MONDAY, JANUARY 25

Welcoming Remarks and Keynote Address (8am Denver/Mountain Time Start) (EK16)
*Diane Mathis, Harvard Medical School, USA
Session Chair
*Marc Y. Donath, University Hospital Basel, Switzerland
Session Chair
Bruce M. Spiegelman, Dana-Farber Cancer Institute, USA
Adipose Inflammation: Many Players and Many Regulatory Functions

Welcoming Remarks and Keynote Address (8am Denver/Mountain Time Start) (EK14)
*Erik A. Sahai, Francis Crick Institute, UK
Session Chair
*Alec Kimmelman, New York University Langone Medical Center, USA
Session Chair
*Johanna A. Joyce, University of Lausanne, Switzerland
Session Chair
Matthew G. Vander Heiden, Massachusetts Institute of Technology, USA
Impact of Nutrient Availability on Cancer Metabolic Dependencies

Immunometabolism: The Metabolic View (8:40am Denver/Mountain Time Start) (EK16)
*Janelle S. Ayres, The Salk Institute for Biological Studies, USA
Session Chair
*Diane Mathis, Harvard Medical School, USA
Control of Metabolism by Immune Cells
Vishwa Deep Dixit, Yale University, USA
Immunometabolic Regulation of Aging
Ana Domingos, University of Oxford, UK
Neurometabolism
Emily Vohralik, UNSW Sydney, Australia
Short Talk: Regulation of Adipose Tissue Beiging by Krüppel-Like Factor 3 (KLF3) and Eosinophils

Metabolic Effects on the Immune System (8:40am Denver/Mountain Time Start) (EK14)
*Erik A. Sahai, Francis Crick Institute, UK
Session Chair
*M. Celeste Simon, University of Pennsylvania, USA
Metabolic Symbioses in Stressful Tumor Microenvironments
Costas A. Lyssiotis, University of Michigan, USA
Metabolic Networks in the Tumor Microenvironment
Siva Karthik Varanasi, The Salk Institute for Biological Studies, USA
Short Talk: Tumor Metabolism Shapes Antigen Presentation and Adaptive Immune Responses

Hilary A. Coller, University of California, Los Angeles, USA
Short Talk: Cancer-Associated Stroma Requires Autophagy to Promote Tumor Growth by Maintaining Melanoma-Associated Fibroblasts and Suppressing Th1-Type Immune Responses
Eline C. Brombacher, LUMC, Netherlands
Short Talk: Activation of Nutrient-Sensor AMPK in Tumor-Associated Dendritic Cells Promotes Tolerogenic Responses and Compromises the Anti-Tumor Immunity

The CNS Microenvironment (10:45am Denver/Mountain Time Start) (EK14)
*Alec Kimmelman, New York University Langone Medical Center, USA
Session Chair
Frank Winkler, University Hospital Heidelberg, Germany
Brain Tumor Cells Interconnect to a Functional and Resistant Network
Johanna A. Joyce, University of Lausanne, Switzerland
Charting the Immune Landscape across Diverse Brain Cancers
*Michael E. Pacold, New York University Medical Center, USA
Brain Metastasis Adaptation to the Metabolic Niche of the Central Nervous System
Gino Ferraro, Harvard Medical School, Massachusetts General Hospital, USA
Short Talk: Fatty Acid Synthesis is Required for Breast Cancer Brain Metastasis

Immunometabolism: The Immunologist View (10:20am Denver/Mountain Time Start) (EK16)
*Vishwa Deep Dixit, Yale University, USA
Session Chair
Christoph Hess, University Hospital Basel/University of Cambridge, Switzerland
From Patient to Molecular Understanding of Immunometabolism
Luke A. J. O'Neill, Trinity Biomedical Sciences Institute, Ireland
Krebs Cycle Repurposed for Cytokines
Janelle S. Ayres, The Salk Institute for Biological Studies, USA
Metabolic Adaptations in Host-Microbe Interactions
*Ruth A. Franklin, Harvard University, USA
Stress Responses and Disease Tolerance
Katrin Andreasson, Stanford University, USA
Short Talk: Metabolic Reprogramming of Myeloid Cells Reverses Cognitive Decline in Aging

Meet the Editors (Joint) (2pm Denver/Mountain Time Start)
Ubald E. Martinez Outschoorn, Thomas Jefferson University/Frontiers, USA
Stephanie Alisa Houston, Journal of Experimental Medicine, USA
Lise Roth, European Molecular Biology Organization, Germany
TUESDAY, JANUARY 26

Clinical Translation: Unmet Needs (8am Denver/Mountain Time Start) (EK16)
Session Chair

*Morris J. Birnbaum*, Retired Pfizer, Inc., USA
Session Chair

*Marina Mesquida*, F. Hoffmann-La Roche Ltd, Switzerland
Anti-Inflammatory Treatment of Diabetic Eye Complications

*Marc Y. Donath*, University Hospital Basel, Switzerland
IL-1beta in Physiology and Treatment of Metabolic Diseases

*Tom Thuren*, Novartis Pharmaceuticals, USA
Requirement to Implement Anti-Inflammatory Treatment of Cardiometabolic Diseases

*Elena Carcarino*, INSERM, France
Short Talk: Epigenomic Regulation of IL-1B Enhancers in Type 2 Diabetes

Metastatic Colonisation (8am Denver/Mountain Time Start) (EK14)

*Johanna A. Joyce*, University of Lausanne, Switzerland
Session Chair

*Ruth Scherz-Shouval*, Weizmann Institute of Science, Israel
Metabolic Rewiring Boosting Metastasis Formation

*Sarah-Maria Fendt*, VIB-KU Leuven, Belgium
Short Talk: Epigenome Regulation of IL-1B Enhancers in Type 2 Diabetes

*Mikala Egeblad*, Cold Spring Harbor Laboratory, USA
Activating a Collaborative Innate-Adaptive Immune Response to Restrain Metastasis

*Matthew F. Krummel*, University of California, San Francisco, USA
Imaging the Tumor Microenvironment in Five Dimensions

*Heather Christofk*, University of California, Los Angeles, USA
Targeting Cancer Asparagine Dependence

*Kevin B. Walsh*, Genentech, USA
Short Talk: VEGF Blockade Augments CD8+ T Cell Activity by Amplifying Tumor Hypoxia

The Pancreatic Tumor Microenvironment (10:25am Denver/Mountain Time Start) (EK14)

*Johanna A. Joyce*, University of Lausanne, Switzerland
Session Chair

*Lewis C. Cantley*, Dana Farber Cancer Institute, USA
Insulin and Cancer

*Mara H. Sherman*, Memorial Sloan Kettering Cancer Center, USA
Mechanisms and Consequences of Pancreatic Cancer Stromal Evolution

Andrea M. Amitrano, University of Rochester School of Medicine & Dentistry, USA
Short Talk: Regulation of CD8+ T Cell Metabolism and Migration with Optogenetics

Patricia Altea Manzano, VIB-KU Leuven Center for Cancer Biology, Belgium
[NOT AVAILABLE ON DEMAND] Short Talk: Environmental Fatty Acids Support Changes in Histone Acetylation that Promote Breast Cancer Metastasis

Felix Hartmann, Stanford University, USA
Short Talk: Single-Cell Metabolic Regulome Profiling of Human Immune Cells in the Tumor Microenvironment

Tanya Schild, Weill Cornell Medicine, USA
Short Talk: NADK Regulation by Oncogenic KRAS Signaling is Essential for PDAC

Insulin Production and Action (10:00am Denver/Mountain Time Start) (EK16)

*Marc Y. Donath*, University Hospital Basel, Switzerland
Session Chair

*Alan R. Saltiel*, University of California, San Diego, USA
Inflammatory Links Between Obesity and Energy Metabolism

*Bruce Verchere*, University of British Columbia, Canada
Islet Amyloid Polypeptide and Islet Inflammation

*Elise Dalmas*, INSERM, France
Short Talk: Innate Immunity in the Pancreatic Islet Niche

Feyza Engin, University of Wisconsin-Madison, USA
Short Talk: Targeting Beta Cell Unfolded Protein Response in Type 1 Diabetes

Katia Monsorno, University of Lausanne, Switzerland
Short Talk: Lactate Metabolism in the Control of Microglial Function

Poster Session 1 (12pm Denver/Mountain Time Start)

Career Roundtable (Joint) (1pm Denver/Mountain Time Start) (EK16)

Donita C. Brady, University of Pennsylvania, USA
Matthew G. Vander Heiden, Massachusetts Institute of Technology, USA
Tom Thuren, Novartis Pharmaceuticals, USA

WEDNESDAY, JANUARY 27

Adipose Tissues (8am Denver/Mountain Time Start) (EK16)

*Elise Dalmas*, INSERM, France
Session Chair

*Bruce M. Spiegelman*, Dana-Farber Cancer Institute, USA
Session Chair

*Session Chair † Invited but not yet accepted     Program current as of October 19, 2023.
For the most up-to-date details, visit https://www.keystonesymposia.org.
**Tumor Metabolism and the Microenvironment (EK14)**

**Scientific Organizers:** Erik A. Sahai, Alec Kimmelman and Johanna A. Joyce

**January 25-28, 2021 • Virtual at your computer**

Sponsored by AstraZeneca, Cell Research and Gilead Sciences, Inc.

---

**Integrating Metabolism and Immunity (EK16)**

**Scientific Organizers:** Marc Y. Donath, Tom Thuren, Bruce M. Spiegelman and Diane Mathis

**Sponsored by AbbVie Inc., Astellas Pharma Inc., Cell Research, Merck & Co., Inc. and Novo Nordisk A/S**

---

**Rinke Stienstra**, Wageningen University and RadboudUMC, Netherlands

*Obesity and Diabetes: An Immunometabolic Perspective*

**Paul Cohen**, Rockefeller University, USA

*The Adipose Tissue Microenvironment in Health and Disease*

**Jun Wu**, University of Michigan, USA

[NOT AVAILABLE ON DEMAND] *Immune-Beige Adipocyte Communication*

**Inbar Shteinberg**, Tel Aviv University, Israel

*Short Talk: Distinctive Effects of Alarmins S100A8 and S100A9 on Adaptive Thermogenesis*

**Katelyn M. Miller**, Wistar Institute, USA

*Short Talk: Inhibition of Acetate Metabolism Enhances Host Anti-Tumor Immunity*

**Pegah Poursharifi**, University of Montreal-CRCHUM, Canada

*Short Talk: Suppression of ABHD6 Promotes Healthy Expansion of Adipose Tissue in Obesity*

**Identifying the Metabolic Dependencies of Cancer Cells (8am Denver/Mountain Time Start) (EK14)**

*Erik A. Sahai*, Francis Crick Institute, UK

**Session Chair**

**Karen H. Vousden**, Francis Crick Institute, UK

[NOT AVAILABLE ON DEMAND] *Metabolic Control of Invasion and Metastasis*

**Eileen P. White**, Rutgers Cancer Institute of New Jersey, USA

*Autophagy and Systemic Metabolism*

**Navdeep S. Chandel**, Northwestern University, USA

*Mitochondrial Regulation of Cancer*

*Donita C. Brady*, University of Pennsylvania, USA

*New Sides for an Old Coin: Copper as an Intracellular Mediator of Autophagy via ULK1/2 Kinase Signaling*

**Therapeutic Targeting of Metabolism and the TME (10:10am Denver/Mountain Time Start) (EK14)**

*Erik A. Sahai*, Francis Crick Institute, UK

**Session Chair**

**Shannon J. Turley**, Genentech, Inc., USA

*Evolving Stromal-Immune Axis in Cancer Immunology and Immunotherapy*

*Marcia C. Haigis*, Harvard Medical School, USA

*Dissecting the Tumor-Immune Metabolic Crosstalk in the Tumor Microenvironment*

**Valerie M. Weaver**, University of California, San Francisco, USA

*Interplay between Tissue Fibrosis, Metabolic Reprogramming and Inflammation in Tumor Evolution*

**Natalya N. Pavlova**, Memorial Sloan Kettering Cancer Center, USA

*Short Talk: Translation in Amino Acid-Poor Environments is Limited by tRNAGln Charging*

**Thomas Hanigan**, The Scripps Research Institute, USA

*Short Talk: Small Molecule Inhibition of OXA1L Selectively Kills ZFHX3 Mutant NSCLC from Imbalanced Cytidine Pool Expansion*

**Arin Aurora**, University of Texas Southwestern Medical Center, USA

*Short Talk: Metastasizing Melanoma Cells Exhibit Increased Dependence on the Pentose Phosphate Pathway to Manage Oxidative Stress*

**Liver (10:10am Denver/Mountain Time Start) (EK16)**

*Gwendalyn J. Randolph*, Washington University, USA

**Session Chair**

*Alan R. Saltiel*, University of California, San Diego, USA

**Session Chair**

**Michael Karin**, University of California, San Diego, USA

*Mitochondrial DNA Metabolism and IL-1 Mediated Inflammation*

**Evanna Mills**, Dana-Farber Cancer Institute, USA

*Thermogenic Fat as a Modifier of the Immune Response*

**Morris J. Birnbaum**, Retired Pfizer, Inc., USA

*Therapeutic Approaches for the Treatment of Non-Alcoholic Fatty Liver Disease*

**Han Wang**, Ohio State University, Comprehensive Cancer Center, USA

*Short Talk: Neutrophil Extracellular Traps Promote the Differentiation of Tregs through Metabolic Reprogramming to Impair Cancer Immunosurveillance in NASH Liver*

**Sabine Daemen**, Washington University in St. Louis, USA

*Short Talk: Recruited Monocyte-Derived Macrophages Regulate Hepatic Crown-Like Structure Formation and Liver Fibrosis in NASH*

**Jin Young Huh**, Seoul National University, South Korea

*Short Talk: Tank-Binding Kinase 1 Regulates the Localization of acyl-CoA synthetase ACSL1 to Control Hepatic Fatty Acid Oxidation*

**THURSDAY, JANUARY 28**

**Muscle/Cardiovascular (8am Denver/Mountain Time Start) (EK16)**

*Ana Domingos*, University of Oxford, UK

**Session Chair**

**Helga Ellingsgaard**, Centre for Physical Activity Research, Copenhagen, Denmark

*IL-6, a Physiological Regulator of Adipose Tissue Mass in Humans*

*Mark A. Febbraio*, Monash Institute of Pharmaceutical Sciences, Australia

*Treatment of Type 2 Diabetes and Age-Related Sarcopenia with the Designer Cytokine IC7Fc*

**Amy J. Wagers**, Harvard University, USA

*Stem Cell Metabolism and Muscle Regeneration*

**Shuang Zhang**, Harvard Medical School/Massachusetts General Hospital, USA

*Short Talk: Bone Marrow Adipocytes Fuel Fatty Acid Metabolism Directed Myelopoiesis after Myocardial Infarction*

---

* Session Chair † Invited but not yet accepted  Program current as of October 19, 2023.

For the most up-to-date details, visit [https://www.keystonesymposia.org](https://www.keystonesymposia.org).
Dina Chokr, INSERM, Centre de Recherche des Cordeliers, France

Short Talk: Impact of Histone Lysine Demethylase 6B on Adipose Tissue Macrophage Plasticity

Intercellular Signaling Networks in the TME (8am Denver/Mountain Time Start) (EK14)

*Karin E. de Visser, Netherlands Cancer Institute, Netherlands
How the Genetic Makeup of Breast Cancer Shapes the Immune Landscape

*Ralph J. DeBerardinis, University of Texas Southwestern Medical Center, USA
Compartmentalized Metabolism in Physiological States of Growth

Erika L. Pearce, Johns Hopkins University, USA
Metabolic Regulation of the Immune Metabolism

*Alec Kimmelman, New York University Langone Medical Center, USA
Metabolic Crosstalk in PDAC

Closing Remarks (11:50am Denver/Mountain Time Start) (EK16)
Networking Lounge (12pm Denver/Mountain Time Start) (EK16)

*Session Chair  † Invited but not yet accepted     Program current as of October 19, 2023.
For the most up-to-date details, visit https://www.keystonesymposia.org.