An AACR Special Conference on
**Molecularly Targeted Therapies: Mechanisms of Resistance**
May 9-12, 2012 • Westin San Diego • San Diego, CA

**Wednesday, May 9**

7:00 p.m.-8:00 p.m.  **Opening Keynote Session**  
Crystal Ballroom  

**BRAF and RAS signaling in melanoma from basic to translational and clinical research**  
Richard M. Marais, Paterson Institute for Cancer Research, Manchester, United Kingdom

8:00 p.m.-9:30 p.m.  **Opening Reception**  
Emerald Ballroom

**Thursday, May 10**

7:00 a.m.-8:00 a.m.  **Continental Breakfast**  
Ballroom Foyer

8:00 a.m.-10:00 a.m.  **Session 1: EGFR**  
Crystal Ballroom  
Chairperson: Pasi A. Jänne, Dana-Farber Cancer Institute, Boston, MA

**Challenges in overcoming resistance to targeted therapies**  
Jeffrey A. Engelman, Massachusetts General Hospital, Boston, MA

**Strategies to overcome resistance to EGFR tyrosine kinase inhibitors**  
Pasi A. Jänne

**Mechanisms of resistance to anti-EGFR therapies in colorectal cancers**  
Alberto Bardelli, University of Turin, Candiolo, Italy

**NKX2-1/TITF1/TTF-1-induced ROR1 is required to sustain EGFR survival signaling in lung adenocarcinoma**  
Tomoya Yamaguchi, Nagoya University Graduate School of Medicine, Nagoya, Japan

**Stroma-derived matrix metalloproteinase 9 (MMP9) confers resistance to anti-EGFR therapy through cell-extrinsic activation of ERBB2/ERK/JUN pathway**  
Janghee Woo, Dana-Farber Cancer Institute, Boston, MA

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

*Short talks from proffered papers*
10:30 a.m.-12:30 p.m.  **Session 2: Breast and Prostate Cancers**  
Crystal Ballroom  
*Chairperson: Carlos L. Arteaga, Vanderbilt-Ingram Cancer Center, Nashville, TN*

**Therapy response and resistance in mouse models of BRCA-associated breast cancer**  
Jos Jonkers, The Netherlands Cancer Institute, Amsterdam, The Netherlands

**PI3K inhibitors in ER+ breast cancer: Next steps**  
Matthew J. Ellis, Washington University Siteman Cancer Center, St. Louis, MO

**Presurgical studies as a tool for discovery of mechanisms of drug resistance in breast cancer**  
Carlos L. Arteaga

**Reciprocal feedback regulation of the PI3K and AR pathway in prostate cancer: A mechanism of innate resistance**  
Brett S. Carver, Memorial Sloan-Kettering Cancer Center, New York, NY

12:30 p.m. - 2:00 p.m.  **Lunch on Own/Free Time**

2:00 p.m. - 4:30 p.m.  **Poster Session A**  
Emerald Ballroom

4:30 p.m.-6:30 p.m.  **Session 3: Mouse Models**  
Crystal Ballroom  
*Chairperson: David A. Tuveson, CRI/Cancer Research UK, University of Cambridge, Cambridge, United Kingdom*

**Developing therapeutics in mice with ductal pancreatic cancer**  
David A. Tuveson

**Resistance to targeted therapies in mouse models of lung cancer**  
Katerina A Politi, Yale University, New Haven, CT

**Targeting PI3K in cancer: Mechanistic insights from genetic mouse models**  
Jean J. Zhao, Dana-Farber Cancer Institute, Boston, MA

**Patient-derived, BRCA1-deficient, triple-negative breast cancer xenografts develop resistance to DNA damaging agents via genetic and epigenetic mechanisms**  
Petra ter Brugge, The Netherlands Cancer Institute, Amsterdam, The Netherlands

**Incomplete inhibition of phosphorylation of 4EBP1 is a mechanism for KRAS-driven resistance to the ATP-competitive mTOR inhibitor PP242 in colorectal cancer**  
Gregory S. Ducker, University of California, Berkeley, CA

6:30 p.m.  **Dinner on Own/Evening Off**
Friday, May 11

7:00 a.m.-8:00 a.m.  Continental Breakfast
Ballroom Foyer

8:00 a.m.-10:00 a.m.  Session 4: Raf/MEK
Crystal Ballroom
Chairperson: Meenhard Herlyn, The Wistar Institute, Philadelphia, PA

Novel mechanisms of resistance in BRAF-mutant melanoma
Poulikos I. Poulikakos, Memorial Sloan-Kettering Cancer Center, New York, NY

BRAF and MEK resistance in melanoma
Meenhard Herlyn

Selective BRAF inhibitors induce bypass mechanisms within the MAP kinase pathway and beyond
Keith T. Flaherty, Massachusetts General Hospital, Boston, MA

The MEK network as a target for combination therapies
W. Michael Korn, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA

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

10:30 a.m.-12:30 p.m.  Session 5: Clinical Trial Design and Regulatory Issues
Crystal Ballroom
Chairperson: Mace L. Rothenberg, Pfizer, Inc., New York, NY

Preemptive or reactive? Drug development strategies in cancers resistant to targeted agents
Mace L. Rothenberg

Using molecular profiling strategies in clinical trials to understand resistance mechanisms in the era of personalized cancer medicine
Lillian L. Siu, Princess Margaret Hospital, Toronto, ON, Canada

Regulatory considerations in addressing resistance mechanisms
Ramzi N. Dagher, Pfizer, Inc., Groton, CT

Panel Discussion

12:30 p.m.-2:30 p.m.  Lunch on Own/Free Time

*Short talks from proffered papers
2:30 p.m.-4:30 p.m.  
**Session 6: Strategies to Identify Mechanisms of Resistance: RNAi and ORFs**
Crystal Ballroom
*Chairperson: Thomas F. “Trey” Westbrook, Baylor College of Medicine, Houston, TX*

**Repositioning targeted therapies via forward genetics**
Thomas F. “Trey” Westbrook

**Finding biomarkers of response to targeted cancer drugs through functional genetics**
René Bernards, The Netherlands Cancer Institute, Amsterdam, The Netherlands

**Functional genomics to identify cancer targets and resistance**
William C. Hahn, Dana-Farber Cancer Institute, Boston, MA

**Identifying mechanisms of drug resistance to MAPK pathway inhibition via genome-scale rescue screens**
Cory M. Johannessen, The Broad Institute of MIT and Harvard, Cambridge, MA

**Widespread potential for growth factor-driven resistance to anticancer kinase inhibitors**
Timothy R. Wilson, Genentech, Inc., South San Francisco, CA

4:30 p.m.-7:00 p.m.  
**Poster Session B and Reception**
Emerald Ballroom

7:00 p.m.  
**Dinner on Own/Evening Off**

### Saturday, May 12

7:00 a.m.-8:00 a.m.  
**Continental Breakfast**
Ballroom Foyer

8:00 a.m.-10:00 a.m.  
**Session 7: Immunology and Tumor Host Interactions**
Crystal Ballroom
*Chairperson: Joan S. Brugge, Harvard Medical School, Boston, MA*

**Spatial and mechanical considerations for tumor therapy**
Valerie M. Weaver, UCSF Medical Center, San Francisco, CA

**Adaptive resistance of matrix-attached tumor cells**
Joan S. Brugge

**Enhancing the efficacy of CTLA-4 blockade**
Margaret Callahan, Memorial Sloan-Kettering Cancer Center, New York, NY

**Paracrine receptor activation by microenvironment triggers bypass survival signals and ALK inhibitor-resistance in EML4-ALK lung cancer cells**
Seiji Yano, Cancer Research Institute Kanazawa University, Kanazawa, Japan
10:00 a.m.-10:15 a.m.  Break
Ballroom Foyer

10:15 a.m.-12:15 p.m.  Session 8: Angiogenesis
Crystal Ballroom
Chairpersons: Lee M. Ellis, The University of Texas MD Anderson Cancer Center, Houston TX

VEGF-targeted therapies: Biomarkers, biology and understanding resistance
Lee M. Ellis

Modeling intrinsic and acquired resistance of metastatic disease to antiangiogenic drugs
Robert S. Kerbel, University of Toronto Sunnybrook HSC, Toronto, ON, Canada

Markers and mechanisms of resistance to VEGF inhibitors
John V. Heymach, The University of Texas MD Anderson Cancer Center, Houston, TX

Insensitivity to RAF inhibition by vemurafenib in BRAF mutant colorectal cancer by EGFR-mediated reactivation of MAPK signaling*
Ryan B. Corcoran, Massachusetts General Hospital Cancer Center, Boston, MA

Reactivation of oncogenic signaling through drug-induced feedback adaptations: Lessons from mTOR inhibitors*
Vanessa Rodrik-Outmezguine, Memorial Sloan-Kettering Cancer Center, New York, NY

12:15 p.m.  Closing Remarks/Departure

*Short talks from proffered papers