



2nd Australian Cancer and Metabolism Meeting
15th - 17th May 2017
Venue: Victorian Comprehensive Cancer Centre, Melbourne

2nd Australian Cancer and Metabolism Meeting 2017 Program Monday 15th May

Registration Opens

2:30PM - 5:00PM

Level 7 Foyer

xCELLigence Real Time Cell Analysis Workshop Lab

3:00PM - 4:30PM

Theatre B

Welcome

5:00PM - 5:15PM

Theatre B

Opening Address

5:15PM - 6:15PM

Theatre B

5:15 PM

Grant McArthur

'Is metabolism a valid target for cancer therapeutics?'

Welcome Reception and Poster Session

6:15PM - 8:00PM

Theatre A & C & Foyer

Kyle L Hoehn

Lipogenesis is dispensable for liver tumourigenesis in mice treated with diethylnitrosamine

Stephen Gregory

Metabolic intervention to target chromosomal instability

Eric P Kusnadi

Reprogramming of mRNA translation and metabolic activities mediates resistance to cancer therapies targeting the ribosome

Michael V Berridge

Intercellular mitochondrial transfer in a brain tumour model and in neonatal astrocyte-neuron co-cultures

Anthony J Kee

Metabolic impact of targeting the actin cytoskeleton to treat cancer

Scott Fraser

Single cell cisplatin and other intrinsic metal measurements by ICP-MS

Blake Zhang

PI3K/Akt signalling coordinates LAT3-mediated leucine uptake for mTORC1 pathway activation

Thomas Grewal

Annexin A6 recruits TBC1D15 to regulate Rab7-dependent delivery of late endosomal cholesterol for cancer cell migration

Tristan Rawling

A novel synthetic omega-3 fatty acid epoxide analogue that activates breast cancer cell killing in vitro and in vivo

Kate D Sutherland

Identifying targeted treatments for lung adenocarcinoma with activation of the KEAP1-NRF2 pathway

Wala Alzahrani

Role of c-Cbl in Muscle Energy Metabolism in Relation to Obesity

Anneke C Blackburn

DiCAM (DiChloroAcetate in Myeloma): a trial of dichloroacetate efficacy and pharmacogenetics in Multiple Myeloma patients in partial remission

Elizabeth G Whitty

Exploiting tumour acidity for polymer based drug delivery

Xuexin Gao

Exploiting bio-energetic metabolism to overcome drug resistance in cancer

Sugarniya Subramaniam

PDK1 dependent aerobic glycolysis and tumorigenesis in prostate cancer is regulated by miRNAs in an allele dependent manner

Claire Levrier

High-content screening of small molecule inhibitors from nature that target prostate cancer metabolism

Jennifer Gunter

Combined androgen deprivation and biguanide treatment modulates autophagy and apoptosis in prostate cancer cells

Pegah pv Varamini

Novel GnRH-modified dendrimer platforms: direct antiproliferative activity and gonadotropin releasing effects

Quanqing Gao

Adipocyte Conditioned Media Diminish Anti-Cancer Drug Efficacy in MCF-7 Breast Cancer Cells

Martin C Sadowski

Targeting of serine biosynthesis and one-carbon metabolism in prostate cancer

Yuyan Chen

Dynamic association of Tumor protein D52 with lipid droplets and the Golgi apparatus

Lisa K Philp

Leptin Receptor Antagonist, Allo-Aca, Inhibits Androgen-Deprived Prostate Cancer Cell Invasiveness *In Vitro* & Hinders Prostate Cancer Xenograft Progression *In Vivo*

Jian Kang

Characterize metabolic reprogramming in oncogene-induced senescence

Jian Kang

Targeting the neurokinin-1 receptor is a potential therapeutic strategy to human myeloid leukemia

Ashlee Clark

Transcriptome profiling of single prostate cancer cells following androgen deprivation

Ghazal Sultani

Impact of compartment-specific changes in NAD⁺ biosynthesis on diethylnitrosamine-induced liver cancer

Punkaja Maninda S Amarasekera

High-throughput analysis of lipid droplet phenotypes in human cancer cell lines *id# 43633*

Dushan Miladinovic

Analysis of Basal and Hormone-Stimulated Lipolysis of Peri-Prostatic Adipose Tissue from Men with Localised Prostate Cancer

Keely Tan

ACC1 and ACC2 function in breast tumourigenesis

Dan Dan Tian

Dichloroacetate at clinically achievable concentrations can reduce pPDH and reverse the glycolytic phenotype in multiple myeloma cells

Andrew Pattison

Post transcriptional regulation of messenger RNA helps drive metastasis in triple negative breast cancer

Aziz Aiderus

Investigating the prognostic utility of fatty acid oxidation in breast cancer

Zeyad Nassar

Lipid elongation: an unexplored therapeutic target in prostate cancer?

Lisa Butler

Heterogeneity of the lipidome in clinical prostate tumours, and its modulation by androgens, revealed by MALDI-mass spectrometry imaging

Tuesday 16th May

Session 1: Immuno-metabolism & cancer

8:30AM - 10:30AM

Theatre B

8:30 AM

Axel Kallies

T-cell-receptor-dependent molecular regulation of inhibitory receptor expression and metabolic impairments of exhausted T cells

9:00 AM

Nicole La Gruta

Functional and Metabolic Characteristics of CD8⁺ T cells in Ageing

9:30 AM

Stephen Mattarollo

B cell lymphoma induces metabolic stress and functional defects in Natural Killer cells

9:45 AM

Helene L Kammoun

Obesity prolongs survival in a murine model of myelodysplastic syndrome

10:00 AM

Seth Masters

NLRP1 exacerbates colitis-associated cancer through IL-18, with effects on butyrate producing Clostridiales.

Morning Tea

10:30AM - 11:00AM

Level 7 Foyer

Session 2: Metabolic Disease, Lifestyle Interventions & Cancer

11:00AM - 1:00PM

Theatre B

11:00 AM

James R Krycer

Dynamic 'omics reveals kinase signalling primes cells for glucose metabolism

11:15 AM

Colleen Nelson

Role of Androgens and Androgen Targeted Therapies in Prostate Tumour Cell Metabolism

11:45 AM

Nigel Turner

Metabolic reprogramming associated with epithelial-mesenchymal transition in pancreatic cancer

12:15 PM

Alice Domenichini

Metabolic Characterization of Pancreatic Cancer-Derived Stem-Like Cells

12:30 PM

Louise Cheng

Metabolic reprogramming of neuronal dedifferentiation

Lunch

1:00PM - 2:00PM

Level 7 Foyer

Session 3: Novel Metabolic Pathways and Signalling in Cancer I

2:00PM - 4:00PM

Theatre B

2:00 PM

Andrew Cox

The Hippo pathway's sweet tooth: Yap reprograms glucose metabolism to fuel tissue growth

2:30 PM

Sarah A Best

Activation of the KEAP1-NRF2 pathway drives lung adenocarcinoma with an altered metabolism

2:45 PM

Andrew Hoy

Fatty acid metabolism in cancer

3:15 PM

Kaylyn Tousignant

Enhanced lipid uptake: A novel metabolic target to fight the adaptive response to androgen-targeted therapies in prostate cancer

3:30 PM

Ivan Topisirovic

Coordinated translational and metabolic reprogramming underpins synergistic effects of kinase inhibitors and biguanides *id# 42599*

Afternoon Tea

4:00PM - 4:30PM

Level 7 Foyer

Plenary Lecture

4:30PM - 5:30PM

Theatre B

4:30 PM

Ralph Deberardinis

Understanding metabolic phenotypes in human cancer

Social Function

5:30PM - 7:30PM

Level 7 Foyer

Wednesday 17th May

Session 4: Novel Metabolic Pathways and Signalling in Cancer II

8:15AM - 10:30AM

Theatre B

8:15 AM

Darren Saunders

Mitochondrial mutations and metabolic adaptation in pancreatic cancer

8:45 AM

Matthew J Naylor

A novel role for Acetyl-CoA carboxylase 1 as a regulator of breast cancer progression

9:00 AM

Kristin Brown

Targeting adaptive metabolic reprogramming to combat chemotherapy resistance

9:30 AM

Aparna D Rao

Investigating therapeutic strategies targeting metabolism in *NRAS*-mutant melanoma

9:45 AM

Christopher Proud

The roles of eukaryotic elongation factor 2 kinase, eEF2K, a metabolic switch, in cancer cells

10:15 AM

Greg M Kowalski

In vitro and in vivo characterisation of cancer metabolism and biomass synthetic flux: a deuterated water and mass spectrometry approach

Morning Tea

10:30AM - 11:00AM

Level 7 Foyer

Session 5: Cancer Metabolism and Therapeutics

11:00AM - 1:00PM

Theatre B

- 11:00 AM **Rick Pearson**
Reprogramming of cellular metabolism associated with resistance to cancer therapies targeting the ribosome
- 11:30 AM **Nicholas Clemons**
Mutant p53 impairs glutathione synthesis via suppression of the glutamate/cystine exchanger, xCT: a potential Achilles heel
- 11:45 AM **Jiri Neuzil**
Horizontal mitochondrial transfer and tumour initiation
- 12:15 PM **Frances Byrne**
Identification of a novel glucose oxidation agonist that is selectively toxic to cancer cells
- 12:30 PM **Jeff Holst**
Targeting glutamine metabolism in triple-negative breast cancer

Lunch/ Finish

1:00PM - 2:00PM

Level 7 Foyer

***Please note invited speakers are highlighted in red, 30 minute presentations*