# ANZPRA

# 2026 Satellite Meeting




## Blue Mountains (NSW), Lilianfels Hotel

## 5th – 6th November 2026

ANZPRA
Australian and New Zealand Placental Research Association

## Sponsor:

Research Institute for Innovative Solutions for Well-being and Health (INSIGHT)

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**The 5th of November**

8:30 – 9:00 Registration

9:00 Meditation and Mental Health

9:30 Welcome and Acknowledgement – Lana McClements

9:40 Plenary talk: Prof Evdokia Dimitriadis (University of Melbourne) – "My Journey in Reproductive Biology"

10:30 Coffee break

**11:00 Mechanisms and Therapeutic Strategies for Placental Dysfunction**

Moderators: Ashley Bannister & Dr Joshua Fisher

Invited Speakers:
11:00 – 11:15:"Placental ACE2 as a therapeutic target in fetal growth restriction" - Prof Kirsty Pringle (University of Newcastle)

Oral presentations
11:15 – 11:30: "The placental allele-resolved methylome and transcriptome in fetal growth restriction" - Alicja J. Andraszek (University of Queensland)

11:30 – 11:45: "Vibegron: a potential safer treatment for preeclampsia through reduced fetoplacental vascular resistance and limited placental transfer" – Gideon Jaque (University of Sydney)

11:45 – 12:00: "In Situ-Optimized Microfluidic Device for Liposome Synthesis: A COMSOL-Driven Screening of Twelve Geometries Toward an Exosome-Loaded Carrier for Preeclampsia Therapy" – Iman Akbarzadeh (University of Technology Sydney)

12:15 – 12:30: "GRα-D1 mediates sex-specific pro-inflammatory glucocorticoid signalling in the human placenta" – Sreeparna Bhaumik (Mater Research Institute)

12:30 Lunch

**13:30 Engineering the Placenta: Advances in 3D Tissue Models and Biofabrication**

Moderators: Sid Acharya & Dr Sarah Marshall

Invited Speakers:
13:30 – 13:45: "New materials and engineering approaches to building tissue and modelling disease" - Prof Kristopher Killian (UNSW)

13:45 – 14:00: "Engineering Cellular Niches with Self-Assembled Peptide Hydrogels" - Dr Aaqil Rifai (UTS)

14:00 – 14:15: "Organoid Aging in Culture" - Dr Anya Arthurs (Flinders University)

Oral presentations

14:15 – 14:30: “Establishing mouse-derived organoid models of the placenta to study key processes during pregnancy” Sarah Baker (University of Technology Sydney)
14:30 - 14:45: “Three-dimensional placentoids sustain tuneable, heterogeneous trophoblast populations for 28 days in vitro” – Matilda Janssen (University of Sunshine Coast)

14:45 Afternoon tea

**15:15 Exposomes and Placental Health: Mechanisms, Evidence and Clinical Potential**

Moderators: Ananya Raman & Dr Lucy Bartho

Invited Speakers:
15:15 – 15:30: Prof Janna Morrison (Adelaide University)

15:30 – 15:45: “Mapping the exposome to placental pathology and fetal outcomes” - Dr Georgia Kafer (University of Sunshine Coast)

15:45 – 16:00: “The Journey from Broccoli Sprout to Placenta: Pharmacokinetics and Translational Challenges” - Dr Sarah Marshall (Monash University)

16:00 – 16:15: “Western Australia Drinking Water Quality and the Impacts of Nitrate on Fetal and Placental Health” – Dr Leaf Kardol (University of Western Australia)

Oral presentations
16:15 -16:30: “Potentially Toxic Element Expression in Human Placental Tissue” – Dr Julie Sartori (Edith Cowan University)

16:30 -16:45: “The effects of periconceptional alcohol exposure on placental DNA methylation” – Dr Bradley Balaton (University of Queensland)

16:45 – 17:00: “Comparative Effects of Bushfire- and Traffic-Derived Particulate Matter on Human Trophoblast Cell Function” – Shayesteh Shahriary (University of Technology Sydney)

18:00 Echo Point – Conference Dinner

**The 6th of November**

9:00 Plenary talk: A/Prof Renuka Shanmugalingam (Incoming SOMANZ President): *“Bridging the Gap between Clinical and Basic Science Research in Obstetrics Medicines in Australia and New Zealand”*

**9:45 Animal Models in Placental Research: Essential Tools or Time for Change?**

Moderators: Suchitha Rao & Dr Anna Boss

Invited Speakers:

9:45 – 10:00: “Placental function in male seahorses” - A/Prof Camilla Whittington (University of Sydney)

10:00- 10:15: "Evolutionary Models of Placentation" - Dr Oliver Griffiths (Macquarie University)

10:15 – 10:30: “Fetal growth restriction induces dynamic, sex-specific changes to molecular signatures in the placenta-heart axis of the near-term sheep” - Dr Ashley Meakin (Adelaide University)

Oral presentations

10:30 – 10:45: “Prior chemotherapy exposure alters fetal and placental development throughout gestation” – Jordan Higgins (Monash University)

10:45 – 11:00: “Placental Ageing and Stillbirth in Post-Term Pregnancy: Insights from a Mouse Model” – Zakia Sultana (University of Newcastle)

11:00 Coffee break

**11:30 Biomarker discovery and in vitro diagnostics for pregnancy complications**

Moderators: Dr Leaf Kardol & Prof Jo James

Invited Speakers:

11:30 – 11:45: "The key role of HtrA4 in EVT differentiation" - Dr Yao Wang (RMIT)

11:45 – 12:00: “Angiogenic biomarkers applied for rule in – rule out screening for pregnancy at risk of an adverse outcome” – Dr Micheal J Sinosich (Sonic Healthcare)

12:00 – 12:15: “Novel technologies to identify new biomarkers for fetal growth restriction” - Dr Lucy Bartho (University of Melbourne)

12:15 – 12:30: “Could a simple pregnancy urine test save mothers and babies?” - Dr Chia-Chi Liu (University of Sydney)

12:30 Lunch

Oral presentations

13:15 – 13:30: 11:45 – 12:00: “Sycytiotrophoblast Cell: What is it Good for?” – Dr Michael J Sinosich (Sonic Healthcare)

13:45 – 14:00: “Multi-modal non-invasive prenatal screening” – Dr Michael J Sinosich (Sonic Healthcare)

**14:00 Visualising Pregnancy: Cutting-Edge Imaging and Sensing for Placental Health**

Moderators: Dr Anya Arthurs & Prof Lana McClements

Invited Speakers:

14:00 – 14:15: Advanced imaging technologies in the Microbial Imaging Facility, Faculty of Science at UTS - enabling high impact research to improve human health – A/Prof Louise Cole (University of Technology Sydney)

14:15 – 14:30: “3D light-sheet imaging identifies reduced placental vascular complexity in first-trimester pregnancies affected by obesity” - Dr Anna Boss (University of Auckland)

14:30 – 14:45: “The road to resolving protein structure in the human placenta using cryo-electron tomography” - Siddharth Acharya (University of Newcastle)

14:45 – 15:00: "Mesenchymal stem cell-derived extracellular vesicles target trophoblast cell via the FKBPL pathway” - Ashley Bannister (University of Technology Sydney)

15:00 – 15:15: “Optofluidic Sensors for Intelligent Organoid-on-Chip Systems” – Dr Guochen Fang (University of Technology Sydney)

15:15 Afternoon tea

15:45 ANZPRA Annual General Meeting

16:15 Closing remarks and reflections