SATURDAY, FEBRUARY 26
Arrival and Registration

SUNDAY, FEBRUARY 27
Keynote Address (Joint)
Marcia C. Haigis, Harvard Medical School, USA
Mitochondria and Metabolism
Eric M. Verdin, Buck Institute for Research on Aging, USA
Immunological Aging and its Metabolic Control

HF, Metabolic Syndrome, and Altered Substrate Metabolism (Joint)
Rong Tian, University of Washington, USA
NAD+ Redox Balance and Heart Failure
Zoltan Arany, University of Pennsylvania, USA
Metabolism in Heart Failure
Christoph Maack, Universitätsklinikum des Saarlandes, Germany
Mechano-Energetic Uncoupling in Hereditary Cardiomyopathies
Priya Umapathi, Johns Hopkins, USA
Short Talk: The Intersection of O-GlcNAc and YAP – a Novel Molecular Axis in Heart Failure
Giacomo von Alvensleben, EPFL, Switzerland
Short Talk: Identification of Dietary and Genetic Regulators of Heart Failure by a Systems Genetics Approach

Workshop (Q7)
Anthony Cammarato, Johns Hopkins University, USA
The ACTC A331P Hypertrophic Cardiomyopathy Mutation Enhances Basal Contractile Activity and Causes Resting Muscle Dysfunction
Aly Elezaby, Stanford University, USA
A Noncanonical Mitochondrial Role for Cardiac Troponin I: Implications for Ischemia-Reperfusion Injury
Ashley Francois, Ohio State University, USA
The Role of Sertad4 in Post-MI Cardiac Remodeling
Karolin Kleemann, University Medical Center Goettingen, Germany
Noonan Syndrome-associated Myocardial Malfunctions Caused by a RIT1 Mutation can be Partially Rescued by Modulating RAS/MAPK Signaling in vitro
Alexandra Kuznetsov, Massachusetts General Hospital, USA
Understanding Regulatory Pathways of Cardiac Regression
Javier Sierra Pagan, University of Minnesota, USA
FOXK1 Regulates Cardiomyocyte Proliferation and Heart Regeneration

Regulation of Mitochondrial Ion Homeostasis (Q8)
Diego De Stefani, University of Padova, Italy
Mitochondrial ATP-Sensitive Potassium Channels

Donald M. Bers, University of California, Davis, USA
Mitochondrial Ca Homeostasis in Heart Disease
Elizabeth Murphy, Cardiac Physiology Section Vascular Medicine Branch, NHLBI, NIH, USA
Mitochondrial Calcium and Cell Death
Hector Chapoy Villanueva, University of Minnesota, USA
Short Talk: Acute Cardiac Deletion of EMRE Protects Against Ischemia Reperfusion Injury in an ex vivo Langendorff Model
Ahmad A. Cluntun, University of Utah, HHMI, USA
Short Talk: The Pyruvate-lactate Axis Modulates Cardiac Hypertrophy and Heart Failure

Gene and Protein Regulation (Q7)
Saptarsi M. Haldar, Amgen Inc., USA
Targeting Gene Regulatory Machinery in Heart Failure
Paula da Costa Martins, Maastricht University, Netherlands
Noncoding RNAs and Cell-Cell Communication in Heart Failure
Bianca Brundel, VU University Medical Center, Netherlands
Proteostasis and Atrial Remodeling with AfiB

Logan Bailey, University of Washington, USA
Short Talk: Loss of MBNL1 Disrupts the Cardiomyocyte Maintenance Gene Program and Rapidly Transitions the Heart to Failure
Lay Ping Ping Ong, University of Cambridge, UK
Short Talk: Epicardially-Secreted Fibronectin Drives Cardiomyocyte Maturation in 3D-Engineered Heart Tissues

Poster Session 1

MONDAY, FEBRUARY 28
Mitochondria and Cell Death (Q8)
Jeffery D. Molkentin, Cincinnati Children's Hospital Medical Center, USA
Role of Adenine Nucleotide Translocator in Mitochondrial Permeability Pore and Death
Robert A. Gottlieb, Cedars-Sinai Medical Center, USA
Mitochondrial Autophagy
Elizabeth A. Jonas, Yale University, USA
Role of the F1-F0-ATPase in Regulating Cell Death
Richard N. Kitsis, Albert Einstein College of Medicine, USA
Integrating Mitochondrial Cell Death Programs
Anna-Lena Beerlage, University Hospital Essen, Germany
Short Talk: BNIP3 Mediates Cardiac ATP-synthase Activity
Maria A. Neginskaya, New York University, USA
Short Talk: Holographic Imaging of Mitochondrial Optical Density in Living Cells Reveals that the Mitochondrial Permeability Transition is a Two-stage Process
HFpEF - Where Are We Now? (Q7)
Gregory D. Lewis, Massachusetts General Hospital, USA
Roles of Obesity and Peripheral Muscle
Timothy A. McKinsey, University of Colorado Denver, USA
A Lysine Demethylase Controls Pathological Fat-to-Heart Crosstalk
Kavita Sharma, Johns Hopkins University School of Medicine, USA
Human HFpEF - Clinical Molecular and Cellular Phenotyping
David A. Kass, Johns Hopkins Hospital, USA
HFpEF and Sarcomeres: The Obesity Connection
Elizabeth K. Pruzinsky, University of Pennsylvania, USA
Short Talk: Receptor Interacting Protein 140 (RIP140) Modulates Cardiac Hypertrophic Remodeling and Muscle Endurance Fitness
Sasha Smolgovsky, Tufts University, USA
Short Talk: Proinflammatory T Cells with Downregulated Unfolded Protein Response Genes Contribute to Experimental Heart Failure with Preserved Ejection Fraction

Career Roundtable (Joint)

Mitochondria Energetics and Shape (Q8)
Gia K. Voeltz, University of Colorado Boulder, USA
Unraveling the Mechanism of ER-associated Mitochondrial Constriction
John W. Calvert, Emory University School of Medicine, USA
DJ-1 Protects Mitochondria from Glycative Stress in the Setting of Myocardial Ischemia
Brian Glancy, NHLBI and NIAMS, National Institutes of Health, USA
Sustaining Power: Building Energy Networks in Striated Muscle Cells
Dillon Chung, NIH, USA
Short Talk: Impact of Ischemia-Reperfusion Injury on Three-Dimensional Mitochondrial Networks in the Murine Heart
Shubhi Srivastava, University of Illinois at Chicago, USA
Short Talk: Nuclear Translocation of Selective Mitochondrial TCA Cycle Dehydrogenases Acts as an Adaptive Mechanism in Cardiac Stress

Inflammation and Immune Regulation (Q7)
Kory J. Lavine, Washington University School of Medicine, USA
Determinants and Impact of Monocyte Fate Specification in the Diseased Heart
Pilar Alcaide, Tufts University School of Medicine, USA
T-Cell Modulation of Myocardial Injury
Edward Thorp, Northwestern University, USA
Macrophage Mitochondrial Metabolism Enhances Cardiac Repair

Xavier Revelo, University of Minnesota, USA
Short Talk: Cardiac Resident Macrophages Prevent Fibrosis and Stimulate Angiogenesis
Joel G. Rurik, University of Pennsylvania, USA
Short Talk: CAR T Cells Produced in vivo to Treat Cardiac Injury

Poster Session 2

TUESDAY, MARCH 1

Mitochondria and HF (Joint)
Jared Rutter, University of Utah, USA
Mitochondrial Metabolism in the Heart
John W. Eirolf, Lewis Katz School of Medicine at Temple University, USA
Mitochondrial Calcium and Epigenetics
Asa B. Gustafsson, University of California, San Diego, USA
Mitophagy and Heart Failure
E. Dale Abel, David Geffen School of Medicine and UCLA Health, USA
Mitochondria in Heart Failure, Metabolism and Beyond
Pieterjan Dierickx, University of Pennsylvania, USA
Short Talk: Circadian REV-ERBs Repress E4bp4 to Activate NAMPT-dependent NAD+ Biosynthesis and Sustain Cardiac Function
Guo Huang, University of California San Francisco, USA
Short Talk: Neurohormonal Pathways Drive Postnatal Thermogenesis and Loss of Cardiac Regenerative Potential

Mitochondria and Metabolism (Q8)
Rui-ping Xiao, Peking University, China
RIP Kinase Mediated Death
Paul S. Brookes, University of Rochester Medical Center, USA
Mitochondrial Energetics in Cardiac Ischemia-Reperfusion Injury
Morris J. Birnbaum, Pfizer Inc., USA
Metabolic Targets for Heart Failure
Derek P. Narendra, National Institutes of Health, USA
Short Talk: OMA1 Mediates Local and Global Stress Responses Against Protein Misfolding in CHCHD10 Mitochondrial Myopathy and Cardiomyopathy

Fibroblasts and Stroma and Myocyte Crosstalk (Q7)
Christine L. Mummery, Leiden University Medical Center, Netherlands
Stromal Cell-Myocyte Crosstalk in Engineered Tissues
Jennifer Davis, University of Washington, USA
Modulation of Myocardial Fibrosis
Jonathan A. Epstein, University of Pennsylvania, USA
Cell-Therapeutics to Counter Fibrosis
Junedh Mahesh Amrute, Washington University School of Medicine in St. Louis, USA
Short Talk: The Inflammatory-Fibrosis Axis in Human Ischemic Heart Disease
MEETING POSTPONED: Mitochondria, Metabolism and Heart (Q8)
Scientific Organizers: Elizabeth Murphy and Zoltan Arany
Sponsored by Moderna and Novo Nordisk A/S

MEETING POSTPONED: Heart Failure: Mechanisms and Therapies (Q7)
Scientific Organizers: David A. Kass and Saptarsi M. Haldar
February 26-March 1, 2022 • Beaver Run Conference Center • Breckenridge, CO, USA
Sponsored by AstraZeneca, Ionis Pharmaceuticals, Inc. and Merck & Co., Inc.

Anne-Katrine Z. Johansen, CCHMC, USA

Short Talk: Fibroblast-specific Ablation of Cytoplasmic Actins Promotes Myofibroblast Differentiation and Cardiac Dysfunction

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)
(Q8)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)
(Q7)

WEDNESDAY, MARCH 2

Departure