MRI-UQ Winter Research Project Description

Description/Project titles:	**There are multiple projects available in perinatal medicine. These include:** 1. Maternal and perinatal factors predicting adverse neonatal outcomes. 2. The relationship between antenatal feto-placental Doppler indices and perinatal outcome. 3. Is Metformin protective of intrapartum fetal compromise and adverse perinatal outcome? 4. Prevalence of prenatal brain abnormalities in fetuses with intrauterine growth restriction – A systematic review. 5. The relationship between the fetal cerebro-placental ratio measured prenatally and perinatal outcomes. 6. Antenatal predictors of poor neonatal GIT motility and feeding in fetuses with gastroschisis. 7. The utility of the cerebroplacental ratio and uterine artery Doppler indices at 24 weeks as predictors of perinatal death. 8. The use of placental biomarkers for the prediction of adverse pregnancy outcomes.
Project duration:	4-6 weeks
Expected outcomes and deliverables:	Students will gain experience in data analysis using a large perinatal data collection from the Mater Clinical Data Research Repository (almost 180,000 births). Assistance from the Mater Research biostatistics and epidemiology team will be provided. HREC approval has already been granted for these studies. Students will be expected to generate **at least one first author publication** from the data analyses as well as present their findings at local, national and if appropriate international meetings. *Some of the above are suitable for development into MPhil/PhD projects. There are also other ongoing perinatal research projects (clinical and laboratory) which would suit students interested in pursuing a PhD.*
Suitable for:	These projects are suitable for undergraduate or postgraduate students with a background in medicine or science, biostatistics, epidemiology or public health with a strong interest in perinatal medicine.
Primary Supervisor:	Professor Sailesh Kumar Mater Research Institute-University of Queensland
Further info:	Professor Sailesh Kumar Email: sailesh.kumar@mater.uq.edu.au Please contact Professor Kumar for an informal discussion before you submit an application.

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