# 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



Contact us

27-31 Wright Street

t: + 613 8572 2700

w: hudson.org.au

Clayton VIC 3168 Australia

e: info@hudson.org.au

**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

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in Hudson Institute of Medical Research

# HUDS ON INSTITUTE OF MEDICAL RESEARCH



# Centre for Innate Immunity and Infectious Diseases

Discovery and translational research in infection, cancer and inflammatory disease

2025

# Centre for Innate Immunity and Infectious Diseases (CiiiD) | Our supervisors

### **CiiiD Centre Head**



Professor Seth Masters Innate Immune and Autoinflammatory Disease



**Deputy Centre Head** 

Professor Richard Ferrero Gastrointestinal Infection and Inflammation



**Professor Elizabeth Hartland** Innate Immune Responses to Infection



**Professor Phil Bardin** Respiratory and Lung

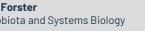


**Associate Professor** Sam Forster Microbiota and Systems Biology



**Dr Wilson Wong** and Cancer







Structural Biology of Inflammation



**Deputy Centre Head** 

Viral Immunity and

Immunopathology

**Associate Professor Michelle Tate** 

**Dr Sophia Davidson** Neuroinflammation and Neurodegeneration



Associate Professor Kate Lawlor Cell Death and Inflammatory Signalling



Professor Paul Hertzog Regulation of Interferon and Innate Signalling



**Professor Carl Walkley** RNA biology and Innate Immune Sensing

Gastroenteritis / Diarrheal disease Inflammatory bowel disease

### Neurodegeneration

Aicardi-Goutières Syndrome Parkinsons Disease Motor Neuron Disease Dementia

### **Respiratory disease**

Asthma Chronic obstructive pulmonary disease **Respiratory infections** 

# What we do

Research at the Centre for Innate Immunity and Infectious Diseases has led to ground-breaking discoveries in innate immunology and the microbiome that are changing our understanding and treatment of cancer, inflammatory and infectious diseases.

The Centre for Innate Immunity and Infectious Diseases (CiiiD), led by Professor Seth Masters, houses the largest group of inflammation and immunity researchers in Australia. They are world leaders in studying the body's innate, or first-line, immune response and how it and the microbiome trigger inflammation, leading to cancer, autoimmune conditions (lupus, inflammatory bowel disease, arthritis), lung (COPD, emphysema, silicosis) and infectious diseases (gastroenteritis, influenza, pneumonia).

The Centre for Innate Immunity and Infectious Diseases doals are to

- Discover the steps and connections that turn inflammation on and off
- Develop new treatments for inflammatory diseases and cancer
- Identify markers that help diagnose and detect disease earlier.

### Student first author publications

- CiiiD students publish in the top-ranked multidisciplinary journals: Zoe Marks et al., Interferon-ε is a tumour suppressor and restricts ovarian cancer. Nature. 2023 620(7976):1063-1070.
- Student work is directly contributing to knowledge about inflammatory pathways in infectious disease: Sarah Rosli et al., Gasdermin D promotes hyperinflammation and immunopathology during severe influenza A virus infection. Cell Death Dis. 2023 14(11):727.
- Students collaborate widely with Industry and Clinicians to have translational outcomes: Gemma D'Adamo et al., Bacterial clade-specific analysis identifies distinct epithelial responses in inflammatory bowel disease. Cell Rep Med. 2023 4(7):101124.

## Student prizes and awards

In 2023 and early 2024, our students won prestigious prizes, awards and placements, including:

- Alice Figueiredo Camargos, Anita Chaulagain, Sarah Rosli and Refaya Rezwan - Accepted into the Industry Mentoring Network in STEM (IMNIS) 12 month industryplacement internship program.
- Arwaf Alharbi Hudson Mitchell Travel Fellowships

# What we research

### Infections

COVID-19 HIV Zika virus Influenza Helicobacter pylori Enteropathogenic E. coli (EPEC) Salmonella enterica serovars Shigella spp. Legionella spp. (Legionnaires' disease) Burkholderia (melioidosis) Herpes simplex virus Human metapneumovirus Respiratory syncytial virus

For more information about our student projects:

### Inflammation

Sepsis Arthritis Systemic lupus erythematosus Autoinflammatory diseases Diabetes

Stomach Breast Lung Ovary Pancreas

Go to w: hudson.org.au/students/student-projects/ and search by supervisor name or theme









