Conference Program

THURSDAY, JANUARY 7

6:30 p.m.-7:30 p.m. **Welcoming Remarks and Opening Keynote Session**

Session Chairperson: Raghu Kalluri. The University of Texas MD Anderson Cancer

Center. Houston. TX

Legends 1-4

Immune checkpoint blockade in cancer therapy: New insights, and

opportunities, and prospects for a cure

James P. Allison, The University of Texas MD Anderson Cancer Center,

Houston, TX

7:30 p.m.-9:30 p.m. **Opening Reception and Poster Session A**

Abbey Road and Edge

FRIDAY, JANUARY 8

7:00 a.m.-8:00 a.m. **Breakfast**

Abbey Road

8:00 a.m.-10:00 a.m.

Plenary Session 1: Biology and Actions of Fibroblasts

Session Chairperson: Ronald M. Evans, Salk Institute for Biological Studies, La

Jolla, CA

Legends 1-4

Fibroblast heterogeneity in skin tumor stroma

Fiona M. Watt, King's College London, United Kingdom

Stromal regulation of pancreatic cancer epigenome and metabolome

Ronald M. Fvans

Biology and function of fibroblasts and ECM in cancer

Raghu Kalluri, The University of Texas MD Anderson Cancer Center,

Houston, TX

Disruption of DDR2-collagen interactions in tumor and stroma with a

novel small molecule inhibitor blunts cancer metastasis*

Whitney R. Grither, Washington University School of Medicine, St. Louis,

Stromal targeting therapies for the treatment of pancreas cancer*

Christopher C. DuFort, Fred Hutchinson Cancer Research Center, Seattle,

WA

10:00 a.m.-10:30 a.m. **Break**

Abbey Road

10:30 a.m.-12:30 p.m.

Plenary Session 2: Microbes and Inflammation in Cancer

Session Chairperson: Michael Karin, University of California San Diego, La Jolla, CA

Legends 1-4

Influence of macrophage metabolism on vessel shape: Implications for cancer

Massimiliano Mazzone, Vlaams Instituut voor Biotechnologie (VIB) and Katholieke Universiteit Leuven, Belgium

The human microbiome in cancer and chemotherapy

Joseph F. Petrosino, Baylor College of Medicine, Houston, TX

p62/SQSTM1 accumulation links chronic tissue damage to malignant progression in liver and pancreas

Michael Karin

Synthetic peptides suppress M2 macrophages and synergize with chemotherapy in prostate and breast cancer models*

George R. Martin, Riptide Bioscience, Inc., Vallejo, CA

Inflammatory responses within the lung tumor microenvironment correlate with oncogenic mutation and histologic subtype*

Stephanie E. Busch, Fred Hutchinson Cancer Research Center, Seattle, WA

12:30 p.m.-2:00 p.m.

Lunch on own

2:00 p.m.-4:00 p.m.

Plenary Session 3: TME Senescence in Cancer

Session Chairperson: Scott W. Lowe, Memorial Sloan Kettering Cancer Center, New York, NY Legends 1-4

Non-cell autonomous regulation of senescence in cancer and cancer therapy

Andrea Alimonti, Institute of Oncology Research, Bellinzona, Switzerland

Convergent control of cancer-associated fibroblast activation and field cancerization by Notch/CSL and p53 signaling

G. Paolo Dotto, University of Lausanne, Switzerland

Senescent-cell communication with the tissue microenvironment Scott W. Lowe

Control of the melanoma metastatic phenotype by A-to-I microRNA editing*

Menashe Bar-Eli, The University of Texas MD Anderson Cancer Center, Houston, TX

Reciprocal prostate cancer signaling with its microenvironment mediates castrate resistant disease progression*

Manisha Tripathi, Cedars-Sinai Medical Center, Los Angeles, CA

4:00 p.m.-6:00 p.m.

Reception and Poster Session B

Abbey Road, Penny Lane, and Edge

7:00 a.m.-8:00 a.m.

Breakfast

Abbey Road

8:00 a.m.-10:00 a.m.

Plenary Session 4: Function of Stroma in Cancer

Session Chairperson: Erkki Ruoslahti, Sanford Burnham Prebys Medical

Discovery Institute, La Jolla, CA

Legends 1-4

Stromal cells in targeting and transport of tumor-penetrating peptides

Erkki Ruoslahti

The interplay between tumor cells, cancer associated fibroblasts, and immature myeloid cells in the esophageal tumor microenvironment

Anil K. Rustgi, University of Pennsylvania School of Medicine, Philadelphia, PA

Breaking bad: Cancer-associated fibroblasts are reprogrammed from growth inhibitory to pro-inflammatory and tumor promoting in breast cancer

Neta Erez, Tel Aviv University Sackler School of Medicine, Tel Aviv, Israel

Mechanisms of stromal reprogramming mediated by heat shock factor 1^*

Ruth Scherz-Shouval, Weizmann Institute of Science, Rehovot, Israel

Stromal cells utilize viral mimicry to regulate breast cancer therapy resistance through exosomes and noncoding RNA*

Barzin Y. Nabet, University of Pennsylvania, Philadelphia, PA

10:00 a.m.-10:30 a.m.

Break

Abbey Road

10:30 a.m.-12:45 p.m.

Plenary Session 5: Actions of Innate and Adaptive Immunity

Session Chairperson: Joan Massagué, Memorial Sloan Kettering Cancer Center, New York, NY Legends 1-4

Beyond checkpoint blockade: Emerging strategies

Tak W. Mak, Campbell Family Institute for Breast Cancer Research, University of Toronto Health Network, Princess Margaret Hospital, Toronto, ON, Canada

Tipping the balance from a procarcinogenic to an antitumor microenvironment in pancreatic cancers

Elizabeth M. Jaffee, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore. MD

T cell receptor-like antibody 8F4 targets leukemia and nonhematopoietic cancer

Jeffrey J. Molldrem, The University of Texas MD Anderson Cancer Center, Houston, TX

Latency and immune evasion of metastatic stem cells

Joan Massagué

Antibody-mediated blockade of phosphatidylserine synergizes with immune checkpoint blockade by inhibiting multiple immune suppressive mechanisms*

Rolf A. Brekken, University of Texas Southwestern Medical Center, Dallas, TX

12:45 p.m.-3:15 p.m.

Lunch followed by Poster Session C

Note that Poster Session C begins at 1:15 p.m.

Abbey Road, Penny Lane, and Edge

3:15 p.m.-5:15 p.m.

Plenary Session 6: TME and Metastasis

Session Chairperson: M. Celeste Simon, Abramson Family Cancer Research Institute, Philadelphia, PA Legends 1-4

Microenvironmental regulation of breast cancer invasion, dissemination, and lung colonization

Andrew J. Ewald, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore. MD

Hypoxic influences on the tumor microenvironment

M. Celeste Simon

Perivascular control of breast cancer metastasis

Valerie S. LeBleu, The University of Texas MD Anderson Cancer Center, Houston, TX

A glycoprotein-mediated mechanical switch promotes glioma aggression*

J. Matthew Barnes, University of California, San Francisco, CA

Increased matrix stiffness induces CCN1 mediated upregulation of N-Cadherin in endothelial cells: Implications for cancer cell metastasis* Sara Zanivan, CRUK Beatson Institute, Glasgow, United Kingdom

5:15 p.m.- Evening off/Dinner on own

7:00 a.m.-8:00 a.m.

Breakfast

Edge

8:00 a.m.-10:00 a.m.

Plenary Session 7: TME Interactome in Cancer Progression

Session Chairperson: Douglas Hanahan, Swiss Institute for Experimental Cancer Research (ISREC), Lausanne, Switzerland

Legends 1-4

Modeling and targeting the tumor microenvironment of pancreatic cancer

Dieter Saur, Technical University of Munich, Munich, Germany

Deconvolution of the triple-negative breast cancer microenvironment

Morag Park, Goodman Cancer Research Centre, McGill University, QC,

Canada

Forcing through tumor metastasis: Regulation of epithelial-mesenchymal plasticity by matrix stiffness

Jing Yang, University of California San Diego, La Jolla, CA

Phenformin inhibits myeloid-derived suppressor cells and enhances the antitumor activity of PD-1 blockade in melanoma*

Bin Zheng, Massachusetts General Hospital, Boston, MA

Understanding the systemic interactions between primary tumors and disseminated tumor-initiating cells*

Zafira Castano, Brigham and Women's Hospital/Harvard Medical School,

Boston, MA

10:00 a.m.-10:15 a.m.

Break

10:15 a.m.-12:15 p.m.

Plenary Session 8: Hallmarks of Cancer

Session Chairperson: Robert A. Weinberg, MIT Whitehead Institute for

Biomedical Research, Cambridge, MA

Legends 1-4

Abbey Road

Epidermal neoplasms bypass immune evasion requirements via niche occupancy*

Brad Kubick, University of Colorado Anschutz Medical Campus, Aurora, CO

TGF-beta blockade enhances efficacy of immune checkpoint blockade in a mouse model of HNSCC*

Rosemary J. Akhurst, University of California, San Francisco, CA

Hallmark capabilities modulated by the tumor microenvironment during tumor progression and adaptive resistance to therapy

Douglas Hanahan, Swiss Institute for Experimental Cancer Research (ISREC), Lausanne, Switzerland

Regulation of epithelial versus mesenchymal polarity and malignant progression

Robert A. Weinberg, MIT Whitehead Institute for Biomedical Research, Cambridge, MA

12:15 p.m.-12:30 p.m.

Closing Remarks / Departure