

# NSW Cancer Research Education

## Factors associated with outcomes of CAR-T cell immunotherapy for B cell malignancies

Statewide Seminar Series 2023  
Tuesday 18 April, 12.30 - 1.30 pm



**Professor  
Cameron Turtle**

CLEARbridge Chair of Cancer  
Immunotherapy,  
The University of Sydney



**Associate Professor  
Emily Blyth**

Clinical Lead, Immune Effector Cell  
Service, Blood Transplant and Cell  
Therapy Program, Westmead Hospital

**18** APR  
2023



**12:30 – 1:30**  
PM PM



**Online  
Webinar**

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The Research Capacity Building Grants are supported by the Cancer Institute NSW



**Cancer**  
Clinical Academic Group

# Session Information

Lymphodepletion chemotherapy followed by infusion of T cells that are genetically modified to express a chimeric antigen receptor (CAR) targeted to CD19 is a novel therapy for patients with relapsed and/or refractory B cell malignancies. In this seminar factors associated with outcomes of CAR-T cell therapy in adult B cell malignancies will be discussed using data from a large phase I/II clinical trial of CD19 CAR-T cell immunotherapy (NCT01865617). The impact of lymphodepletion chemotherapy on CAR-T cell engraftment and immune rejection, mechanisms of failure of CAR-T cell immunotherapy, and ex vivo leukapheresis T cell and manufactured product characteristics associated with outcomes will be presented.

## Speaker



**Professor Cameron Turtle** trained as a haemato-oncologist in Sydney before completing a PhD in dendritic cell immunotherapy at the University of Queensland and a postdoctoral research fellowship in T cell immunotherapy at Fred Hutchinson Cancer Research Center (FHCRC) in Seattle, USA. He spent 16 years in Seattle and was Professor and Anderson Family Endowed Chair for Immunotherapy at FHCRC, Professor of Medicine at the University of Washington (UW), and Co-director of the Cancer Immunology Program of the Seattle Cancer Consortium. In 2022 he was appointed Professor and CLEARbridge Chair of Cancer Immunotherapy at the University of Sydney. He has led clinical and laboratory research teams conducting multiple investigator-initiated phase 1/2 clinical trials of genetically modified cellular (CAR-T cell) immunotherapies for patients with haematologic malignancies. His research laboratory in the Charles Perkins Center at the University of Sydney focuses on understanding the characteristics of distinct human T cell subsets, the development of novel tumour immunotherapies, and factors governing the immune response to cancer.

## Facilitator



**Associate Professor Emily Blyth** completed her medical training at the University of Newcastle and St Vincent's and Westmead Hospitals. In 2008, after obtaining her fellowships in clinical and laboratory haematology she commenced doctoral studies at the University of Sydney in the Cellular Therapies Group under the supervision of Professor David Gottlieb. She then continued to work with the group as a post-doctoral fellow with ongoing fellowship funding since 2008, including Ludwig Engel Post-Doctoral Fellowship, NHMRC Early Career Fellowship, Westmead Charitable Trust Early Career Grant Scheme, NSW Cancer Institute Early Career Fellowship and NSW Office of Health and Medical Research Gene and Cell Therapy EMCR Fellowship.