

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

Scientific Organizers: Erika L. Pearce, Sarah-Maria Fendt, Russell G. Jones and Peter F. Carmeliet

March 15–19, 2019

Firenze Fiera- Fortezza da Basso, Florence, Italy

Organized in collaboration with the following organizations - Cancer Research UK and Menarini International Foundation

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DEADLINES:

**All deadlines end at 11:59 PM US Mountain Standard Time*

Scholarship Deadline: Nov 28, 2018 [\[details\]](#)

Discounted Abstract Deadline: Nov 28, 2018 [\[details\]](#)

Abstract Deadline: Dec 11, 2018 [\[details\]](#)

Discounted Registration Deadline: Jan 17, 2019 [\[details\]](#)

If you have missed a deadline due to the US government shutdown, please [contact our office](#).

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No registration fees are used to fund entertainment or alcohol at this conference

Conference Program [Print](#) | [View meeting in 12 hr \(am/pm\) time](#)

The meeting will begin on Friday, March 15 with registration from 16:00 to 20:00 and a welcome mixer from 18:00 to 20:00. Conference events conclude on Tuesday, March 19 with a closing plenary session from 16:00 to 18:00, followed by a social hour and entertainment. We recommend return travel on Wednesday, March 20 in order to fully experience the meeting.

FRIDAY, MARCH 15

16:00–20:00	Arrival and Registration	Fureria
18:00–20:00	Welcome Mixer No registration fees are used to fund alcohol served at this function.	Arsenale

SATURDAY, MARCH 16

08:00–08:30	Poster Setup	Arsenale
08:30–18:00	Poster Viewing	Arsenale
08:30–09:30	Welcome and Keynote Address Registered attendees can view abstracts starting on 02/15/2019 * Erika L. Pearce, Max Planck Institute of Immunobiology and Epigenetics, Germany Charles Swanton, Francis Crick Institute, UK <i>Chromosomal Instability and Genome Plasticity in Cancer Evolution, Immune Evasion and Metastasis</i>	Basilica
09:30–12:00	Interactions via the Tumor Microenvironment Registered attendees can view abstracts starting on 02/15/2019 * Sarah-Maria Fendt, VIB Leuven, Belgium Massimiliano Mazzone, KU Leuven - VIB, Belgium <i>Immunometabolism in Cancer and Other Diseases</i> Coffee Break	Basilica

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

Karen H. Vousden, Francis Crick Institute, UK
ROS Regulation and Cancer Progression

Samuel F. Bakhom, Memorial Sloan Kettering Cancer Center, USA

Short Talk: Chromosomal Instability Promotes Metastasis through a Cytosolic DNA Response and Modulation of the Immune Microenvironment

Li Yang, NCI, National Institutes of Health, USA
Short Talk: DNMT3B Induction at Distant Site Promotes Breast Cancer Metastasis through Epigenetic Reprogramming

12:00–13:00	Lunch	Arsenale
13:00–15:30	Poster Session 1	Arsenale
15:30–16:00	Coffee Available	Arsenale
16:00–18:00	Mitochondria and Oxidative Stress in Cancer Metastasis and Immunity Registered attendees can view abstracts starting on 02/15/2019 * Matthew G. Vander Heiden , Massachusetts Institute of Technology, USA Erika L. Pearce , Max Planck Institute of Immunobiology and Epigenetics, Germany <i>Mitochondrial Integrity Regulated by FABP5 is a Cell-Intrinsic Checkpoint for Treg Suppressive Function</i> Marcia C. Haigis , Harvard Medical School, USA <i>New Functions for Metabolic Byproducts in the Tumor Microenvironment</i> Ralph J. DeBerardinis , University of Texas Southwestern Medical Center, USA <i>Metabolic Enablers of Cancer Progression</i> Zachary T. Schafer , University of Notre Dame, USA <i>Short Talk: Resistance to PD-1 Checkpoint Inhibitors Is Associated with Defective RIPK1-Mediated Mitophagy</i> Alexei Vazquez , CRUK Beatson Institute, UK <i>Short Talk: Formate Links Glycolysis to Oxidative Phosphorylation</i>	Basilica
18:00	On Own for Dinner No registration fees are used to fund alcohol served at this function.	

SUNDAY, MARCH 17

08:30–11:45	Cancer and Immunity in the Tumor Microenvironment Registered attendees can view abstracts starting on 02/15/2019 * Georgia Hatzivassiliou , Genentech, Inc., USA Russell G. Jones , Van Andel Research Institute, USA <i>Essential Nutrients for Effector T Cell Expansion</i> Matthew G. Vander Heiden , Massachusetts Institute of Technology, USA <i>Microenvironmental Determinants of Tumor Metabolism</i> Coffee Break Giuseppe Matarese , Università degli Studi di Napoli Federico II, Italy <i>Regulatory T Cells as Suppressors of Anti-Tumor Immunity</i> Iannis Aifantis , New York University School of Medicine, USA <i>Mapping the Bone Marrow Microenvironment in Single Cell Resolution</i> Fabio Grassi , Institute for Research in Biomedicine, Switzerland <i>Short Talk: Senescence Induction by the ATP-Gated P2X7 Receptor Limits T Cell Effector Response in the Tumor Microenvironment</i> Paula D. Bos , Virginia Commonwealth University, USA <i>Short Talk: Regulatory T Cells Promote Breast Cancer Progression and Metastasis by Functional Reprogramming of Bone Marrow-Derived Cell Populations</i> Zachary Bacigalupa , Vanderbilt University Medical Center, USA <i>Short Talk: Targeting ACS2 Inhibits HIF-2α Signaling in ccRCC</i>	Basilica
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	<i>and Promotes Favorable T Cell Characteristics Immune Response in ccRCC</i>	
11:45–16:00	On Own for Lunch	
11:45–13:00	Poster Setup	Arsenale
13:00–22:00	Poster Viewing	Arsenale
13:30–15:30	Workshop	Basilica
	<p>* Julian J. Lum, British Columbia Cancer Agency, Canada</p> <p>Ho-Young Lee, Seoul National University, South Korea <i>The Interplay between Slow-Cycling Chemoresistant Cancer Cells and Fibroblasts in Tumor Microenvironment Mediates Tumor Recurrence in Lung Cancer</i></p> <p>Julianna Blagih, Francis Crick Institute, UK <i>Loss of p53 in Tumor Cells Promotes Immune-Tolerance through Modulation of the Innate and Adaptive Immune Responses</i></p> <p>Medhi Wangpaichitr, Miami VA Hospital, USA <i>Kynurenine Metabolism in Cisplatin-Resistant Lung Cancer</i></p> <p>Nuzhat Ahmed, Fiona Elsey Cancer Research Institute, Australia <i>Metabolic and Immune Regulatory Signatures in Chemoresistant Ovarian Cancer Stem Cells</i></p> <p>David R. Soto-Pantoja, Wake Forest School of Medicine, USA <i>Metabolic Endpoints as Biomarkers of Immune Checkpoint Therapy Response</i></p> <p>Chia-Ning Shen, Academia Sinica, Taiwan <i>Mitochondrial OXPHOS Activity Is Required for Lung Metastatic Colonization of Pancreatic Cancer</i></p> <p>Madhusudhanan Sukumar, NCI, National Institutes of Health, USA <i>Mitochondrial Uncoupling Protein 2 (UCP2) Regulates T Cell Longevity and Anti-Tumor Function</i></p> <p>Jing Fan, University of Wisconsin-Madison, USA <i>Two-Stage Remodeling of Mitochondrial Metabolism in Macrophages Over a Course of Immune Response</i></p>	
15:30–16:00	Coffee Available	Arsenale
16:00–18:00	Metastasis, Tumor Vessels and Immunity	Basilica
	<p>Registered attendees can view abstracts starting on 02/15/2019</p> <p>* Massimiliano Mazzone, KU Leuven - VIB, Belgium</p> <p>Peter F. Carmeliet, University of Leuven, VIB, Belgium <i>Angiogenesis Revisited: Role and (Therapeutic) Implications of Endothelial Metabolism</i></p> <p>Michael Potente, Max Planck Institute for Heart and Lung Research, Germany <i>Metabolic Activity and Growth State in the Vascular Endothelium</i></p> <p>Bin-Zhi Qian, University of Edinburgh, UK <i>Macrophage Heterogeneity in Breast Cancer Metastasis</i></p> <p>Sophia Y. Lunt, Michigan State University, USA <i>Short Talk: Sialic Acid Metabolism Is a Key Driver of Breast Cancer Metastasis</i></p> <p>Andreas Fischer, German Cancer Research Center, Germany <i>Short Talk: Angiocrine Signals Promote Metastasis</i></p>	
18:00–19:00	Social Hour with Lite Bites	Arsenale
	No registration fees are used to fund alcohol served at this function.	
18:30–21:00	Poster Session 2	Arsenale
MONDAY, MARCH 18		
08:00–08:30	Poster Setup	Arsenale
08:30–16:00	Poster Viewing	Arsenale
08:30–11:45	Therapeutic Strategies for Metabolism and Immune Modulation	Basilica
	Registered attendees can view abstracts starting on 02/15/2019	

* **Giuseppe Matarese**, Università degli Studi di Napoli Federico II, Italy

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

Tim F. Greten, NCI, National Institutes of Health, USA
Targeting the Inflammation - Cancer Axis

Coffee Break

Georgia Hatzivassiliou, Genentech, Inc., USA
Dissecting the Impact of NRF2 Activation on Lung Adenocarcinoma Biology, Immune Contexture and Patient Outcomes

Gabriele A.I. Bergers, University of Leuven, Belgium
Constructing Tumor Vessels to Enhance Immunity

Julian J. Lum, British Columbia Cancer Agency, Canada
Short Talk: Understanding the Metabolome of Human TIL for Cancer Immunotherapy

Fabricio Loayza-Puch, Deutsches Krebsforschungszentrum, Germany
Short Talk: Targeting Proline Availability in Metastatic Breast Cancer

Gus Zeiner, Chimera Bioengineering, USA
Short Talk: A Metabolism-Triggered, Localized Payload Delivery System for T Cell Therapies

11:45–13:00	Lunch	Arsenale
13:00–15:30	Poster Session 3	Arsenale
15:30–16:00	Coffee Available	Arsenale
16:00–18:00	Stem Cells in Inflammation, Cancer and Metastasis	Basilica

[Registered attendees](#) can view abstracts starting on 02/15/2019

* **Iannis Aifantis**, New York University School of Medicine, USA

Elaine V. Fuchs, Rockefeller University, USA
Skin Stem Cells in Inflammation and Cancer

Mohamed Bentires-Alj, University Hospital Basel, Switzerland
Cancer Targeted Therapy and Tumor Heterogeneity: Act Locally, Think Globally

Robert A. Weinberg, Massachusetts Institute of Technology, USA
The EMT, Cancer and the Stem Cell State

Guy Roukens, University Medical Center Utrecht, Netherlands
Short Talk: SOX4 Is Required for Maintaining Stem Cell Identity in Mammary Tumors

Binwu Tang, NCI, National Institutes of Health, USA
Short Talk: Elucidating the Role of Breast Cancer Stem Cells in Early Metastasis through Direct Visualization and Quantitation

18:00 **On Own for Dinner**

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TUESDAY, MARCH 19

08:30–11:45	Metabolism Meets Cancer Metastasis	Basilica
	Registered attendees can view abstracts starting on 02/15/2019	
	* Michael Potente , Max Planck Institute for Heart and Lung Research, Germany	
	M. Celeste Simon , University of Pennsylvania, USA <i>Metabolic Symbioses in the Tumor Microenvironment</i>	
	Sohail F. Tavazoie , Rockefeller University, USA <i>Innate Immune and Metabolic Regulation of Metastatic Progression</i>	
	Coffee Break	
	Sarah-Maria Fendt , VIB Leuven, Belgium <i>Cancer Metabolism during Metastasis Formation</i>	
	Arkaitz Carracedo , Center for Cooperative Research in Biosciences, Spain <i>Signaling and Metabolic Plasticity in the Process of Prostate Cancer Metastasis</i>	

Ana Patricia Gomes, Weill Cornell Medicine, USA
Short Talk: Age-Induced Methylmalonic Acid Accumulation Promotes Cancer Progression and Metastasis Formation

Emily Jane Kay, Beatson Institute, UK
Short Talk: Pyruvate Dehydrogenase: The Key to Epigenetic Regulation of Mammary CAFs

Yulia Panina, Francis Crick Institute, UK
Short Talk: Using Mass Spectrometry Imaging to Identify Metabolic Adaptations during Metastasis of MYC-Driven Tumors

11:45–17:00	On Own for Lunch	
15:30–16:00	Coffee Available	Arsenale
16:00–17:45	Commensal Interactions: Implications for Immunity and Cancer Registered attendees can view abstracts starting on 02/15/2019 * Russell G. Jones , Van Andel Research Institute, USA Filipe J. Gomes Cabreiro , University College London, UK <i>Host-Microbe-Drug-Nutrient Interactions- A Holistic Approach for Cancer Treatment</i> Jennifer Ann Wargo , University of Texas MD Anderson Cancer Center, USA <i>The Gut Microbiome and PD-1 Therapy in Melanoma</i> Nicholas Chia , Mayo Clinic, USA <i>Distinct Microbes, Metabolites and Ecologies Define the Microbiome in Deficient and Proficient Mismatch Repair Colorectal Cancers</i>	Basilica
17:45–18:00	Meeting Wrap-Up: Outcomes and Future Directions (Organizers) Registered attendees can view abstracts starting on 02/15/2019	Basilica
18:00–19:00	Social Hour with Lite Bites No registration fees are used to fund alcohol served at this function.	Arsenale
19:00–22:00	Entertainment Entertainment is not subsidized by conference registration fees nor any U.S. federal government grants. Funding for this expense is provided by other revenue sources.	Arsenale

WEDNESDAY, MARCH 20

Departure

*Session Chair †Invited, not yet responded.

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