

Metabolism and Cancer Progression

Joint meeting with: Cell Death Pathways: Apoptosis, Autophagy and Necrosis

Sponsored by Celgene Corporation

March 12-17, 2010

Fairmont Hotel Vancouver • Vancouver, British Columbia • Canada



Organizers: Eileen P. White, Craig B. Thompson
and Chi Van Dang

Meeting Topics:

- Metabolism Regulation in Model Organisms
- Workshop 1: PI3 Kinase Regulation and Cancer
- Metabolic Differences between Normal and Cancer Cells
- Metabolic Adaptation in Cancer (Joint)
- Therapeutic Modulation of Metabolism
- Survival and Death in Development and Disease (Joint)
- Workshop 2: Workshop 2: Metabolic Assessment and Regulation
- Cancer and Predisposition Genes
- mTOR and Nutrient Sensing
- Hypoxia and Metabolic Stress

Early Registration Deadline:

January 12, 2010

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Keystone Symposia: Metabolism and Cancer Progression

(Joint with "Cell Death Pathways: Apoptosis, Autophagy and Necrosis")

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PROGRAM FACULTY & TALKS

- Robert T. Abraham**, Wyeth Pharmaceuticals, USA
Therapeutic Modulation of mTOR in Cancer
- Joan S. Brugge**^{*,†}, Harvard Medical School, USA
Diversity of Cell Death Pathways in Organogenesis and Oncogenesis
- Lewis C. Cantley**^{*,‡}, Harvard Medical School, USA
Tyrosine Kinases and Tumor Cell Metabolism
- Peter F. Carmeliet**, University of Leuven, Belgium
Oxygen, Metabolism and Angiogenesis
- Jason A. Chesney**, University of Louisville, USA
Coupling Glycolysis With Cell Cycle Progression
- John L. Cleveland**, The Scripps Research Institute, USA
Therapeutic Modulation of Autophagy in Cancer
- Chi Van Dang**, Johns Hopkins University School of Medicine, USA
Regulation of Cancer Metabolism by Myc
- Nika N. Danial**, Dana Farber Cancer Institute, USA
Talk Title to be Determined
- Gerard I. Evan**[§], University of California, San Francisco, USA
Inhibiting Oncogenes for Cancer Therapy
- Valeria Fantin**, Agios Pharmaceuticals, USA
Metabolic Signaling in Cancer
- Eyal Gottlieb**, Beatson Institute for Cancer Research, UK
Metabolism of Cancer Cells
- Douglas R. Green**[§], St. Jude Children's Research Hospital, USA
The Mitochondrion: The Weapon Employed in Apoptotic Suicide
- Uwe Haberkorn**, University Hospital Heidelberg, Germany
Imaging Metabolism in Cancer
- Michael N. Hall**, University of Basel Biozentrum, Switzerland
mTOR Signaling of Growth and Metabolism
- Adrian L. Harris**, Molecular Oncology Laboratories, UK
pH Regulation and Carbonic Anhydrase in Tumor Cells
- Marja Jäättelä**[§], Danish Cancer Society, Denmark
The Lysosome: A Novel Therapeutic Target?
- William G. Kaelin Jr.**, Dana Farber Cancer Institute, USA
Dioxygenases as Therapeutic Targets in Cancer
- Sally A. Kornbluth**, Duke University Medical Center, USA
Metabolic Control of Apoptotic Regulators
- Guido Kroemer**[§], INSERM, U848, Institut Gustave Roussy, France
Metabolic Signaling in Cancer
- Sybille Mazurek**, Universität Gießen, Germany
Pyruvate Kinase M2 and Cancer
- Steven L. McKnight**, University of Texas Southwestern Medical Center, USA
Lessons from Metabolic Regulation in Yeast
- Noboru Mizushima**[§], Tokyo Medical and Dental University, Japan
Role of Autophagy in Protein Metabolism
- David M. Sabatini**, Whitehead Institute for Biomedical Research, USA
mTOR Signaling
- Reuben J. Shaw**, The Salk Institute, USA
Glucose Metabolism and Cancer
- Craig B. Thompson**^{*,‡}, Abramson Family Cancer Center and Research Institute, University of Pennsylvania, USA
Therapeutic Exploitation of Metabolic Differences between Normal and Cancer Cells
- Karen H. Vousden**[§], Beatson Institute for Cancer Research, UK
Control of Metabolism by p53
- Cheryl L. Walker**, University of Texas MD Anderson Cancer Center, USA
TSC1/2 in Cancer
- Eileen P. White**[§], Rutgers University, USA
Autophagy Tumor Suppression by Protein Quality Control
- Kwok-Kin Wong**, Dana-Farber Cancer Institute, USA
Role of LKB1 in Lung Cancer
- Yue Xiong**, University of North Carolina at Chapel Hill, USA
Acetylation Regulation of Metabolism

*Keynote speaker. †Session chair. ‡Joint speaker. §Invited, not yet confirmed.
Programs subject to change. Current as of October 12, 2009.



Recently the metabolic requirements of tumor cells and the links to common pathway alterations in human cancers have been gradually emerging. It is now apparent that metabolic demand in tumor cells is high due to deregulation of cell growth, and that this constitutive activation of growth signaling pathways can disconnect cellular metabolism from nutrient and growth factor availability. Subversion of cellular metabolism for biosynthetic purposes is required to sustain deregulated tumor cell growth but can also restrict energy production that can limit tumor cell adaptation to metabolic stress. Hypoxic and acidic conditions in the tumor microenvironment are byproducts of these events and are common features of the tumor microenvironment that can activate stress responses, influence tumor growth and impair treatment. Many of the oncogenic pathways altered in tumor cells modulate cell metabolism while enabling growth in these adverse conditions. Adaptation of tumor cells to stress through activation of the catabolic pathway of autophagy and its role in damage mitigation and promoting tumor cell survival to metabolic stress is also now emerging. The vision for this meeting is to bring together leaders in the fields of cancer, signaling and metabolism to discuss emerging discoveries and their application to improving cancer therapy.

PROGRAM PLENARY SESSIONS & WORKSHOPS:

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DEADLINES:

Abstract & Scholarship: November 12, 2009
Late-Breaking Abstract: December 10, 2009
Early Registration: January 12, 2010

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