



THE UNIVERSITY OF
**WESTERN
AUSTRALIA**

**Centre for Cell Therapy and
Regenerative Medicine (CCTRM)**

School of Biomedical Sciences,
Faculty of Health and Medical Sciences

CCTRM SEMINAR SERIES 2017

Showcasing advances in cell therapy and regenerative medicine

Wednesday 30th August 2017

4:30pm-6pm

Seminar Room 612a,
Harry Perkins Institute of Medical Research
QEII Medical Centre

“Bio-engineering vascularised liver organoids to treat liver disease”



Dr. Kiryu Yap

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2. The University of Melbourne
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Dr Kiryu Yap is a surgeon in training currently undertaking a PhD at the O'Brien Institute/St Vincent's Institute and The University of Melbourne. He holds clinical and academic appointments at the Department of Surgery, St Vincent's Hospital. His long-standing research interests include stem cells, liver tissue engineering, and vascular biology. His clinical work and research focuses on surgical oncology.

About the Seminar

Bio-engineered liver organoids offer the potential of personalised tissue that can be used in transplantation surgery to treat liver disease, or for *in vitro* disease modelling and drug testing/development studies. Our group has developed an organoid system that comprises of parenchymal cells derived from human liver progenitor cells either isolated from adult liver, or differentiated from induced pluripotent stem cells. These cells are supported by endothelial cells that develop intrinsic microvasculature within the organoids, and stromal cells that support cell differentiation and tissue assembly. Organoid development is facilitated by the use of an extracellular matrix hydrogel derived from human liver, and a porous biodegradable scaffold that provides structural support. Progress is being made in animal studies using mice with liver disease, with the aim to demonstrate therapeutic efficacy of organoid transplantations.

*Seminars are held on the second Wednesday of each Month from March to November.
Program Committee: A/Prof. Rodney Dilley, A/Prof. Fred Chen, Prof. Deirdre Coombe.
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