

CONFERENCE PROGRAM AND SCHEDULE

Friday, October 23, 2015

8:00 a.m.-9:15 a.m. Continental Breakfast
Rooms 123, 124, and 125

9:15 a.m.-10:30 a.m. Opening Keynote Session
Terrace Ballroom I

Session Chairperson: M. Celeste Simon, Abramson Family
Cancer Research Institute, Philadelphia, PA

Immune checkpoint blockade in cancer therapy: New insights, opportunities, and prospects for a cure

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

10:30 a.m.-11:00 a.m. Coffee Break
Terrace Ballroom Foyer

**11:00 a.m.-1:00 p.m. Plenary Session 1:
Immunology and Immunotherapy**
Terrace Ballroom I

Session Chairperson: James P. Allison, The University of
Texas MD Anderson Cancer Center, Houston, TX

Personalizing cancer immunotherapy

Robert D. Schreiber, Washington University School of
Medicine, St. Louis, MO

**From the clinic to the lab: Investigating immune responses
to immune checkpoint therapies**

Padmanee Sharma, The University of Texas MD Anderson
Cancer Center, Houston, TX

Multifaceted functions of the PD-1 pathway

Arlene H. Sharpe, Harvard Medical School, Boston, MA

**Molecular mechanisms of the T cell-inflamed tumor
microenvironment: Implications for cancer immunotherapy**

Thomas F. Gajewski, University of Chicago, Chicago, IL

**1:00 p.m. - 2:30 p.m. Mentoring Lunches for
Early-Career Investigators**
Meeting Rooms 123, 124, and 125

(Advance sign up required; session is from 1:15 p.m. to
2:15 p.m.)

Lunch on Own for All Other Attendees

2:30 p.m.-4:30 p.m. Plenary Session 2: Metabolism
Terrace Ballroom I

Session Chairperson: M. Celeste Simon, Abramson Family
Cancer Research Institute, Philadelphia, PA

**Angiogenesis revisited: Role and (therapeutic) implications
of endothelial metabolism**

Peter Carmeliet, Catholic University of Leuven, Leuven,
Belgium

Metabolic heterogeneity in cancer cells and tumors

Ralph J. DeBerardinis, UT Southwestern Medical Center,
Dallas, TX

Hypoxia, metabolism, and tumor progression

M. Celeste Simon

**Oncogenic Kras-induced mitochondrial oxidative stress in
pancreatic acini modulates the formation of precancerous
lesions through autocrine EGFR signaling***

Geou-Yarh Liou, Mayo Clinic, Jacksonville, FL

**C/EBPG: A critical stress response regulator with a pro-
oncogenic role***

Manasi K. Mayekar, National Cancer Institute, Frederick, MD

*Short talks from proffered papers

4:45 p.m.-5:30 p.m. **Special Lecture: Converging Concepts and Emerging Research Immunology, Tumor Microenvironment, and Inflammation**
Terrace Ballroom I

Session Chairperson: M. Celeste Simon, Abramson Family Cancer Research Institute, Philadelphia, PA

Inflammation and cancer: Reprogramming the immune microenvironment as an anti-cancer therapeutic strategy
Lisa Coussens, Knight Cancer Institute, Oregon Health and Sciences University, Portland, OR

5:30 p.m.- **Dinner on Own OR**

6:00 p.m.-8:00 p.m. **Women in Cancer Research (WICR) Career Mentoring Session and Reception**
Terrace Ballroom I

Chairperson: Jessie M. English, Dana-Farber Cancer Institute, Boston, MA

Keynote Address:
Bridging the gap between clinical research and laboratory studies
Padmanee Sharma, The University of Texas MD Anderson Cancer Center, Houston, TX

Featured Mentors:

Lisa Coussens, Knight Cancer Institute, Oregon Health and Sciences University, Portland, OR

M. Celeste Simon, Abramson Family Cancer Research Institute, Philadelphia, PA

Dafna Bar-Sagi, NYU Langone Medical Center, New York, NY

Connie J. Eaves, BC Cancer Agency, Vancouver, BC, Canada

Kathleen W. Scotto, Rutgers, The State University of New Jersey, New Brunswick, NJ

More to be announced

**Short talks from proffered papers*

Saturday, October 24, 2015

7:00 a.m.-8:00 a.m. **Continental Breakfast**
Meeting Rooms 123, 124, and 125

8:00 a.m.-10:00 a.m. **Plenary Session 3: Cancer Stem Cells and Tumor Dormancy**
Terrace Ballroom I

Session Chairperson: John E. Dick, University of Toronto, Toronto, ON, Canada

The role of stem cells in the origin of relapse in acute leukemia
John E. Dick

Tumor dormancy and recurrence
Lewis A. Chodosh, University of Pennsylvania, Philadelphia, PA

Cellular stress or drug treatment drives chromatin remodeling leading to $\beta 3$ integrin (CD61) expression required for reprogramming tumors to a drug resistant stem-like fate
David A. Cheresh, UCSD Moores Cancer Center, San Diego, CA

Clonal dynamics of normal and malignant human mammary cell growth in xenografts
Connie J. Eaves, BC Cancer Agency, Vancouver, BC, Canada

10:00 a.m.-10:30 a.m. **Coffee Break**
Terrace Ballroom Foyer

CONFERENCE PROGRAM AND SCHEDULE

10:30 a.m.-11:15 a.m. **Special Lecture: Converging Concepts and Emerging Research Cell of Origin, Stem Cells, and Genetics**

Terrace Ballroom I

Session Chairperson: Nathanael Gray, Dana-Farber Cancer Institute, Boston, MA

Targeting ubiquitin ligase activity for the treatment of cancer

Benjamin Ebert, Brigham and Women's Hospital, Boston, MA

11:15 a.m.-1:15 p.m. **Plenary Session 4: Subclonal Heterogeneity in Genetics and Genomics**

Terrace Ballroom I

Session Chairperson: Victor E. Velculescu, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore, MD

Cancer genomics: From data to science to medicine

Andy Futreal, The University of Texas MD Anderson Cancer Center, Houston, TX

Clonal evolution in breast cancer patients and patient-derived xenografts

Samuel Aparicio, BC Cancer Research Center, Vancouver, BC, Canada

Deciphering cancer genome evolution in heterogeneous tumors

Nicholas McGranahan, The Francis Crick Institute, London, United Kingdom

High-resolution detection of fitness genes and genotype-specific cancer vulnerabilities with CRISPR-Cas9 screens*

Megha Chandrashekhar, University of Toronto, Toronto, ON, Canada

Functional diversity of the pancreas tumor stroma*

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

1:15 p.m.-2:45 p.m. **Mentoring Lunches for Early-Career Investigators**

Meeting Rooms 123, 124, and 125

(Advance sign up required; session is from 1:30 p.m. to 2:30 p.m.)

Lunch on Own for All Other Attendees

2:45 p.m.-4:45 p.m. **Plenary Session 5: Epigenetics**

Terrace Ballroom I

Session Chairperson: Victor E. Velculescu, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore, MD

Epigenetic therapy – Can it sensitize to immune checkpoint therapy?

Cynthia A. Zahnow, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore, MD

Cancer epigenetics: From knowledge to application

Manel Esteller, Institut d'Investigació Biomèdica de Bellvitge (IDIBELL), Barcelona, Spain

Chromatin looping factors and breast cancer

Mathieu Lupien, University Health Network Ontario Cancer Institute, Toronto, ON, Canada

Mechanisms of tumor response and resistance to radiation and dual checkpoint blockade in mice and patients*

Andy Minn, University of Pennsylvania, Philadelphia, PA

Molecular and functional interactions between AKT and SOX2 in breast carcinoma*

Thorsten Schaefer, University Hospital Basel, Basel, Switzerland

4:45 p.m.-7:00 p.m. **Poster Session A and Reception**

Terrace Ballroom II

7:00 p.m.-

Dinner on Own

*Short talks from proffered papers

Sunday, October 25, 2015

7:00 a.m.-8:00 a.m. Continental Breakfast
Meeting Rooms 123, 124, and 125

8:00 a.m.-10:00 a.m. Plenary Session 6: Tumor Microenvironment and Inflammation
Terrace Ballroom I

Session Chairperson: James P. Allison, The University of Texas MD Anderson Cancer Center, Houston, TX

Ras oncogene in cancer pathogenesis and therapy
Dafna Bar-Sagi, NYU Langone Medical Center, New York, NY

Role of sphingosine-1-phosphate axis in the tumor microenvironment and development of a novel therapy for obesity-related triple-negative breast cancer
Sarah Spiegel, Virginia Commonwealth University, Richmond, VA

Leukemia development and the microenvironment
Simón Méndez-Ferrer, University of Cambridge, Cambridge, United Kingdom

Characterization of human effectors in the tumor microenvironment of NSCLC patients and lung tumor xenograft models*
Hyun-Jeong Ra, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

Macrophage-mediated trogocytosis leads to death of antibody-opsonized tumor cells*
E. Sally Ward, Texas A&M Health Science Center, College Station, TX

10:00 a.m.-10:30 a.m. Coffee Break
Terrace Ballroom Foyer

10:30 a.m.-11:15 a.m. Special Lecture: Converging Concepts and Emerging Research Genetics and New Technologies in Cancer Research
Terrace Ballroom I

Session Chairperson: Nathanael Gray, Dana-Farber Cancer Institute, Boston, MA

Genomic analyses of cancer in tissue and liquid biopsies
Victor E. Velculescu, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore, MD

11:15 a.m.-1:15 p.m. Plenary Session 7: New Technologies in Cancer Research
Terrace Ballroom I

Session Chairperson: John E. Dick, University of Toronto, Toronto, ON, Canada

Identifying and profiling tumor specific T cells using mass cytometry and highly multiplexed peptide-MHC tetramer staining
Evan Newell, AStar, Singapore

Long-term single cell quantification: New tools for old questions
Timothy Schroeder, ETH Zurich, Basel, Switzerland

Retooling CRISPR to turn genes on and off
Luke A. Gilbert, University of California, San Francisco, CA

XTR: A recombinase-based system for regulating gene function in a conditional and reversible manner*
David Feldser, University of Pennsylvania, Philadelphia, PA

Functional analysis of oncogenic driver mutations in human cancer cells through CRISPR-barcoding*
Luca Grumolato, University of Rouen, Normandy University, Mont-Saint-Aignan, France

**Short talks from proffered papers*

CONFERENCE PROGRAM AND SCHEDULE

1:15 p.m.-2:45 p.m. **Mentoring Lunches for Early-Career Investigators**
Meeting Rooms 123, 124, and 125

(Advance sign up required; session is from 1:30 p.m. to 2:30 p.m.)

Lunch on Own for All Other Attendees

2:45 p.m.-4:45p.m. **Plenary Session 8: Mechanisms of Resistance**
Terrace Ballroom I

Session Chairperson: Nathanael Gray, Dana-Farber Cancer Institute, Boston, MA

Preclinical strategies to target resistance in colorectal cancer: Opportunities and challenges

Livio Trusolino, University of Torino Medical School, Torino, Italy

Developing covalent inhibitors to interrogate kinase targets in cancer

Nathanael Gray

Mechanisms of resistance to targeted therapies in myeloid malignancies

Neil P. Shah, UCSF School of Medicine, San Francisco, CA

Mechanisms of resistance to EGFR inhibitors in lung cancer

Pasi A. Jänne, Dana-Farber Cancer Institute, Boston, MA

4:45 p.m.-7:00 p.m. **Poster Session B and Reception**
Terrace Ballroom II

7:00 p.m.- **Dinner on Own**

Monday, October 26, 2015

7:00 a.m.-8:00 a.m. **Continental Breakfast**
Meeting Rooms 123, 124, and 125

8:00 a.m.-10:00 a.m. **Plenary Session 9: Drug Development and New Therapeutic Modalities**
Terrace Ballroom I

Session Chairperson: Nathanael Gray, Dana-Farber Cancer Institute, Boston, MA

Optimizing kinase inhibitors to treat cancer

Gideon Bollag, Plexxikon Inc., Berkeley, CA

Targeting developmental pathways in cancer

Frederic J. de Sauvage, Genentech, Inc., South San Francisco, CA

Clinical proof of concept for the first-in-class BCL-2-selective inhibitor venetoclax (ABT-199/GDC-0199)

Joel Levenson, Abbott Laboratories, Abbott Park, IL

Discovery of porcupine inhibitors targeting Wnt signaling in cancer

Shifeng Pan, Genomics Institute of the Novartis Research Foundation, San Diego, CA

10:00 a.m.-10:30 a.m. **Coffee Break**
Terrace Ballroom Foyer

10:30 a.m.-11:30 a.m. **Closing Keynote**
Terrace Ballroom I

Session Chairperson: M. Celeste Simon, Abramson Family Cancer Research Institute, Philadelphia, PA

Signatures of mutational processes

Michael R. Stratton, Wellcome Trust Sanger Institute, Cambridge, United Kingdom

**Short talks from proffered papers*