

An AACR Special Conference on  
**Developmental Biology and Cancer**  
November 30-December 3, 2015 • Seaport Hotel • Boston, MA

## Conference Program

### Monday, November 30

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**6:30 p.m.-8:00 p.m. Welcome and Keynote Session**  
*Session Chairperson: Hans Clevers, Hubrecht Institute, Utrecht, The Netherlands*  
Amphitheater

**Wnt signaling stem cell control and cancer**  
Roel Nusse, Stanford University, Stanford, CA

**TGF- $\beta$  in tumor suppression and metastatic progression**  
Joan Massagué, Memorial Sloan Kettering Cancer Center, New York, NY

**8:00 p.m.-9:30 p.m. Opening Reception**  
Atrium Lobby

### Tuesday, December 1

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**7:30 a.m.-8:30 a.m. Continental Breakfast**  
Cityview Ballroom

**8:30 a.m.-10:00 a.m. Plenary Session 1: Epigenetics**  
*Session Chairperson: Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN*  
Amphitheater

**Polycomb in development and cancer vulnerability**  
Stuart H. Orkin, Dana-Farber Cancer Institute, Boston, MA

**The role of ETS-family transcription factors in prostate cancer lineage specification**  
Yu Chen, Memorial Sloan Kettering Cancer Center, NY

**Polycomb repressive complex-2 is a barrier to Kras-driven inflammation and epithelial-mesenchymal transition in non-small cell lung cancer**  
Maarten van Lohuizen, Netherlands Cancer Institute, Amsterdam, The Netherlands

**10:00 a.m.-10:20 a.m. Break**  
Mezzanine Lobby

**10:20 a.m.-11:50 a.m. Plenary Session 2: Stem Cell of Origin**  
*Session Chairperson: Stuart H. Orkin, Dana-Farber Cancer Institute, Boston, MA*  
Amphitheater

**Stem cells in mammalian epidermis**  
Fiona M. Watt, King's College London, London, England

**The effect of cell of origin on GBM phenotype**  
Luis F. Parada, Memorial Sloan Kettering Cancer Center, New York, NY

**Oxidative stress inhibits distant metastasis by human melanoma cells**  
Sean J. Morrison, HHMI / UT Southwestern Medical Center, Dallas, TX

**11:50 a.m.-2:00 p.m. Lunch on Own**

**2:00 p.m.-3:30 p.m. Plenary Session 3: Signaling Pathways: Notch**  
*Session Chairperson: Hans Clevers, Hubrecht Institute, Utrecht, The Netherlands*  
Amphitheater

**Notch signaling: Composition, strength, neighbors**  
Raphael Kopan, Children's Hospital Medical Center, University of Cincinnati College of Medicine, Cincinnati, OH

**Notch signaling and cancer**  
Freddy Radtke, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland

**C. elegans GLP-1/Notch signaling: Direct targets and visualization in stem cells**  
Judith Kimble, University of Wisconsin, Madison, WI

**3:45 p.m.-5:15 p.m. Plenary Session 4: Signaling Pathways: Wnt**  
*Session Chairperson: Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN*  
Amphitheater

**Lgr5 stem cell-based organoids in human disease**  
Hans Clevers, Hubrecht Institute, Utrecht, The Netherlands

**Inhibiting the Wnt pathway with selective anti-Frizzled synthetic antibodies**  
Stephane Angers, University of Toronto Leslie Dan Faculty of Pharmacy, Toronto, ON, Canada

**Targeting the Wnt signaling pathway in cancer**  
Margaret E. McLaughlin, Novartis, Cambridge, MA

**5:15 p.m.-6:00 p.m.      Spotlight on Proffered Papers Session 1**  
*Session Chairperson: Stuart H. Orkin, Dana-Farber Cancer Institute, Boston, MA*  
Amphitheater

**3D enhancer clusters in the response to Wnt-driven colorectal cancer\***  
Jurian Schuijers, MIT Whitehead Institute for Biomedical Research, Cambridge, MA

**The SWI/SNF component Arid1a regulates regenerative capacity and carcinogenesis in a dose-dependent fashion\***  
Hao Zhu, UT Southwestern Medical Center Children's Research Institute, Dallas, TX

**Using patient-derived iPSC cells to model familial medulloblastoma\***  
Evelyn Susanto, Karolinska Institutet, Stockholm, Sweden

**6:00 p.m.-8:00 p.m.      Poster Session A/Reception**  
Harborview Ballroom

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**Wednesday, December 2**

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**7:30 a.m.-8:30 a.m.      Continental Breakfast**  
Cityview Ballroom

**8:30 a.m.-10:00 a.m.      Plenary Session 5: Pediatric Cancers and Development**  
*Session Chairperson: Hans Clevers, Hubrecht Institute, Utrecht, The Netherlands*  
Amphitheater

**The unique genomic and epigenomic landscape of pediatric high-grade glioma**  
Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN

**SWI/SNF (BAF) complex mutations in cancer**  
Charles M. Roberts, St. Jude Children's Research Hospital, Memphis, TN

**Dynamic changes in the epigenetic landscape during retinal development, cellular reprogramming, and tumorigenesis**  
Michael A. Dyer, St. Jude Children's Research Hospital, Memphis, TN

**10:00 a.m.-10:20 a.m.      Break**  
Mezzanine Lobby

\*Short talks from proffered abstracts

**10:20 a.m.-11:50 a.m. Plenary Session 6: Signaling Pathways: Hedgehog**  
*Session Chairperson: Stuart H. Orkin, Dana-Farber Cancer Institute, Boston, MA*  
Amphitheater

**Innate and acquired resistance to Hedgehog pathway inhibitors**  
Frederic J. De Sauvage, Genentech, Inc., South San Francisco, CA

**Hedgehog signaling and the stem cell niche in cancer**  
Philip A. Beachy, Stanford University, Stanford, CA

**Hedgehog signaling and tissue stem cells in cancer development**  
Rune Toftgård, Karolinska Institutet, Huddinge, Sweden

**12:00 p.m.-12:45 p.m. Spotlight on Proffered Papers Session 2**  
*Session Chairperson: Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN*  
Amphitheater

**Germline loss of PK-M2 promotes metabolic syndrome and hepatocellular carcinoma\***  
Talya L. Dayton, MIT Koch Institute for Integrative Cancer Research, Cambridge, MA

**Systematic forward genetic screens in haploid human cells reveal new players and regulatory mechanisms in Wnt signaling\***  
Andres M. Lebensohn, Stanford University, Stanford, CA

**The reemergence of neural crest progenitor identity is a key event in the initiation of melanoma from a field of cancer-prone melanocytes\***  
Charles K. Kaufman, Dana-Farber Cancer Institute, Boston, MA

**12:45 p.m.-3:00 p.m. Poster Session B/Lunch**  
Harborview Ballroom

**3:00 p.m.-4:30 p.m. Plenary Session 7: Signaling Pathways: Hippo/TOR**  
*Session Chairperson: Hans Clevers, Hubrecht Institute, Utrecht, The Netherlands*  
Amphitheater

**YAP/TAZ biology in development and cancer: Hippo signaling and mechanotransduction**  
Stefano Piccolo, University of Padua, Padua, Italy

**Mechanisms of evasive resistance in cancer**  
Michael N. Hall, University of Basel, Basel, Switzerland

**Hippo/YAP signaling in stem cells and cancer**  
Fernando Camargo, Boston Children's Hospital, Boston, MA

\*Short talks from proffered abstracts

**4:45 p.m.-6:15 p.m.      Plenary Session 8: Cancer Niche/Cellular Interactions**  
*Session Chairperson: Stuart H. Orkin, Dana-Farber Cancer Institute, Boston, MA*  
Amphitheater

**The cancer stem cell niche of squamous cell carcinomas: Biology and impact for therapeutics**

Elaine Fuchs, Howard Hughes Medical Institute/Rockefeller University, New York, NY

**Metastatic programs in pancreas cancer**

Sunil R. Hingorani, Fred Hutchinson Cancer Research Center, Seattle, WA

**Characterizing the role of the metastatic niche**

Zena Werb, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA

**6:15 p.m.                      Dinner on Own/Evening Off**

**Thursday, December 3**

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**7:30 a.m.-8:30 a.m.      Continental Breakfast**  
Cityview Ballroom

**8:30 a.m.-10:30 a.m.    Plenary Session 9: EMT and Plasticity**  
*Session Chairperson: Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN*  
Amphitheater

**Mechanisms of malignant progression**

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

**Epigenetic heterogeneity in breast cancer**

Kornelia Polyak, Dana-Farber Cancer Institute, Boston, MA

**Identifying epithelial morphogenesis inhibitors in neural crest development and cancer**

Rodney A. Stewart, University of Utah Huntsman Cancer Institute, Salt Lake City, UT

**BAF complex structure and function in development and disease**

Cigall Kadoch, Dana-Farber Cancer Institute, Boston, MA

**10:30 a.m.-10:45 a.m.    Break**  
Mezzanine Lobby

**10:45 a.m.-12:15 p.m. Plenary Session 10: Signaling Pathways: BMP/TGFbeta/SMAD**  
*Session Chairperson: Hans Clevers, Hubrecht Institute, Utrecht, The Netherlands*  
Amphitheater

**Control of TGF- $\beta$  responsiveness and epithelial plasticity**

Rik Derynck, University of California, San Francisco, CA

**Identification and therapeutic targeting of poor prognosis subtypes in colorectal cancer**

Eduardo Batlle, Institute for Research in Biomedicine, Barcelona, Spain

**Regulation of TGF- $\beta$  receptor signaling in cancer**

Peter ten Dijke, Leiden University Medical Center, Leiden, The Netherlands

**12:15 p.m. Departure**