

Child Health Research CIO

CHILD HEALTH RESEARCH CHARITABLE INCORPORATED ORGANISATION (CHR CIO) PROGRESS FORM – VACATION STUDENT 2018

Student's name:	Christie Lau
Primary supervisor:	Mr Daniyal Jafree
Subsidiary supervisor:	Dr David Long
Project title(s):	Imaging of the developing renal vasculature in polycystic kidney disease

Summary

What are you trying to do in this studentship?

A major cause of renal failure, polycystic kidney disease (PKD), is a genetic disorder that is often characterised by the progressive formation of cysts, eventually compromising normal renal function. I aimed to further investigate my laboratory's previous discovery: that treatment with a lymphatic growth factor, vascular endothelial growth factor C (VEGFC), improves renal function in mouse models of PKD.

Why is this research important?

We believe that, in PKD, there may be changes to lymphatic and blood vessels before the formation of cysts. Using our novel three-dimensional imaging approach, we can identify and characterise subtle changes in lymphatic and blood vessels, with the aim of developing earlier and more effective therapies for children and adults with PKD.

Value of Your Experience

Having had minimal experience of working in a lab, this summer studentship has allowed me to gain an insight into pioneering research, build up my professionalism and further strengthen my analytical, evaluative, and experimental design capabilities. I have thoroughly enjoyed the opportunity of working alongside leading academics, taking up various challenging tasks and actively contributing to the diversity of ideas. Furthermore, the experiential learning of practical techniques has encouraged me to develop an organisational and professional acumen, which would be invaluable in the many years to come.