THE IMPORTANCE OF RESEARCH TRAINING IN YOUR MD

Clinician Scientist Track (CST)
Incorporating a Higher Degree Research into the MD program

Extended Research Track (ERT)
Extra-curricular research arranged on a voluntary basis between the student and research supervisor

Phase 1 Research Curriculum
Research integrated into ‘Health, Society & Research’ course across year 1 and year 2
The Clinician Scientist Track (CST) refers to programs where outstanding students are encouraged to incorporate a higher degree by research (HDR) into their MD.

Available HDRs:
- Doctor of Philosophy (PhD)
- Master of Science* (MSc)

* In Australia, the MSc is called ‘Master of Philosophy’ (MPhil). The MPhil is an internationally recognised HDR and equivalent to a Research Master’s (MSc).
CLINICIAN SCIENTIST TRACK (CST)

COMBINING A HDR WITH YOUR MD

Two models:

Concurrent
MD-MSc

MSc is done part time (PT) & concurrently with full time (FT) MD
No time taken out of the MD

Intercalated
MD-MSc OR MD-PhD

A mixture of FT & PT research ‘intercalated’ with the MD
Requires time taken out of MD
ELIGIBILITY FOR ENROLMENT IN AN MD-HDR

HDRS ARE POST-GRADUATE HIGHER DEGREES

✓ Students must meet the ‘Graduate School’ requirements for approval to enrol in a MSc or PhD

✓ This link describes the MSc and PhD degrees at UQ. Read all the information, in particular: eligibility requirements. https://graduate-school.uq.edu.au/uq-research-degrees
ELIGIBILITY FOR ENROLMENT IN AN MD-HDR

1. ELIGIBILITY REQUIREMENTS FOR APPROVAL TO ENROL IN A HDR

- Prior research experience is required for admission to an HDR at UQ
- Experience can be obtained through educational qualifications such as an Honours Degree* or professional experience and training
- Demonstrating ‘Relevant Experience’ may satisfy Graduate School requirements without having a prior Honours Degree.
  - Learn more about Evidence of Relevant Experience at this link: http://www.uq.edu.au/grad-school/evidence-relevant-experience

2. WHAT DOES ‘RELEVANT EXPERIENCE’ MEAN?

These Examples summarize what counts as ‘Relevant Experience’:
- Experience as a research assistant and research outputs including research publications
- Presenting at conferences
- Publication of research outcomes, as a co-author or first author on a journal article or conference abstract, or report, or grant
- All (or any) of these examples should be prominent on your CV!

3. FURTHER REQUIREMENTS FOR ENROLLING IN A HDR

Keep in mind that MD Students:
- Must first seek approval from the Director of MD Research to apply for a HDR while in the medical program
- Must maintain a GPA in the MD of > or =5.5 (on a 7 point scale)
- May undertake research with other schools, faculties, institutes, or centres at UQ, and also overseas (e.g. US)
- More details on the MSc (MPhil) and PhD requirements are on the Student Research Portal https://medicine-program.uq.edu.au/research-portal

*Honours Degree: This is an extra year of the Bachelor’s degree which is devoted to research.
TIME FRAMES

✓ After reading the information about the degree requirements and eligibility as an International student, if you,
  ✓ believe you are eligible, and will maintain a GPA of 5.5+, and
  ✓ have identified a research project and supervisor,
these are your next steps.

Email the Director of MD Research stating your interest & possibly arrange for a meeting before June!
Include your CV.

The earliest any student may commence an HDR is in January of Y2 MD (after completing Y1 MD)

The latest any student may commence an HDR is in January of Y3 MD (after completing Y2 MD)

See the Graduate School website for key deadline dates for International students:
https://graduate-school.uq.edu.au/scholarships
https://scholarships.uq.edu.au/scholarship/uq-graduate-school-scholarships-uqgss
**Intercalated PhD or MSc Pathways**

**Research Options**
- Eligible students may begin application & seek approval
- Approved students may begin MSc or PhD PT

**Degree Timeframe**
- MD Year 1
  - May begin preliminary research work, ethics, literature review etc.

- MD Year 2
  - INTERCALATED MSc or PhD
    - interrupt MD for FT research: MSc=1yr PhD=2yrs

- USMLE Step 1
  - Clinical Skills Refreshers Intensive Sessions

- MD Year 3 & Year 4
  - At Ochsner in NOLA
    - Elective for Research

- MD Year 4
  - GRADUATE MD in Dec
  - 6 Month GAP to Residency

- JUNE DEADLINE
  - Submit MSc, PhD Degrees awarded separately

- Time to finish & submit MSc or PhD

**PT**=part time, **FT**=full time
Eligible students may begin application & seek approval

*Approved students may begin PT MSc

*Concurrent MSc students work PT on research alongside FT MD across Y2, Y3 & Y4

MD Year 1
May begin preliminary research e.g. ethics, literature review etc

MD Year 2

USMLE Step 1

MD Year 3 & MD Year 4
At Ochsner continue MD FT work on MSc PT

Elective for Research

GRADUATE MD in Dec

Time to finish & submit MSc

6 Month GAP to Residency

JUNE DEADLINE
Submit MSc Degree awarded separately

*Concurrent MSc Pathway

*Finish part time MSc or MPH in ~2-3 years
RESEARCH SUPERVISORS

APPLIES TO ALL RESEARCH PROJECTS:

✓ **Start Early!** When you know your research interest, investigate who is working where, and begin enquires, establish and maintain contact, support, and collaboration.

✓ To assist you in choosing a project:
  ✓ UQ Researchers: [http://researchers.uq.edu.au/](http://researchers.uq.edu.au/)
  ✓ **Quick Links to Research at UQ**
  ✓ Attend MD Research Information Sessions and Expos

✓ If you intend on starting any research while in Brisbane that you wish to continue back at Ochsner Clinical School (OCS) you should have a supervisor at both UQ and OCS
**Higher Degree Research Fees**
Read about the UQGGS (UQ Graduate School Scholarship) at this link:

https://scholarships.uq.edu.au/scholarship/uq-graduate-school-scholarships-uqgss

For MSc & PhD:

- ✓ International students are required to pay tuition fees for a HDR
  - ✓ A UQ GSS will pay HDR tuition
  - ✓ A UQ GSS will pay a partial living stipend

- ✓ Note - there is no support for MD tuition

- ✓ Ochsner Clinical School Post-Doctoral Research Fellowships – after MD graduation
  - ✓ For 6 month gap from MD graduation to Residency
HDR (MSc & PhD) Scholarships/Support

**UQ GRADUATE SCHOOL SCHOLARSHIPS: UQGSS**


- This is the primary scholarship - very competitive, but good success rate
- No separate application – it is coincident with your HDR application
- You must be approved by UQ Medicine Program to apply for a HDR

**AMERICAN AUSTRALIAN ASSOCIATION FELLOWSHIPS:**

- Very competitive, but worth trying and you can apply several times
- [http://www.americanaustralian.org/?page=Fellowships](http://www.americanaustralian.org/?page=Fellowships)

**ENDEAVOUR SCHOLARSHIPS**

MD Extracurricular Research Options
Extended Research Track (ERT)

The ERT pertains to extracurricular research experience alongside the MD.

- Casual/Volunteer Projects – independent arrangement between the student and a research supervisor in any research group, centre, or institute.
- Combines hands-on research project with a research outcome, e.g. publication, conference abstract, etc.
  - Completed on a flexible basis **anytime** during the MD degree
  - There must be an agreed upon outcome such as co-authorship on an abstract or journal article.
Qualifications for Extended Research

- The project should be *extra-curricular*, and undertaken on a volunteer basis.

- There must be some *output* from the project agreed between the student and their supervisor.
  - Examples of research output are: co-authorship on an abstract for a conference, a journal publication, research report, or literature review etc.

- **Time** commitment overall should be at least 10 weeks FTE devoted to the research.
  - This can be spread over a summer break, several holiday periods, or over a year or years of the medical program.

- The project must be *Registered* on the [Student Research Portal](#).

- You may register multiple projects as often and as necessary throughout your degree.
TIMEFRAMES FOR EXTENDED RESEARCH

✓ All medical students can do Extended Research at any time during their medical program
  ✓ Students are urged to remember that the MD is the priority
  ✓ It is strongly suggested that Year 1 students wait until at least semester 2 to get involved in and commit to a research project.

STEPS TO GETTING INVOLVED IN EXTENDED RESEARCH:

1. Decide if you definitely want to undertake research during the MD
2. Ensure you have a GPA of at least 5, and feel you can maintain it
3. Identify an area of interest with a potential supervisor(s)
4. Agree upon a research outcome with your supervisor
5. Finalise your project commitment with your supervisor
6. Register your project on the Student Research Portal
WHAT TYPE OF PROJECT IS BEST?

Concurrent MD-MSc & Extended Research

Project must be FLEXIBLE & FEASIBLE alongside your full-time MD i.e. not time critical

Intercalated MD-MSc or MD-PhD

✓ Wet lab or clinical work
✓ Opportunity to immerse yourself into the research project & culture

IMPORTANT TO NOTE:
There is no dedicated time out of the medical curriculum to devote to Extended Research or to an MSc or PhD. All students must fulfil all the normal requirements of the MD program as a priority.
The Student Research Portal was established to be a comprehensive source of information for students and research supervisors to post, locate and enquire about available research projects and activities, report student research activity and achievements, and express an interest in learning into the Medical program. For details on the research options for students, click the Research in your medical degree button above.
UQ Medicine is committed to enhancing the research training and experience for students in the Medical Program. Active participation and training in the research process gives students the skills to develop independent critical-thinking, propose theoretical concepts, and to critically analyse their findings.

There are a number of ways students can incorporate research training and experience into their medical degree. These are:

- **The Clinician Scientist Track (CST)** - refers to the MD-PhD and MD-MPhil. There are three ways to incorporate a PhD or an MPhil into the medical program; the intercalated MD-PhD or MD-MPhil and the Concurrent MD-MPhil.
- **Extended Research** - extracurricular research opportunities for all medical students with an interest in doing some research during their medical program.
- **MD-MPH** - incorporating a course work Masters of Public Health into the medical program.
- **Summer Research Scholarships** - excellent opportunities for students to get ‘hands on’ research experience concentrated over the summer break.

To assist you to incorporate research into your medical degree and to help you understand the research options available to you, we have prepared some frequently asked questions.
Research in your medical degree

UQ Medicine is committed to enhancing the research training and experience for students in the Medical Program. Active participation and training in the research process gives students the skills to develop independent critical-thinking, propose theoretical concepts, and to critically analyse their findings.

There are a number of ways students can incorporate research training and experience into their medical degree. These are:

- **The Clinician Scientist Track (CST)** - refers to the MD-PhD and MD-MPhil. There are three ways to incorporate a PhD or an MPhil into the medical program: the intercalated MD-PhD or MD-MPhil and the Concurrent MD-MPhil.
- **Extended Research** - extracurricular research opportunities for all medical students with an interest in doing some research during their medical program.
- **MD-MPH** - incorporating a coursework Masters of Public Health into the medical program.
- **Summer Research Scholarships** - excellent opportunities for students to get 'hands on' research experience concentrated over the summer break.

To assist you to incorporate research into your medical degree and to help you understand the research options available to you, we have prepared some frequently asked questions.
GETTING STARTED:
FINDING A RESEARCH PROJECT THAT INTERESTS YOU

Go to the 'Find a Project’ database on the Student Research Portal

- Browse the database to learn more about available projects and supervisors
- Complete and submit an Enquiry Form on any project that you have a genuine interest in
- Expect a reply within a week. If you don’t receive a reply within a week, you may contact studentresearch@uq.edu.au for assistance
- From that point, you may discuss the project or topic directly with the supervisor and explore opportunities

Also explore UQ Researchers: http://researchers.uq.edu.au
Official Acknowledgment of your Research Activities

Please take advantage of getting official recognition for your research activities during your MD

Register your Research Project(s) and record your Research Achievements on the Student Research Portal

✓ Simple and very important.
✓ Allows us to officially acknowledge all your research activity when you graduate.
✓ This official acknowledgement is important for your Dean’s letter and CV.
SUMMER RESEARCH PROGRAM (SRP)

Administered by UQ Division of ‘Experience, Careers & Employability’. Scholarship awarded for full time research work between Nov & Feb.

Announced in June, open in July, close in August

Excellent way to obtain productive research experience

Faculty of Medicine will be sponsoring many projects

Ochsner students can do a SRP in New Orleans in Y3 and/or Y4

SRP are competitive. If you are not successful, consider asking if you can be involved over the summer on a voluntary basis.
**Other Research Opportunities**

- **UQ Medicine Student Research Conference**
  - October
  - ✓ Papers & Posters
  - ✓ Awards & Prizes

- **UQ Undergraduate Student Research Week**
  - September
  - ✓ Presentations: Oral & Poster
  - ✓ Awards for best

- **Ochsner Research Day**
  - April
  - ✓ Presentations: Oral & Poster
  - ✓ Awards for best

- **Experience, Careers & Employability**
  - [https://employability.uq.edu.au/research](https://employability.uq.edu.au/research)
  - [https://employability.uq.edu.au/summer-research](https://employability.uq.edu.au/summer-research)

- **Start thinking about publishing NOW**
  - ✓ Ochsner Journal

---

**Other Research Opportunities**

- **UQ Medicine Student Research Conference**
  - October
  - ✓ Papers & Posters
  - ✓ Awards & Prizes

- **UQ Undergraduate Student Research Week**
  - September
  - ✓ Presentations: Oral & Poster
  - ✓ Awards for best

- **Ochsner Research Day**
  - April
  - ✓ Presentations: Oral & Poster
  - ✓ Awards for best

- **Experience, Careers & Employability**
  - [https://employability.uq.edu.au/research](https://employability.uq.edu.au/research)
  - [https://employability.uq.edu.au/summer-research](https://employability.uq.edu.au/summer-research)

- **Start thinking about publishing NOW**
  - ✓ Ochsner Journal
Translational Research Institute (TRI)

Australia’s newest and most comprehensive medical research and biopharmaceutical facility, located on the Princess Alexandra Hospital campus in Brisbane, Australia.

https://www.tri.edu.au/
UQ Centre for Clinical Research (UQCCR)

- Cancer research
- Imaging Research Centre
- Mothers, Babies and Lifelong Health
- Perinatal Research Centre
- The Infection and Immunity
- The Brain and Mental Health

http://www.uqccr.uq.edu.au/
The Dermatology Research Centre

Centre for Advanced Imaging
http://www.cai.uq.edu.au/
The University of Queensland Diamantina Institute (UQDI)

- Clinical and basic science converge in the translational research.
- Diseases, cancers, osteoporosis, arthritis and other autoimmune diseases.
- Strong clinical interactions and world-class facilities.
- UQDI students join a stimulating interdisciplinary team of researchers that includes molecular biologists, stem cell biologists, immunologists, geneticists, clinicians and biostatisticians.

http://www.di.uq.edu.au/
School of Public Health

- Global Burden of Disease Study
- Population Health Metrics Research Consortium Project
- The Australian Longitudinal Study on Women’s Health
- Cancer prevention
- Early life course of common mental disorders
- Obesity and diabetes

http://www.sph.uq.edu.au
Located on The University of Queensland’s St Lucia campus, Brisbane, Australia. Established in 2003, it is one of the University’s flagship research institutes. Key research themes include:

- Cognition and behavior;
- Computation and neuronal circuits;
- Neurogenesis and neuronal survival;
- Genetics and epigenetics;
- Neuroimaging;
- Neuronal trafficking; Neuronal development and connectivity;
- Sensory systems;
- Synaptic function.

CONTACT: qbistudents@uq.edu.au ; www.qbi.uq.edu.au
The Institute for Molecular Bioscience (IMB)

✓ Established in 2000 as a cornerstone of one of the largest bioscience research precincts in Australia.

✓ Multidisciplinary research programs

✓ IMB research is translated into next generation diagnostics, technologies and therapeutics.

postgrad-office@imb.uq.edu.au  http://postgraduate.imb.uq.edu.au
Dan Lemor
UQ-Ochsner’s First Research Higher Degree Graduate: MBBS-Master’s

About Dan:
Dan was our first UQ-Ochsner student to undertake the concurrent MBBS-Master’s.
Daniel graduated from the MBBS degree and obtained his MSc degree in 2014.
Residency: Ophthalmology Ochsner/LSU

Master’s Thesis:
The effects of an elevation of inter-ocular pressure on retinal structure and function

Supervisor:
Dr. Jonathan Nusdorff, Ochsner Clinical School
Kate Hall-Thomas
UQ-Ochsner’s 2016 Research Higher Degree Graduate: MBBS-Master’s

ABOUT KATE:
Born and raised in Canada.
Moved to the U.S. as a teenager.

Completed an MSc in biochemical molecular biology lab studying the insulin receptor and Glut 4

SUPERVISORS:
Dr. Fernando Urrego, Pediatric Pulmonology Ochsner Medical Center
D. Steve Kisely, School of Medicine, UQ
A/Prof. Di Eley, School of Medicine, UQ

RESEARCH & RESIDENCY:
 Residency: Internal Medicine Ochsner
 Research Output during candidature:
  5 Publications
  5 Presentations
  1 Book

MASTER’S THESIS:
Smoking cessation promotion in the pediatric clinic: Increasing pediatricians’ rate of screening for second hand smoke exposure, counseling caregivers to stop smoking and referring caregivers to smoking cessation programs
Hilary Keller
UQ-Ochsner’s 2017 Research Higher Degree Graduate: MBBS-Masters

ABOUT HILARY:
Residency: General Surgery
Guthrie Robert Parker Hospital

SUPERVISORS:
Dr. James Wells, PhD, UQ Diamantina, TRI
Dr. Helmut Schaider, MD, UQ Dermatology Research Centre
Dr. Li Li, MD, PhD, Ochsner Hospital, Laboratory of Translational Cancer Research

MASTER’S THESIS TITLE:
Increased Surface Expression of Inhibitory Molecules Correlates with Decreased Cytotoxic T-cell Mediated Lysis in Stress-Induced Drug Tolerant Melanoma
ABOUT RYAN:
Learned about UQ while attending the UQ Rugby Academy in 2008

Worked at the Institute for Cancer Genetics at Columbia University studying glioblastoma

PRINCIPLE ADVISOR:
Dr. Li Li, MD, PhD, Ochsner Hospital, Laboratory of Translational Cancer Research

RESIDENCY:
Internal Medicine
University of Pennsylvania

PROJECT TITLE:
The Effects and Characterization of Lymph Node Stroma Cell-Derived Microvesicles on Colorectal Cancer Tumorigenesis and Progression
James Morong
UQ-Ochsner’s 2017 Research Higher Degree Graduate: MBBS-Masters

About James:
Born in NYC and raised in LA.
Received a BSc in Anatomy and Cell Biology and a minor in Japanese from McGill University.

Worked as an MCAT tutor and corneal transplant technician.

Residency: OB/GYN
University of Illinois Chicago

Supervisors:
Dr. Alfred Robichaux, Ochsner

Prof. Paul Colditz, MBBS, FRCP, FRCPCH, MBiomedEng, Dphil (Oxford), Director, Perinatal Research Centre, School of Medicine, UQ

Research:
James focused his research on the preventability of maternal mortality in Western countries. It was inspired by a lecture he received in his first year of medical school about the increase in American maternal mortality as compared to other Western countries, like Australia.

James conducted a multi-centre retrospective cohort study of 5 Ochsner locations and 6 Queensland Health facilities to characterise the preventability of maternal deaths in the two countries.
ABOUT STEPHEN:

Received a Bachelor of Arts in Human Evolutionary Biology with a Minor in Philosophy at Harvard University in 2010.

Worked as a lab and research specialist in the University of Virginia’s Epilepsy Research Lab (Charlottesville, VA, USA).

Member of the American Society of Clinical Hypnosis and is trained in Medical Hypnosis.

PRINCIPLE ADVISOR:

Professor Roy M. Kimble, MD, FRCS, FRACS, Centre for Children’s Burns & Trauma Research at Lady Cilento Children’s Hospital

LOOKING AHEAD:

Stephen has been inspired by the paediatric surgeons at Lady Cilento Children’s Hospital, and will apply for a U.S. residency position in one of the surgical fields.

TITLE of RESEARCH:

Effectiveness of Medical Hypnosis for Promoting Pain Reduction and Wound Healing in Paediatric Burns
ABOUT DANIEL:
Graduated from Rochester Institute of Technology in 2011 & earned a Master’s of Biomedical Science at Rutgers University in 2013.

Worked at 4 separate laboratories including a summer project under an NSF grant at Cornell’s Nanobiotechnology Center.

Worked at Epic Systems in electronic medical record quality assurance.

PHD THESIS:
Diagnostic Nanoparticles for Detection of Diseases of the Brain

PRINCIPLE SUPERVISOR:
Dr. Kristofer Thurecht. PhD, Centre for Advanced Imaging, and AIBN, UQ

HIS RESEARCH:
- Involved in research at the Australian Institute for Bioengineering and Nanotechnology during his medical studies and is currently a full time PhD student.
- His research aims to look at the diagnostic potential of nanoparticles in the central nervous system via intrathecal injection into subarachnoid space.
MAIN SITES/LINKS FOR MEDICAL STUDENT RESEARCH INFORMATION

STUDENT RESEARCH PORTAL:  
https://medicine-program.uq.edu.au/research-portal

RESEARCH IN YOUR MEDICAL DEGREE:  
https://medicine.uq.edu.au/research-your-medical-degree

RESEARCH PORTAL NEWS:  
https://research-portal.medicine.uq.edu.au/news

OCHSNER STUDENT PAGES  
https://medicine-program.uq.edu.au/ochsner-clinical-school/research

UQ-OCHSNER RESEARCH FAQS  

UQ-OCHSNER RESEARCH PARTNERSHIP  
https://ochsner.uq.edu.au/research
MAIN SITES/LINKS FOR MEDICAL STUDENT RESEARCH INFORMATION

HIGHER DEGREE by RESEARCH (HDR)
FACULTY OF MEDICINE (FOM) RESEARCH OFFICE
med.hdr@uq.edu.au

HDR STUDENT SUPPORT
https://medicine.uq.edu.au/research/rhd-student-support

THE GRADUATE SCHOOL
http://www.uq.edu.au/grad-school/

SCHOLARSHIPS & PRIZES

UQ RHD SCHOLARSHIPS
https://graduate-school.uq.edu.au/Scholarships

AMERICAN AUSTRALIAN ASSOCIATION FELLOWSHIPS
http://www.americanaustralian.org/?page=Fellowships

FOM SCHOLARSHIPS & PRIZES
https://medicine.uq.edu.au/prizes-and-scholarships-0
CONTACT ME

DIANN S. ELEY
MSc, PhD, FHEA, Associate Professor
Faculty of Medicine

Office of Medical Education
The University of Queensland
Brisbane, Australia
d.eley@uq.edu.au