The University of Sydney is one of Australia’s leading research-intensive universities and is committed to the pursuit of world-class research across a number of disciplines. One of the key strengths of the Faculty of Pharmacy is the cross-disciplinary nature of its research teams, giving our research students valuable opportunities to learn from and contribute to a broader view of research.

**Develop Professional Skills and Networks**

Our research programs are designed to help you advance your research interests while also developing professional skills and networks. Research is an incredible opportunity for you to extend your knowledge, build practical skills and pursue your passion in a specialist subject. A research degree opens up numerous career opportunities. A research qualification helps you stand out from the crowd and increases your competitiveness when applying for the best jobs, even if your future career path is in a non-research field.

**A Global Perspective**

Take advantage of our global reputation for research excellence, top international rankings and award-winning research staff who are the best in their fields.

As a higher degree research student you will work alongside world leaders in research, have the opportunity to conduct studies overseas and develop a comprehensive perspective of the applications of research in the real world.

Our world-renowned researchers are experts in a broad spectrum of pharmaceutical and clinical sciences, including the design, synthesis, testing and mechanism of action of drugs, studies on advanced drug delivery, investigation of the fate of drugs in humans including pharmacogenomics and other aspects of drug disposition, and research on the clinical and sociological aspects of pharmacy and health services research. For more information on our leading academics and research supervisors, visit: sydney.edu.au/pharmacy/about/our-people/

**Become a Research Leader**

Stretch your talent and develop leadership skills. You will have access to a wide range of opportunities to cultivate professional skills through workshops, seminars, career development opportunities, international research symposia and networking events. This will help you become a well-rounded confident leader.

**Graduate Opportunities**

Graduating with a research degree in pharmacy can lead to a future career where your studies can help to further the world’s pharmaceutical knowledge, discover new drugs and therapies and ensure the quality use of medicines, and ultimately allow you to contribute to improving the lives and lifestyles of people worldwide.

Graduate roles for pharmacy researchers include full-time research work, senior roles in the pharmaceutical industry, policy decision making in government agency and regulatory bodies, and positions that manage the manufacturing and distribution of medicines.
Research Themes and Strengths

Research at the Faculty of Pharmacy is structured around five themes that closely reflect the Australian Government’s health priorities. These are:

Cancer

In Australia, the Cancer Council estimates that more than 125,000 people are diagnosed with cancer each year.

Our cancer researchers are world renowned and research strengths include:
- new drug design for treating cancer
- cancer pharmacology and biology
- drug formulation for targeted cancer therapies.

Cardiovascular and diabetes

According to the Heart Foundation, cardiovascular disease is the number one cause of death in Australia, while diabetes is the country’s fastest growing chronic disease and the sixth leading cause of death in the country.

Research conducted in the faculty covers a range of disorders causing cardiovascular disease, atherosclerosis and diabetes. This work will increase in the future, with intensified participation in collaborative research projects with the University’s Charles Perkins Centre. Research strengths include:
- cholesterol metabolism regulation
- new drug design for treating atherosclerosis and diabetes
- chronic disease management and stroke prevention.

Health services and patient safety

Researchers in the health services and patient safety theme have a strong commitment to research that facilitates the quality use of medicines, medicines safety, effectiveness and cost-effectiveness of health interventions.

Research strengths include a national and international focus on:
- a range of therapeutics areas, including mental health, cardiovascular disease, diabetes, pain management, musculoskeletal disorders, infectious diseases and respiratory disease
- a multidisciplinary approach, collaborating with a range of healthcare professionals
- a range of evidence-based health care policies and facilities including primary care, residential care and hospitals
- a range of economic modelling of the health system for government, public service, academia and clinical practice.

Mental health

The aim of research at the Faculty of Pharmacy under this theme is to develop treatment for neurological diseases and increase the diversity of agents to investigate potential receptors and targets in treatment.

Research strengths include drug design and mental health services to develop treatment for neurological diseases, such as:
- dementia
- schizophrenia
- anxiety and depression.

Respiratory disease

Research into respiratory diseases in the faculty yields crucial findings for improving asthma treatment and other lung diseases. Our clinical focus covers a wide range of conditions such as allergic rhinitis, tuberculosis, and apnoea and spans population groups such as children and the elderly.

Research strengths include:
- biology of lung disease and airway disorders
- development of novel targeted drug delivery in respiratory infectious disease
- clinical interventions on effective self-management techniques in respiratory disease.
Pathways to Research

We offer two research degrees:

<table>
<thead>
<tr>
<th>AWARD</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Philosophy (Pharmacy)</td>
<td>1-2 years full time/ 2-4 years part time</td>
</tr>
<tr>
<td>Doctor of Philosophy (Pharmacy)</td>
<td>2-3 years full time/ 4-6 years part time</td>
</tr>
</tbody>
</table>

For most postgraduate research degrees you will need to submit a research proposal with your application. We recommend that you carefully consider the subject of your research, and find out whether your interests align with any academic members of staff.

To find out more about the available research projects, supervisors and admission requirements, please visit sydney.edu.au/research-opportunities.shtml

Scholarship Information

There are a number of unique scholarship opportunities available to research students studying at the Faculty of Pharmacy. For a detailed list of available scholarships, please visit sydney.edu.au/scholarships/research/

Research Facilities and Laboratories

The University of Sydney has a wide range of laboratories and facilities for research students. Within the Faculty of Pharmacy, we have the technical resources to conduct and support research into:
- pharmaceutical chemistry
- structure analysis/spectrometry
- nano biocharacterisation/imaging
- molecular biology
- pharmaceutical formulation and delivery
- pharmacy practice and health services research.

For more information on our facilities and laboratories, please visit sydney.edu.au/pharmacy/our-research/

“I developed a passion for research while completing my pharmacy undergraduate degree. Undertaking a PhD has been essential for my career as a research scientist. My area of interest is cardiovascula disease and type 2 diabetes and I am hoping to identify new biological processes underpinning these diseases that could potentially provide new treatments in the future.”

ROSE CAIRNS
DOCTOR OF PHILOSOPHY (PHARMACY)

For more information
sydney.edu.au/pharmacy/

Research Services
E pharmacy.research@sydney.edu.au

THE UNIVERSITY OF SYDNEY