

## SfRBM 2019 • Oral Presentation Schedule • Las Vegas

### DAY 1: THURSDAY, NOVEMBER 21, 2019



#### SESSION 1 TITLE: Metals, Metalloproteins & Redox Chairs: Masuko Ushio-Fukai and Doris Germain

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Doris Germain	Icahn School of Medicine at Mount Sinai	SOD1 and SOD2 play differential role during tumor initiation and metastasis.
2:50 pm - 3:10 pm	Kelly Hubert	The University of Iowa	Disulfiram causes selective hypoxic cancer cell toxicity and radio-chemo-sensitization via redox cycling of copper
3:10 pm - 3:30 pm	Shashank Shrishrimal	University of Nebraska Medical Center	MnTE-2-PyP treatment protects from radiation-induced fibrosis (RIF) by activating the NRF2/Sirtuin/MnSOD pathway.
3:30 pm - 3:50 pm	Sarah Schlichte	University of Nebraska Medical Center	Nanoformulation of the Clinically-Tested SOD Mimic, MnTnBuOE-2-PyP5+, Attenuates Its Hypotensive Action at High Dosing
3:50 pm - 4:10 pm	Masuko Ushio-Fukai	Medical College of Georgia at Augusta Univ.	Cu Transporter CTR1 Couples to VEGFR2 via Thiol Oxidation to Promote Angiogenesis

#### SESSION 2 TITLE: Redox Regulation of Inflammatory Responses Chairs: Karina Ckless and Rakesh Patel

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Beth Worley	Penn State University	MPZL3 as a novel metabolic regulator of inflammation
2:50 pm - 3:10 pm	Sivareddy Kotla	University of Texas MD Anderson Cancer Ctr	Cardiotoxic cancer treatment (CTCT) promotes oxidative stress and alters monocyte/ macrophage biology
3:10 pm - 3:30 pm	Rogério Aleixo Silva	University of São Paulo - Brazil	Structural and biochemical characterization of LsfA, a 1-Cys Prx involved in Pseudomonas aeruginosa virulence
3:30 pm - 3:50 pm	Benjamin Rood	University of Louisville	Exposure to air pollution dysregulates lipid metabolism in mice
3:50 pm - 4:10 pm	Ayed Allawzi	University of Colorado	Selective depletion of vascular EC-SOD reprograms interstitial macrophages in a murine model of hypoxic pulmonary hypertension

#### SESSION 3 TITLE: Oxidative Signaling and Inflammation Chairs: Luis Netto and Samantha Giordano

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Scott Yeudall	University of Virginia	Acetyl CoA Carboxylase is an Unexpected Mediator Between Macrophage Metabolism and Inflammation
2:50 pm - 3:10 pm	Restituto Tomco	University of Wisconsin-Madison	Persulfidation of Keap1 by S-1-propenylmercaptocysteine causes stabilization and activation of Nrf2 signaling pathway
3:10 pm - 3:30 pm	Clare Hawkins	University of Copenhagen - Denmark	Characterisation of extracellular trap release by macrophages under chronic inflammatory conditions.
3:30 pm - 3:50 pm	Cheryl van de Wetering	University of Vermont	Glutathione-S-transferase P promotes Interleukin-1 $\beta$ -induced pulmonary inflammation in association with S-glutathionylation of the glycolysis regulator, pyruvate kinase M2
3:50 pm - 4:10 pm	Christopher Dustin	University of Vermont	Airway IL-33 secretion and type 2 cytokine responses depend on IL-33 feedback signaling via DUOX1 and Src

### DAY 2: FRIDAY, NOVEMBER 22, 2019

#### SESSION 4 TITLE: Oxidant Signaling in the Brain Chairs: Allan Butterfield and Tomohiro Nakamura

Time	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Ted Piorczynski	Brigham Young University	Inhibition of valproic acid-induced neural tube defects through Nrf2 signaling
2:50 pm - 3:10 pm	Allan Butterfield	University of Kentucky	INTRANASAL RAPAMYCIN in Ts65Dn DOWN SYNDROME MICE REVERSES BRAIN mTOR ACTIVATION, PREVENTS AD-LIKE NEUROPATHOLOGY, IMPROVES COGNITION, A
3:10 pm - 3:30 pm	Tomohiro Nakamura	The Scripps Research Institute	S-Nitrosylation of Uch-L1 Mediates $\beta$ -Amyloid-Related Synaptic Injury in Models of Alzheimer's Disease
3:30 pm - 3:50 pm	Nagakannan Pandian	University of Manitoba - Canada	Identification of Cathepsin B as a potential therapeutic target for treatment of Spinal Cord Injury
3:50 pm - 4:10 pm	Cassandra Moshfegh	University of Nebraska Medical Center	Redox-Regulated Calprotectin as a Possible Novel Regulator of Pro-Inflammatory T-lymphocytes after Psychological Trauma

#### SESSION 5 TITLE: Redox in the Cardiovascular System Chairs: Chris Kevil and Clare Hawkins

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Clinton-Matthew Mathai	Albany Medical College	Oxidant sensing by cytoglobin promotes its nuclear translocation to prevent oxidative damage in the vasculature
2:50 pm - 3:10 pm	Vlad Serbulea	University of Virginia	Bioenergetic changes underlie PDGFRB- and IL1B-driven atherosclerotic lesion stabilization by vascular cells
3:10 pm - 3:30 pm	Gobinath Shanmugam	University of Alabama at Birmingham	Truncated Nrf2 Induces Reductive Stress and Impairs ER Function – A Novel Mechanism for Myocardial Diastolic Dysfunction
3:30 pm - 3:50 pm	Mathews Valuparampil Varghese	The University of Arizona	Attenuation of metabolic reprogramming in pulmonary hypertension using antioxidant conjugated peptide
3:50 pm - 4:10 pm	Fangfei Liu	University of Reading - UK	p47phox-dependent redox-regulation of AngII-induced cardiac hypertrophy

#### SESSION 6 TITLE: Redox Biochemical Signaling Chairs: Onara Augusto and Ana Denicola

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Ana Denicola	Universidad de la República - Uruguay	Role of C-terminal region on the resolution step of Prx2 catalysis
2:50 pm - 3:10 pm	Marco Fazzari	University of Pittsburgh	Endogenous formation of novel nitro-nitrate species as intermediates of fatty acid nitration
3:10 pm - 3:30 pm	Miranda Leek	Oregon State University	A Biochemical and Biophysical Investigation into the Pathological Gain-of-Function of Nitrated Hsp90
3:30 pm - 3:50 pm	Syed Husain Mustafa Rizvi	Boston University	S-glutathionylation of glyceraldehyde 3-phosphate dehydrogenase regulates Sirtuin-1 function through trans-glutathionylation: Implication of glutaredoxin-1
3:50 pm - 4:10 pm	Zhimin Mao	University of Yamanashi - Japan	Hydrogen Sulfide Determines Tumor Cell Sensitivity to Thioredoxin Inhibitor PX-12

**DAY 3: SATURDAY, NOVEMBER 23, 2019****SESSION 7 TITLE: Novel Insights in Redox Biology**

Chairs: Prabhath Goswami and Anna-Liisa Levenon

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Suriyan Sukati	University of Kentucky	Vitamin E modulates extracellular vesicles mediated-immune activation via NFKB and NRF-2 pathways
2:50 pm - 3:10 pm	Takaaki Akaike	Tohoku University - Japan	Reactive persulfides mediate sulfur respiration in mitochondria via sulfide:quinone oxidoreductase
3:10 pm - 3:30 pm	Dan Yang	The University of Hong Kong - China	Fluorogenic Probes for Selective Detection and Imaging of Cardiolipin
3:30 pm - 3:50 pm	Mike Lange	University of Leipzig - Germany	Mechanistic Investigation of Lipid Peroxidation in Artificial Lipid Droplets
3:50 pm - 4:10 pm	Prabhath Goswami	The University of Iowa	Higher lipolysis in older normal human fibroblasts promotes progression and therapy resistance of pancreatic cancer

**SESSION 8 TITLE: Oxidative Stress and Metabolism**

Chairs: Ester Zito and Victor Darley-Usmar

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Sanjit Dhar	University of Kentucky	Mitochondrial superoxide targets energy metabolism to impact epigenetic regulation of NRF2-mediated transcription
2:50 pm - 3:10 pm	Carlos Henriquez	University of Copenhagen - Denmark	Dissecting myocellular ROS sources controlling exercise metabolism and muscle insulin resistance
3:10 pm - 3:30 pm	Ester Zito	Mario Negri Inst of Pharmed Science - Italy	Selenoprotein N regulates mitochondrial bioenergetics by modulating endoplasmic reticulum-mitochondria contacts
3:30 pm - 3:50 pm	Collin Heer	The University of Iowa	Pharmacologic inhibition of NAMPT induces metabolic oxidative stress and radio-chemo-sensitization in NSCLC
3:50 pm - 4:10 pm	Zaineb Javed	Penn State University	Heterogenous expression of Dp1 variants regulate mitochondrial dynamics in ovarian cancer

**SESSION 9 TITLE: Redox Throughout the Life Spectrum**

Chairs: Eva Grayck and Jos van der Velden

TIME	PRESENTER	AFFILIATION	ABSTRACT TITLE
2:30 pm - 2:50 pm	Jos van der Velden	University of Vermont	Increased survival in KRASG12D-induced lung tumorigenesis with a clinically relevant inhibitor of glutathione-S-transferase P
2:50 pm - 3:10 pm	Brandon Davies	Brigham Young University	Real-time imaging of compartmentalized oxidant-induced GSH/GSSG redox shifts in undifferentiated stem cells
3:10 pm - 3:30 pm	Archit Rastogi	University of Massachusetts, Amherst	Pancreatic Nrf2 expression and organ morphogenesis is altered by Glutathione modulation in the Developing Zebrafish (Danio rerio) Embryo
3:30 pm - 3:50 pm	Tong Zhang	Pacific Northwest National Lab	Role of protein thiol-based redox modifications in hyperoxia-induced preterm lung injury
3:50 pm - 4:10 pm	Kanika Jain	Yale University	Platelet hyperreactivity in advanced age is governed by the novel adaptive changes in intraplatelet antioxidants