Screen*
- 3:45 PM **Yun Xiang**, Clemson University, *A quantitative evaluation of the binding affinity between antibody decorated liposomes and the antigen using SPR*
- 4:00 PM **Logan Blancett**, The University of Southern Mississippi, *Characterization of the nitrogen regulatory protein AREA in the dimorphic fungus Histoplasma capsulatum*

2C Neuroscience

Location: Salon A

Session Chairs: **Robert Doerksen, Ph.D.**, University of Mississippi

Melanie MacNicol, Ph.D., University of Arkansas for Medical Sciences

- 2:45 PM **Highlight Speaker, Melanie C. MacNicol, Ph.D.**, University of Arkansas for Medical Science, *Control of neural stem cell differentiation and survival through manipulation of Musashi-mediated mRNA translation*
- 3:15 PM **Mahmoud Kiaei, Ph.D.**, University of Arkansas for Medical Sciences, *Nrf2 Activation as novel therapeutic strategy for ALS and its Neuroprotective Mechanisms in Astrocytes and Motor Neurons*
- 3:30 PM **Miki S. Lindsey**, University of Central Arkansas, *Calpain Inhibition Blocks Tributyltin Induced Neurodegeneration*
- 3:45 PM **Pankaj Pandey**, University of Mississippi, *Utilizing the ensemble docking method for ranking and selection of representative cannabinoid receptor subtype 2 (CB2) models*
- 4:00 PM **Julie Stenken, Ph.D.**, University of Arkansas, *Microdialysis Sampling of Cytokine Cell Signaling Proteins in Neuroscience and Wound Healing Applications*

2D Undergraduate Research

Location: Arkansas Ballroom

Session Chairs: **Marty Perry, Ph.D.**, Ouachita Baptist University, Arkansas

Tim Horton, Ouachita Baptist University, Arkansas

- 2:45 PM **John Butler and Kirby Von Edwins**, Cell Signalling, Ouachita Baptist University, *A Comparative Genomics Approach to Link Plant and Animal Oxidative Stress Signaling Pathways*
- 3:15 PM **Jennifer Greene**, General Biomedical Sciences, University of Charleston, WV, *Analysis of polymeric gels for the transdermal delivery of capsaicin for the treatment of chronic low back pain*
- 3:30 PM **Amy Ni**, Neuroscience, Western Kentucky University, *Time-course of effects of growth hormone (GH) and GH antagonist on auditory hair cell regeneration in zebra fish (Danio rerio)*
- 3:45 PM **Boyang Piao**, Infectious Disease/Immunology, Louisiana State University, *Understanding the mucus production of a human respiratory paramyxovirus infection (ID24)*
- 4:00 PM **Franshawn Mack**, Cancer, South Carolina State University, *Evaluating the Reliability of the ARTQ in Assessing Cancer Clinical Trial Perceptions in a Predominantly Black Sample in SC*

Scientific Sessions, Sunday, November 17, 2013

3A Bioinformatics II

Location: Hoffman

Session Chairs: **Glen Shearer, Ph.D.**, University of Southern Mississippi

Somdutta Saha, University of Arkansas for Medical Sciences

- 10:00 AM **C. Stephen Embry**, University of Arkansas at Little Rock/University of Arkansas for Medical Sciences, *NeedleAnalyzer: A Data Analysis Tool for LCMS-Based Untargeted Metabolomics Data*
- 10:15 AM **Arjang Fahim**, University of South Carolina, *nDh-PDPA: n-Dimensional Hybrid Probability Density Profile Analysis*
- 10:30 AM **Somdutta Saha**, University of Arkansas for Medical Sciences/University of Arkansas at Little Rock, *Defining the Recognition Elements of Lewis Y-Reactive Antibodies*
- 10:45 AM **Katelyn Robillard**, Southeastern Louisiana University, *Investigation of the Mechanism of Apparent HPLC Solvent Interference with an Avidin-Binding Assay*
- 11:00 AM **Mihir Jaiswal**, University of Arkansas Little Rock/University of Arkansas for Medical Sciences, *XLPM: X-linked Peptide Mapping Algorithm*
- 11:15 AM **Nathan Crabtree**, University of Arkansas Little Rock/University of Arkansas for Medical Sciences, *Adapting a computational evolution system to the analysis of RNA-Seq treatment/response differential gene expression data*

3B Cancer II

Location: Salon A

Session Chairs: **Karen Martin, Ph.D.**, West Virginia University

Joshua Sakon, Ph.D., University of Arkansas

- 10:00 AM **Highlight Speaker, Jorge I. Rodriguez-Dévora, Ph.D.**, Clemson University, *Miniaturized Bioprinting Platform for Personalized Cancer Therapy*
- 10:30 AM **Scott A. Weed**, West Virginia University, *Monitoring changes in cervical lymph nodes by high-frequency ultrasound in a 4-NQO mouse model of oral cancer*
- 10:45 AM **Laura Strossner**, Ouachita Baptist University, *Creating Model Systems to Study the Effects of Ajulemic Acid on Solid Pediatric Tumors*
- 11:00 AM **Shweta Chavan, Ph.D.**, University of Arkansas for Medical Sciences, *Profiling Multiple Myeloma Engraftment Phenomena via an in-vivo SCID Mouse Model and RNA-seq*
- 11:15 AM **Joshua Sakon, Ph.D.**, University of Arkansas, *Targeting mechanism of prototypical collagen binding domains from clostridial collagenase*

3C Infectious Disease/Immunology II

Location: Manning

Session Chairs: **Mark Smeltzer, Ph.D.**, University of Arkansas for the Medical Sciences
Ahmad Saied, Louisiana State University

- 10:00 AM **Highlight Speaker, Antonieta Guerrero-Plata, Ph.D.**, Louisiana State University, *Type III interferon response by respiratory paramyxovirus infection*
- 10:30 AM **Jason S. Stumhofer**, University of Arkansas for the Medical Sciences, *ICOS-mediated Tfh cell differentiation during Plasmodium chabaudi infection*
- 10:45 AM **Ahmad Saied**, Louisiana State University, *Functional Hierarchy of HSV-1 Membrane Proteins in Corneal Infection and Virus Transmission to Ganglionic Neurons*
- 11:00 AM **Brent Stanfield**, Louisiana State University, *Vaccination with the HSV-1 Attenuated Virus VC2 Protects Mice against Lethal Challenge with Virulent HSV-1 and HSV-2 strains*
- 11:15 AM **Gyan S. Sahukhal**, University of Southern Mississippi, *Defining a New Operon, msa, and its Role in Biofilm Development and Virulence*