Bosch Institute Annual Scientific & Young Investigator's Meeting
Canceromics: From Molecular and Cellular Biology to Breakthrough Therapeutics
Scientific Program

Thursday, 16th July, 2015

REGISTRATION 8.00am – 8.45am

WELCOME 8.50 AM  
Professor Jonathan Stone  
Executive Director, Bosch Institute

OPENING REMARKS 8.55 AM  
Professor Christopher Murphy  
Associate Dean and Head, School of Medical Sciences

SESSION-1 (9.00 – 10:30 AM)

Chairs:  
Professor Des Richardson, A/Professor Stephen Assinder

Plenary Speaker  
9:00 AM  
Professor Shinya Toyokuni, Nagoya University, Graduate School of Medicine, Japan  
Cancer as a ferrotoxic disease: what we have learned from animal studies toward its prevention

Keynote Speakers:  
9:30 AM  
Professor Gary Halliday, Dermatology, Bosch Institute, Royal Prince Alfred Hospital, The University of Sydney  
Translating chemoprevention of skin cancer with oral nicotinamide from the laboratory to the clinic

9:50 AM  
A/Professor Rachel Codd, Chemical Biology in Drug Discovery Laboratory, Pharmacology, Bosch Institute, The University of Sydney  
Methods in chemical biology for improved access to known and new anticancer agents

Young Investigator Talks:  
10:10 AM  
Dr. Daniel Johnstone, Bosch Institute, University of Sydney  
Imaging large intact biological specimens

10:20 AM  
Pearl Lee, University of Sydney  
Novel cell adhesion regions on tropoelastin that mediate integrin-directed cell surface interactions

TEA BREAK & INTERACTION WITH SPONSORS (10:30 – 11:00 AM)
SESSION-2 (11.00 AM – 12:30 PM)

Chairs:
Professor Joy Ho, Dr. Kellie Charles

Plenary Speaker
11:00 AM  Professor Ricky Johnstone, Peter MacCallum Cancer Centre, Melbourne
Targeting the epigenome to treat cancer

Keynote Speakers:
11:30 AM  Professor Des Richardson, The University of Sydney
Why not target the major killers in cancer in one package? The
development of the metastasis and multi-drug resistance inhibiting drug,
DpC

11:50 AM  A/Professor Guy Lyons, Royal Prince Alfred Hospital, The University of Sydney
Visualising clonal evolution, and the role of cooperation between clones,
in carcinomas

Young Investigator Talks:
12:10 PM  Chan Colonne, Disciplines of Physiology, Anatomy and Histology, and
Bosch Institute, The University of Sydney
Stress anaemia leads to loss of growth restriction signalling in red blood
cell progenitors: a new link in haematological malignancies?

12:20 PM  Luan Vu, Department of Pathology, The University of Sydney
The fate of monocytes: a tale of two viruses

LUNCH BREAK / POSTER SESSION (12:30 – 01:30 PM)

SESSION-3 (1:30 – 3:00 PM)

Chairs:
Professor Christopher Chitambar, Dr. Zaklina Kovacevic

Plenary Speaker
01:30 PM  Professor Gail Risbridger, Monash University, Melbourne
Identifying high risk features of prostate cancer

Keynote Speakers:
02:00 PM  Professor Rebecca Mason, Physiology, Bosch Institute, The University of
Sydney
Photoprotection By Vitamin D And Related Compounds

02:20 PM  A/Professor Stephen Assinder, Andrology Research Group, Physiology, Bosch
Institute, The University of Sydney
Oxytocin in prostate pathology. Is there a sinister side to the hormone of
love?
Young Investigator Talks:

02:40 PM  
Sharleen Menezes, Molecular Pharmacology and Pathology Program, Pathology, Bosch Institute, The University of Sydney  
Role of the Metastasis Suppressor, NDRG1, in Regulating EGFR and ErbB Family Members and its Effects on Key Signaling Pathways in Pancreatic Cancer

02:50 PM  
Fadi Gurdis, Pharmacology, The University of Sydney  
Cytotoxic activity of the MK2 inhibitor CMPD1 in glioblastoma cells is independent of MK2

TEA BREAK & INTERACTION WITH SPONSORS (03:00 – 03:30 PM)

SESSION-4 (03.30 – 05:00 PM)

Chairs:  
Professor Douglas Joshua, Dr. Tara Speranza

Plenary Speaker  
03:30 PM  
Professor Guillaume Lessene, The Walter & Eliza Hall Institute for Medical Research, Melbourne  
Development of BCL-XL inhibitors: drug discovery and evaluation on cancer and normal cells

Keynote Speakers:  
04:00 PM  
Dr. Danuta Kalinowski, Molecular Pharmacology and Pathology Program, Pathology, Bosch Institute, The University of Sydney  
Differential Anti-Cancer Activity of Copper Bis(Thiosemicarbazones): Reactive Oxygen Species Generation and Lysosomal Membrane Permeabilisation

04:20 PM  
Dr. Emma Collinson, Anatomy and Histology, Bosch Institute, The University of Sydney  
A role for Nox4 in TGF-beta-dependent EMT in the lens

Young Investigator Talks:

04:40 PM  
Sukriti Krishan, Molecular Pharmacology and Pathology Program, Pathology, Bosch Institute, The University of Sydney  
Novel Thiosemicarbazones mediate their anti-cancer effects via the AMPK-dependent pathway

04:50 PM  
Irina Kondyurina, The University of Sydney  
Polyurethane medical implants modified by ion implantation

05:00 PM  
Presentation of H & PO Bishop Fellowship in Neuroscience - members of the Bishop family will be present

DAY ONE CLOSE

05.20 PM  
Professor Jonathan Stone  
Executive Director, Bosch Institute
Friday, 17th July, 2015

SESSION-1 (9.00 – 10:30 AM)

Chairs:
Dr. Parvin Ataie, Professor Shinya Toyokuni

Plenary Speaker
9:00 AM  
Professor Christopher Chitambar, Wisconsin College of Medicine, USA
Development of Iron-Mimetic Metallodrugs for the Treatment of Cancer: The journey from the laboratory to the clinic

Keynote Speakers:
9:30 AM  
Dr. Andrew Hoy, The University of Sydney
Adipose triglyceride lipase controls MDA-MB-231 breast cancer cell fatty and acid metabolism and influences progression

9:50 AM  
Dr. Angelica Merlot, Molecular Pharmacology and Pathology Program, Pathology, Bosch Institute, The University of Sydney
Induction of Endoplasmic Reticulum Stress using Thiosemicarbazone Dp44mT in Tumour Cells: Activation of PERK/eIF2α, IRE1α, ATF6 and Calmodulin Kinase

Young Investigator Talks:
10:10 AM  
Leigh Nicholson, Anatomy and Histology, The University of Sydney
Alpha-Parvin, Focal Adhesions and Metastasis Models

10:20 AM  
Nehan Munasinghe, Pharmacology, Bosch Institute, The University of Sydney
ORL1 and µ-opioid receptor agonists as therapeutics for chronic pain

TEA BREAK & INTERACTION WITH SPONSORS (10:30 – 11:00 AM)

SESSION-2 (11.00 AM – 12:30 PM)

Chairs:
A/Professor Qihan Dong, Dr. Patric Jansson

Plenary Speaker
11:00 AM  
Professor Judith Clements, Australian Prostate Cancer Research Centre, Queensland
Determination of novel KLK7-regulated molecular pathways in ovarian cancer

Keynote Speakers:
11:30 AM  
Dr. Sumit Sahni, Molecular Pharmacology and Pathology Program, Pathology, Bosch Institute, The University of Sydney
N-Myc Downregulated Gene 1 (Ndrg1) Suppresses Stress-Induced Autopathy In Cancer Cells
11:50 AM  

*Dr. Dinny Graham*, Centre for Cancer Research, The Westmead Millennium Institute for Medical Research, The University of Sydney  
*Remodelling the genomic landscape: the role of the progesterone receptor, its cofactors and DNA structure in progesterone response in the normal and malignant breast*

**Young Investigator Talks:**

**12:10 PM**  
*Leyla Fouani*, Molecular Pharmacology and Pathology Program, Pathology, Bosch Institute, The University of Sydney  
*Targeting Zinc Finger E-Box Binding Homeobox 1 (ZEB1) to Reverse Metastasis via N-Myc Downstream Regulated Gene-1 (NDRG1)*

**12:20 PM**  
*Rachel Shparberg*, Physiology, Bosch Institute, The University of Sydney  
*L-proline-mediated neurogenesis using mouse embryonic stem cells*

**LUNCH BREAK / POSTER SESSION (12:30 – 02:00 PM)**

**SESSION-3 (2.00 – 3:30 PM)**

**Chairs:**  
*Professor Richard Christopherson, Dr. Andrew Hoy*

**Plenary Speaker**  
02:00 PM  
*Professor Leigh Ackland*, Deakin University, Melbourne  
*Zinc mediates breast cancer progression through the epithelial to mesenchymal transition*

**Keynote Speakers:**  
02:30 PM  
*Dr. Delphine Denoyer*, Deakin University, Melbourne  
*Investigating copper aberrations in prostate cancer: from basic science to therapeutic enquiry*

02:50 PM  
*Dr. Parvin Ataie*, St. George Hospital, Sydney  
*The developing story of Monepantel in cancer treatment*

**Young Investigator Talks:**  
03:10 PM  
*Bercovici Prize Recipient – Sam Merlin*  
Deletion of Ten-m3 induces the formation of eye dominance domains in mice

03:20 PM  
*Rebecca L Cooper Prize Recipient – Michael Lovelace*  
P2X7 Receptors mediate innate phagocytosis by human neural precursor cells and neuroblasts

**TEA BREAK & INTERACTION WITH SPONSORS (03:30 – 04:00 PM)**
SESSION-4 (04.00 – 05:30 PM)

Chair & Adjudicator:  
Dr. Paul Austin

3 Minute Thesis Presentations  
04:00 PM  
Sam Adamson  
David Clarke  
Benjamin Harris  
Sadaf Kalam  
Ji Yeon Kim  
Chau Le  
Miranda Mathews  
Diana Shinko

3 Minute Thesis Summary  
4.45 PM  
Professor Arthur Conigrave  
Deputy Dean, Sydney Medical School

Prize Ceremony  
4.50 PM  
Prizes sponsored by AMP, GeneSearch, John Morris Scientific and Lastek  
Young Investigator Talk Prizes  
Young Investigator Poster Prizes  
Three Minute Thesis Prizes

CLOSING REMARKS  
5.00 PM  
Mr. Paul Fegan  
Chair, Bosch Institute Advisory Board

5.05 – 7.00 PM  
Social Drinks in the Anderson Stuart Building