Seminar Announcement

Modelling the Immune Suppressive Solid Tumor Microenvironment for Immunotherapy Optimization

Date: 2 September 2019  
Time: 2.30 p.m.  
Venue: Classroom 4, SBS  
Hosted By: A/P Koh Cheng Gee

During my talk, I will show you the power of 3D tumor microenvironment models for preclinical evaluation of tumor-specific immunotherapy techniques.

I will start by showing how we engineered T cells to be specific for HBV+ hepatocellular carcinoma (HCC). Then, I will present our strategies to overcome the immunosuppressive tumor microenvironment by molecular recalibration of checkpoint inhibitors (with transduction and antisense oligonucleotide). Further, I will explain the different role of myeloid cells in our 3D tumor microenvironment model and how other variables, such as different oxygen levels and cytokines, affect the therapeutic efficacy of adoptive T cell therapy.

The presented model represents an efficient preclinical tool that can be implemented during pre-clinical phase and clinical trials to match the optimal therapeutic strategy to each cancer patient for personalized medicine.

Speaker:
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