KEYSTONE SYMPOSIA on Molecular and Cellular Biology

Cancer Metastasis: The Role of Metabolism, Immunity and the Microenvironment (M2)

March 15-19, 2019 • Firenze Fiera- Fortezza da Basso • Florence, Italy Scientific Organizers: Erika L. Pearce, Sarah-Maria Fendt, Russell G. Jones and Peter F. Carmeliet Organized in collaboration with Cancer Research UK

Sponsored by Autolus Therapeutics

Abstract & Scholarship Deadline: November 14, 2018 / Abstract Deadline: December 11, 2018 / Discounted Registration Deadline: January 17, 2019

FRIDAY, MARCH 15

Arrival and Registration

SATURDAY, MARCH 16

Welcome and Keynote Address

Charles Swanton. Francis Crick Institute. UK Cancer Genetic Diversity and its Consequences on Clinical Outcome

Interactions via the Tumor Microenvironment

Massimiliano Mazzone, KULeuven - VIB, Belgium Macrophage Metabolism, Tumor Blood Vessel Morphogenesis and Metastasis

Shizhen Emily Wang, University of California, San Diego, USA Secreted miRNAs Reprogram Metabolism in the Tumor Niche

Alec Kimmelman, New York University Langone Medical Center, USA Identifying Metabolic Dependencies in Pancreatic Cancer

Short Talk(s) Chosen from Abstracts

Poster Session 1

Mitochondria and Oxidative Stress in Cancer Metastasis and **Immunity**

Erika L. Pearce, Max Planck Institute of Immunobiology and Epigenetics, Germany

Metabolically Regulated Postranscriptional Events in the Control of Immune Cell Function

Marcia C. Haigis, Harvard Medical School, USA New Functions for Metabolic Byproducts in the Tumor Microenvironment

Ralph J. DeBerardinis, University of Texas Southwestern Medical Center, USA

Metabolic Enablers of Cancer Progression and Metastasis

Short Talk Chosen from Abstracts

SUNDAY, MARCH 17

Cancer and Immunity in the Tumor Microenvironment

Russell G. Jones, McGill University, Canada Essential Nutrients for Effector T Cell Expansion

Matthew G. Vander Heiden, Massachusetts Institute of Technology,

Cancer-Cell-Autonomous Extracellular Protein Catabolism in Tumors

Giuseppe Matarese. Università degli Studi di Napoli Federico II. Italy Regulatory T Cells as Suppressors of Anti-Tumor Immunity

lannis Aifantis, New York University School of Medicine, USA Mapping the Bone Marrow Micro-Environment in Single Cell Resolution

Short Talk(s) Chosen from Abstracts

Workshop 1

Metastasis, Tumor Vessels and Immunity

Peter F. Carmeliet. University of Leuven. VIB. Belgium Metabolic Tumor Vessel Normalization in Metastasis and Cancer Treatment

Michael Potente, Max Planck Institute for Heart and Lung Research, Germany

Metabolic Activity and Growth State in the Vascular Endothelium

Xiang Zhang, Baylor College of Medicine, USA

Regulation of Tumor Vessel Normalization and Immunostimulatory Reprogramming

Short Talk Chosen from Abstracts

Poster Session 2

MONDAY, MARCH 18

Therapeutic Strategies for Metabolism and Immune Modulation

Katya Marjon, Agios Pharmaceuticals, USA Therapeutics Targets in Cancer Metabolism

Tim F. Greten, NCI, National Institutes of Health, USA

Targeting the Inflammation - Cancer Axis

Georgia Hatzivassiliou, Genentech, Inc., USA

Metabolite Profiling to Stratify Cancers into Subtypes with Distinct Sensitivities to Metabolic Inhibitors

Gabriele A.I. Bergers, University of Leuven, Belgium Anti-Angiogenic and Immune Modulating Therapies

Short Talk(s) Chosen from Abstracts

Poster Session 3

Stem Cells in Inflammation, Cancer and Metastasis

Elaine V. Fuchs, HHMI/Rockefeller University, USA Stem Cells Under Stress: Coping With Wound Repair, Inflammation

Mohamed Bentires-Ali. University Hospital Basel. Switzerland Cell Fate, Multipotency and Multi-Lineage in Mammary Tumors

Robert A. Weinberg, Massachusetts Institute of Technology, USA Metastasis and the EMT

Short Talk Chosen from Abstracts

TUESDAY. MARCH 19

Metabolism Meets Cancer Metastasis

M. Celeste Simon, University of Pennsylvania, USA Oxygen Availability and Metabolic Adaptations in Cancer

Sohail F. Tavazoie, Rockefeller University, USA

Transcriptional Variability in Cancer Subpopulations Drives Metastasis

Sarah-Maria Fendt, VIB Leuven, Belgium Cancer Metabolism during Metastasis Formation

Arkaitz Carracedo, Center for Cooperative Research in Biosciences. Spain

The Interface between Signaling and Metabolism in Metastasis

Short Talk(s) Chosen from Abstracts

Workshop 2

Commensal Interactions: Implications for Immunity and Cancer

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Laurence Zitvogel, Institut Gustave Roussy, France Gut Microbiota and Cancer Therapy
Jennifer Ann Wargo, University of Texas MD Anderson Cancer Center, USA
The Gut Microbiome and PD-1 Therapy in Melanoma
Wendy S. Garrett, Harvard School of Public Health, USA
Microbial Contributions to Carcinogenesis

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

WEDNESDAY, MARCH 20

Departure