

## PROGRAM

**“Metabolism of Cell Death and its Ramifications for Therapeutics and Drug Development”**

**Conference location: National University of Singapore, Singapore**

**June 29-July 1, 2012**

**Organizers:**

***Shazib Pervaiz, Richard Lockshin, and Zahra Zakeri***

**Friday June 29<sup>th</sup> 12:00pm – 5:00pm:**

**Welcome Introduction and awards**

**Chair: Zahra Zakeri, Dept. of Biology, Queens College of CUNY, USA**

<b>12:00-12:15pm</b>	<b>Introduction and welcome</b> Zahra Zakeri: Queens College, U.S.A.
<b>12:15-12:45pm</b>	<b>Presenting Award to Dr. Kimchi</b> Richard A. Lockshin: St. Johns University, U.S.A
<b>12:45-1:45pm</b>	<b>Programmed cell death: from single gene studies towards global network analysis</b> Adi Kimchi: Weizmann Inst., Israel
<b>1:45-2:15pm</b>	<b>The hows and whys of IAPs as revealed by multi-gene deletions and SMAC-mimetics</b> David Vaux: LaTrobe University, Australia
<b>2:15-2:30pm</b>	<b>Coffee</b>
<b>2:30-3:00pm</b>	<b>Regulation of apoptosis signaling by the outer mitochondrial membrane protein MOAP-1</b>  Victor C Yu: National University of Singapore, Singapore
<b>3:00-3:30pm</b>	<b>DNA damage response to replicative stress to maintain hematopoietic stem cell function in aging organisms</b> Sandra Zinkel: Vanderbilt University School of Medicine, USA
<b>3:30-4:00pm</b>	<b>Exposure of phosphatidylserine to the cell surface</b> Shigekazu Nagata: Kyoto University, Japan
<b>4:00-4:30 pm</b>	<b>TAM receptor control of phagocytosis</b> Raymond Birge: Univ. Med. Dent. New Jersey, USA
<b>4:30-4:45 pm</b>	<b>Title to be announced</b> Hang-Ming Shen

**4:45-5:00pm**            **Novel function and age-dependent changes of the ubiquitin system in selective autophagy**  
 Esther Wong Nanyang Technological University, Singapore

**Saturday June 30<sup>th</sup> 9:00am –5:PM**

**Cell death Metabolism: Redox and Energetics**

**Chair: Simone Fulda:** Univ. of Ulm, Germany

- 9:00-9:30am**            **Redox regulation of cell fate in cancer cells**  
 Shazib Pervaiz: National University of Singapore, Singapore
- 9:30-10:00am**        **Metabolic vulnerabilities and cancer cell death.**  
 David Hockenbery Fred Hutchinson Cancer Research Center  
 USA
- 10:00-10:30am**       **Ongogene driven redox cell survival mechanisms'**  
 Thomas G Cotter University College Cork Ireland
- 10:30-11:00am**       **Coffee Break**
- 11:00-11:30am**       **Effect of ceramide depletion on cellular bioenergetics, survival, and autophagy**  
 Scott A. Summers: Duke-National University of Singapore, Singapore
- 11:30-11:45am**       ***XF Mito Stress Test reveals metabolic dysfunctions underlying cellular degeneration and guides translational studies'***  
 David A. Ferrick: Chief Scientific Officer, Seahorse Bioscience
- 11:45- 12:00pm**       **Identification of gamma-tocotrienol as a novel chemosensitizer in xenograft mouse model of human gastric cancer**  
 Gautam Sethi National University of Singapore, Singapore
- 12:00-2:00pm**        **Lunch and poster presentation and WORKSHOP OF INDUSTRY OR TRANSLATIONAL IMPLICATION**

**Chair: Marianne J Cronje:** Univ. Johannesburg, South Africa

- 2:00-2:30pm**            **Revisiting the pathways activated upon the induction of intracellular redox imbalance and their role in tumorigenesis and tumor cells' resistance to chemotherapy**  
 Marie-Veronique Clement: National University of Singapore, Singapore

- 2:30-3:00pm**      **Unfolding the role of ROS-mediated ER stress in immunogenic apoptosis of cancer cells**  
Patrizia Agostinis: University of Leuven Belgium
- 3:00- 3:30pm**      **Targeting IAP proteins for tumor cell sensitization to cell death**  
  
Simone Fulda: Univ. of Ulm, Germany
- 3:30-5:00pm**      **Coffee: and WORKSHOP ON BUILDING A CAREER IN SCIENCE : Panel Discussion on Tactics for Junior Scientists and Women. Panelists** Patrizia Agostinis, Marie-Veronique Clement; Adi Kimchi; Sandra Zinkel, Ana Maria Cuervo, Devrim Gozuacik, Boris Zhivotovsky, Simone Fulda

**Saturday July 1<sup>th</sup> 9:00am – 5:00pm**

**Role of autophagy & apoptosis in metabolic health and aging**

**Chair: Raymond Birge:** Univ. Med. Dent. New Jersey, USA **Chair:**

- 9:00-9:30am**      **Discovery of new autophagy regulators**  
Devrim Gozuacik: Sabanci University, Turkey
- 9:30-10:00am**      **Selective autophagy in aging and age-related disorders**  
Ana Maria Cuervo, Einstein Medical College, USA
- 10:00-10:15am**      **Secreted frizzled-related protein 4 expression is positively associated with responsiveness to cisplatin of ovarian cancer cell lines in vitro and with lower tumour grade in mucinous ovarian cancers.**  
Arun Dharmarajan, The University of Western Australia, Western Australia
- 10:15-10:30am**      **Age-dependent relationships between reactive oxygen species and hsp70 in human neutrophils under cell stress conditions.**  
Kovalenko E.I., - Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia
- 10:30-11:00am**      **Coffee Break**

**Chair: Nader Maghsoudi:** Shahid Beheshti University, Iran

- 11:00-11:30am**      **Inhibition of prenyl protein carboxymethylation induces autophagic cell death**  
Mei Wang: National University of Singapore, Singapore
- 11:30-12:00am**      **Lung cancer: mechanisms of resistance and sensitivity to treatment.**  
Boris Zhivotovsky: Karolinska Institute, Sweden
- 12:00-2:00pm**      **Lunch and Posters and WORKSHOP OF INDUSTRY OR TRANSLATIONAL IMPLICATION (2<sup>nd</sup> round)**

**Chair: Shazib Pervaiz:** National University of Singapore, Singapore

- 2:00-2:30pm**            **The serendipitous discovery of the selective apoptotic-inducing abilities of novel metal phosphine compounds in cancer cells**  
Marianne J Cronje, Univ. Johannesburg, South Africa
- 2:30-3:00pm**            **Regulation of cellular survival by p53 and p73 – implications for cancer therapy**  
Kanaga Sabapathy: National University of Singapore, Singapore
- 3:00--3:30pm**            **Regulation of Cancer Cell Death by Metabolic Stress**  
Tak Mak, Advanced Medical Discovery Unit, University of Toronto, Canada
- 3:30-4:00pm**    **Coffee**
- 4:00-4:30pm**            **Therapeutic targeting Myc dependency in cancer cells: new pathway implicated in tumorigenesis and targeted therapy.**  
Yu Qiang: National University of Singapore, Singapore
- 4:30-4:45pm**            **The mechanism by which a novel palladacycle aj-5 exerts its anti-tumour activity in breast cancer cells involves apoptosis and autophagy** Mapolie S(1), Aliwaini S\* (2), and Prince S@(2), (1) Department of Chemistry, University of Stellenbosch, (2) Department of Human Biology, University of Cape Town.
- 4:45-5:00pm**            **Closing remarks: Zahra Zakeri**