2011: Hallmarks and Horizons of Cancer

WEDNESDAY, September 7th 2011

5:00 - 6:45pm  Session 1:
Cancer stem cells and cells of origin

Chair: Douglas Hanahan (Lausanne, Switzerland)
Irving L. Weissman (Stanford, United States)
Normal and neoplastic Stem Cells
Lukas Sommer (Zurich, Switzerland) - short talk - Melanocyte stem cells are the cells of origin of melanoma
Tannishtha Reya (La Jolla, United States)
Developmental mechanisms in stem cells and cancer
Hans Clevers (Utrecht, Netherlands)
Lgr5 stem cells in self-renewal and cancer

6:45 - 8:30pm  Reception with drinks and light supper
THURSDAY, September 8th 2011

9:00 - 10.30am  **Session 2:**  
Pro- and anti-growth signaling/oncogenes & tumor suppressors  
Chair:  **J. Michael Bishop** (San Francisco, United States)  
**David Lane** (Singapore)  
*New routes to exploiting the p53 pathway for therapy*  
**Pier Paolo Pandolfi** (Boston, United States)  
*The ceRNA hypothesis and the non-coding revolution in cancer research and therapy*  
**Frank McCormick** (San Francisco, United States)  
*Targeting the Ras pathway*  

10:30 - 11:00am  **coffee break**

11:00 - 12:30pm  
**Erwin Wagner** (Madrid, Spain)  
*Cancer development: functions of AP-1 (Fos/Jun)*  
**Tatiana Petrova** (Epalinges, Switzerland)  
*short talk - PROX1 is a colon cancer-specific modifier of TCF/β-catenin transcriptional program*  
**Juha Klefström** (Univ Helsinki, Finland)  
*short talk - Coupling tumor suppressor function of LKB1 to regulation of epithelial integrity*  
**Anton J.M. Berns** (Amsterdam, Netherlands)  
*Mouse models for small cell lung cancer; tumor cell heterogeneity and cell of origin*  

12:30pm  
**box lunches (room SG)**

12:30 - 3:00pm  
**Session 3:**  
Posters Session A1  

3:00 - 5:30pm  
**Genomics: Telomeres, Genomic Instability, and Mutational Evolution**  
Chair:  **Joachim Lingner** (Lausanne, Switzerland)  
**Elizabeth Blackburn** (San Francisco, United States)  
*Examining roles of telomere maintenance and telomerase in human cancer cells*  
**Thanos Halazonetis** (Geneva, Switzerland)  
*short talk - DNA replication stress in human cancers*  
**Ronald DePinho** (Boston, United States)  
*Genetic model of anti-telomerase therapy in cancer reveals DNA recombination and oxidative adaptive mechanisms*  
**Scott W. Lowe** (Cold Spring Harbor, United States)  
*Identifying tumor suppressor and tumor maintenance genes using mouse models and RNAi*  
**Johannes Zuber** (Vienna, Austria)  
*short talk - RNAi screening of epigenetic regulators identifies Brd4 as a therapeutic target in acute myeloid leukemia*  
**Steven Artandi** (Stanford, United States)  
*Telomerase in stem cell proliferation and self-renewal*  

5:30 - 7:00pm  
**Networking event dinner in the SV building**
Session 4: Frontiers in translating the knowledge (innovative therapies, personalized medicine, molecular prognostics)

Chair: Roger Stupp (Lausanne, Switzerland)

Charles Sawyers (New York, United States)
Overcoming cancer drug resistance

Oliver Hantschel (Lausanne, Switzerland) - short talk -
An essential and targetable role for the Bcr-Abl SH2-kinase domain interface in oncogenesis

Daniela Taverna (Torino, Italy) - short talk -
mir-148b is a major coordinator of tumor progression in a relapse-associated miR signature in breast cancer

Sidong Huang (Amsterdam, Netherlands) - short talk -
Genetic determinants of the response to receptor tyrosine kinase inhibitors in non small cell lung cancer

Bernard Bihain (Vandoeuvre Les Nancy, France) - short talk -
Increased transcriptional infidelity in cancer cells deregulates innate humoral immunity

Erkki Ruoslahti (Santa Barbara, United States)
Vascular zip codes and tumor-penetrating peptides

Poster Session A2
FRIDAY, September 9th 2011

9:00 - 10.30am  
**Session 5: Angiogenesis**  
*Chair: Melody Swartz (Lausanne, Switzerland)*  
**Peter Carmeliet** (Leuven, Belgium)  
*Notch: controlling angiogenesis via metabolism?*  
**Kari K. Alitalo** (University of Helsinki, Finland)  
*Enhancing anti-angiogenesis with combinations of VEGF/VEGFR inhibitors*  
**Inder Verma** (La Jolla, United States)  
*Transdifferentiation of glioma cells to blood vessels*

10:30 - 11.00am  
**coffee break**

11:00 - 12.30pm  
**Napoleone Ferrara** (South San Francisco, United States)  
*New insights in the regulation of angiogenesis by VEGF-dependent and -independent pathways*  
**Enrico Giraudo** (Candiolo, Italy)  
*- short talk -*  
*Semaphorin 3A blocks cancer invasiveness and metastases dissemination induced by the anti-angiogenic therapy by overcoming tumor hypoxia*  
**Ronit Satchi-Fainaro** (Tel Aviv, Israel)  
*- short talk -*  
*Shedding light on the molecular basis of tumor dormancy using antiangiogenic polymer therapeutics*  
**Gabriele Bergers** (San Francisco, United States)  
*Feedback control of the microenvironment in tumor progression and resistance*

12:30pm  
**box lunches (room SG)**

12:30 - 2:30pm  
Poster Session B1

2:30 - 5:00pm  
**Session 6: Jürg Tschopp Memorial Session**  
**Tumor-suppressing and Tumor-promoting Inflammation**  
*Chair: Ivan Stamenkovic (Lausanne, Switzerland)*  
**Fabio Martinon & Etienne Meylan** (Lausanne, Switzerland)  
*Jürg Tschopp, death-domain folds and the inflammasome*  
**James Allison** (New York, United States)  
*Immune checkpoint blockade in cancer therapy: new insights and opportunities*  
**Michele De Palma** (Lausanne, Switzerland)  
*- short talk -*  
*A microRNA switch regulates pro- versus antitumoral functions of macrophages*  
**Michael Schmid** (La Jolla, United States)  
*- short talk -*  
*Receptor tyrosine kinases and TLR/IL1Rs unexpectedly activate myeloid cell PI3Kγ, a single convergent point promoting tumor inflammation and progression*  
**Lisa Coussens** (San Francisco, United States)  
*Modulating immune response to improve cancer therapy*  
**John Condeelis** (Bronx, United States)  
*Tumor microenvironments of dissemination and metastasis*

5:00 - 6:00pm  
**Debiopharm Awards 2011 Ceremony - Talk by Main Award winner**
SATURDAY, September 10th 2011

9:00 - 10.30am  **Session 7:**
Cell Death, Autophagy, and Metabolism
Chair: James D. Watson (New York, United States)

Lewis Cantley (Boston, United States)
PI 3-Kinase and cancer metabolism

Seiko Ishida (Lausanne, Switzerland) - short talk -
Copper modulates tumour growth and metabolic reprogramming

Sorina Radulescu (Glasgow, United Kingdom) - short talk -
The role of iron levels in intestinal tumourigenesis

Eileen White (New Brunswick, United States)
Role of autophagy in cancer

10:30 - 11.00am  coffee break

11:00 - 12.30pm  Gerard I. Evan (Cambridge, United Kingdom)
Finding the optimal targets for effective cancer therapy

Raul Mostoslavsky (Boston, United States) - short talk -
The histone deacetylase SIRT6 regulates cancer metabolism

Karen Vousden (Glasgow, United Kingdom)
Roles of p53 in the control of metabolism and invasion

James D. Watson (Cold Spring Harbor, United States) - short talk -
Curing incurable cancer

12:30pm  box lunches (room SG)

12:30 - 2:30pm  **Poster Session B2**

2:30 - 5:00pm  **Session 8:**
Metastasis, Invasion, and Microenvironment
Chair: Joan Massagué (New York, United States)

Robert Weinberg (Cambridge, United States)
Stem cells, the EMT and malignant progression

Gerhard Christofori (Basel, Switzerland)
EMT - a question of morphogenesis and survival

Ilaria Malanchi (London, United Kingdom) - short talk -
Interactions between cancer stem cells and their niche govern metastatic colonization

Valerie M. Weaver (San Francisco, United States)
The force journey of a tumor cell

Joan Massagué (New York, United States)
Signals and pathways that support disseminated cancer cells in the bone marrow and the lungs

CONCLUDING REMARKS: Doug Hanahan