# Hudson Institute at a glance



Hudson Institute is a leading Australian medical research institute recognised internationally for discovery science and translational research into inflammation, reproductive health and pregnancy, infant and child health, cancer, hormones and 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.

We are a founding member of the Monash Health Translation Precinct with partners Monash Health and Monash University. Our close ties with clinicians and industry give us the ability to translate our discoveries into new preventative approaches, therapies and devices for patients.

# Our students at a glance

We nurture and inspire the next generation of scientists and clinicians by educating and training more than 150 students through our academic affiliation with Monash University.



**Student research** 

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

- · Attend national and international conferences
- Publish their research (there were 41 student first author publications in 2020)
- Collaborate with leading researchers
- Undertake an extensive training program
- Regularly win prestigious prizes and awards
- Have opportunities to network
- Develop technical, communication and presentation skills
- 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 you are interested in, either in the 2021 Postgraduate and Honours Research Projects booklet or Research Projects database. **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?"* 

## Connect with us

- hudson.org.au
- F HUDSONResearchAu
- ♥ @Hudson\_Research
- in Hudson-research
- O hudson\_research

# Contact us

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# The Ritchie Centre

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

# The Ritchie Centre | Research Themes



Prof Caroline Gargett Women's Health

A/Prof Graeme Polglase

Respiratory and

Cardiovascular

Fetal and Neonatal Health:



**Dr Rebecca Lim** Cell Therapy and Regenerative Medicine

A/Prof Suzie Miller

Neurodevelopment

Brain Injury and

Fetal and Neonatal Health:



Prof Rosemary Horne Infant and Child Health

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

Head, The Ritchie Centre Prof Stuart Hooper



# **Our research**

### Women's health

Endometriosis Infertility IVF Pelvic organ prolapse Pre-eclampsia Premature ovarian failure

# Infection, Inflammation and Immunity

Intrauterine Inflammation

Systemic lupus erythematosus

Pulmonary arterial hypertension

## Baby and Children's Health

Birth Asphyxia Bronchopulmonary dysplasia Cerebral Palsy Congenital diaphragmatic hernia Down Syndrome Epilepsy Intrauterine Growth Restriction Necrotising enterocolitis Premature birth Pulmonary hypertension SIDS Sleep disordered breathing





# What we do

Basic 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, Monash Newborn and Melbourne Children's Sleep Centre. It is also a major research partner of the Monash Children's Hospital.

# Student first author publications

In 2020, our students were first authors on the following research publications

- Siriwardhana LS, Weichard A, Nixon GM, Davey MJ, Walter LM, Edwards BA, Horne RSC. Role of ventilatory control instability in children with sleep-disordered breathing. *Respirology*. 2020 Apr 2.
- Paul K, Darzi S, Werkmeister JA, Gargett CE, Mukherjee S. Emerging Nano/Micro-Structured Degradable Polymeric Meshes for Pelvic Floor Reconstruction. Nanomaterials (Basel). 2020 Jun 5;10(6):E1120.
- Penny TR, Pham Y, Sutherland AE, Mihelakis JG, Lee J, Jenkin G, Fahey MC, Miller SL, McDonald CA. Multiple doses of umbilical cord blood cells improve long-term brain injury in the neonatal rat. Brain Res. 2020 Jun 22:147001.

### Student prizes and awards

In 2020, our students won prestigious prizes and awards, including

- Amber Wang was awarded \$1000 for being the highest achieving student in the 2020 BMedSc (Hons) cohort. Amber's research title was "Effect of Umbilical Cord Blood Cell Therapy on Grey Matter Vascular Injury in the Growth-Restricted Fetal Brain".
- Roshan Selvaratnam (PhD student) received the Stillbirth Centre for Research Excellence 2020 PhD top up scholarship (\$9,000). The top up scholarships are designed to support exceptional PhD candidates whose projects align with the CRE's priority areas and make a meaningful contribution to the CRE's program of work.
- Indya Davies (PhD Student) won best oral presentation at the The ASMR Victorian Student Research Symposium.
- Ben Amberg (PhD student) represented the Faculty of Medicine, Nursing and Health Sciences in the Monash University 3MT (Three Minute Thesis) finals.