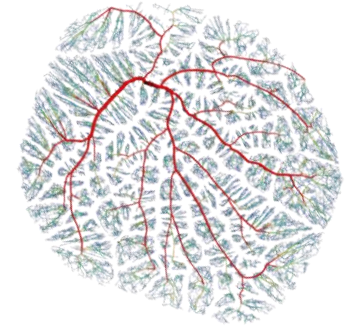


Guest lecture – Fetal Growth Restriction

Sept 23rd, 4pm, SR57 MC2 P



The Role of Hofbauer Cells in Early Placental Vascular Development: Is this Perturbed in Pregnancies Affected by Fetal Growth Restriction?



Tayla James
PhD candidate

Tayla is a 2nd-year PhD student at The University of Auckland with A/Prof Jo James, where she employs large flow cytometry panels to characterise the phenotype of placental villous core cells with a focus on Hofbauer cells (placental macrophages). Fetal growth restriction (FGR) affects about 5-10% of pregnancies in developed countries and can result in significant complications. Whilst not clinically apparent until later in gestation, the pathophysiology of FGR arises from early in pregnancy. The goal of her PhD is to enable a better understanding of how Hofbauer cells may contribute to vascular development across gestation, and how this may go wrong in FGR. Understanding the functional role of these cells may allow to therapeutically target the cause of placental dysfunction in FGR.

The Impact of Fetal Sex on Placental Vascular Development and Function in Fetal Growth Restriction

Mary is a 3rd-year PhD student at The University of Auckland, working within the Pregnancy Modelling Group, led by A/Profs Jo James and Alys Clark. Their group develops 'virtual pregnancy' models (computer-based simulations of pregnancy) to improve the detection of babies at risk of fetal growth restriction (FGR), as half of the cases go undetected until birth. Male and female fetuses grow differently in utero with higher incidence and severity of FGR in males. Mary's PhD aims to incorporate sex differences in placental morphology and vascular function into their existing computational placental models in order to better understand how sex-specific differences in vascular structure and function impact placental perfusion and fetal haemodynamics. In turn, this will help inform whether a sex-specific interpretation of Doppler ultrasound could improve the detection of FGR.



Mary Spring
PhD candidate