Hudson Institute of Medical Research



Hudson Institute is a leading Australian medical research institute recognised internationally for discovery science and translational research into inflammation, cancer, and women's and newborn health.

We are leading developments in cell therapies, paediatric cancer and the human microbiome. Our worldwide scientific and medical collaborations provide a foundation for transformative healthcare programs across the globe.

Our 430 scientists, clinicians and graduate students come from around the world to pursue one mission – to make medical research discoveries that save and change lives. Located in the Monash Medical Precinct, our scientists work alongside clinical partners and industry colleagues and use advanced technology platforms to inform their research.

Our students

We nurture and inspire the next generation of scientists and clinicians by educating and training more than 170 students through our academic affiliation with Monash University.





63 POSTGRADUATE AND HONOURS STUDENTS COMPLETED 170 STUDENTS 129 PHD 10 MASTERS 31 HONOURS

2023/2024

Student research

Honours and postgraduate students at Hudson Institute are trained by Australia's leading researchers.

Our students

- Are exposed to a unique collaborative environment involving leading researchers, clinicians and industry partners
- Undertake an extensive training program
- Develop life-long technical, communication and presentation skills
- Have access to world-class research facilities
- Obtain a degree from Monash University in top 50 globally
- Attend national and international conferences
- Win prestigious prizes and awards
- Participate in an active and supportive social club, Hudson Institute Student Society (HISS).

How to enrol

All the information you need to enrol is on our website. **w:** hudson.org.au/students/courses-available

Contact supervisors any time

Students are encouraged to contact and visit supervisors in their labs any time to discuss projects. Simply email the supervisor to arrange a time.

STEP 1: Find a project in our 2025 Student Research Projects that you are interested in here **w:** hudson.org.au/students/ student-projects



STEP 2: Once you have identified a project, email the supervisor: *"I am interested in your student project. Could I please arrange a time to visit you in your lab?"*

Contact us

27-31 Wright Street

t: + 61 3 8572 2700

w: hudson.org.au

Clayton VIC 3168 Australia

e: info@hudson.org.au

Connect with us

- hudson.org.auHUDSONResearchAu
- X Hudson_Research
- O Hudson_Research

in Hudson Institute of Medical Research

HUDSON INSTITUTE OF MEDICAL RESEARCH



The Ritchie Centre

Fetal and Neonatal Health Newborn Health Cell Therapy and Regenerative Medicine Infection, Inflammation and Immunity Women's Health

2025

The Ritchie Centre | Our supervisors



Head, The Ritchie Centre Prof Suzanne Miller



Interventional Immunology in Early Life Diseases Prof Claudia Nold



Epidemiology and **Clinical Trials** Dr Miranda Davies-Tuck

Our research

Women's health

- Endometriosis / Gynaecological Disease Infertility
- Pelvic organ prolapse
- Pre-eclampsia
- Premature ovarian failure

Infection, Inflammation and Immunity 🕘

Systemic lupus erythematosus Influenza COVID-19



Perinatal Transition Prof Graeme Polglase

Perinatal Inflammation

and Neurophysiology

Dr Robert Galinsky



Interventional Immunology in Early Life Diseases Prof Marcel Nold A/Prof Flora Wong



Fetal and Neonatal Health

Prof Stuart Hooper AM

Neonatal Brain Protection



Perinatal Cardiovascular Physiology Dr Beth Allison

Newborn Health

Bronchopulmonary dysplasia

Congenital diaphragmatic hernia

Necrotising enterocolitis (NEC)

Birth Asphyxia

Cerebral Palsv

Down Syndrome

Preterm birth

Fetal Growth Restriction

Pulmonary hypertension

Epilepsy

Stillbirth



Luna Development A/Prof Megan Wallace



Endometrial Stem Cell Biology Prof Caroline Gargett



Bioenergetics in Reproduction Dr Stacey Ellery



Amnion Cell Biology A/Prof Rebecca Lim



Translational Tissue Engineering Dr Shayanti Mukherjee



Cell Therapies and Inflammation Dr Courtney McDonald





For more information about our student projects visit the Ritchie Centre Website: https://hudson.org.au/research-centre/theritchie-centre/

What we do

Discovery and translational research. We take laboratory discoveries to patients for real-world impact. This is through the co-location of researchers with clinicians, state-of-the-art technologies and a clinical trials centre.

The Ritchie Centre's mission to improve the health of women, infants and children through innovative research is achieved through its unique associations as the principal research Centre of the Monash University Department of Obstetrics and Gynaecology and the Department of Paediatrics, Monash Women's Services and Monash Newborn. It is also a major research partner of the Monash Children's Hospital.

Student first author publications

In 2023 our students were first authors on research publications, including:

- **Tindal K**, Filby CE, Gargett CE, Cousins F, Palmer KR, Vollenhoven B, Davies-Tuck M. Endometrial Origins of Stillbirth (EOS), a case-control study of menstrual fluid to understand and prevent preterm stillbirth and associated adverse pregnancy outcomes: study protocol. BMJ Open. 2023 Jul 11;13(7):e068919.
- **Kelly SB,** Tran NT, Polglase GR, Hunt RW, Nold MF, Nold-Petry CA, Olson DM, Chemtob S, Lodygensky GA, Robertson SA, Gunn AJ, Galinsky R. <u>A systematic review</u> of immune-based interventions for perinatal neuroprotection: closing the gap between animal studies and human trials. J Neuroinflammation. 2023 Oct 20;20(1):241
- > **Oyang M**, Piscopo BR, Zahra V, Malhotra A, Sutherland AE, Sehgal A, Hooper SB, Miller SL, Polglase GR, Allison BJ. Cardiovascular responses to mild perinatal asphyxia in growth restricted preterm lambs. Am J Physiol Heart Circ Physiol. 2023 Sep 1.

Student prizes and awards

In 2023, our students won prestigious prizes and awards, including:

- > Beth Piscopo was awarded the Society for Reproductive Investigation (SRI) Thomas McDonald Award which acknowledges the highest ranked abstract by an intraining investigator within the field of fetal neuroscience. Beth's abstract was titled: "Cerebrovascular Dysfunction and Mediation of Neurological Injury in Response to Perinatal Asphyxia in FGR Lambs."
- > Abby Boppana was awarded the Lois Salamonsen Honours Award – for the highest achieving BBiomedSc Honours Student in the Hudson Institute. Abby was supervised by Prof Claudia Nold & Dr Ina Rudloff.