

09:30 Acknowledgement of Country and Welcome **Dr Kimberley Alexander** Chris O'Brien Lifehouse and University of Sydney

Session 1: Artificial Intelligence in Brain Tumour Research and Cancer Care

Session Chair, A/Prof Michael Buckland

"Radiomics and Radio-genomics in Glioblastoma"

(Live talk + Q&A)

09:35 **Professor Christos Davatzikos**
Center for AI and Data Science for Integrated Diagnostics, University of Pennsylvania, USA

"AI in Brain Tumour Diagnostics and Research"

(Live talk + Q&A)

10:10 **Professor Manuel Graeber** Brain and Mind Centre, University of Sydney

"AI for improved cancer care"

(Recorded talk)

10:30 **Professor Nehmat Houssami** NBCF Chair in Breast Cancer Prevention, University of Sydney

*** Morning break, 15 mins ***

Session 2: Understanding the Brain Tumour Microenvironment

Session Chair, Dr Laveniya Satgunaseelan

"Spatially resolved multi-omics deciphers bidirectional tumor-host interdependence in glioblastoma"

11:00 **Dr Dieter Henrik Heiland**
Microenvironment and Immunology Research Laboratory, University of Freiburg, Germany

(Recorded talk)

"Targeting mitochondrial metabolism and hypoxia: A new radio-sensitising approach for diffuse midline glioma"

11:30 **Dr Han Shen** Westmead Institute for Medical Research, University of Sydney

(Live talk + Q&A)

"Clinical utility of the immune modulating antibody anti-CD47 in a preclinical model of medulloblastoma"

11:50 **Dr Meegan Howlett** Telethon Kids Institute, University of Western Australia

(Live talk + Q&A)

*** Lunch break, 40 mins ***

Session 3: Next generation of Brain Tumour Experimental Models

Session Chair, Dr Kimberley Alexander

"In vitro models to study brain tumour invasion and the blood brain barrier: challenges and perspectives"

12:50 **Emeritus Professor Geoff Pilkington**
Institute of Biomedical and Biomolecular Sciences, University of Portsmouth

(Recorded talk)

"Engineered advanced vascularised human brain organoids for neuro-oncology research"

13:20 **Professor Jeremy Crook** Chris O'Brien Lifehouse and Sydney University

(Live talk + Q&A)

"Application of Multispec Vascularized Glioblastoma-on-a-chip Model for Brain Cancer Research"

13:40 **Dr Joshua Chou + Dr Guilia Silvana** School of Biomedical Engineering, University of Technology Sydney

(Live talk + Q&A)

"EViCT GBM: Developing a physiological Ex Vivo Clinical Trial Platform"

14:00 **Professor Jeff Holst** Translational Cancer Metabolism Laboratory, University of NSW

(Live talk + Q&A)

*** Afternoon break 1, 15 mins ***

Session 4: Young Investigator Rapid Fire Talks *

Session co-Chairs, Dr Susannah Hallal + Dr Ágota Tüzesi

**Audience choice awards – please use the poll function to vote for the top-3 presentations*

- 14:35 **Dr Rachel Campbell** Post-doctoral Research Fellow, PoCoG, University of Sydney
"Screening for unmet needs of caregivers of people with brain cancer: development of a brief screening measure for use in clinical practice"
- 14:40 **Dr Ágota Tüzesi** BrainStorm Brain Cancer Postdoctoral Scientist, Sydney Local Health District
"Epitranscriptomics in brain tumour diagnostics: mirage or great prospect?"
- 14:45 **Izac Findlay** PhD Candidate, University of Newcastle
"Complementing genomics with phosphoproteomics for improved treatment recommendations for paediatric high-grade gliomas"
- 14:50 **Caitlin Ung** PhD Candidate, Children's Cancer Institute
"Diffuse Intrinsic Pontine Glioma (DIPG) induces alterations in the blood-brain barrier to reduce permeability of therapeutic agents"
- 14:55 **Mathew Lozinski** PhD Candidate, University of Newcastle
"ATR Inhibition enhances cell death of standard treatment in patient-derived glioblastoma cells"
- 15:00 **Luiza Steffens Reinhardt** PhD Candidate, University of Newcastle
"Nek1-inhibitor and temozolomide-loaded microfibers as a co-therapy strategy for glioblastoma treatment"
- 15:05 **Dr Holly Holiday** Research Officer, Children's Cancer Institute
"Uncovering the FACTs in Diffuse Midline Glioma (DMG)"
- 15:10 **Dr Ryan Duchatel** Postdoctoral fellow, University of Newcastle
"Preclinical Optimisation of the PI3K/Akt inhibitor Paxalisib for the Treatment of Diffuse Midline Glioma"
- 15:15 **Evangeline Jackson** PhD Candidate, University of Newcastle
"Preclinical and case study examination of the combination of ONC201 and paxalisib for the treatment of diffuse midline glioma"
- 15:20 **Mika Persson** PhD Candidate, University of Newcastle
"The DRD2 antagonist ONC201 promotes immunomodulatory effects in diffuse midline glioma"

*** Afternoon break 2, 15 mins ***

Session 5: Traversing the 'untreatable cancer' barrier

Session Chair, Dr Kimberley Alexander

- 15:40 *"Establishing a personalised immunotherapy program"*
Dr James Wilmott The Melanoma Institute Australia, University of Sydney (Live talk + Q&A)
- 16:15 Announcement of Rapid-fire talk prize winners **Dr Susannah Hallal**, Chris O'Brien Lifehouse and University of Sydney
- 16:20 Meeting close **Professor Manuel Graeber**, University of Sydney

This satellite meeting of the NSW Cancer Conference 2022 is brought to you by the Brain Tumour Special Interest Group of the Cancer Research Network, USYD.

Co-Convenors:

Dr Kimberley Alexander
A/Prof Michael Buckland
Prof Manuel Graeber



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Symposium Committee Members:

Dr Susannah Hallal and Dr Ágota Tüzesi



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