The desire to take medicine is perhaps the greatest feature which distinguishes man from animals.

William Osler, Physician
1849-1919

At Reading School of Pharmacy, we pride ourselves on our teaching and research achievements. We offer an exciting and innovative curriculum that integrates professional practice with strength in science. We use a variety of teaching methodologies to deliver the curriculum, making extensive use of electronic learning platforms, and podcasting our lectures. Our specialist pharmacist Teacher Practitioners keep the course relevant and our staff are friendly, enthusiastic and creative.

We are ranked in the top 20 for Pharmacy and Pharmacology in the UK and more than 85% of our research output is rated as internationally excellent or world leading. Our strength in research feeds into our teaching and enables our students to develop problem-solving skills and a deep understanding of how research impacts all areas of health. This provides you with the skills fit for becoming a future leader in an ever-changing pharmacy landscape.

Dr Katrina Bicknell
Head of Reading School of Pharmacy
www.reading.ac.uk/pharmacy

2 Research Excellence Framework, 2014 – Allied Health Professions, Dentistry, Nursing and Pharmacy.
Catherine Langran

Catherine worked as a medical admissions and anticoagulant pharmacist before moving into the Education and Training arena at Frimley Park Hospital—and got the bug for teaching.

In 2011 she joined the University as a Senior Teaching Fellow in pharmacy practice. “As soon as I arrived at Reading, I knew there was something I needed to bring to the course—and that was more hands-on experience of real-life patients. Training workshops and simulations are useful, but nothing can beat the real thing.”

True to her vision, Catherine launched the Healthy Living Assessment (HLA) later that year.

After training and competency tests, Year 4 students are able to undertake a Healthy Living Assessment on real patients. This entails performing a series of diagnostic tests to calculate the possible risk of heart disease. They also consult with the patients and discuss their lifestyle (such as diet, exercise regime and alcohol consumption) enabling them to give evidence-based healthy living advice.

But for Catherine it didn’t end there. Her determination to help her students have a greater understanding of their patients’ challenges has been further enhanced by the introduction of an Interprofessional Learning Symposium.

Students have the opportunity to talk to elderly patients and then get to experience for themselves the everyday difficulties these patients face.

For example, by wearing visual impairment glasses, students can empathise with how challenging simple tasks can become—like reading a medicine label, filling out a hospital menu or simply finding the toilet.

By putting on bariatric suits (which simulate being overweight) and movement-restricting elderly simulation suits, students discover how hard and stressful it can be for some people to get back up after experiencing a fall.

“Today, empathy with the problems that patients face is paramount to any would-be pharmacist,” Catherine summarises, “and there is no substitute for real, hands-on experience—which is something that I am determined every pharmacy graduate from Reading School of Pharmacy walks into work with.”
Try to imagine a dish that thinks it’s a brain. If you can, you can seriously start thinking about working alongside Dr Angela Bithell.

As a lecturer in Stem Cell Biology and Regenerative Medicine in the Pharmacology division, her research has led to the development of 3D ‘brain network’ models in vitro. The in vitro models have been specially created to help us build a better understanding of central nervous system diseases and their causes. By mimicking features of healthy human brains and brains affected by Alzheimer’s disease, Angela’s work aims to identify and test life-changing new drugs.

She also brings her research to her teaching. You might learn with her during your MPharm or BSc Pharmacology studies and could be offered the opportunity to carry out your final year research project alongside her and have your name published on any resulting research papers.

Research within Reading School of Pharmacy as a whole spans a broad spectrum from study of molecules and chemistry, through formulation, diagnosis and pharmacology, to patients. With funding from government, charity and industry, academics are helping to improve healthcare. At Reading, our particular strengths include neurobiology, cardiovascular disease, crystallography, nanomedicine and health service innovation.

Reading School of Pharmacy is also one of the University’s key supporters of equality. In fact, Angela leads the School’s Athena SWAN programme, promoting the careers of women in science, technology, engineering and mathematics (STEM), as well as Diversity and Inclusion in higher education.

“The result is a nice working environment, free from obstacles. We make sure that both staff and students are aware of everything that’s in place to support them.”

“Developing more relevant human in vitro models of disease can help us to better investigate the underlying causes. As such, they may also help to identify new therapeutic targets and test pharmaceutical drug candidates.”
Physician Associates (PAs) are medically trained professionals who work alongside other healthcare roles helping to diagnose patients, formulate management plans and, ultimately, make a real difference in patients’ care. The role was first introduced into the NHS in 2003 recruiting PAs trained in the USA.

Quick to see the potential of this new role, The University of Reading working with local NHS trusts and the Royal Berkshire Hospital developed a postgraduate programme to train PAs in the UK and is one of the first institutions to introduce a new integrated master’s programme in physician associate studies (MPAS) allowing students to study to be a PA straight after A-levels.

Samantha Bautista was in the very first cohort of PAs at Reading, graduating from our PGDip programme in 2017. She is now thriving in two roles for the NHS, splitting her time between jobs at the Royal Berkshire Hospital and a local GP surgery.

“It is an exciting new way to practice medicine. When I visited the University of Reading, I got a strong sense that they were really enthusiastic and passionate about this new role in the NHS.”

Samantha just like all our trainee PAs was taught by various healthcare professionals, such as consultants and registrars, from the Royal Berkshire Hospital.

“The placements and guest lectures really helped my career prospects. My neurology placement sparked my interest the most. I find the brain so fascinating.”

Samantha now channels her fascination of the brain into three clinics at the Royal Berkshire Hospital. She runs a headache clinic, a nerve conduction clinic for patients suffering from nerve problems in the upper limbs, and a Botox clinic for patients with neuromuscular disorders affecting the face and neck.

Alongside her three days a week at the RBH, Samantha works with Dr Richard Perry—a GP and Lecturer on the PA programme—at his local Practice, and is Health Education England PA Ambassador Regional Lead for the South, helping to promote the role of the PA to colleagues in the NHS and prospective students.

“...The world of healthcare is changing, and patient needs are changing with it. Physician Associate’s have an integral and fundamental role to play as an integrated, frontline, generalist clinician. We are educated, trained and equipped with the skills and competences needed to provide excellent patient medical care. The role is both varied and rewarding, and is certainly an exciting profession to enter.”
"Don’t be afraid to step sideways and explore a new opportunity." These are the words of Professor Ben Whalley – a pharmacist turned academic turned company director – whose own circuitous career path is proof that there is more than one route for a registered pharmacist. Ben has been guided by his need to find challenge, surprise and satisfaction in his work. While working as an independent locum pharmacist in the 1990s, he became interested in neuropharmacology. Ben sought a PhD opportunity and when he finished his postgraduate studies, he joined Reading School of Pharmacy. Here, he led a research programme focused on cannabis-derived medicines, particularly for the difficult-to-treat forms of epilepsy. In 2017, Ben took up the post of Director of Research for GW Pharmaceuticals, a global leader in pioneering novel therapeutics from the cannabis plant. Ben’s work along with other members of the Pharmacology group resulted in FDA approval of a cannabidiol (CBD) containing medicine. This research was recognised by the international community through the prestigious James Black Award for Drug Discovery in 2019.

“Pharmacy provided me with a skillset and a mindset that I have always found valuable in my roles. From the rigour of scientific thinking, through to the ability to consider the context of non-clinical drug development, pharmacy provides an incredibly diverse yet robust foundation on which to build a career.”

According to recent data, 100% of Reading School of Pharmacy graduates are in work or further study within six months of graduating.¹ The numbers speak for themselves, but what makes Pharmacy graduates so employable? Ben has his thoughts:

“Pharmacy provided me with a skillset and a mindset that I have always found valuable in my roles. From the rigour of scientific thinking, through to the ability to consider the context of non-clinical drug development, pharmacy provides an incredibly diverse yet robust foundation on which to build a career.”

The placements and experiential learning that you receive as part of your undergraduate degree are an opportunity to explore many of the different avenues you can take with a pharmacy degree.

¹Destinations of Leavers from Higher Education (DLHE) survey, 2016-17.
Why do we take the drugs that we do to cure diseases? How do they work and how are they processed by the body? If you are passionate about scientific research, interested in drug development and want to make a real difference in life, studying pharmacology at university could be for you.

Pharmacology is the science of drugs and their effect on living systems and is crucial for drug discovery or improving the effectiveness of existing drugs.

At Reading, Pharmacology is taught by scientists at the forefront of the major aspects of Pharmacology. Be it neuroscience, stem cell biology or cardiovascular pharmacology.

Dr Sakthivel Vaiyapuri’s research focuses on cardiovascular and venom pharmacology. All his research deals with platelets, the part of our blood responsible for clotting and the subsequent wound healing processes and managing immune cells. One of Dr Vaiyapuri most exciting projects is developing an improved anti venom therapy to treat the effects of snakebites.

Snakebites decals are made of proteins/peptides that induce bleeding or blood clotting and neurological defects.

Dr Vaiyapuri is working on developing a universal antidote that can effectively neutralise all venom proteins stored at the local bite site and in the blood circulation, irrespective of which type of snake bit the person. Such drugs could be made available in tablet form or as a nasal spray and would not have to be refrigerated, which opens up the possibility of making treatments available to everyone, even in the most remote places.

Dr Vaiyapuri will be teaching cardiovascular pharmacology and clinical toxicology on our new BSc Pharmacology programme. He brings the subject to life using his research and every year undergraduates have the opportunity to assist him on his research with molecule tests and data collection.

Studying Pharmacology at an undergraduate level can open the door to a diverse career which can have an impact on a global scale. Our new BSc Pharmacology programme aims to provide students with the education, training and experience that enables them to work as pharmacologists within the pharmaceutical, or life sciences-related, industry or academia.

Snakebite ANYONE?

Snakebites are a significant occupational health issue around the world, a snakebite is classified as a ‘neglected tropical disease’ by the World Health Organization. Globally, it affects nearly 5 million people and causes around 150,000 deaths each year.
Emily Jackson went to prison for the sake of her education. Well, to clarify, she spent two days working in HM Prison Swansea’s Pharmacy Department – one of eight placements that Emily undertook during her MPharm degree. Getting out into the workplace helps students put learning into context, which is why MPharm students undertake placements throughout their undergraduate degree.

HM Prison Swansea was Emily’s first placement. She shadowed the Chief Pharmacist throughout her daily activities and was trusted to help with controlled drug stock checks.

“Learning about prison drug charts and medication was extremely interesting and it was especially useful to observe the pharmacist-patient interaction to see how it compares with other pharmacy settings.”

Next, she spent four weeks interacting directly with customers during her placement with Boots, followed closely by a week at St Bernard’s Hospital, where she gained experience of psychiatric medicines. She then furthered her knowledge at Royal Berkshire Hospital, University Hospital of Wales, Morriston Hospital and Prince Charles Hospital.

“Placements in such a wide range of establishments enabled me to make an informed decision about what area of pharmacy I wanted to work in for pre-registration. Working in these environments gave me real-life experience that can’t be learned from lectures.”

As well as shadowing pharmacists, Emily had an opportunity to work alongside other healthcare professionals and to learn from medicines management technicians, pharmacy technicians and assistant technical officers.

However, it is not only the students who benefit from these relationships. During her final placement, Emily supported a hospital pharmacy with an audit and was directly responsible for a number of prescription changes that improved the quality of care for patients.

It is the outstanding quality of students, like Emily, that has helped solidify long-established, trusted relationships between Reading School of Pharmacy and the healthcare sector. Yet, despite close links with industry and strong support from the School, securing placements takes effort.

“Don’t be afraid to contact as many places as possible because, in my experience, they are always supportive and positive.”

Since graduating, Emily has begun her pre-registration year back at Morriston Hospital in Swansea.

“I feel I’m very well prepared with both theoretical and practical knowledge from my time at Reading and am excited to discover what opportunities lie ahead in my pharmacy career.”
The NHS needs a new generation of revolutionary leaders who can think outside the box. You could go into finance, accounting, or management in other areas within the pharmacy industry – areas you may not realise are open to you. At Reading School of Pharmacy, we fully understand the evolving role of the pharmacist.

All MPharm students will benefit from lectures in business and leadership, throughout their degree, by the award-winning Henley Business School. In the spring term of your third year, you’ll also be offered the chance to invest in an additional module followed by an assessment, run in the summer by Henley Business School. Upon successful completion of this, you’ll receive a Certificate in Business Administration.

Kalid Odweyne, a Reading Pharmacy graduate, embarked on the CBA opportunity to distinguish himself from other pharmacists.

“The CBA is very relevant to the current climate and will further my employment prospects. I’m not tied to one area of pharmacy – I’m able to carry out a clinical role and look into management and leadership roles, which the NHS needs.”

The CBA helped Kalid understand organisations and Trusts, and how to come up with ideas to improve current ways of working.

“I found it extremely interesting and useful. It puts you ahead of others. It pushes you out of your comfort zone, and I’m really happy I was encouraged to do that. It is an investment in your future and you can’t go wrong with it in my eyes.”

At Reading School of Pharmacy, you can invest in your future and stand out from the crowd with the Postgraduate Certificate in Business Administration.
I was excited and a little nervous to travel solo. Sara didn’t hesitate to immerse herself in life in Padova with a keen interest in culture, history and different country. It would also be a useful addition to my CV. I expanded my scientific skills by trying laboratory techniques and procedures. I might not have tried had I not gone abroad. From the Erasmus+ grant, which helped fund a portion of my living costs in Italy.

Sara had some advice if you’re considering studying abroad: “Embrace the opportunity and go for it! There’s so much to learn, not only about the country you’re heading to but about yourself too. It’s an unforgettable experience.”

On weekends, she explored Italy’s best known cities, including Venice, Verona, Naples and Rome. I knew this invaluable experience would allow me to meet new people and learn new things, such as travelling independently and the culture in a different country. It would also be a useful addition to my CV. I expanded my scientific skills by trying laboratory techniques and procedures.

Sara didn’t hesitate to immerse herself in the Italian way of life. Although everyone spoke English in the labs, she enrolled onto an Italian language course, enabling her to engage with the locals over some good food and gelato.

With a keen interest in culture, history and languages, Sara decided to take part in the Erasmus+ scheme. During the first term of her final year, she took her MPharm studies to the University of Padova in Italy, carrying on Parkin's disease. The University of Reading provided great support – they ensured I was settling in well and maintained regular contact. They also provided financial support via the Erasmus+ grant, which helped fund a portion of my living costs in Italy.

Sara has some advice if you’re considering studying abroad: “Embrace the opportunity and go for it! There’s so much to learn, not only about the country you’re heading to but about yourself too. It’s an unforgettable experience.”

Reading School of Pharmacy has global links, allowing you to collaborate with peers from a range of countries. For example, if you study Pharmacy with us at Reading, you’ll have the opportunity to undertake your final year project at one of our international partner Universities.

Sara has some advice if you’re considering studying abroad: “Embrace the opportunity and go for it! There’s so much to learn, not only about the country you’re heading to but about yourself too. It’s an unforgettable experience.”

The University of Reading cannot guarantee that every applicant who applies for the scheme will be successful. Whilst efforts are made to secure sufficient places at partner institutions, the number of places available and the University’s partners can vary year-on-year. In all cases, the University cannot guarantee that it will be possible for applicants to choose to study abroad at a particular institution. Further, certain courses and/or institutions may require you to satisfy specific eligibility criteria. It can be a competitive process. For further information on the University’s Study Abroad Scheme please contact studyabroad@reading.ac.uk

Reading School of Pharmacy organises set placements for every MPharm student. Additional placements are not guaranteed and are fully dependent on students securing their own placement opportunities, normally through a competitive recruitment process. The University provides support for those wishing to apply for additional placement opportunities.