

NSW Cancer Research Education

The gut microbiome and neo-adjuvant immunotherapy: implications for efficacy and toxicity

Statewide Seminar Series 2023
Tuesday 20 June, 12.30 - 1.30 pm



Dr Inês da Silva

Medical Oncologist and Research Scientist, Melanoma Institute Australia
The University of Sydney





Dr Erin Shanahan

a' Beckett Research Fellow
Microbiome & Gut Health Group
The University of Sydney



Rebecca Simpson

PhD Candidate
Melanoma Institute Australia
The University of Sydney

20 JUNE |  **12:30 – 1:30** |  **Online Webinar**
2023 PM PM

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The Research Capacity Building Grants are supported by Cancer Institute NSW



Session Information

Immune checkpoint inhibitor (ICI) immunotherapies have revolutionised the treatment of melanoma, although drug resistance or concurrent immune-related adverse events (irAEs) still impact many patients. In this session the influence of the gut microbiome on clinical outcomes will be discussed using a large clinical trial cohort of stage III melanoma patients treated with combination anti-PD-1/anti-CTLA-4 immunotherapy in the neo-adjuvant setting. This will include discussion of the neo-adjuvant platform and microbiome-immune interactions in the context of cancer and their impact on ICI treatment outcomes.

Speakers



Dr Inês da Silva is a Medical Oncologist at Melanoma Institute Australia, Blacktown and Mater Hospitals, and Senior Lecturer at The University of Sydney.

She received her MD at the Universidade Nova de Lisboa (Lisbon, Portugal) and completed specialist training in Medical Oncology at Instituto Português de Oncologia (Lisbon, Portugal). She did her PhD at Bhardwaj Lab (part of Interdisciplinary Melanoma Cooperative Group and New York University Cancer Institute in tumor immunology.

Her main research interests are (1) Biomarkers of response to immunotherapy and targeted therapy in melanoma; (2) Mechanisms of innate and adaptive resistance with immunotherapy; (3) Patterns of metastization and patterns of response to immunotherapy; (4) Mechanism of toxicity with immunotherapy.



Dr Erin Shanahan is a microbiologist and University of Sydney a'Beckett Research Fellow. She leads the Microbiome and Gut Health Group at the Charles Perkins Centre.

Erin undertook a PhD at the Centenary Institute focused on bacterial pathogenesis and vaccine development followed by postdoctoral research at The University of Queensland and Princess Alexandra Hospital, Brisbane.

Erin leads a research program investigating interactions between gut microbial communities and dietary intake, and how this influences the intestinal epithelium and local and systemic immunity. As part of a broader program, she is investigating the role of the microbiota and diet in shaping cancer immunotherapy outcomes.



Rebecca Simpson is a PhD candidate with the Melanoma Institute Australia Translational Research Group at the Charles Perkins Centre, The University of Sydney. Her research focuses on the role of the gut microbiome during immunotherapy. Specifically, how diet and intestinal microbes influence anti-tumour immune responses and the development of immune mediated toxicities during treatment.