

## **PhD Position : Early origins of adult disease**

We are looking for an enthusiastic PhD student who is interested in discovering how prenatal factors influence the development of the immune system. A growing body of literature suggests that increased susceptibility towards adverse neonatal and childhood health outcomes is determined in part by an innate immune system that becomes altered following maternal exposure to inflammation in pregnancy. Further we know that the placenta is an immuno-competent organ that responds to maternal inflammation. This project will be aimed at identifying how products of placental inflammation following maternal inflammation result in aberrant immune responses in the early life period. This will involve studying the interrelationship between the placenta and cord blood peripheral blood mononuclear cells to identify potential mechanisms that influence development of the immune system in early life. Changes in both the functional responses of these cells (including intracellular signalling pathways) as well as phenotypical changes will be characterised as part of this project, involving development of expertise in tissue culture and cell stimulation, assessment of mRNA and protein expression and flow cytometry.

You will be working with a strong and motivated research team with a background in fetoplacental immunology in humans, and expertise in linking maternal health in pregnancy to neonatal and childhood health outcomes. You will be a part of the Centre for the Early Origins of Health and Disease within the Robinson Institute at the University of Adelaide, and will have access to state of the art equipment in a newly built laboratory based at the Lyell McEwin Hospital in northern Adelaide.

### **Position Requirements**

*You should have:*

- An undergraduate degree in Biomedical Sciences or related field
- Skills and experience in molecular biology and/or cell biology techniques
- Demonstrated experience in working in a research environment
- Excellent interpersonal and communication skills (both written and verbal)
- An ability to work well in a team environment.

### **Scholarship**

We have funding for a three year stipend for a domestic PhD student. International students would need to obtain further financial support to cover international student fees.

### **Contact**

Please contact Dr Nicolette Hodyl ([Nicolette.hodyl@adelaide.edu.au](mailto:Nicolette.hodyl@adelaide.edu.au)) or Dr Michael Stark ([Michael.stark@adelaide.edu.au](mailto:Michael.stark@adelaide.edu.au)) for more information.