## **Hudson Institute of Medical Research**









**289** STAFF

153 STUDENTS

43
RESEARCH

264
RESEARCH
PUBLICATIONS

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 442 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 150 students through our academic affiliation with Monash University.



39
POSTGRADUATE
AND HONOURS
STUDENTS
COMPLETED



153 STUDENTS 123 PHD 10 MASTERS 20 HONOURS

Figures from 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 the 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 laboratories to discuss projects. Simply email the supervisor to arrange a time.

**STEP 1:** Find a project that interests you in our 2026 Student Research Projects – scan the QR code or visit www.hudson.org.au/students/student-projects/.

**STEP 2:** Email the supervisor to indicate your interest and arrange a time to visit.



## **Connect with us**

Website www.hudson.org.au

LinkedIn @Hudson Institute of Medical Research

Bluesky <u>@hudsonresearch.bsky.social</u>

Instagram @Hudson\_Research
Facebook @HUDSONResearchAu

### **Contact us**

27-31 Wright Street, Clayton VIC 3168 Australia **t:** + 61 3 8572 2700 **e:** info@hudson.org.au



# **Our supervisors**



Associate Professor Simon Chu











Professor Peter Fuller AM





Co-Centre Head, Research Group Head: Steroid Receptor Biology

How does the mineralocorticoid receptor act in classical and non-classical tissues?



Professor Vincent Harley





Research Group Head: Sex Development

Which genes act downstream from the male-specific gene, SRY, to cause gonadal development?



**Professor Mark Hedger** 



Research Group Head: Endocrinology and Immunophysiology

How do inflammation and infections of the male reproductive tract impact male infertility?



Professor Kate Loveland





Research Group Head: Testis Development and Male Germ Cell Biology

Why does the incidence of testicular germ cell tumours continue to increase?



**Professor Robert McLachlan AM** 





Research Group Head: Clinical Andrology

How is sperm production regulated and why does it fail in infertility?



**Associate Professor Frances Milat** 





Research Group Head: Metabolic Bone Research How can we prevent osteoporosis and fractures in

young adults with chronic diseases?



Professor Patrick Western







Co-Centre Head, Research Group Head: Germ Cell **Development and Epigenetics** 

What is the impact of epigenetic information on the ovary, eggs and subsequent generations?



Associate Professor Jun Yang



Research Group Head: Endocrine Hypertension

How can we improve the diagnosis and treatment of primary aldosteronism, the most common endocrine cause of hypertension?

#### Our research



- Hypertension
- Heart disease

Steroid hormone actions



- Ovarian cancer
- Thyroid cancer

# Bone Disease

- Osteoporosis
- Spina bifida
- Thalassemias



- Sex determination
- Intersex conditions
- Gender incongruence
- Sexual dimorphism in disease

# Neurology

Parkinson's disease

# **Male Reproductive Health**

- Male reproductive cancer
- Immunobiology in male reproductive health
- Testosterone actions

# **Molecular Biology of Reproduction**

- Germline genetics and epigenetics
- RNA biology
- Inflammation and immunobiology



- Epigenetic inheritance and offspring health
- Environmental exposures

# **Female Reproductive Health**

- Ovarian function and female fertility
- Epigenetic regulation of ovarian function

Cell image above: Oocyte (egg) and surrounding cumulus cells captured by a CERH PhD student, awarded a commendation by Light Microscopy Australia.

## What we do

The Centre for Endocrinology and Reproductive Health brings together leading researchers and clinicians. Through collaborative research, we uncover fundamental mechanisms driving endocrine and reproductive functions and translate these discoveries to improve health outcomes across the lifespan. This is achieved by co-locating researchers with clinicians, using state-of-the-art technologies and capitalising on our clinical trials centre.

The Centre is closely aligned with specialist clinics in the Endocrinology Unit at Monash Health, providing opportunities to explore key research questions of clinical importance.

Our laboratories and clinics address the roles of hormones in reproductive health; bone health; hypertension; ovarian, testis and thyroid cancers; and sex development.

The Centre's researchers also work to understand the impacts of genetics, infections, lifestyle and environmental factors on reproductive health and offspring development.

### Student first-author publications

In 2024, our students were first authors of 17 publications.

## Student prizes and awards

Our students have won prestigious prizes and awards, including:

- Penny Whiley: Lonnie D Russell Merit Award, American Society of Andrology
- Chloe Edwards-Lee: Christina Lackmann & Jock Findlay Awards for Best Honours Thesis
- Renata Libianto: John W. Funder Award for Excellence in Endocrine Hypertension Research; ESA Young Investigator Scientific Article Award
- Elisabeth Ng: Hudson Best Translational Publication; NHMRC Postgraduate Scholarship
- Lucinda Pezzimenti: Henry Burger Award for Best BMedSc Honours Thesis
- Sarah Catford: ESA Postgraduate Scholarship