DukeNUS Medical School | Cancer & Stem Cell Biology

CSCB Virtual Seminar Series

Enhancing the efficacy of chimeric antigen receptor T cells in solid tumours.

Date: 1st March 2022 (Tuesday)
Time: 12 noon (SGT)

Venue: *via* **Zoom**
For details, please contact:
Nakeisha Tan: nakeisha.tan@duke-nus.edu.sg

Abstract:
Chimeric antigen receptor (CAR) T cells have elicited striking clinical effects in certain haematological malignancies. However, such success is yet to be recapitulated in the setting of solid tumours. My group are investigating ways to overcome the major barriers to CAR T cell efficacy in solid tumours; tumour-induced immunosuppression, tumour antigen heterogeneity, persistence and trafficking. One of our central hypotheses is that engineering CAR T cells to actively engage with host immunity is a key factor for success in solid tumours. Our recent work demonstrated that engineering CAR T cells to promote the expansion of cDC1 dendritic cells consequently unleashes de novo T cell responses mediated by host T cells against antigens not targeted by the CAR. Importantly, this enables effective treatment of heterogeneous tumours that recapitulate the patient setting. This work is now being developed for clinical application at the Peter MacCallum Cancer Centre. Our current work is focussed upon building on this paradigm, including the use of adjuvant therapies that activate host immunity and CRISPR/Cas9 engineering of CAR T cells.

Speaker:



Associate Professor Paul Beavis
Group Leader, Peter MacCallum Cancer Centre

Assoc. Prof. Beavis is a Group Leader at the Peter MacCallum Cancer Centre, where his team is focused on the development of novel cancer immunotherapies. His team consists of three post-doctoral researchers, 2 research assistants and six PhD students.

Their work has been published in leading journals including Nature Immunology, JCI and Nature Communications. Paul's work is supported by funding from the Victorian Cancer Agency, NHMRC, Cancer Australia, NBCF and Cancer Council Victoria.

Hosts:

Ann-Marie Chacko
Assistant Professor
Rasha Msallam
Senior Research Fellows
Programme in Cancer & Stem Cell Biology
Duke-NUS Medical School
Singapore

No registration is required.
All are welcome.