

SfRBM 2017 • Oral Presentation Schedule • Baltimore, MD

DAY 1: THURSDAY, NOVEMBER 30, 2017

SESSION 1 Aging / Oxidative Damage and Detection

Chairs:

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|-------------------|--------------------------------|---|
| 2:30 pm - 2:50 pm | Marta Bueno | University of Pittsburgh | PINK1 deficiency in AECII triggers release of mitochondrial DAMPS that initiate pro-inflammatory and pro-fibrotic responses |
| 2:50 pm - 3:10 pm | Caspar Schiffrers | University of Vermont | Progressive loss of dual oxidase 1 (DUOX1) contributes to impaired airway epithelial wound responses in the aging lung |
| 3:10 pm - 3:30 pm | Gregory Buchan | University of Pittsburgh | Using electrophilic fatty acid derivatives to tame host-induced lung injury during influenza infection |
| 3:30 pm - 3:50 pm | Ben-Zhan Zhu | Chinese Academy of Sciences | Site-specific Production of Hydroxyl Radicals and Synergistic DNA Damage Induced by the Non-enzymatic Activation of the |
| 3:50 pm - 4:10 pm | Hideo Utsumi | University of Shizuoka - Japan | Development and Clinical Trial of Novel Field-cycling DNP-MRI for Free Radical Imaging |

SESSION 2 Antioxidants and Antioxidant Enzymes

Chairs:

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|----------------------|---------------------------------------|--|
| 2:30 pm - 2:50 pm | Katelyn Dunigan | University of Alabama at Birmingham | The Thioredoxin Reductase Inhibitor Auranofin Induces Heme Oxygenase-1 in Lung Epithelial Cells Via Nrf2-dependent Mec |
| 2:50 pm - 3:10 pm | Shashank Shrishrimal | University of Nebraska Medical Center | MnTE-2-PyP (T2E) protects the prostate from radiation-induced fibrosis (RIF) |
| 3:10 pm - 3:30 pm | Yoshimitsu Yura | Boston University | Differential regulation of ischemic limb vascularization and tumor growth by endothelial glutaredoxin-1 |
| 3:30 pm - 3:50 pm | Ying Chen | Yale University | Differential Redox Changes in Liver Mitochondrial Proteomes from Phenotypically Distinct Mouse Models of Glutathione Def |
| 3:50 pm - 4:10 pm | John Skoko | University of Pittsburgh | Redox Regulation of RAD51 and Homologous Recombination by Peroxiredoxin 1 and Electrophilic Nitro-fatty Acids |

SESSION 3 Neuroscience / Genetics

Chairs:

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|-----------------|--|--|
| 2:30 pm - 2:50 pm | William Reid | NIH | NADPH Oxidase-4 (Nox4) Mediated Nitration of Striatal Axonal Neurofilaments and a Dysregulation in Redox Adaptation are |
| 2:50 pm - 3:10 pm | Penghua Yang | University of Maryland | Dnmt3a conditional deletion in neuroepithelium restores maternal diabetes-suppressed neural tube closure essential genes |
| 3:10 pm - 3:30 pm | Yanying Huo | Rutgers Cancer Institute of New Jersey | PALB2 Synergizes with ATG7 to Suppress Neurodegeneration |
| 3:30 pm - 3:50 pm | Ted Piorczynski | Brigham Young University | Inhibition of valproic acid-induced neural tube defects through Nrf2 signaling |
| 3:50 pm - 4:10 pm | Daoyin Dong | University of Maryland | Oxidative stress-induced miR-27a targets the redox gene Nrf2 in diabetic embryopathy |

DAY 2: FRIDAY, DECEMBER 1, 2017

SESSION 4 Cancer

Chairs:

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|--------------------|---------------------------------------|---|
| 2:30 pm - 2:50 pm | Jos van der Velden | University of Vermont | GSTP1-catalyzed PKM2 S-Glutathionylation regulates glycolysis in Non-small cell lung cancer and is attenuated with a clinic |
| 2:50 pm - 3:10 pm | Chen Shan Woodcock | University of Pittsburgh | Selective Inhibition of Triple Negative Breast Cancer Cell Mobility and Viability by Nitro-Oleic Acid |
| 3:10 pm - 3:30 pm | Dong-Hui Shin | Penn State University | Mitochondrial function is dynamically regulated during ovarian cancer progression through alterations in fusion/fission. |
| 3:30 pm - 3:50 pm | Kelly Falls | University of Iowa | Disulfiram causes selective hypoxic cancer cell toxicity and radio-chemo-sensitization via redox cycling of copper and O2-- |
| 3:50 pm - 4:10 pm | Brandon Griess | University of Nebraska Medical Center | MnTE-2-PyP Inhibits Stat6 Activation and Reprograms Pro-Tumor M2 Macrophages to Anti-Tumor M1 |

SESSION 5 Cardiovascular Disease

Chairs:

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|------------------|-------------------------------------|---|
| 2:30 pm - 2:50 pm | Stephen Chelko | Johns Hopkins University | Altered Thioredoxin-AIF Crosstalk Underlies Exercise-induced Cardiac Cell Death in Arrhythmogenic Cardiomyopathy |
| 2:50 pm - 3:10 pm | Matthew Whiteman | University of Exeter | Mitochondria-targeted hydrogen sulfide (H2S), but not untargeted H2S, reverses ventricular arrhythmia at reperfusion. |
| 3:10 pm - 3:30 pm | Justin Quiles | University of Alabama at Birmingham | Transcriptomic sequencing reveals a biosignature for myocardial reductive stress |
| 3:30 pm - 3:50 pm | Dario Vitturi | University of Pittsburgh | Role for nitro-conjugated linoleic acid and cGMP in nitrite-mediated neuroprotection in out-of-hospital cardiac arrest. |
| 3:50 pm - 4:10 pm | Gizem Keceli | Johns Hopkins University | Mitochondrial creatine kinase counters ROS emission in failing hearts |

SESSION 6 Signal Transduction & Redox Signaling

Chairs:

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|-----------------------|----------------------------|---|
| 2:30 pm - 2:50 pm | Adam Trewin | University of Rochester | Mitochondrial membrane sidedness dependent effects of ROS generation in the complex-II microdomain using optogenetics |
| 2:50 pm - 3:10 pm | Kimberly Dunham-Snary | Queen's University | Oxygen-sensing in the lung is regulated by mitochondrial Complex I Ndufs2: Role of mitochondria-derived hydrogen peroxid |
| 3:10 pm - 3:30 pm | Douglas Ganini | NIEHS/NIH | Switch of mitochondrial superoxide dismutase (SOD2) into a prooxidant peroxidase in manganese-deficient cells and mice |
| 3:30 pm - 3:50 pm | Benoit Boivin | SUNY Polytechnic Institute | Protein-Protein Interactions Control PTP1B Oxidation and Activation |
| 3:50 pm - 4:10 pm | Artak Tovmasyan | Duke University | Protection of rat prostate and erectile function from radiation-induced damage by novel Mn(III) N- substituted pyridylporphyr |

DAY 3: SATURDAY, DECEMBER 2, 2017**SESSION 7 Metabolism and Bioenergetics**[Chairs:](#)

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|---------------------|---------------------------------|---|
| 2:30 pm - 2:50 pm | Joshua Lewis | Georgia Institute of Technology | Genome-scale modeling of NADPH metabolism in radiation-resistant head and neck squamous cell carcinoma patients |
| 2:50 pm - 3:10 pm | Paul Brookes | University of Rochester | Direct stimulation of glycolysis accounts for cellular metabolic benefits of the NAD ⁺ precursor nicotinamide mononucleotide |
| 3:10 pm - 3:30 pm | Danielle Guimaraes | University of Pittsburgh | Nitrite differentially activates cGMP versus cAMP dependent on oxygen tension to regulate mitochondrial function |
| 3:30 pm - 3:50 pm | Hongwei Yao | Brown University | Role of fatty acid oxidation in hyperoxia-induced apoptosis in neonatal lung endothelial cells: implications for lung injury and |
| 3:50 pm - 4:10 pm | Visarut Buranasudja | University of Iowa | DNA damage and energy crisis are central in the mechanism for the cytotoxicity of pharmacological ascorbate in cancer trea |

SESSION 8 Diabetes / Metabolic Syndrome[Chairs:](#)

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|-----------------|---|---|
| 2:30 pm - 2:50 pm | Vivek Pandey | CSIR-Indian Institute of Toxicology Research | Morin prevents ER stress mediated hepatotoxicity by modulating PERK-eIF2 α -ATF4 axis in diabetic male Wistar rats |
| 2:50 pm - 3:10 pm | Alpana Mathur | CSIR- Indian Institute Of Toxicology Research | Regulation of β -TrCP mediated Nrf2 degradation by GSK3 β during hyperglycemic renal toxicity |
| 3:10 pm - 3:30 pm | Dario Ramirez | IMIBIO-SL, CCT-SAN LUIS, CONICET-UNSL | Pre-fibrotic status in the lung of a mouse model of metabolic syndrome: implication of oxidative stress and inflammation |
| 3:30 pm - 3:50 pm | Nicholas Khoo | University of Pittsburgh | Nitro-oleic acid protects mice from diet-induced hepatic steatosis and insulin resistance without the adverse side effects of t |
| 3:50 pm - 4:10 pm | Nicholas Buglak | University of North Carolina - Chapel Hill | Cinnamic Aldehyde as a Potential Therapeutic for Preventing Neointimal Hyperplasia in Diabetes |

SESSION 9 Inflammation and Immunity[Chairs:](#)

| TIME | PRESENTER | AFFILIATION | ABSTRACT TITLE |
|-------------------|---------------------------|------------------------|---|
| 2:30 pm - 2:50 pm | Jose Pablo Vazquez-Medina | UC Berkeley | Genetic inactivation of the phospholipase A2 activity of Prdx6 ameliorates sepsis-induced acute lung injury |
| 2:50 pm - 3:10 pm | Eva Grayck | University of Colorado | The SOD3 R213G polymorphism promotes resolution of innate immune activation and blocks induction of miR29b in bleomy |
| 3:10 pm - 3:30 pm | Christopher Dustin | University of Vermont | Airway Epithelial IL-33 Secretion and Feedback Signaling is Associated with Redox Activation of Src Kinase |
| 3:30 pm - 3:50 pm | Stephen Thom | University of Maryland | Opioid-mediated neutrophil microparticle production and NLRP3 inflammasome activation cause vascular damage |
| 3:50 pm - 4:10 pm | Kevin Downs | UT Health San Antonio | Glutaredoxin 1 Deficiency Causes Late-Age Onset Metabolic Disease in Female C57BL/6 Mice, Associated with Monocyte ϵ |