

# Functional High Throughput Technologies Australia

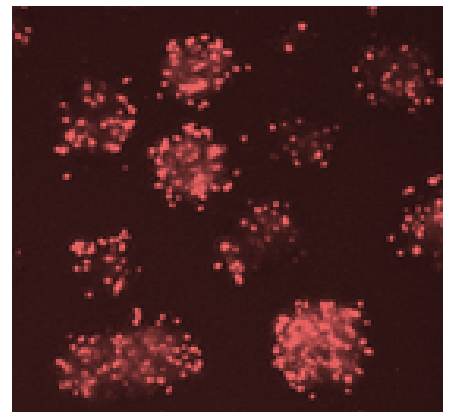
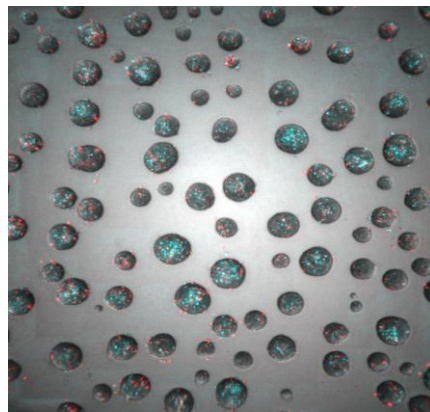
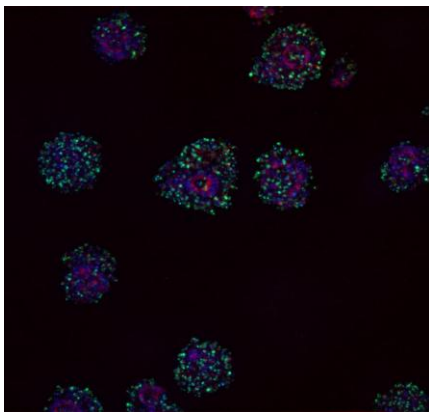
## Organoid Nexus 2025: Application Workflow from Production to Practice

**When:** November 21, 2025

**Time:** 8:45 arrival for 9:00 start, concludes at 17:00

**Where:** Bio21 Institute, 30 Flemington Rd, Parkville VIC

**Attendance:** In-person only



Functional High Throughput Technologies  
AUSTRALIA

# In partnership with our supporters

scientifix

OLS<sup>®</sup>  
OMNI Life Science

 bio-strategy  
Part of DKSH Group

INVENTIA  
INSPIRING SCIENCE

ThermoFisher  
SCIENTIFIC

SARTORIUS

revvity

CORNING

*in vitro*<sup>™</sup>  
technologies

TECAN.

 Phenomix  
Australia  
*Enabling precision medicine*

 THERAPEUTIC  
INNOVATION  
AUSTRALIA

 bio21  
institute

 THE UNIVERSITY OF  
MELBOURNE



Functional High Throughput Technologies  
AUSTRALIA

# Program

Organoids represent a revolutionary approach to biomedical research and are becoming recognised as a potential tool for personalised medicine. This meeting focuses on the organoid workflow, integrating multiple stages from organoid production and expansion, through assay development and high-throughput screening, to advanced data analysis. A well-designed workflow ensures reliability, scalability, and meaningful biological interpretation, driving the translation of organoid-based discoveries into clinical and therapeutic applications.

## Welcome

**8:45-9:00** Registration

Tea and coffee on arrival

**9:00-9:05** Conference Welcome and Housekeeping

**Twishi Gulati**

## **9:05-9:45** Session 1: Generation of organoids

**Chairs** Alison Ferguson and Louise Winteringham

**7 min** *Miniature models, massive potential: Enabling organoid innovation at UNSW*

**Alison Ferguson, University of New South Wales**

*Patient-derived organoid models accurately represent molecular subtypes of gynaecological cancers*

**Dongli Liu, University of New South Wales**

*Perkins organoid production facility*

**Louise Winteringham, Harry Perkins Medical Research Institute**

*Towards reproducible tumour organoids: What are the minimum data requirements?*

**Larissa Dymond, Harry Perkins Medical Research Institute**

**10 min** Open discussion

**3 min** *Boost your 3D organoid research: Higher yields, lower costs*

**Joachim Pavel, OLS on behalf of Scientifix**

## **9:45-10:30** Session 2: Characterisation of organoids

**Chairs** Jacek Kolanowski and Thierry Jarde

**7 min** *Towards effective translation of organoid research: Adapting VCCRI Innovation Centre blueprint to cardiac 3D models & characterisation technologies*

**Jacek Kolanowski, Victor Chang Cardiac Research Institute**

*A 'Drop-In' system for measuring cardiac organoid contraction*

**Cong Nguyen, University of New South Wales**

*Monash Cabrini breast cancer organoid bioresource: multi-omics characterisation for precision oncology*

**Thierry Jarde, Monash University**

*Utilising human endometrial epithelial organoids to investigate endometrial function and gynaecological disease*

**Harriet Fitzgerald, Monash University**

**10 min** Open discussion



**Functional High Throughput Technologies  
AUSTRALIA**

3 min	<i>Accelerating organoid discovery with Corning's advanced technologies</i> <b>Farhad Soheil, Corning Life Sciences</b>
3 min	<i>Advancing discovery with live cell imaging and analysis</i> <b>Anthony Boghdadi, Sartorius</b>
10:30-11:00	<b>Morning Tea</b>
11:00-11:45	<b>Session 3: Optimisation of organoids for screening</b>
<b>Chairs</b>	<b>Cedric Bardy and Nathan Godde</b>
7 min	<i>Functional drug screens for neurodegenerative diseases with iPSC models</i> <b>Cedric Bardy, South Australia Health and Medical Research Institute</b>
	<i>High-throughput drug discovery in patient-derived neural models of childhood dementia</i> <b>Ella McDonald, South Australia Health and Medical Research Institute</b>
	<i>Integrating automation and quality control in scalable organoid workflows</i> <b>Nathan Godde, University of Queensland</b>
	<i>Human brain organoid model for Japanese encephalitis (JEV) virus infection</i> <b>Michael Leitner, QIMR Berghofer Medical Research Institute</b>
10 min	<b>Open discussion</b>
3 min	<i>Optimising organoid screening: Overcoming challenges in throughput and quantification of complex models with a standardised 3D culture platform</i> <b>Martin Engel, Inventia</b>
11:45-12:30	<b>Session 4: Organoid screening</b>
<b>Chairs</b>	<b>Amee George and Tim Failes</b>
7 min	<i>Miniaturisation of organoid systems for high-throughput screening</i> <b>Amee George, Australian National University</b>
	<i>Using patient-derived models to identify new treatments for penile cancer</i> <b>Pauline Mascarinas, Monash University</b>
	<i>The ACRF ACCEPT Program - organoid and preclinical models for advanced functional screening</i> <b>Tim Failes, Children's Cancer Institute Australia</b>
	<i>High-throughput 3D bioprinted paediatric tumour models for precision medicine</i> <b>Joanna Skhinas, Children's Cancer Institute Australia</b>
10 min	<b>Open discussion</b>
3 min	<i>High-throughput capabilities to enable tumouroid-based compound screens</i> <b>Oliver Trusler, Thermo Fisher</b>
	<i>Automated 3D workflows from culture to analysis - Powered by CellXpress.ai and HCS.ai</i> <b>Gurpreet Kaur, Bio Strategy-DKSH</b>
12:30-13:30	<b>Lunch</b>
13:30-14:15	<b>Session 5: Screening analysis</b>
<b>Chairs</b>	<b>Ben Dwyer and Mark Li</b>



**7 min** *Image based analysis of liver caancer organoids using the Revvity Operetta CLS and Harmony machine learning software*

**Ben Dwyer, Curtin University**

*Exploring new treatment for high-grade serous ovarian cancer through drug library screening in patient derived organoid models*

**Chez Balachander, Curtin University**

*Advanced co-culture models for evaluating immune cell efficacy*

**Mark Li, Peter MacCallum Cancer Centre**

*Integrating imaging-based machine learning analyses in high-content screening of prostate cancer organoids*

**Nicholas Choo, Monash University**

**10 min** **Open discussion**

**3 min** *Smart dispensing with Duo*

**Heling Higgins, Tecan**

**14:15-15:00** **Session 6: Technical challenges in organoid screening**

**Chairs** **Alejandro Hidalgo-Gonzalez and Anai Gonzalez-Cordero**

**7 min** *High content/high throughput drug screening of 3D organoids: Advantages and challenges*

**Alejandro Hidalgo-Gonzalez, Murdoch Children's Research Institute**

*Unlocking the potential of brain organoids for high-throughput drug screening*

**Maria Giovanna Garone, Murdoch Children's Research Institute**

*Developing complex organoids to develop advanced therapies for inherited retinal diseases*

**Anai Gonzalez-Cordero, Children's Medical Research Institute**

*Opportunities and challenges of organoids in gene therapy research*

**Andrea Perez-Iturralde, Children's Medical Research Institute**

**10 min** **Open discussion**

**3 min** *From 3D culture to insights: Revvity's integrated organoid solution*

**Jonathan Cechetto, Revvity**

*Accelerate organoid research: Grow, mature and characterise with leading tools*

**Katelyn Meier, In vitro Technologies**

**15:00-15:30** **Afternoon Tea**

**15:30-16:40** **Session 7: Spotlight talks**

**Chair** **Kaylene Simpson**

**7 min** *Organoid models of infection*

**Elizabeth Vincan, University of Melbourne**

*NewHOPE: Establishing a translational organoid platform to support precision medicine and national collaboration*

**Marie Parsons, University of Newcastle**



---

*Establishing a bioprinted placental organoid model for pregnancy research and preeclampsia drug screening*

**Claire Richards, University of Technology, Sydney**

---

*Translating from organoids to patients: Induction of necroptosis is a therapeutic opportunity in pancreatic cancer*

**Raphael Peiffer, Walter and Eliza Hall Institute of Medical Research**

---

*incur: Live cell imaging analysis and cell line authentication tools for R*

**Zachery Moore, Walter and Eliza Hall Institute of Medical Research**

---

*Human brain organoid model reveals the mechanisms of West Nile virus neuropathogenesis*

**Andrii Slonchak, QIMR Berghofer**

---

*The potential of organoid drug screens in the clinical management of rare cancers*

**Olivia Craig, Peter MacCallum Cancer Centre**

---

*A high throughput model to assess effects of co-cultured T cells on human gut organoids*

**Laraib Amir Ali, The Doherty Institute**

---

**10 min Open discussion**

**16:40-17:00 Session 8: Building a national vision for future organoid applications**

**Chair Twishi Gulati, Louise Winteringham and Anai Gonzalez-Cordero**

**3 min John Parisot, Phenomics Australia and Therapeutic Innovation Australia (NCRIS)**

**Open discussion**

**17:00 Conference concludes**

