

An AACR Special Conference
TARGETING THE PI3K-mTOR NETWORK IN CANCER
September 14-17, 2014 · Philadelphia, PA



Conference Co-Chairpersons

Lewis C. Cantley, Sandra and Edward Meyer Cancer Center
at Weill Cornell Medical College, New York, NY

José Baselga, Memorial Sloan Kettering Cancer Center, New York, NY

Joan S. Brugge, Harvard Medical School, Boston, MA

Brendan D. Manning, Harvard School of Public Health, Boston, MA

Malte Peters, Novartis Pharma AG, Basel, Switzerland

This AACR Special Conference will highlight recent progress in understanding the molecular wiring of the PI3K-mTOR signaling network and its activation in cancer, the major downstream functions contributing to cancer pathology, and therapeutic strategies for targeting the network and overcoming resistance. An expert line-up of researchers and clinicians working at the leading edge of discovery and translation, in both academic and industry settings, has been assembled to cover these topics in an interdisciplinary manner. Talks will range from structural, pharmacological, and mechanistic insights to genetic mouse models and results from clinical trials. The program is designed to foster interactions between basic and clinical investigators and to emphasize critical discussions around the most pressing topics. Opportunities for early career researchers and trainees to present through oral and poster presentations are an important part of the program.

The AACR would like to thank the following organizations for their generous support of this conference.

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The AACR thanks the following organizations for their generous support of the travel awards provided at this conference.

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Conference Program

Sunday, September 14

- 7:00 p.m.-8:00 p.m. **Opening Session / Keynote Talks**
Liberty ABC
- 7:00 p.m. **Introduction/Welcome**
José Baselga, Memorial Sloan Kettering Cancer Center, New York, NY
- 7:05 p.m. **Targeting phosphoinositide 3-kinase for cancer therapy**
Lewis C. Cantley, Weill Cornell Medical College of Cornell University, New York, NY
- 8:00 p.m.-10:00 p.m. **Opening Reception**
Liberty Foyer

Monday, September 15

- 7:30 a.m.-8:30 a.m. **Continental Breakfast**
Liberty D and Liberty D Foyer
- 8:30 a.m.-10:30 a.m. **Plenary Session 1: Molecular Regulation of the PI3K-mTOR Network**
Liberty ABC
Session Chairperson: Ramon E. Parsons, Icahn School of Medicine at Mount Sinai, New York, NY
- 8:30 a.m. **G-proteins regulating PI3Ks and PI4KIII β regulating a G protein**
Roger L. Williams, MRC Laboratory of Molecular Biology, Cambridge, United Kingdom
- 9:00 a.m. **Regulation of growth by the mTOR pathway**
David M. Sabatini, MIT Whitehead Institute for Biomedical Research, Cambridge, MA
- 9:30 a.m. **PTEN regulation and output**
Ramon E. Parsons
- 10:00 a.m. **Inhibitory role of phosphatidylinositol-3,4-bisphosphate in triple-negative breast cancers***
Darien Reed, University of California, San Francisco, CA
- 10:15 a.m. **Targeting PI3K: The PIP₂ binding site***
Michelle Miller, Johns Hopkins University, Baltimore, MD

*Short talks from proffered papers.

- 10:30 a.m.-11:00 a.m. **Break**
Liberty Foyer
- 11:00 a.m.-12:30 p.m. **Plenary Session 2: Downstream Effectors Underlying Cancer Progression**
Liberty ABC
Session Chairperson: Brendan D. Manning, Harvard School of Public Health, Boston, MA
- 11:00 a.m. **The role of glucose and lipid metabolism in growth and survival of cancer cells**
Almut Schulze, University of Wuerzburg, Wuerzburg, Germany
- 11:30 a.m. **PI3-kinase and Akt at the interface of signaling and metabolism**
Alex Toker, Beth Israel Deaconess Medical Center, Boston, MA
- 12:00 p.m. **The TSC complex links PI3K to mTOR and cancer metabolism**
Brendan D. Manning
- 12:30 p.m.-2:30 p.m. **Free Time / Lunch on Own**
- 2:30 p.m.-4:30 p.m. **Plenary Session 3: PI3K-mTOR Activation in Human Cancer (Includes PTEN)**
Liberty ABC
Session Chairperson: Gordon B. Mills, The University of Texas MD Anderson Cancer Center, Houston, TX
- 2:30 p.m. **Functionalizing the cancer genome**
Gordon B. Mills
- 3:00 p.m. **Use of next-generation sequencing to identify predictors of PI3K-mTOR sensitivity**
David B. Solit, Memorial Sloan Kettering Cancer Center, New York, NY
- 3:30 p.m. **Nuclear PTEN in regulation of genome integrity**
Vuk Stambolic, Ontario Cancer Institute/Princess Margaret Hospital, Toronto, ON, Canada
- 4:00 p.m. **Targeting PI3K-mTOR signaling in glioblastoma: A central role for mTORC2 in drug resistance and metabolic reprogramming**
Paul S. Mischel, Ludwig Institute for Cancer Research, La Jolla, CA
- 4:30 p.m.-7:00 p.m. **Poster Session A with Reception**
Independence and Freedom Ballrooms
- 7:00 p.m.- **Evening Off / Dinner on Own**

Tuesday, September 16

- 7:30 a.m.-8:30 a.m. **Continental Breakfast**
Liberty D and Liberty D Foyer
- 8:30 a.m.-10:30 a.m. **Plenary Session 4: Preclinical Models of PI3K-Driven Cancers**
Liberty ABC
Session Chairperson: Bart Vanhaesebroeck, University College London Cancer Institute, London, United Kingdom
- 8:30 a.m. **New roles for PI3K isoforms in cancer**
Bart Vanhaesebroeck
- 9:00 a.m. **Targeting PI3K isoforms in cancer: From mouse genetics to human therapy**
Jean J. Zhao, Dana-Farber Cancer Institute, Boston, MA
- 9:30 a.m. **Targeting the PTEN/PI3K pathway: From mouse model to human cancer**
Hong Wu, UCLA David Geffen School of Medicine, Los Angeles, CA
- 10:00 a.m. **New insights on the role of tumor suppressor phosphatases**
Pier Paolo Pandolfi, Beth Israel Deaconess Medical Center, Boston, MA
- 10:30 a.m.-11:00 a.m. **Break**
Liberty Foyer
- 11:00 a.m.-1:00 p.m. **Plenary Session 5: The PI3K-mTOR Network in Hematopoietic Cancers**
Liberty ABC
Session Chairperson: Louis M. Staudt, National Cancer Institute, Bethesda, MD
- 11:00 a.m. **Mechanisms of resistance to mTOR inhibitors in leukemia and lymphoma**
David A. Fruman, University of California, Irvine, CA
- 11:30 a.m. **The therapeutic potential of PI(3) inhibition in lymphoma**
Louis M. Staudt
- 12:00 p.m. **Clinical validation of PI3K δ as a therapeutic target in B-cell malignancy****
Roger D. Dansey, Gilead Sciences, Inc., San Mateo, CA
- 12:30 p.m. **Targeting PI3K- δ and PI3K- γ in hematological malignancies with duvelisib (IPI-145)**
Julian Adams, Infinity Pharmaceuticals, Inc., Cambridge, MA
- **Dr. Dansey's lecture is not accredited for CME credit to permit the free flow of information of the commercial interest employees participating. This session is accredited for (1.50) credits. Any questions regarding CME credits or designated sessions, please see the AACR CME staff near registration.*
- 1:00 p.m.-4:00 p.m. **Poster Session B with Lunch**
Independence and Freedom Ballrooms

4:00 p.m.-5:30 p.m. **Plenary Session 6: Preclinical and Clinical Studies in Breast Cancer**
Liberty ABC
Session Chairperson: José Baselga, Memorial Sloan Kettering Cancer Center, New York, NY

4:00 p.m. **Title to be announced**
José Baselga

4:30 p.m. **Combination treatments that include PI3K-inhibitors for triple-negative breast cancer**
Gerburg Wulf, Beth Israel Deaconess Medical Center, Boston, MA

5:00 p.m. **Targeting mTOR for breast cancer therapy**
Funda Meric-Bernstam, The University of Texas MD Anderson Cancer Center, Houston, TX

5:30 p.m.- **Evening Off / Dinner on Own**

Wednesday, September 17

7:30 a.m.-8:30 a.m. **Continental Breakfast**
Liberty D and Liberty D Foyer

8:30 a.m.-10:30 a.m. **Plenary Session 7: Resistance Mechanisms (Includes Crosstalk, Feedback, and Compensatory)**
Liberty ABC
Session Chairperson: Joan S. Brugge, Harvard Medical School, Boston, MA

8:30 a.m. **Resistance to PI3K inhibitors via maintenance of downstream signaling**
Jeffrey A. Engelman, Massachusetts General Hospital, Charlestown, MA

9:00 a.m. **Resistance to targeted anticancer therapies that modulate the PI3K pathway**
Levi A. Garraway, Dana-Farber Cancer Institute, Boston, MA

9:30 a.m. **Autophagy: A potentially druggable resistance mechanism to PI3K/mTOR inhibitors**
Ravi K. Amaravadi, University of Pennsylvania, Philadelphia, PA

10:00 a.m. **The Hippo pathway effector YAP1 contributes to escape from proliferation arrest under chronic PI3K/mTOR inhibition***
Taru Muranen, Harvard Medical School, Boston, MA

10:15 a.m. **mTOR mutations in cancer***
Brian Grabiner, Whitehead Institute, Cambridge, MA

10:30 a.m.-10:45 a.m. **Break**
Liberty Foyer

*Short talks from proffered papers.

10:45 a.m.-12:45 p.m. **Plenary Session 8: Clinical Data with PI3K and mTOR Inhibitors – Have They Met Expectations?**
Liberty ABC
Session Chairperson: Malte Peters, Novartis Pharma AG, Basel, Switzerland

10:45 a.m. **Title to be announced**
Dejan Juric, Massachusetts General Hospital, Charlestown, MA

11:15 a.m. **Preclinical to clinical translation for PI3K in solid tumors**
Lori Friedman, Genentech, Inc. South San Francisco, CA

11:45 a.m. **PI3K and mTOR inhibitors in lymphoid malignancies: Clinical data**
John P. Leonard, Weill Cornell Medical Center, New York, NY

12:15 p.m. **Patient selection strategies and studying molecular mechanisms of resistance in clinical trials****
Malte Peters

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12:45 p.m. **Departure**