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
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

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**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**