1st Australian Cancer and Metabolism Meeting

Wednesday 29 April

2:30pm – 5pm  Registration
_Galleria, entry via Victoria St_

3pm – 4:30pm  Seahorse Workshop
_Lab on Level 6_

5pm  Welcome  Nigel Turner
_Auditorium, Level 2_

5:15pm  Keynote
_Auditorium, Level 2_

_Professor Brendan Manning, School of Public Health, Harvard University_
Metabolic control of cancer cell growth by mTOR

6:15pm – 8pm  Welcome Reception
_De Novo Café, Level 8_

Thursday, 30 April

Session 1 – Lipid Metabolism  Chair: Andrew Hoy

8:30am  Lisa Butler, South Australian Health and Medical Research Institute
Exploiting lipidomic alterations in prostate cancer cells as markers of disease behaviour

8:55am  Robin Du, UNSW Australia
Akt Activation Increases Cellular Cholesterol by Promoting the Proteasomal Degradation of Niemann-Pick C1

9:10am  Anthony Don, UNSW Australia
The lipid signalling metabolite sphingosine 1-phosphate is essential for angiogenic signalling and predicts poor survival in glioblastoma

9:25am  Martin Sadowski, Queensland University of Technology
Investigation of treatment-induced adaptive metabolic changes in advanced prostate cancer and their potential as therapeutic targets

9:50am  Jenny Byrne, Kids Research Institute
Lipid storage in cancer cells- the end, or the beginning?

10:15 – Morning Tea
### Session 2 – Glucose and Glutamine Metabolism  
Chair: Anneke Blackburn

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45</td>
<td>Kyle Hoehn, UNSW Australia</td>
<td>Targeting glucose metabolism in obesity-related cancers</td>
</tr>
<tr>
<td>11:10</td>
<td>Traude Beilharz, Monash University</td>
<td>RNA dynamics and the prediction of metabolic change in breast cancer metastasis</td>
</tr>
<tr>
<td>11:25</td>
<td>Zhe Yang, University of Queensland</td>
<td>Functional characterization the role of SNX27-retromer in ASCT2 trafficking and glutamine uptake</td>
</tr>
<tr>
<td>11:40</td>
<td>Stefan Broer, The Australian National University</td>
<td>The role of amino acid transporters in metabolic control</td>
</tr>
<tr>
<td>12:00</td>
<td>Grant McArthur, Peter MacCallum Cancer Centre</td>
<td>Oncogenic drivers of metabolism in melanoma: from mechanisms to therapy</td>
</tr>
</tbody>
</table>

**12:25 – Lunch**

### Session 3 – Student Presentations  
Chair: Jeff Holst

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:25</td>
<td>Alexander Wilding, MIMR-PHI Institute of Medical Research</td>
<td>Anti-tumour synergy between temsirolimus and sorafenib: a metabolic basis</td>
</tr>
<tr>
<td>1:40</td>
<td>Nádia Amorim, UNSW Australia</td>
<td>Long-term impact of ionizing radiation on skeletal muscle in mice – toward an understanding of Metabolic Syndrome</td>
</tr>
<tr>
<td>1:55</td>
<td>Seher Balaban, University of Sydney</td>
<td>A role for adipocyte lipolysis in breast cancer progression</td>
</tr>
<tr>
<td>2:10</td>
<td>Karishma Sachaphibulkij, Griffith University</td>
<td>A novel mitocan compound selectively and efficiently suppresses resistant Her2high breast carcinomas</td>
</tr>
<tr>
<td>2:25</td>
<td>Amelia Parker, Children’s Cancer Institute of Australia</td>
<td>βIII-Tubulin modulates glucose metabolism and glucose starvation response signalling to support cell survival and proliferation in Non-small Cell Lung Cancer.</td>
</tr>
<tr>
<td>2:40</td>
<td>Michelle van Geldermalsen, Centenary Institute</td>
<td>Targeting the ASCT2 glutamine uptake &amp; metabolism pathway in breast cancer</td>
</tr>
<tr>
<td>2:55</td>
<td>Monira Hoque, University of Sydney</td>
<td>Cholesterol Regulates Syntaxin 6 Trafficking at trans-Golgi Network Endosomal Boundaries for cancer cell migration</td>
</tr>
</tbody>
</table>
3:10pm – Afternoon Tea

Session 4 – Obesity and Exercise  
Chair: Maria Tsoli

3:40pm  
David James, University of Sydney  
The Metabolism-Signaling Nexus

4:05pm  
Renea Taylor, Monash University  
Unique adipose secreted factors from human peri-prostatic fat stimulate prostate cancer cell tumourigenicity.

4:20pm  
Mark Febbraio, Garvan Institute of Medical Research  
Skeletal muscle secretory proteins: a link between regular physical activity and reduced breast cancer risk?

4:40pm  
Kristy Brown, MIMR-PHI Institute of Medical Research  
Dysregulated metabolism as a driver of oestrogen production in obesity and breast cancer

5:05pm – 7pm – Posters and drinks  
Galleria

Friday, 1 May

Session 5 – Signalling and Metabolism  
Chair: Darren Saunders

8:30am  
Ajit Divakaruni, University of California - Seahorse Postdoctoral Fellow  
Revealing cancer cell metabolism by measuring cellular substrate preference and rates of ATP production

8:50am  
Jus St John, MIMR-PHI Institute of Medical Research  
The control of mitochondrial DNA replication during development and tumorigenesis.

9:10am  
Ilse Rooman, Garvan Institute of Medical Research  
SIRTUIN1 and its inhibitor CCAR2, potential regulators of metabolic pathways in pancreatic cancer

9:25am  
Elham Alizadeh Pasdar, Griffith University  
Metabolic Features of Mesothelioma Cancer Stem-Like Cells

9:40am  
Sean McGee, Deakin University  
Class IIa HDAC link metabolic reprogramming to cell survival via p53 acetylation: potential role in breast cancer

9:55am  
Lorey Smith, Peter MacCallum Cancer Centre  
Functional genomics of BRAF-driven glycolysis in BRAFV600 melanoma.

10:10am  
Mike Berridge, Malaghan Institute of Medical Research, NZ  
Mitochondrial respiration in cancer: a role for inter-cellular mitochondrial DNA transfer
10:30 – Morning Tea

Session 6 – Therapeutics

11:00am  Ross Hannan, The Australian National University
Targeting the synthesis of ribosomes to treat cancer; a new paradigm for cancer therapeutics.

11:25am  Jenny Gunter, Queensland University of Technology
Insulin increases apoptotic resistance and metabolic capacity in prostate cancer cells, that is inhibited by metformin

11:40am  Lindsay Wu, UNSW Australia
NAD+ raising drugs prevent hepatocellular carcinoma: evidence for “geroncogenesis”, metabolic changes during old age as a driver of cancer.

11:55am  Anneke Blackburn, The Australian National University
Dichloroacetate can overcome drug resistance via decreased ABC drug transporter expression and PDK2 inhibition.

12:10pm  Mark Guthridge, Monash University
The therapeutic targeting of metabolic vulnerabilities in leukemia

12:25pm  Phil Hogg, Lowy Cancer Research Centre, UNSW
Deregulating cellular energetics by targeting allosteric disulphides

12:50pm – Presentation of prizes and close of meeting  Nigel Turner

1pm - Lunch