

SFRBM 2011 • Oral Presentation Schedule • Atlanta, GA

OPENING GENERAL SESSION: WEDNESDAY, NOVEMBER 16, 2011

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
5:40 pm - 6:00 pm	Brian Sansbury	University of Louisville	Nitric oxide prevents diet-induced obesity by regulating adipose tissue phenotype
6:00 pm - 6:20 pm	Ivan Low	National University of Singapore	Superoxide promotes chemoresistance via the selective inhibitory tyrosine nitration of protein phosphatase 2A-B56 subunit and the accumulation of activated S70-phosph
6:20 pm - 6:40 pm	Oleksandra Pryszczyna	King's College London	Cys42Ser substitution in murine protein kinase G 1alpha eliminates oxidant sensing to cause hypertension
6:40 pm - 7:00 pm	Nikolai Chepelev	Carleton University	SFRBM Mini-Fellowship Research Presentation

DAY 1: THURSDAY, NOVEMBER 17, 2011

SESSION 1 TITLE Angiogenesis and Vascular Pathology

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Hitesh Peshavariya	O'Brien Institute - Australia	REGULATION OF ANGIOGENESIS BY TRANSFORMING GROWTH FACTOR- B IN VITRO AND IN VIVO INVOLVES NADPH OXIDASE 4
2:50 pm - 3:10 pm	Xiaoyong Tong	Boston University	The Role of Endothelial Nox4 in Angiogenesis.
3:10 pm - 3:30 pm	Olena Rudyk	King's College London	Oxidation-induced activation of PKG 1alpha contributes to nitroglycerin-induced vasorelaxation
3:30 pm - 3:50 pm	María de Ujue Moreno	University of Navarra - Spain	Contrasting Regulation of NOX4 versus NOX2 in Patients with Aortic Stenosis
3:50 pm - 4:10 pm	Rajasekaran Soorappan	University of Utah	Reductive Stress: A Paradigm Change in Protein Aggregation/Proteotoxic Cardiac Disease
4:10 pm - 4:30 pm	Govindasamy Ilangovan	The Ohio State University	HSF-1 Deletion Induces Multidrug Resistance (MDR1) Gene Expression in the Heart and Reduces Doxorubicin-induced Heart Failure

SESSION 2 TITLE Free Radicals and Oxidative Stress

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Tracey Kajer	Heart Research Institute - Australia	Myeloperoxidase-Derived Oxidant Production and Biological Damage are Inhibited by Acetaminophen (Paracetamol) at Pharmacologically-Relevant Levels
2:50 pm - 3:10 pm	Karim Michail	University of Alberta - Canada	HPLC determination of 5,5-dimethyl-1-pyrroline N-oxide free radical-derived adducts after derivatization of the electron paramagnetic resonance-silent species: Application
3:10 pm - 3:30 pm	Huiyong Yin	Shanghai Institute for Nutritional Sciences	FORMATION OF 4-HYDROXYNONENAL AND OTHER LIPID ELECTROPHILES FROM FREE RADICAL OXIDATION OF MITOCHONDRIAL CARDIOLIPIN: A LIPIDOMI
3:30 pm - 3:50 pm	Steven Qian	North Dakota State University	Different free radical mechanisms in COX-catalyzed peroxidation of arachidonic acid vs. dihomogamma-linolenic acid may correspond to their contrasting bioactivity
3:50 pm - 4:10 pm	Kathryn Fife	National Jewish Health	Forced running elicits arthritis and oxidative stress in antioxidant impaired mice
4:10 pm - 4:30 pm	Fernando Antunes	University of Lisbon - Portugal	Kinetic Modeling of Reactive Oxygen Species in the Ancient Ocean: The Evolutionary Origin of Oxidative Stress

SESSION 3 TITLE Mitochondrial Oxidative Targets

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	David Marcinek	University of Washington	Reduced In Vivo Coupling of Oxidative Phosphorylation is an Early Marker of Oxidant-Induced Mitochondrial Toxicity
2:50 pm - 3:10 pm	Ruslan Rafikov	Georgia Health Sciences University	Nitration mediated activation of Akt involved in endothelial nitric oxide synthase (eNOS) mitochondria translocation
3:10 pm - 3:30 pm	Joshua Jabaut	SUNY Plattsburgh	Mitochondrial ROS induce NLRP3 S-glutathionylation in SAA-stimulated macrophages
3:30 pm - 3:50 pm	Adam Salmon	University of Texas Health Science Center at San Antonio	Mitochondria-generated oxidative stress is altered by subcellular localization of MsrA overexpression
3:50 pm - 4:10 pm	Ellen Robb	Brock University - Canada	Strogen receptors and the mitochondrial antioxidant enzyme manganese superoxide dismutase are two key players in the cellular activities of phytoestrogens.
4:10 pm - 4:30 pm	Sergey Dikalov	Vanderbilt University	Crosstalk between Mitochondrial ROS and NADPH Oxidases in Cardiovascular and Degenerative Diseases: Application of Mitochondria-Targeted Antioxidants

DAY 2: FRIDAY, NOVEMBER 18, 2011

SESSION 4 TITLE Antioxidants & Therapeutics

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Christian Schoneich	University of Kansas	Novel radical reactions of glutathione
2:50 pm - 3:10 pm	Remy Kachadourian	National Jewish Health	A new synthetic chalcone derivative is a potent inducer of glutathione synthesis
3:10 pm - 3:30 pm	Aldwin Suryo Rahmanto	Heart Research Institute - Australia	Selenomethionine is a catalytic scavenger of reactive peroxides: potential antioxidant benefits in atherosclerosis.
3:30 pm - 3:50 pm	Steen Vang Petersen	University of Aarhus - Denmark	Proteolytic processing of extracellular superoxide dismutase (EC-SOD) is redox regulated
3:50 pm - 4:10 pm	Timothy Rhoads	Oregon State University	Factors affecting the stability of zinc-deficient SOD from transgenic mouse spinal cord
4:10 pm - 4:30 pm	Zrinka Rajic	University of Zagreb - Croatia	A breakthrough in the development of SOD mimics/cellular redox modulators: a superior Mn porphyrin, MnTnBuOE-2-PyP5+ with finely tuned properties

SESSION 5 TITLE Neuroscience

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Anumantha Kanthasamy	Iowa State University	Anti-neuroinflammatory Effect of a Novel Compound Mito-apocynin in a Mouse Model of Parkinson's Disease
2:50 pm - 3:10 pm	Allan Butterfield	University of Kentucky	Proteomic Analysis of Brain from an Alzheimer Disease Transgenic Mouse Model with a Third Mutation in Amyloid Precursor Protein (M631L): In Vivo Effects of the Single A
3:10 pm - 3:30 pm	Shi-han Wang	The University of Iowa	Parkin-Dependent Mitophagy (Parkin-M) and Mitochondrial Outer Membrane Permeabilization-Induced Mitophagy (MOMP-M) Both Alter Cellular REDOX and Energetics b
3:30 pm - 3:50 pm	Kristen Ryan	University of Colorado - Denver	Cationylation and inhibition of mitochondrial complex I during kainate-induced epileptogenesis
3:50 pm - 4:10 pm	Shane Rowley	University of Colorado - Denver	Reliable in vivo measurement of mitochondrial bioenergetics in animal models of temporal lobe epilepsy.
4:10 pm - 4:30 pm	Arunabh Bhattacharya	University of Texas Health Science Center at San Antonio	Disruption of the 12/15-lipoxygenase gene (Alox15) protects against denervation-induced muscle atrophy

SESSION 6 TITLE Pulmonary Biology and Disease

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Maneesh Kumar	The University of Iowa	Redox Sensitivity of microRNA-302 regulation of CCL5 expression
2:50 pm - 3:10 pm	Trent Tipple	Nationwide Children's Hospital	Knockdown of Thioredoxin-1 Attenuates Hypoxia-induced Pulmonary Artery Smooth Muscle Cell Proliferation
3:10 pm - 3:30 pm	Reiko Matsui	Boston University	Glutaredoxin-1 regulates LPS-induced Interleukin-33 in mouse macrophages
3:30 pm - 3:50 pm	David Goldstrohm	National Jewish Health	Mechanisms by which the EC-SOD R213G SNP reduces the risk for lung disease
3:50 pm - 4:10 pm	Olga Rafikova	Georgia Health Sciences University	Role of epidermal growth factor receptor autophosphorylation in pulmonary hypertension development
4:10 pm - 4:30 pm	Marta Bueno	University of Pittsburgh	ER-stress drives the increased susceptibility to lung fibrosis in aging individuals through a ROS-mediated mechanism

DAY 3: SATURDAY, NOVEMBER 19, 2011

SESSION 7			
TITLE			
Chairs:			
TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Frank Meyskens	University of California - Irvine	Neuronal nitric oxide synthase (nNOS)/NO, an accelerator of melanoma progression, is a potential target for chemoprevention
2:50 pm - 3:10 pm	Rinesh Godfrey	Friedrich Schiller University of Jena - Germany	FLT3-ITD mediated transformation in Acute Myeloid Leukemia involves oxidation of the FLT3 antagonist PTP, DEP-1: A novel redox circuit in cancer cells
3:10 pm - 3:30 pm	Delira Robbins	LSU Health Sciences Center - Shreveport	Targeting metabolic enzymes in cancer prevention: Reciprocal regulation of isoforms of pyruvate kinase and isocitrate dehydrogenase in the early stage of cancer development
3:30 pm - 3:50 pm	Mariana Boiani	Vanderbilt University	The stress protein BAG3 stabilizes Mcl-1 and promotes cancer survival and chemoresistance
3:50 pm - 4:10 pm	Gaowei Mao	The University of Iowa	Siirtuin 3-/- thymocytes demonstrate increased levels of superoxide, a diminished radiation-induced adaptive response, and accelerated Bax-induced thymic lymphoma in T
4:10 pm - 4:30 pm	Sumitra Miriyala	University of Kentucky	4-hydroxy-2-nonenal mediates AIFm2 release from mitochondria: An insight into the mechanism of oxidative stress mediated retrograde signaling
SESSION 8			
TITLE			
Chairs:			
TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Marsha Cole	University of Louisville	Co-Administration of Nitrite and Conjugated Linoleic Acid Attenuates Cardiac Dysfunction in Leptin Deficient Mice
2:50 pm - 3:10 pm	Kristofer Fritz	University of Colorado - Denver	Mitochondrial Acetyloxy Analysis in a Mouse Model of Alcohol-Induced Liver Injury Utilizing SIRT3 Knockout Mice
3:10 pm - 3:30 pm	Prasenjit Manna	LSU Health Sciences Center - Shreveport	HYDROGEN SULFIDE AND L-CYSTEINE INCREASE PIP3 AND GLUCOSE UTILIZATION BY INHIBITING PTEN AND ACTIVATING PI3K/AKT/ PKC IN 3T3L1 ADIPOCYTES
3:30 pm - 3:50 pm	Lucia Bonilla Cal	University of the Republic - Uruguay	Enzymatic formation of nitroarachidonic acid and its signaling modulatory actions on human platelet activation
3:50 pm - 4:10 pm	Saurabh Chatterjee	NIEHS/NIH	Leptin is key to macrophage-dependent free radical formation in CCl4-induced exacerbation of steatohepatitis of obesity
4:10 pm - 4:30 pm	Hagir Suliman	Duke University Medical Center	Heme Oxygenase 1 Promotes Murine Stem Cell Differentiation into Beating Cardiomyocytes
SESSION 9			
TITLE			
Chairs:			
TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Ann English	Concordia University - Canada	Nitroglycerin activation by GAPDH has implications in erythrocyte-mediated vasodilation and nitrate tolerance
2:50 pm - 3:10 pm	Katarzyna Broniowska	Medical College of Wisconsin	Cytochrome c-mediated formation of S-nitrosothiol in cells
3:10 pm - 3:30 pm	Miriam Cortese-Krott	Heinrich Heine University of Dusseldorf - Germany	Decreased expression and activity of red cell eNOS correlate with endothelial dysfunction in humans.
3:30 pm - 3:50 pm	Christelle Kamga	University of Pittsburgh	Nitrite Mediates Cytoprotection after Ischemia/Reperfusion through the production of mitochondrial ROS and activation of AMP Kinase in Cultured Myocytes
3:50 pm - 4:10 pm	Yue-Ting Wang	University of Illinois - Chicago	Quantitative proteomic analysis of protein cysteine modification in response to NO donors using d-Switch
4:10 pm - 4:30 pm	Maria Franco	University of Central Florida	Nitrated Hsp90 induces apoptosis in motor neurons by a Fas-dependent mechanism