School of Biomedical Sciences (SBMS)
School of Health Sciences (SOHS) & School of Vision Science (SOVS)

Research Information Session

UNSW SYDNEY

Welcome
Acknowledgment of Country

Welcome by Head of School

Prof Jake Baum
School of Biomedical Sciences

Program for this evening

- Overview of Honours by convenors
- Overview of Higher Degree Research by Post Graduate Coordinators
- Student insights into Honours and HDR

6-7.30pm Meet researchers and discuss projects in the foyer. Pizza and Drinks served.

What is Honours?

- 4th year research-based program (scientific internship)
- Work with a research team
- Learn how to undertake scientific research:
    - Basic research skills
    - Critical thinking
    - Experimental design
    - Data collection/analysis/presentation
    - Proposal preparation
    - Communication of research
- Four honours programs:
    - SBMS Honours
    - Neuroscience Honours
    - Health Sciences Honours
    - Vision Science Honours

UNSW SYDNEY

Neuroscience Honours

NEUR4441/4442/4443

Convenor – Teri Furlong

Co-convenor – Jennie Cederholm

Administrator – John Redmond

Course Learning Outcomes

Neuroscience Honours Specialisation Learning Outcomes:

Research Practice Skills	1. Apply the practice of workplace health and safety in addition to laboratory safety standard operating procedures to a research project.
Research Practice Skills **Communication Skills**	2. Develop practical skills in research, including techniques directly related to the specific research topic, recording of experimental data and ability to work in a team.
Research Practice Skills **Critical Thinking Skills**	3. Identify, critically evaluate, synthesise and reference a body of scientific literature that informs the research topic.
Critical Thinking Skills **Communication Skills**	4. Critically analyse research data, integrate it into the wider field, and communicate effectively the findings in both oral and written formats.

UNSW SYDNEY

Neuroscience Honours - entry requirements

https://medicalsciences.med.unsw.edu.au/students/undergraduate/neuroscience/honours/

Prior study requirement:

Bachelor degree specialising in Neuroscience or Psychology or other relevant science degree including completion of some neuroscience courses.

WAM requirement:

≥ 65 for overall degree, or ≥ 65 for stage three relevant science subjects

Project/supervisor allocation:

Student arranges a supervisor and project before applying for Honours. Consult the Neuroscience Honours website

School Honours administrative office

John Redmond

Phone: 9065 6070

Email: SBMSneurhonoursadmin@unsw.edu.au

Neur Honours coordinators

Dr Teri Furlong & A/Prof Jennie Cederholm

Email: SBMSneurhonoursadmin@unsw.edu.au

All Registrants of Research Info Evening will be emailed the application instructions in Mid-September.

DEADLINE for T1 2026 Honours applications **Early November 2025** (exact date yet to be set)

UNSW SYDNEY

Neuroscience Honours Assessments NEUR4441/4442/4443

RESEARCH ASSESSMENT (75%, 36UOC)

- Project proposal presentation 5%
- Project proposal document & rejoinder 10%
- Research thesis 80%
- Lay summary for thesis 5%

• Proposal presentation	10 mins talk + 10 mins Q&A
• Proposal document	4,000 - 5000 words
• Proposal rejoinder	2 pages
• Thesis	8,000 - 10,000 words
• Lay Summary	2000 characters

We have clear marking guidelines (no rubrics) and experienced examiners

UNSW SYDNEY

The road of the Neuroscience Honours year

	Term 1	Term 2	Term 3
Coursework 25%	**NEUR4411** Behavioural Perspectives in Neuroscience (Psychology)	**NEUR4421** Biomedical Perspectives in Neuroscience (SBMS)	
Research 75%	**Wk 2:** First mentor meeting	**Wk 2:** First mentor meeting	**Wk 2:** First mentor meeting
	Wk 4: Mid-candidature Progress report	**Wk 4:** Mid-candidature Progress report	**Wk 4:** Mid-candidature Progress report
	Wk 6: Second mentor meeting	**Wk 6:** Second mentor meeting	**Wk 6:** Second mentor meeting
	Wk 8: Thesis **Wk 9:** Lay Summary	**Wk 8:** Thesis **Wk 9:** Lay Summary	**Wk 8:** Thesis **Wk 9:** Lay Summary
	Wk 9: Proposal Seminar **Wk 10:** Proposal document	**Wk 9:** Proposal Seminar **Wk 10:** Proposal document	**Wk 9:** Proposal seminar **Wk 10:** Proposal document

- Students may start in lab and complete ethics and WHS courses 2 weeks before Term starts
- Term 2 & 3 entry option
- 3 terms to complete
- Reduced study load (part-time) option - over 2 years

NEUR4441/4442/4443

UNSW SYDNEY

Neuroscience Honours Assessments

COURSEWORK Term 1 & 2 (25%, 12UOC)

NEUR4411 – Behavioural Perspectives in Neuroscience (6UOC)

• Group presentation	35%	20-30 mins including Q&A
• Assignment	35%	4 pages critical evaluation of a research paper
• Tutorial work	30%	Tutorial pre- & post-work; Quizzes

NEUR4421 – Biomedical Perspectives in Neuroscience (6UOC)

• Group journal presentation	30%	20 mins + 10 mins Q&A
• Online quizzes	40%	1 quiz per workshop; 4 quizzes
• 3 Minute Thesis presentation	30%	

Coursework

- Exposure to breadth of Neuroscience
- Critical Analysis
- Writing
- Career Development

UNSW SYDNEY

Support during your project

- Supervisor(s)
- Honours Committee (4 SBMS, 2 Psychology, 2 NeuRA)
- Mentor
- Peer support (MS Teams, weekly e-meeting)

NEUR Committee Members: Teri Furlong (Chair), Jennie Cederholm, Erin Goddard, Georg Von Jonquieres, John Power, Kelly Clemens, Kim van Schooten, Steven Kassem.

School of Biomedical Sciences Honours

SOMS4888 (full time), SOMS4884 (part time)

Convenor – Daina Sturnieks

Co-convenor – Lu Liu

Administrator – John Redmond

Course learning outcomes

Research Skills	Apply relevant research methodologies to conduct a research project.
Professional Skills	Plan, collect, analyse and interpret qualitative or quantitative data, and reach appropriate conclusions that are supported by evidence.
Communication Skills	Communicate effectively in oral and written forms in a clear and concise manner to an informed scientific audience.
Critical Thinking	Interpret and critically evaluate the research literature, ideas and practices in biomedical science research relevant to the research project.

UNSW SYDNEY

Entry requirements

Prior study requirement:
Three-year full-time bachelor degree specialising in Anatomy, Pathology, Pharmacology, Physiology or other relevant science specialisation.

WAM requirement:
A minimum credit (65) weighted average mark (WAM) for overall degree, or a minimum credit (65) WAM for stage three (final year) relevant science subjects if the overall WAM falls 60-64.

Project / supervisor allocation:
The student is responsible for arranging a supervisor and project before applying for Honours. Prospective students are advised to consult the SBMS Honours website for a list of supervisors and their Honours research projects. Updated project details can be viewed in the SBMS Research Information Session document.

Contact:
Honours Administrator, Mr John Redmond, or Honours Convenors, AProfs Daina Sturnieks and Lu Liu
Email: SBMSHonours@unsw.edu.au

UNSW SYDNEY

The road of the Honours year (can start from any Term)

Assessments	Weight	Timeline	Format	Marking
Milestones	-	Week 3 of 1st term	Formative	-
Literature Review	20%	~Week 7 of 1st term	3000 words	2 examiners (see rubric)
Introductory Seminar	10%	~Week 10 of 1st term	10 mins talk 5 mins questions	>4 audience examiners (see rubric)
Progress report	-	~Week 6 of 2nd term	Formative	-
Project Manuscript	50%	~Week 8 of 3rd term	5000 words	2 examiners (see rubric)
Final Seminar	20%	Three weeks after manuscript submission	12 min talk 8 mins questions	>4 audience examiners (see rubric)
Performance report	-	At the end of the honours year	Formative	-

UNSW SYDNEY

Support during your project

- Research skills (online activities)
- Writing and presentation workshops
- SBMS Honours committee (13 members, representing each displine of SBMS, Kirby, NeuRA, CCI, Garvan/Victor Chang)
- Mentor groups (each student is assigned a mentor)
- Supervisor support (supervisor training)
- Support from fellow students

School of Health Sciences Honours

HLTH4016 Honours (Full Time) HLTH4008 Honours (Part Time)

Convenor – Dr Miaobing (Jazzmin) Zheng – miaobing.zheng@unsw.edu.au

School of Health Sciences – Allied Health

Exercise Physiology	Exercise as Rehabilitative and Preventative therapy
Exercise Science	Applied Physiology Biomechanics Psychology
Physiotherapy	Explores the structure and movement of the human body
Nutrition and Dietetics	Diet Health and Disease/Food Innovation/Public Health+Ed
Pharmacy	Development of drugs and their effects on the human body

UNSW SYDNEY

SoHS Honours process

- Your idea – you have to start somewhere why not here ?
- Find a Supervisor – new and growing team available
- Agree a project – your idea/supervisor expertise – a discussion
- Do the Research – supported by supervisory team
- Have the project assessed – feedback
- Your Future –

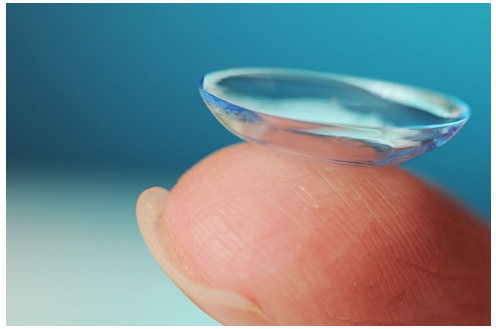
School of Vision Science Honours

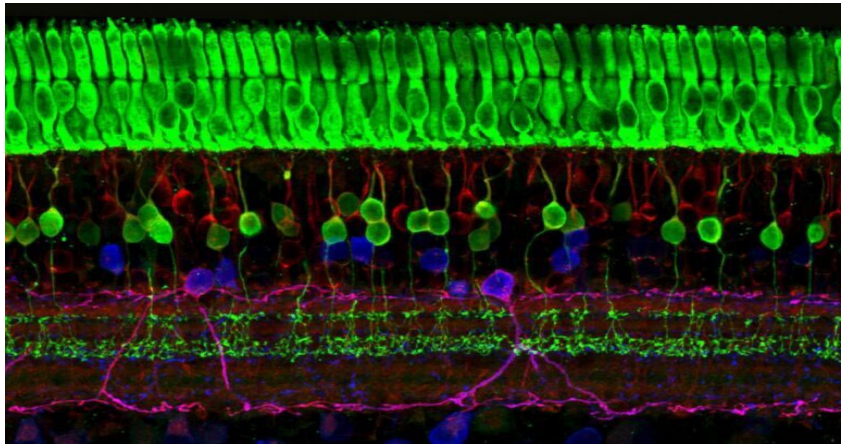
VISN4016 Honours (Full Time)

Convenor – Dr Daisy Shu – daisy.shu@unsw.edu.au

School of Optometry & Vision Science – Allied Health

- Myopia Research Group
- Vision Loss and Healthy Ageing
- Ocular Surface and Infection Research
- Eye Research Group
- Optical Imaging and Visualisation
- Retinal Research Group
- Public Health and Health Systems
- Ocular Pathology
- Retinal Disease and Clinical Imaging
- Sensory Processes





https://www.unsw.edu.au/medicine-health/our-schools/optometry/research-impact/research-groups

UNSW SYDNEY

SOVS Vision Science Honours Program

Pick a project and supervisor – reach out to the course convenor, Dr. Daisy Shu daisy.shu@unsw.edu.au if you would like tailored one-on-one support for this process

PhD Buddy Mentoring Program – in addition to your supervisory team, you will be paired with a PhD student mentor to further guide you during your Honours year

Monthly Honours Check-in sessions throughout the year to provide additional support on research skills from writing to presenting and research tools/software

Assessments: Literature Review, Introductory Seminar, Final Presentation, Final Thesis

UNSW SYDNEY

Vision Science Honours Alumni: Niv Chandramohan

The highlight of my many years at UNSW was definitely when I undertook my honours research year with my wonderful supervisors Associate Professor Maria Markoulli and Professor Eric Papas. My research explored the role of intense pulsed light in contact lens discomfort and meibomian gland dysfunction. I had taken on some summer research projects …….
but my honours year was definitely where I found my footing and thrived. I ended up graduating with first-class honours which was a really lovely feeling given my unsteady beginnings.
https://www.unsw.edu.au/news/2021/07/alumni-profile-niv-chandramohan

Vision Science Honours Alumni: Dr. Pauline Khoo. Ph.D.

My experience in the Vision Science Honours Program at UNSW was extremely rewarding. The program not only deepened my understanding of retinal diseases but also honed my critical thinking skills, which have been invaluable in my career in medical affairs.

The close interactions with faculty members created a supportive and stimulating learning environment. I had the opportunity to work under the mentorship of Dr. Lisa Nivison-Smith, whose guidance was instrumental in shaping my scientific thinking and research approach. Moreover, the program's emphasis on independent research fostered my ability to think critically and work autonomously. The rigorous training in scientific writing and presentation skills prepared me well for the challenges of postgraduate studies and beyond.

The Honours Program provided me with a solid foundation that has significantly aided my academic and professional journey. I am grateful for the opportunities and support provided by the program and for the relationships I developed along the way. I highly recommend this program to any aspiring scientist or anyone wanting to develop essential skills for their future career.

https://www.unsw.edu.au/news/2024/03/alumni-profile-dr-pauline-khoo

UNSW SYDNEY

How to Apply for Honours

Step 1 Find a Supervisor(s)

Step 2 Complete the “Intention to Undertake Honours” form, available from: https://www.unsw.edu.au/science/student-life-resources/honours-how-apply

Select:

- **Neuroscience** (for Neuroscience Honours), or
- **Biomedical Sciences** (for SBMS Honours), and attach Biomedical Sciences application form
- **Health Sciences** (for SoHS Honours), or
- **Vision Science** (for SoVS Honours)

Step 3 Submit formal application for the program 4500 Science (Honours) via: “Apply Online” https://applyonline.unsw.edu.au/login.

NOTE: Internal UNSW students in programs where Honours is compulsory do not submit formal application

DEADLINE for T3 2025 Honours applications is 28 Aug (domestic applicants). International applications are closed.
DEADLINE for T1 2026 Honours applications is early Nov 2025 (date TBC. N.B. Date will be earlier for international)
All Registrants of Research Info Evening will be emailed the application instructions in mid-September

UNSW SYDNEY

Finding a supervisor: considerations

Research interests (read the literature)

Research project

Research environment

Your needs

Flexible project or well-defined project?

What do people do after Honours?

- Research assistant
- Sales and marketing
- Medicine, law (patent), pharmacy, dentistry, teaching, nursing
- Clinical roles – Exercise / Nutrition / Physiotherapy / Pharmacy
- Health care / Hospitals (lifestyle clinics)
- Government jobs (TGA, police, forensics)
- Editing (journals, papers, media, science writer)
- Pharmaceutical companies (industry, Medical Science Liaision)
- **Higher degree research (MPhil, PhD)**

UNSW SYDNEY

Higher Degree Research (HDR)

Postgraduate co-ordinators
SBMS - Gila Moalem-Taylor, Ingvars Birznieks
SoHS - Matthew Jones

HDR co-ordinators
SBMS / SoHS – Jo Ryan, Ina Ismail

What HDR degrees do we offer?

SBMS	SoHS
Master by Research (MRes) * 1.5-2 years FTE	Master by Research (MRes) * 1.5-2 years FTE
Doctor of Philosophy (PhD) * 3-4 years FTE	Doctor of Philosophy (PhD) * 3-4 years FTE

More information on these degrees can be found here:
https://www.unsw.edu.au/medicine-health/research-impact/postgraduate-research/become-postgraduate-research-candidate

UNSW SYDNEY

What are the entry requirements?

HDR: An Honours equivalent ~1-year research experience including an output – thesis or paper.

Master by Research	Doctor of Philosophy
a four-year Bachelor's degree with second class Honours from UNSW; or	a UNSW Bachelor's degree with first or upper second class Honours (>H2.1); or
an equivalent qualification from a tertiary institution as determined by the Faculty Higher Degree Committee (HDC)	a completed Master by Research with a substantial research component and demonstrated capacity for timely completion of a high-quality research thesis; or
	a completed Master by coursework with ~1 year research experience, including an output (thesis/paper); or
	an equivalent qualification from a tertiary institution as determined by the Faculty Higher Degree Committee (HDC)

UNSW SYDNEY

How to apply

- Determine your eligibility
- Find a supervisor and prepare your research plan
- Prepare your supporting documentation
- Submit your application

Full information about the HDR application process can be found here
https://www.unsw.edu.au/research/hdr/application
https://www.unsw.edu.au/research/hdr/find-a-supervisor

UNSW SYDNEY

When to apply?

- Decide which term you want to start: T1, T2 or T3

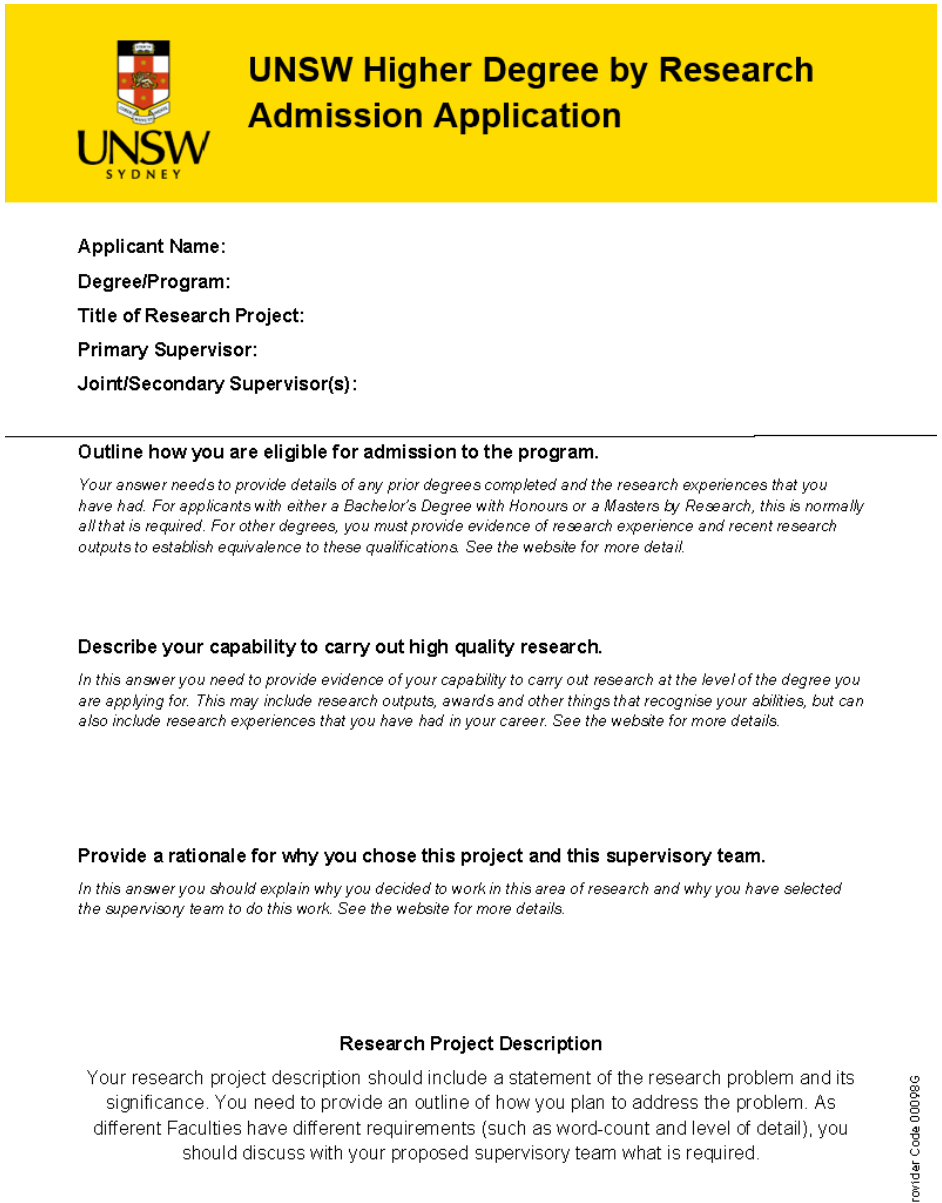
- If you are not applying for a scholarship stipend, you must submit your application (and all required documentation) **at least** 8 weeks before an offer of admission is required due to the time required for assessment

- If you are applying for a scholarship, no later than the closure of each of the three rounds. See scholarship application deadlines.

Information regarding application deadlines and enrolment dates can be found here

https://www.unsw.edu.au/research/hdr/application

HDR admission application form



UNSW Higher Degree by Research Admission Application

Applicant Name:

Degree/Program:

Title of Research Project:

Primary Supervisor:

Joint/Secondary Supervisor(s):

Outline how you are eligible for admission to the program.

Your answer needs to provide details of any prior degrees completed and the research experiences that you have had. For applicants with either a Bachelor's Degree with Honours or a Masters by Research, this is normally all that is required. For other degrees, you must provide evidence of research experience and recent research outputs to establish equivalence to these qualifications. See the website for more detail.

Describe your capability to carry out high quality research.

In this answer you need to provide evidence of your capability to carry out research at the level of the degree you are applying for. This may include research outputs, awards and other things that recognise your abilities, but can also include research experiences that you have had in your career. See the website for more details.

Provide a rationale for why you chose this project and this supervisory team.

In this answer you should explain why you decided to work in this area of research and why you have selected the supervisory team to do this work. See the website for more details.

Research Project Description

Your research project description should include a statement of the research problem and its significance. You need to provide an outline of how you plan to address the problem. As different Faculties have different requirements (such as word-count and level of detail), you should discuss with your proposed supervisory team what is required.

rovider Code 00098G

Research Plan Form to address:

- Eligibility (>H2.1 for PhD)
- Capability (additional experience)
- Selection of supervisory team (fit)
- Project description

- Form can be found at:

  https://www.unsw.edu.au/research/hdr/application

HDR Scholarships

There are many different types of Competitive Scholarships. Examples are:

Scholarship	Rate
Research Training Program (RTP) Scholarship / University Postgraduate Award (UPA)	$38,438 per annum (2025 rate) PhD: 3.5 years FTE / MRes: 2 years FTE 3 Rounds per year (domestic) Scoring: Candidate capability, research environment, Faculty/School strategy
NHMRC Scholarship – to support outstanding health and medical graduates	2025 rate: $50,000 per annum (pro rata) PhD: 3 years FTE / MRes 2 years FTE Eligibility: >H2.1 Scoring: Track Record 60% / Project 20% / Research environment 20% https://www.nhmrc.gov.au/funding/find-funding/postgraduate-scholarships
Industry-Engaged PhD - a doctoral program designed with an industry application	Varied (>40K). For more details check: https://www.unsw.edu.au/research/hdr/industry-engagement

Any Questions? Check out the GRS website: https://research.unsw.edu.au/graduate-research-scholarships

Best of luck with your Honours year!
We hope to see you as HDR candidates in the future!

UNSW SYDNEY

HDR programs in SoHS

- Exercise physiology
- Physiotherapy
- Pharmacy
- Dietetics

- End-user/industry engaged partners

Student Presentations

Genevieve Shillington

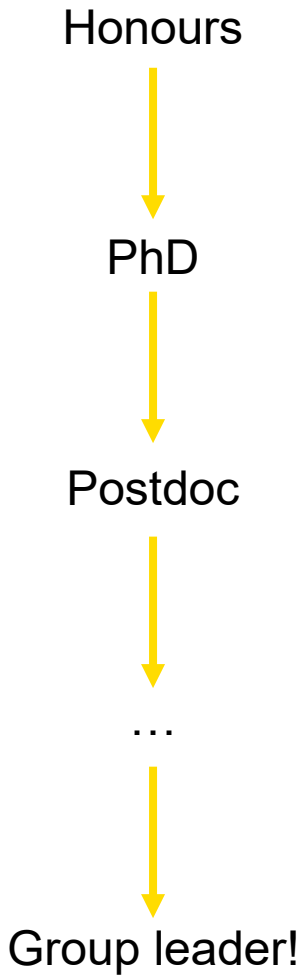
Iveta Gavljak

Si Yin Lui

Garvan Institute of Medical Research

Why Honours?

1. It was the best option for my career path



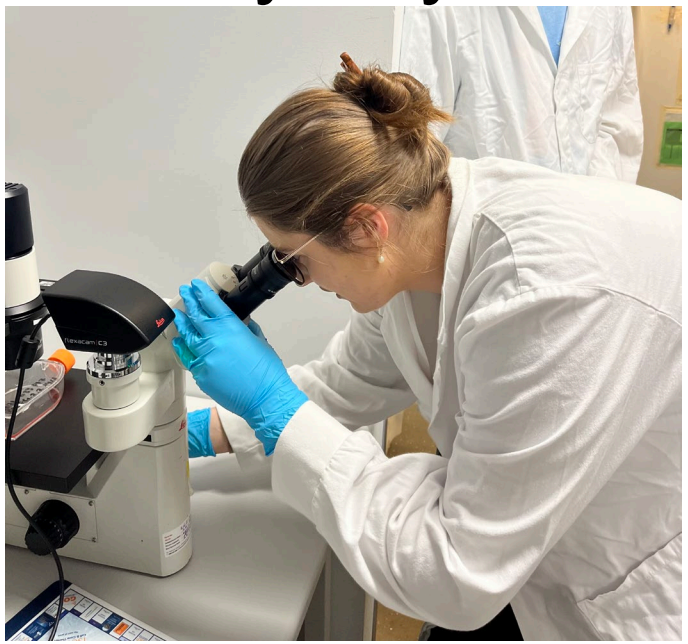
2. It exposed me to new experiences and people

- Planning & optimizing experiments
- Making good connections: senior scientists, oncologists, surgeons, philanthropists, etc.
- Learning important computational skills
  - Data analysis
  - R (coding)
- Learning important wet lab skills
  - Tissue culture
  - 3D bioprinting
  - Single cell RNA sequencing
  - Flow cytometry
  - Immunofluorescence

UNSW SYDNEY

Garvan Institute of Medical Research

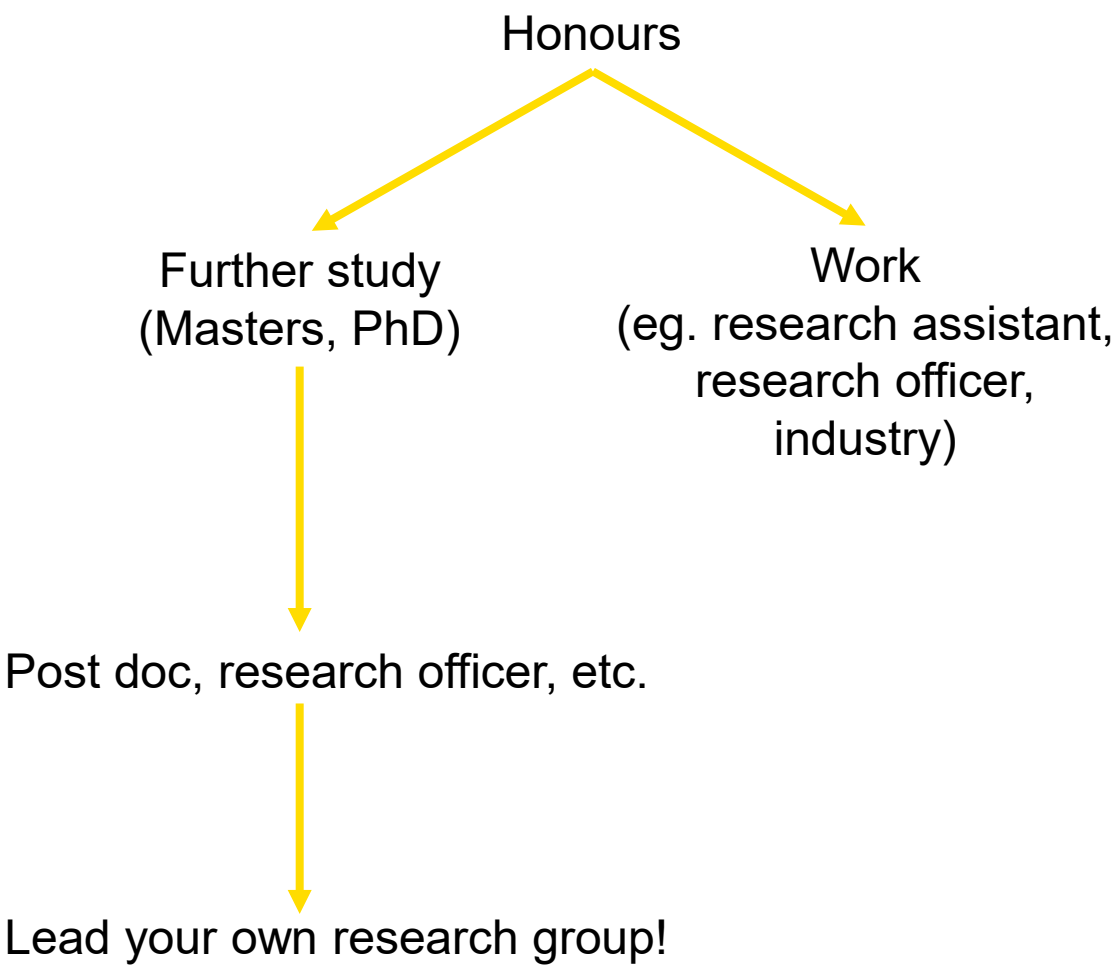
Every day is different!



UNSW SYDNEY

Garvan Institute of Medical Research

What happens after Honours?



My Plan

Honours in brain cancer

↓

Work as an RA for a few months

↓

PhD in brain cancer with the SAME LAB!

Hot tip: doing Honours is a great way to work out what sort of research you want to do as a PhD and with whom you want to do it!

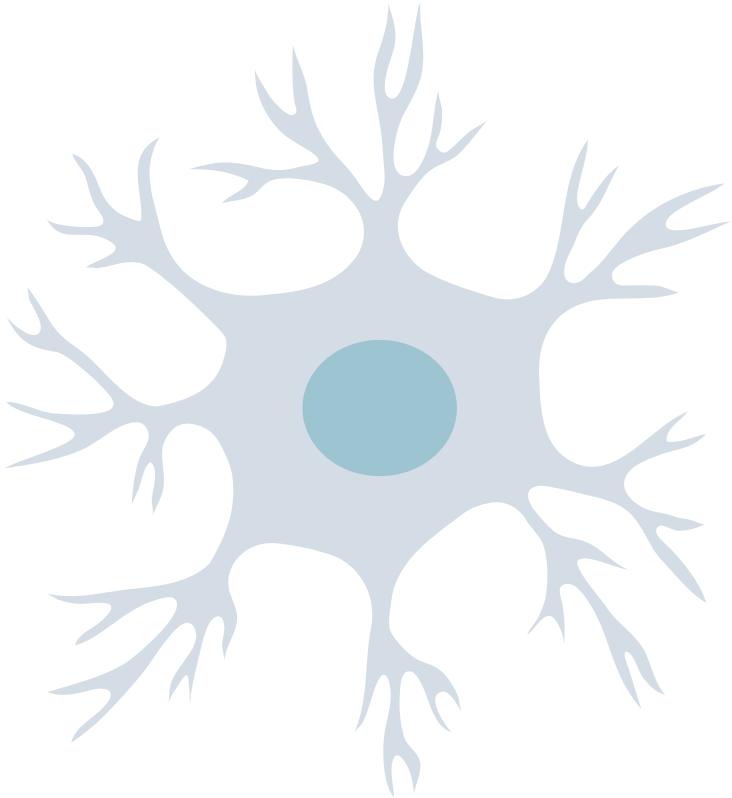
UNSW SYDNEY

Thank you!

If you want to chat about my research/Honours experiences, send me an email or connect with me on LinkedIn!

Genevieve Shillington
g.shillington@garvan.org.au

LinkedIn:



Research Information Evening 2025

Neuroscience Honours

Iveta Gavljak

What is Neuroscience Honours *really* like?

What skills can you expect to learn and develop?

Should you do Neuroscience Honours? Is it the 'right' choice?

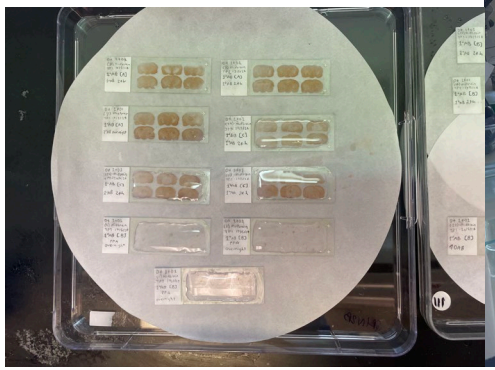
What is Neuroscience Honours *really* like?

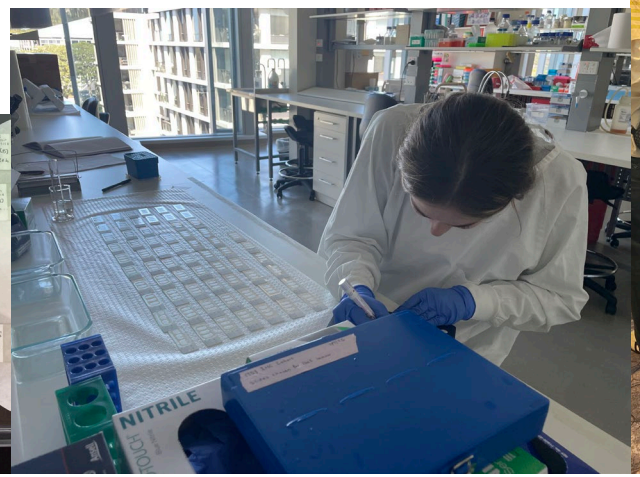
The Effect of Maternal Immune Activation and Estrogen-Receptor Modulation on Microglial Parameters in the Adult Rat Ventral Midbrain

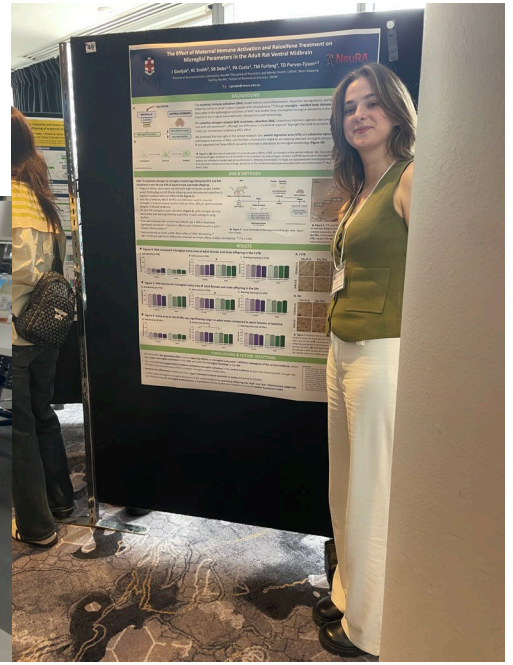
I Gavljak[1], KL Smith[3], SR Debs[1,2], PA Costa[1], TM Furlong[4], TD Purves-Tyson[1,2]

[1]Preclinical Neuropsychiatry Laboratory, NeuRA; [2]Discipline of Psychiatry and Mental Health, UNSW; [3]Brain Mapping Facility, NeuRA; [4]School of Biomedical Sciences, UNSW

- Daunting, but really exciting!
- Expect non-significant / unexpected results
- Get a holistic degree experience
- Generate new knowledge!

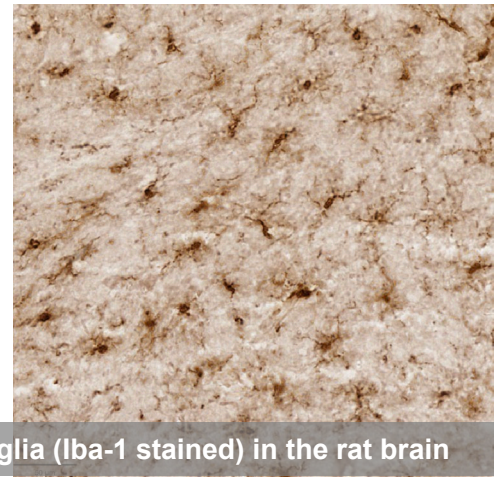






What skills can you expect to learn and develop?

- **Wet-lab (bench-side) skills**: tissue sectioning on the cryostat, immunohistochemical staining, brain region delineation, animal handling, drug administrations, etc.
- **Analytical/computational skills**: statistical analysis with SPSS and R (coding), data visualisation, cell count automation with QuPath / ImageJ, etc.
- **Research & transferrable skills (coursework)**: scientific communication, presentation skills, writing, critical thinking, data interpretation, etc.



Microglia (Iba-1 stained) in the rat brain

Sample rat brain slices stained for Iba-1 using DAB immunohistochemistry

Is Neuroscience Honours the right choice for you?

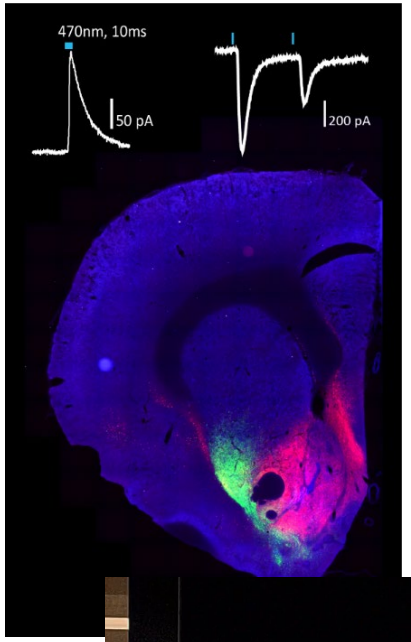

Self Care
& Me Time
ONLY MAIL
FOR 28 SAINT
PAULS ST.
PLEASE !!!
THANK YOU!
MAY THE
FORCE
BE WITH
YOU.™

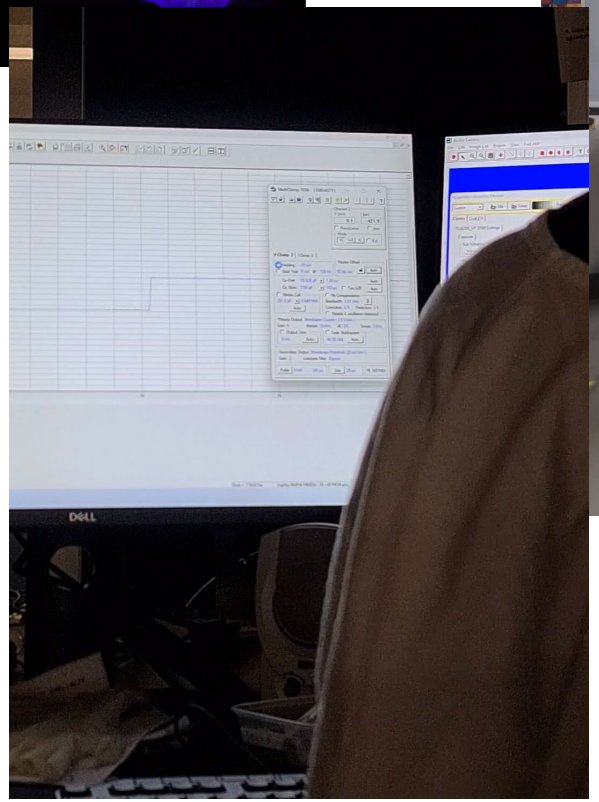
What is PhD life like??

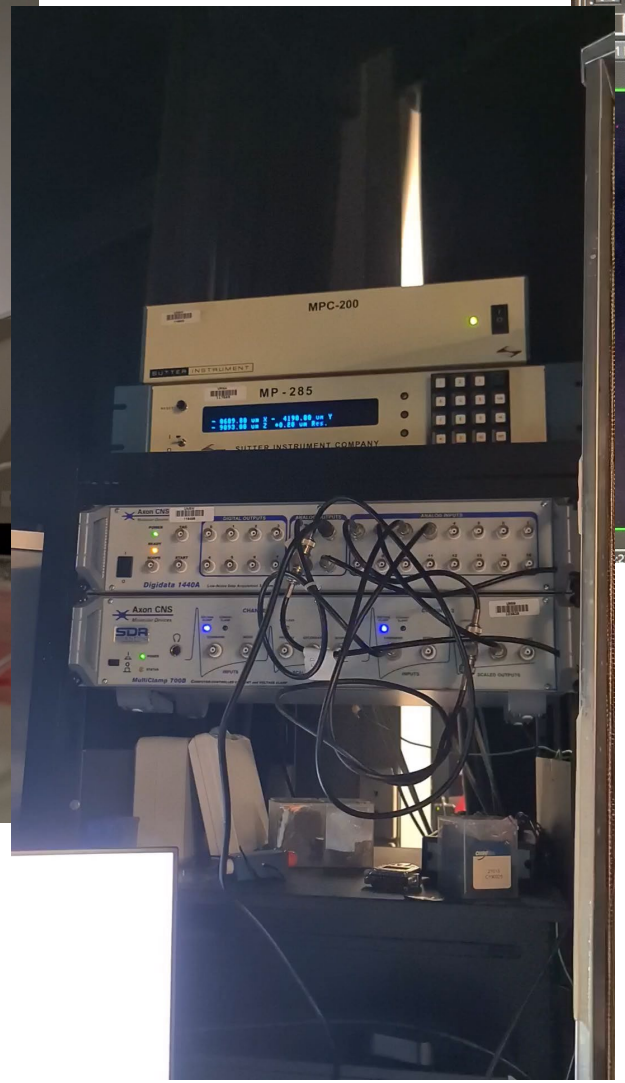
Si Yin Lui

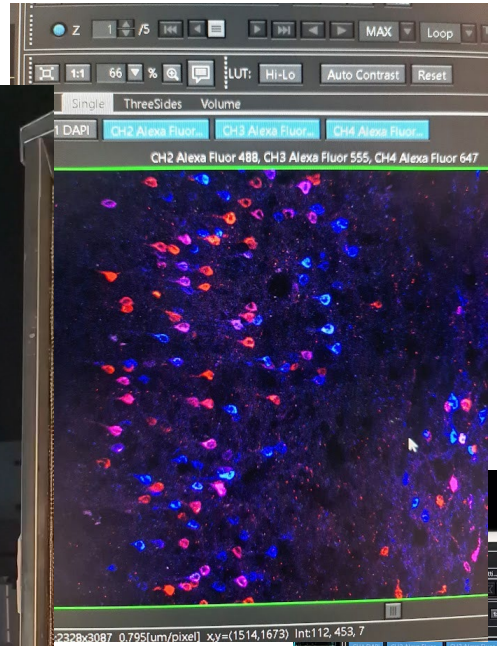
@POWER.LAB.SYD

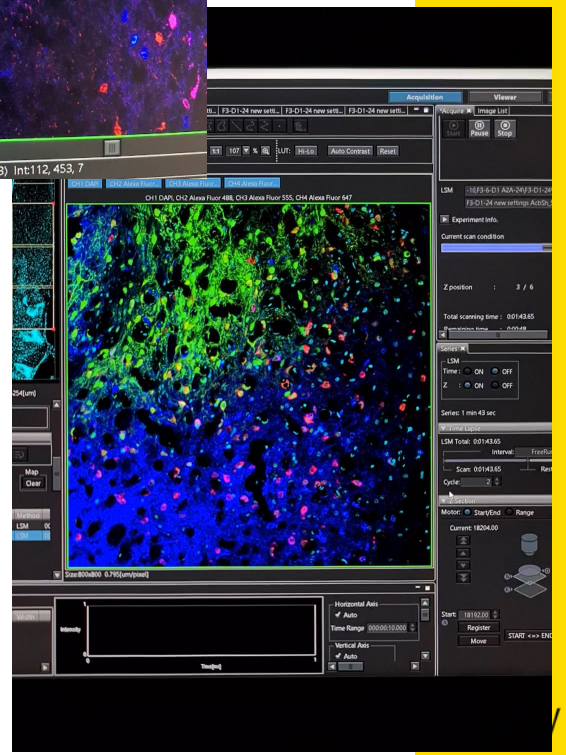
Experiments, analysis, reading, writing, thinking and more experiments!



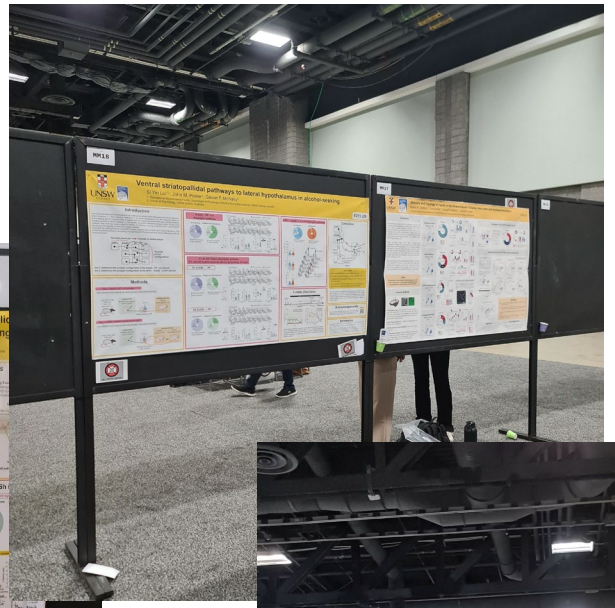


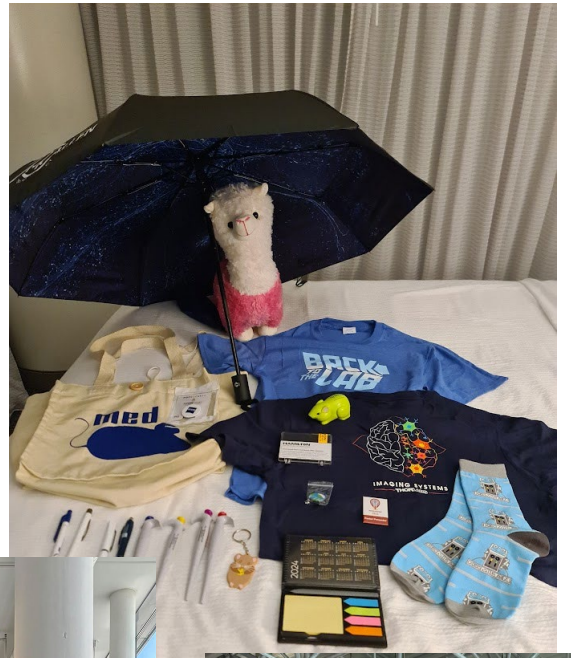


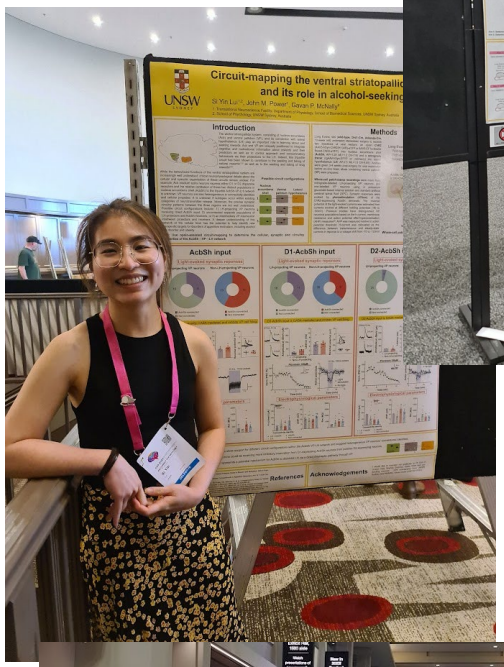


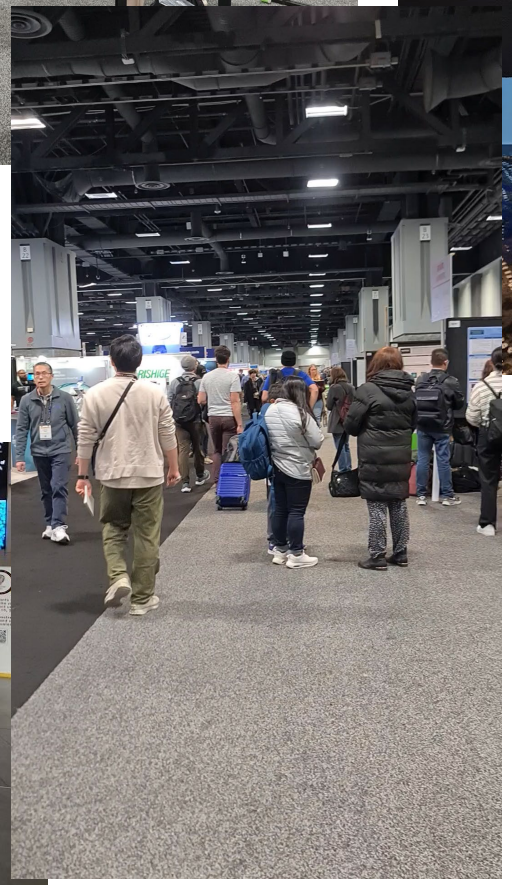


Conferences!









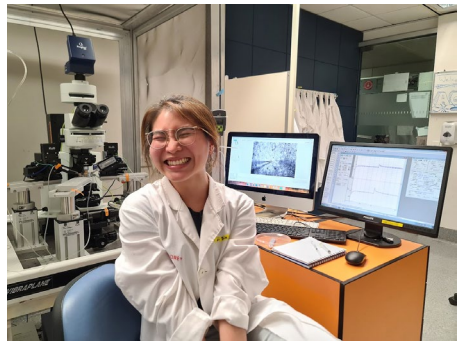
Not pictured:

- Experiments failing
- Equipment failing
- Stress
- No useful data
- Late nights in lab
- Weekends in lab
- Stress
- All-nighters
- Imposter syndrome
- Stress
- Crying
- Frustration
- Burnout

Also not pictured:

- The massive high when experiments work
- The incredible happiness when data analysis reveals something super exciting
- The crazy cool feeling of creating new knowledge

(I lied, sometimes there's a photo)



PhD is a super tough time but if you're passionate and you love research, it can be incredibly fulfilling and the right choice! 🥹 🥹

UNSW SYDNEY

Thank you to this evening's helpers:

Amanda Lum - Technical Support
Eleni Dimos, Tiana Charlton, Grigory Gerasimov, Olivia Clink, Blake Dickson - Poster Board setup
Paola Spagnoli, Marina Dmitrieva, Isy Suriwong, Elyse Atkinson - Event Support
John Redmond - Event Organisation

Pizza and drinks are now served in the foyer
Please remember no food in the Auditorium

UNSW SYDNEY

Research Group Poster Session