MONDAY, FEBRUARY 12
Arrival and Registration

TUESDAY, FEBRUARY 13
Welcome and Keynote Address
Jared Rutter, University of Utah, USA
Mitochondrial Bioenergetics

Organelles
Rushika M. Perera, University of California, San Francisco, USA
Lysosome Mediated Regulation of Metabolism
Gerta Hoxhaj, UT Southwestern Medical Center, USA
Regulation and Function of NADPH Metabolism
Wilhelm Palm, German Cancer Reserach Center, Germany
Lysosome Quality Control
Aakriti Jain, University of California, Berkeley, USA
Short Talk: Identifying and Targeting Novel Lysosomal Enzymes in Pancreatic Cancer

Career Roundtable

Workshop 1: Mitochondrial Regulation and Organelle Communication
Srimayee Vaidyanathan, Peter MacCallum Cancer Centre, Australia
Cholesterol-dependent Remodeling of the Endoplasmic Reticulum Regulates CAF Function
Eduardo Cararo Lopes, Rutgers Cancer Institution of New Jersey, USA
Tumor Respiration Defects Limit Serine Synthesis Required To Suppress Oxidative Stress
Celia de la Calle Arregui, University of Texas Southwestern Medical Center, USA
Understanding the Role of mtDNA Alterations and Electron Transport Chain Function in Thyroid Cancer
Emily N. Arner, Vanderbilt University Medical Center, USA
NDUFA4L2 Drives Metastasis in RCC by Inhibiting Oxidative Phosphorylation to Facilitate EMT
Lucia Minarrieta, University of Ottawa, Canada
Loss of Mitochondrial Fission Impairs Breast Cancer Metastasis
Karina Geurtzen, KU Leuven, Belgium
Breast Cancer Cells Rely on Mitochondrial Respiration to Form Bone Metastases
Yang Yang, University of California, San Francisco, USA
Autophagy Regulates MAT2A in Response to Hypoxia in Pancreatic Cancer Cells

Stress
Elda Grabocka, Thomas Jefferson University, USA
Stress Granules at the Crossroads of Cellular Stress and Pancreatic Cancer
Gina DeNicola, Moffitt Cancer Center, USA
Cellular Adaptation to Cysteine Starvation
Russell G. Jones, Van Andel Research Institute, USA
The Prostacyclin Receptor is an Nrf2-regulated Immune Checkpoint for CD8 T Cell Function

Dohoon Kim, University of Massachusetts Medical School, USA
Short Talk: Uncovering and Exploiting Toxic Metabolite Pathways in Cancer Cells
Kenji M. Fujihara, New York University School of Medicine, USA
Short Talk: Linking Cystine Deprivation to Selenium Insufficiency: A Novel Explanation for Cystine Deprivation-induced Ferroptosis

Poster Session 1

WEDNESDAY, FEBRUARY 14

Metabolic/Bioenergetic Heterogeneity
Shawn M. Davidson, Northwestern, USA
Spatiotemporal Analysis of Metabolism
David B. Shackelford, University of California, Los Angeles, USA
Three Dimensional Imaging of Cancer Mitochondria
Mariia Yuneva, Francis Crick Institute, UK
Dissecting metabolic tumour heterogeneity in vivo.
David F. Kashatus, University of Virginia, USA
Control of Tumor Cell Metabolism by Mitochondrial Dynamics
Baharan Meghdadi†, University of Michigan, USA
Short Talk: Machine Learning-based Method to Analyze Metabolic Fluxes of Patient Tumors

Workshop 2: Metabolic Targets and Vulnerabilities
Aki Ogawa-Iio, University of Cincinnati, USA
Fueling the Way—The Role of Localized GTP Synthesis in Renal Cell Carcinoma Metastasis
Megan Radyk, University of Michigan, USA
Loss of NADPH-producing Enzymes Accelerates Precancerous Lesions in the Pancreas
Rebekah Lee Isla Crake†, University of Liege, Belgium
Identifying Targetable Metabolic Adaptations in Drug Tolerant BRAFV600E Mutant Non-small Cell Lung Cancer
Remya Nair, Emory University, USA
Heme Increases Purine Metabolism in Multiple Myeloma to Promote Resistance to Apoptosis
Amanda Sherwood, H. Lee Moffitt Cancer Center, USA
Investigating the Roles of GSH and TXN Antioxidant Systems in NSCLC Tumor Progression
Krystle Kalafut, Harvard University, USA
The Oncoprotein Grb7 is a Novel Physiological Target of mTORC1: Implications for Breast Cancer and Hepatic Insulin Resistance
Sheila K. Singh, Centre for Discovery in Cancer Research, McMaster University, Canada
A Phenotypic Drug Discovery Screen Reveals de novo GTP Synthesis as a Targetable Metabolic Vulnerability in Brain Metastases

* Session Chair † Invited but not yet accepted
Program current as of January 14, 2024. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org.
Targeting Metabolism
Sarah-Maria Fendt, VIB-KU Leuven, Belgium
Metabolic Vulnerabilities of Metastasis
Leon O. Murphy, Casma Therapeutics, USA
Targeting Autophagy
Isaac Spencer Harris, University of Rochester, USA
Understanding the Roles of Antioxidants in Cancer
Heather Christofk, University of California, Los Angeles, USA
Metabolic Targeting for Rare Cancers

Poster Session 2
THURSDAY, FEBRUARY 15

Nutrient Acquisition and Utilization
Kathryn E. Wellen, University of Pennsylvania, USA
Diet and Epigenetics
Cosimo Commissio, Sanford Burnham Prebys Medical Discovery Institute, USA
Metabolic Adaptations to Glutamine Mimetics: From Discovery to Therapeutics
Donita C. Brady, University of Pennsylvania, USA
Copper Metabolism
Jason R. Cantor, Morgridge Institute for Research, University of Wisconsin-Madison, USA
Short Talk: Conditional Lethality Profiling in Human Cancer Cells
Hao Fan, University of Chicago, USA
Short Talk: Trans-vaccenic Acid Reprograms CD8+ T Cells and Anti-tumour Immunity
Kamiya Mehta, University of Oklahoma Health Science Center, USA
Short Talk: Nutrient Constrain-induced Metabolic Rewiring Impacts NK Cell Function in Pancreatic Cancer
Inna Smalley, H. Lee Moffitt Cancer Center & Research Institute, Inc., USA
Short Talk: Branched-chain Keto Acids Promote an Immune-suppressive and Neurodegenerative Microenvironment in Leptomeningeal Disease

Workshop 3: Nutrient Requirements and Toxicities
Yetis Gultekin, MIT, USA
Altered Exocrine Function Promotes Pancreatic Cancer-associated Autophagic Proteolysis in the Muscle
Chesta Jain, University of Michigan, USA
Assessing the Mechanism of Iron Mediated Cell Toxicity in Colon Cancer
Tashbib Khan, BIDMC- Harvard Medical School, USA
The Oncogenic Roles of Glycogen in PI3K/AKT/mTOR Signaling
Pankaj K. Singh, OUHSC, USA
Selective Dependence on Stromal Acetate-induced Polyamine Metabolism Provides Unique Therapeutic Opportunities in Pancreatic Cancer
Hila Tishler, Weizmann Institute of Science, Israel
Modulating JAK-STAT Signaling in the Tumor Microenvironment by Regulating Arginine Cross-Talks
Alex C. Sternisha, UT Southwestern Medical Center, USA
A Forward Genetic Approach Reveals Mechanisms of Alpha-Ketoglutarate Regulation in the Nucleus

Tumor-Host Interactions
Ana P. Gomes, Lee Moffitt Cancer Center & Research Institute, USA
Aging and Cancer
Ralph J. DeBerardinis, University of Texas Southwestern Medical Center, USA
Metabolism in situ
Asael Roichman, Princeton University, USA
Short Talk: The Gut Microbiome Regulates the Anti-cancer Activity of PI3K Inhibitors

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)
Poster Session 3
FRIDAY, FEBRUARY 16

Departure