

5th Australian Cancer and Metabolism Meeting - Agenda

Day 1: Wednesday 15 th May 2024	
11.00am	Registration Desk is open
1.00 - 1:10pm	Welcome Address from Meeting Conveners Prof Lisa Butler and A/Prof Dan Thomas
1.10 - 2.20pm	Session 1: Lipid metabolism in cancer microenvironment Chair: Prof Lisa Butler, SAIGENCI- The University of Adelaide
1.10 - 1.50pm	Invited International Speaker <u>Professor Johannes Swinnen</u> - Katholieke Universiteit Leuven, Belgium <i>Spatial multi-omics as a tool to identify exploitable lipid metabolic vulnerabilities in cancer</i>
1.50 - 2.05pm	Monika Kutyna <i>Mesenchymal stromal cells from patients with therapy-related myeloid neoplasms exhibit a unique metabolic phenotype with defective adipocyte differentiation.</i>
2.05 - 2.20pm	Jacob Truong <i>Identifying Prognostic Lipid Signatures Associated with Disease Relapse After Surgical Intervention in Patients with Localised Prostate Cancer by Mass Spectrometry Imaging.</i>
2.20 - 3.00pm	Afternoon Tea
3.00 - 4.05pm	Session 2: Metabolic reprogramming and therapy resistance Chair: A/Prof Andrew Hoy, Charles Perkins Centre, University of Sydney
3.00 - 3.25pm	Invited National Speaker <u>A/Prof Kristin Brown</u> - Peter MacCallum Cancer Centre, Vic Metabolic regulation of tumour immune evasion.
3.25 - 3.50pm	Invited National Speaker <u>Prof Lenka Munoz</u> – The University of Sydney, NSW <i>Epigenetic and metabolic adaptations in drug-tolerant persister cells</i>
3.50 - 4.05pm	Raj Kumar Shrestha <i>ACSM1 and ACSM3 regulate prostate cancer fatty acid metabolism to promote tumour growth and constrain ferroptosis.</i>
4.05 - 5.00pm	Flash Talks from Poster Presenters (5 mins per presenter) Chair: A/Prof Dan Thomas, SAHMRI, SA Health and The University of Adelaide
	Flash Talk 1: Jenny Wang <i>Investigating the effect of physiological culture on the metabolism of estrogen receptor-positive breast cancer cells</i> (Poster: FP 3)
	Flash Talk 2: Alana White <i>Exploring ceramide metabolism as an avenue for novel therapeutic approaches in chronic lymphocytic leukaemia.</i> (Poster: FP 4)
	Flash Talk 3: Mohammad Ismail <i>Exploiting a potential synthetic lethal interaction between SPOP mutation and glutathione metabolism pathway as a targetable metabolic dependency in prostate cancer</i> (Poster: FP 5)
	Flash Talk 4: Jamshid Motalebzadeh <i>Interferon gamma stimulates upregulation of tryptophan flux to kynurenine in triple-negative breast cancer through IDO1 enzyme: implications for immunotherapy</i> (Poster: FP 1)
	Flash Talk 5: Ruhi Polara <i>CD47 regulates cellular and metabolic plasticity in glioblastoma</i> (Poster: FP 6)
	Flash Talk 6: Neil Portman <i>A bedside-to-bench analysis of metastatic castrate-resistant prostate cancer patient plasma establishes a link between a lipid biomarker and cancer cell viability.</i> (Poster: FP7)

	Flash Talk 7: Michelle Santella <i>Exploring novel biomarkers in MRN complex and inflammatory CCL genes in head and neck squamous cell carcinoma. (Poster: FP 8)</i>
	Flash Talk 8: Tasnova Tasnim Nova <i>IDH1 mutation blocks cell differentiation and increases susceptibility of cholangiocarcinoma cells towards metabolic inhibition (Poster: FP 9)</i>
5.00 - 7.00pm	Poster Sessions and Welcome Reception

Day 2: Thursday 16th May 2024	
9.00 - 10.25am	Session 3: Metabolic targets in cancer Chair: Dr Nirmal Robinson, University of South Australia, SA
9.00 - 9.25am	Invited National Speaker <u>Prof Lisa Horvath</u> - Chris O'Brien Lifehouse, NSW <i>The role of lipid metabolism in metastatic prostate cancer – lab to clinic</i>
9.25 - 9.40am	Charles Bidgood <i>Targeting Succinate-Dependent Cancers via the Development of Novel Mitochondrial-Targeted Therapeutics</i>
9.40 - 9.55am	Bridget Mooney <i>AMP-Activated Protein Kinase (AMPK) is required to promote cell division following salt stress.</i>
9.55 - 10.10am	Kanu Wahi <i>Macropinocytosis mediates resistance to loss of glutamine transport in triple-negative breast cancer.</i>
10.10 - 10.25am	Zeyad Nassar <i>Utilising Activated Enzymes And Intermediates Of Fatty Acid Oxidation As Therapeutic And Prognostic Markers In Prostate Cancer</i>
10.25 - 11.00am	<i>Morning Tea</i>
11.00am - 12.30pm	Session 4: Metabolic vulnerabilities of blood cancers Chair: A/Prof Dan Thomas, SAHMRI, SA Health and The University of Adelaide
11.00 - 11.25am	Invited National Speaker <u>A/Prof Lev Kats</u> - Peter MacCallum Cancer Centre, Vic <i>Heme biosynthesis is a therapeutic vulnerability in leukaemia</i>
11.25 - 11.50am	Invited National Speaker <u>A/Prof Devendra Hiwase</u> – SA Health and SAHMRI, SA Metabolic vulnerabilities of myeloid neoplasm and autoimmune disease
11.50am - 12.05pm	Ilaria Stefania Pagani <i>Tyrosine kinase inhibitor-responsive chronic myeloid leukaemia is associated with reduced OXPHOS capacity and mtDNA mutations likely contribute to this.</i>
12.05 - 12.30pm	Invited National Speaker <u>Dr Lauren Thurgood</u> - Flinders University, SA <i>Hold the sugar, pass the fat: Exploiting lipid dependencies in chronic lymphocytic leukemia for disease monitoring and therapeutics</i>
12.30 - 1.30pm	<i>Lunch</i>
1.30 - 2.50pm	Session 5: Epigenetics, gene regulation and metabolism in cancer Chair: A/Prof Luke Selth - Flinders University, SA
1.30 - 2.10pm	Invited International Speaker <u>Dr David Labbe</u> - McGill University, Montréal, Canada <i>Diet-dependent tumor addictions in prostate cancer: a basis to precision nutrition strategies?</i>

2.10 - 2.25pm	Joshua Hodgson <i>Resistance to CDK4/6 inhibition in prostate cancer is associated with metabolic re-writing to protect from ferroptosis.</i>
2.25 - 2.50pm	Invited National Speaker <u>Dr Andrew Cox</u> - Peter MacCallum Cancer Centre, Vic <i>Exploring cancer metabolism through the lens of developmental biology</i>
2.50 - 3.20pm	<i>Afternoon Tea</i>
3.20 - 4.40pm	Session 6: Systemic Metabolic changes and tumour biology Chair: Prof Lisa Horvath - Chris O'Brien Lifehouse, NSW
3.20 - 3.45pm	Invited National Speaker <u>Prof Matthew Watt</u> -The University of Melbourne, Vic <i>Targeting lipid metabolism for prostate cancer therapy</i>
3.45 - 4.00pm	Hannah Prsa <i>Macronutrient intake has differential effects on primary and metastatic breast cancer progression that is linked to altered immunometabolism.</i>
4.00 - 4.15pm	Aparna Rao <i>Understanding the effect of high-fat diet and targeted therapies on tumour metabolism in BRAF-mutant melanoma.</i>
4.15 - 4.40pm	Invited National Speaker <u>Dr Katherine Worgtrakul-Kish</u> -Macquarie University, NSW <i>Can we find ascites glycosylation markers to guide treatment choice for ovarian cancer?</i>
4.40 - 5.10pm	SPECIAL PANEL DISCUSSION <i>The Valley of Death: How to gain clinical traction for metabolic target discovery.</i> <ul style="list-style-type: none"> • Lisa Horvath • Aparna Rao • Dan Thomas (commercialisation obstacles) Three 5 min presentations followed by 15 min of Q&A
5.10 - 6.30pm	<i>Break</i>
6.30 - 8.30pm	<i>Meeting Dinner and Wine Tasting Event</i> <i>National Wine Centre of Australia, North Tce, Adelaide (City East)</i>

Day 3: Friday 17th May 2024	
9.00 - 10.45am	Session 7: Reprogramming metabolite flux in cancer Prof Nigel Turner, Victor Chang Cardiac Research Institute
9.00 - 9.40am	Invited International Speaker - Virtual <u>Prof Marcia Haigis</u> -Harvard Medical School, USA <i>The role of metabolites in Cancer during aging.</i>
9.40 - 10.20am	Invited National Speaker - Virtual <u>Christian Metallo</u> - Salk Institute, USA Title: TBA
10.20 - 10.45am	Invited National Speaker <u>Prof Pilar Blancafort</u> -University of Western Australia, WA <i>Reprogramming stress-induced cellular metabolism to improve therapy responses in ovarian cancer</i>
10.45 - 11.15am	<i>Morning Tea</i>
11.15am - 12.45pm	Session 8: Interplay between Tumour Immunology and Metabolism Chair: Prof Renea Taylor, Monash University, Vic

11.15 - 11.55am	Invited International Speaker <u>Prof Celeste Simon</u> - The University of Pennsylvania, USA <i>Can Tumor Metabolism Be Targeted for Effective New Therapies.</i>
11.55am - 12.10pm	Zaklina Kovacevic <i>The metastasis suppressor NDRG1 significantly alters pancreatic cancer cell metabolic cross-talk with fibroblasts and immune cells in the tumour microenvironment.</i>
12.10am - 12.35pm	Invited National Speaker <u>Dr Nirmal Robinson</u> - University of South Australia, SA <i>Unraveling Glioblastoma's Metabolic Vulnerabilities: Insights from CD47 "Don't Eat Me" Signaling.</i>
12.35 - 12.45pm	Prizes and Meeting Wrap Up Co Conveners: Prof Lisa Butler and A/Prof Dan Thomas
12.45 - 1.30pm	<i>Event Closing Light Refreshment</i>