Postgraduate Opportunities 2020

Medicine & Biomedical Sciences

Influencing the world since 1583
“Edinburgh isn’t so much a city, more a way of life ... I doubt I’ll ever tire of exploring Edinburgh, on foot or in print.”

Ian Rankin
Best-selling author and alumnus
TOP 50
We’re consistently ranked one of the top 50 universities in the world. We’re 20th in the 2020 QS World University Rankings.

4TH
We’re ranked fourth in the UK for research power, based on the 2014 Research Excellence Framework.*

83%
The majority of our research – 83 per cent – is considered world leading or internationally excellent.*

TOP 100
We’re ranked in the top 10 in the UK and in the top 100 in the world for the employability of our graduates.†

£403m
In 2017/18 we won £403 million in competitive research grants.

19
There are 19 Nobel Prize winners who are alumni of the University or have been members of academic staff here.

22ND
We’re ranked 22nd in the world’s most international universities.‡ Since 2010, we have taught students from more than 160 countries.

* Times Higher Education, Overall Ranking of Institutions
† Times Higher Education, Global Employability University Ranking 2018
‡ Times Higher Education: The World’s Most International Universities 2019

For more than 400 years the University of Edinburgh has been changing the world. Our staff and students have explored space, won Nobel Prizes and revolutionised surgery. They’ve published era-defining books, run the country, made life-saving breakthroughs and laid the foundations to solve the mysteries of the universe.

Our distinguished alumni include NASA astronaut Piers Sellers, former MI5 Director-General Dame Stella Rimington, Olympians Sir Chris Hoy and Dame Katherine Grainger and historical greats such as philosopher David Hume, suffragist Chrysta Macmillan, who founded the Women’s International League for Peace and Freedom, and physicist and mathematician James Clerk Maxwell.

International collaboration
An internationally renowned centre for academic excellence, we forge world-class collaborations with partners such as the California Institute of Technology (Caltech), Stanford University, the University of Melbourne, Peking University, the University of Delhi and the University of KwaZulu-Natal. As a member of the League of European Research Universities and the Coimbra Group, we link up with leading institutions across Europe.

Linking research and commerce
We were one of the first UK universities to develop commercial links with industry, government and the professions. Edinburgh Innovations promotes and commercialises our research excellence and can assist you in taking the first step to market, through collaborative research, licensing technology or consultancy.

Enhancing your career
We are committed to embedding employability in your University experience and have an impressive track record for graduate employment. From volunteering schemes to our sector-leading careers service, we provide you with opportunities to develop your skills, knowledge and experience, giving you an edge in the competitive job market.
Online learning masters programmes

The University of Edinburgh is one of the largest providers of online postgraduate programmes in the UK’s Russell Group and our flexible, online learning master of science (MSc) and master of surgery (MCh) programmes are making a difference to a new generation of postgraduate students around the world.

What is online learning and who is it for?

An online programme from the University of Edinburgh has the same standing as an on-campus programme. They are academically equivalent and involve the same level of work overall.

When you study by online learning, all of the teaching and interaction with your tutors and classmates happens within our online learning platform. This platform hosts all your course materials, including readings and resources, and is accessible 24/7.

A key feature of our online programmes is that there is normally no requirement to attend the physical campus of the University in person at any point during your studies. This makes online learning an excellent choice for students who are not in a position to take a year out of their busy lives and careers to attend a campus-based programme.

Why choose online learning and what to expect

When you join us as an online student, you join a University-wide community of more than 3,500 students from more than 170 different countries. This provides you with the opportunity to learn and engage with others on a truly global scale.

You may be studying online, but you will be part of a collaborative university experience and will have regular contact with students from around the world and our academic staff here in Edinburgh. Your fellow students will come from a range of backgrounds with many studying outside the UK. Our online environment is designed to support and encourage collaborative learning and you will be taught by academic staff who are among the leading figures in their field and highly passionate about their subjects.

As an online student you will be able to share experiences, engage in academic debate with other students and share examples from your own practice area. Our online programmes are designed to support this engagement and you will use a range of online tools to help you work independently, in pairs or even in groups, all supported, facilitated and moderated by our academic staff.

You will have access to the same support services as on-campus students, with more than 800,000 ebooks and e-journals available in the library, and access to careers consultants and IT and academic support services.

Studying online at masters level can lift your career to the next position to take a year out of their busy lives and careers to attend a campus-based programme.

Destinations

The vast majority of our online students (93 per cent) are already in full-time employment and are studying programmes to help them progress within their chosen career. Some of our programmes support well-established professional progression pathways and are targeted at graduates from specific disciplines. Conversely, many of our other programmes welcome students from a variety of backgrounds, and are frequently taken as a stepping stone to a different career.

All our programmes are designed to provide learners with the skills and up-to-date knowledge they require to succeed in their area of choice. They are developed and taught by experienced practitioners and draw from the latest research and knowledge.

Our students tell us our programmes have had a transformative impact on their practice, opened new professional avenues, unleashed their personal potential and reignited their passion for their subjects.

Anatomical Sciences

PgDip up to 4 yrs PT, PgCert up to 2 yrs PT

Programme description

This programme is designed for students who want to explore aspects of human anatomy through the flexibility of an online learning programme. It is ideal for medical, biomedical and allied health professionals, and those in holistic practice with an interest in human anatomy. The programme draws upon the highly regarded teaching and research staff within the University.

The programme is designed to introduce and develop student knowledge in the anatomical sciences; in addition it is aimed at renewing and strengthening communication and IT knowledge and skills.

Programme structure

This programme consists of courses that draw on material currently used in the on-campus masters programme in human anatomy and our medical programme. Each of the taught courses has a set of modules that are released to students on a sequential basis from our virtual learning environment. Modules may consist of the following structure:

- an introduction to the module topic;
- bespoke learning resources (lectures/screen-cast/narrative);
- a set of resource links to course reading – library and research;
- a discussion board facilitated by a tutor; and
- a set of formative questions to test your knowledge and understanding.

CERTIFICATE COURSES PREVIOUSLY OFFERED INCLUDE:

- Fundamentals of Human Anatomy 1;
- Embryology; Neuroanatomy.

DIPLOMA COURSES PREVIOUSLY OFFERED INCLUDE:

- Advanced Human Anatomy 1;
- Advanced Human Anatomy 2;
- Imaging; Histology; Reflections on Professional Practice.

Career opportunities

This programme has been designed not only to help you gain a highly regarded qualification but also to provide you with a set of major transferable skills, which will be relevant to your current career or further study, or will simply increase your long term career prospects. It is ideal for those working in the professions allied to medicine, including radiography, physiotherapy and sports science.

Entry requirements

A UK 2:1 honours degree or its international equivalent (www.ed.ac.uk/international/graduate-entry), in fields such as medicine, veterinary medicine, radiology, radiography, radiotherapy, nursing, biological sciences, biomedical sciences, pharmacology, chemistry, physics, engineering, imaging analysis, imaging processing, computer science, informatics, neurology, neurosurgery, psychiatry, psychology, stroke medicine, geriatrics/medicine of the elderly, and neurosciences. We may also consider your application if you have work experience in a related scientific area, e.g. in hospital or research laboratories, for three or more years. Please contact us to check before you apply.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director

Chris Alexakis
Email: imaging.msc@ed.ac.uk

Applied Medical Image Analysis

PgCert up to 2 yrs PT

Programme description

This programme aims to create a new generation of medical image analysts. Medical image processing and analysis is of paramount importance in the field of medicine, especially in non-invasive treatment and clinical study. There is a clear need for the accurate interpretation and analysis of medical images, which involves the need for a computer system to process, manipulate and analyse images in a systematic and often automated manner.

You will study the physics of imaging and related techniques, as well as specialised content covering image processing and analysis, practical image analysis skills, and the use of the MATLAB computing environment and programming language.

Programme structure

You will complete 60 credits of compulsory taught courses.

COMPULSORY COURSES PROPOSED INCLUDE:

- Techniques & Physics: Practical Image Analysis 1; Image Analysis; Practical Image Analysis 2; Common Image Processing Techniques 2.

Career opportunities

Completion of this programme will allow learners from a range of disciplines to acquire a knowledge base and skill set that will support engagement and employment in the field of image processing and analysis.

Entry requirements

A UK 2:1 honours degree or its international equivalent (www.ed.ac.uk/international/graduate-entry), in fields such as medicine, veterinary medicine, medicine and surgery, physics, medical physics, neurology, neuromuscular disease, neuroscience, nuclear medicine, imaging.msc@ed.ac.uk

Practical Image Analysis 1; Practical Image Analysis 2; Advanced Human Anatomy 1; Advanced Human Anatomy 2; Imaging; Histology; Reflections on Professional Practice.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director

Jennifer Paxton
Tel: +44 (0)131 651 5250

“After completing my programme, I am far more confident challenging poor practice and even more passionate about teaching other practitioners, athletes and coaches in sport about pain.”

Mandy More, MSc Clinical Management of Pain

www.ed.ac.uk/pg/890

www.ed.ac.uk/pg/964

See page 58.
Online learning programmes

Biodiversity, Wildlife & Ecosystem Health
MSc up to 6 yrs PT, PgDip up to 4 yrs PT, PgCert up to 2 yrs PT, PgProfDev up to 2 yr PT

Programme description
This online learning programme provides an interdisciplinary approach to conservation management. It draws together expertise from within the University’s Global Health Academy and partner global associates to deliver first-class teaching and research in the field of biodiversity, wildlife and ecosystem health. This programme is affiliated with the University’s Global Health Academies: global.ed.ac.uk/global-academies

Programme structure
The programme is delivered using innovative online learning. Our online learning technology is fully interactive and enables you to communicate with your teachers and colleagues.

YEAR 1: CERTIFICATE COURSES PREVIOUSLY OFFERED INCLUDE:
You will study the following areas: evolution and biodiversity; ecosystem health and sustainability; ecosystems and governance; and academic needs. For PgDip you will select career-relevant options.

YEAR 2: DIPLOMA COURSES PREVIOUSLY OFFERED INCLUDE:
You will choose six option courses from the following: Climate Change; Policy and Practice; Communication and Public Engagement of Conservation; Connecting Environment and Society; Conservation and Conflict; Conservation Cencatives; Conservation Psychology; Ex Situ; Wildlife Management; Ecosystem Resilience and Extreme Events; An Introduction to Transboundary Diseases; Introduction to GIS and Spatial Data Analysis; Introduction to Wildlife Forensics; Invasive Non-Native Species; Land Use and Food Security; Reflections on Professional Development; Management of Emerging Diseases; The Marine Environment; The Modern Zoo; The Use of Artificial Reproductive Technologies in Threatened Species; Water and Sanitation; Underwater Archeology: Wildlife, Animal Health and Environment; Wildlife Trade; Zoonotic Disease.

*Subject to minimum student numbers and timetabling. A selection of these courses will be offered as a PgCert, PgDip stage, then complete your thesis in Year 3. Teaching is online and you will be expected to use self-directed learning, peer discussion boards, peer presentations, tutorials and other e-learning activities to engage with the course.

Accredited routes are available in collaboration with the programme team.

Clinical Education
MSc/Pgdip/Pgcert 3 yrs, 2 yrs or 1 yr PT

Programme description
This programme takes advantage of our world-renowned expertise to enable your abilities to teach and assess students in a clinical environment. It is designed for those who wish to enhance their educational role in relation to healthcare professionals and veterinary practitioners, including doctors, nurses, dental practitioners, clinical psychologists, occupational therapists, and those involved in veterinary education or associated scientists (biomedical or social). We will help you reflect upon, and share thoughts about, your practice, while increasing your understanding of how to apply educational theories and evidence from the literature. You will gain the knowledge and skills to deliver, and develop and research high-quality clinical education. You will have access to key texts and research bases and will have direct contact with leading clinicians and clinical scientists, providing a repository of information on infection disciplines.

Certificate courses previously offered include:
- Pain: A Multidimensional Phenomenon; Assessment, Measurement and the Multidisciplinary Approach; Introduction to Pain Management in Practice; Neuroanatomy and Neuropathology and its Relevance to Pain Management; Introduction to the Pharmacological Management of Pain; Non-Pharmacological Approaches to Pain Management.

Diploma courses previously offered include:
- The Management of Acute Pain; Pain Management in the ageing population; Pain in Medical Patients; Management of Neuropathic Pain; The Management of Cancer Related Pain; Pain Management of Sport Injuries and Rehabilitation.

Masters courses previously offered include:
- Dissertation in Pain Management; Independent project or 60 credits of taught courses.

Career opportunities
You will have gained skills suitable for employment in areas including: research establishments; educational facilities; government or political organisations; charitable and public organisations; and within independent organisations. A postgraduate qualification will also provide additional knowledge to supplement and support an ongoing clinical career.

Further postgraduate opportunities
We also offer online academic credit-bearing courses which run for five weeks at a time. These credits will be recognised in their own right at postgraduate level, or may be put towards gaining a higher award, such as a PgCert, PgDip or MSc. You also have the option to take not-for-credit stand-alone courses as Continuous Professional Development or Continuous Medical Education (CPE/CME).

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in a zoological, biological, environmental, veterinary or relevant conservation-related topic. We may also consider your degree if your interest is in an unrelated discipline but you have relevant work experience; please contact us to check before you apply. You may be admitted to certificate level only in the first instance.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Director Sarah Ogle
Email web.oilms@ed.ac.uk

Clinical Management of Pain
MSc up to 6 yrs PT, PgDip up to 4 yrs PT, PgCert up to 2 yrs PT, PgProfDev up to 2 yr PT

Programme description
Through a solid, theoretical understanding of the biological, psychological and social concepts that drive, develop and maintain pain, you will explore the multifaceted nature of pain and its effects. You will gain an advanced understanding of the specialist area of pain medicine and develop and research high-quality clinical education. You will gain the knowledge, understanding and evaluative skills to produce for or own discipline and this course so as to improve outcomes for patients.

Programme structure
Compulsory PgCert courses provide a theoretical foundation and you will then be introduced to a range of specialist areas of pain management, developing your knowledge to meet specific professional and academic needs. For PgDip you will select career-relevant options.

Certificate courses previously offered include:
- Pain - A Multidimensional Phenomenon; Assessment, Measurement and the Multidisciplinary Approach; Introduction to Pain Management in Practice; Neuroanatomy and Neuropathology and its Relevance to Pain Management; Introduction to the Pharmacological Management of Pain; Non-Pharmacological Approaches to Pain Management.

Diploma courses previously offered include:
- The Management of Acute Pain; Pain Management in the ageing population; Pain in Medical Patients; Management of Neuropathic Pain; The Management of Cancer Related Pain; Pain Management of Sport Injuries and Rehabilitation.

Masters courses previously offered include:
- Dissertation in Pain Management; Independent project or 60 credits of taught courses.

Career opportunities
You will have gained skills suitable for employment in areas including: research establishments; educational facilities; government or political organisations; charitable and public organisations; and within independent organisations. A postgraduate qualification will also provide additional knowledge to supplement and support an ongoing clinical career.

Further postgraduate opportunities
We also offer online academic credit-bearing courses which run for five weeks at a time. These credits will be recognised in their own right at postgraduate level, or may be put towards gaining a higher award, such as a PgCert, PgDip or MSc. You also have the option to take not-for-credit stand-alone courses as Continuous Professional Development or Continuous Medical Education (CPE/CME).

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in medicine (MBChB or equivalent), nursing, dentistry, psychology, occupational therapy, physiotherapy, pharmacology or any other allied healthcare profession included within the University’s Global Health Academies.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programmes Director Olga Paterson
Programme Director Sarah Henderson
Email pain.management@ed.ac.uk

Clinical Microbiology & Infectious Diseases
MSc up to 6 yrs PT, PgDip up to 4 yrs PT, PgCert up to 2 yrs PT, PgProfDev up to 2 yr PT

Programme description
This programme is aimed at junior doctors currently undergoing, or about to undertake, specialty training in an infection discipline and is open to trainees in the UK and worldwide. It will also be attractive to those who have completed their training but wish to fulfill continuing medical education requirements or who wish to obtain a formal qualification in clinical microbiology and infectious diseases.

The programme is aligned with RCP/IT and RCP/IT training in infectious diseases, offers senior trainee and higher specialty training in infectious diseases, medical microbiology and medical virology. It is designed to support trainees/specialists in preparation for FRCP/IT Part 1 (diploma in infection, infection specialty examination) at entry level to training assessments and hospital-based practice. You will have access to key texts and research bases and will have direct contact with leading clinicians and clinical scientists, providing a repository of information on infection disciplines.

Certificate courses previously offered include:
- Introduction to Immunology; Science and Biology of Bacteria; Science and Biology of Viruses; Science and Biology of fungi, Parasites and Prions; and Ecosystem and Academic needs.

Diploma courses previously offered include:
- Molecular Diagnostic of Infection; Community Acquired Infections and Public Health; Infection Prevention & Control; HIV Infection and Other Sexually Transmitted Disease; Clinical Syndrome and Infection; Travel Medicine and Infectious Disease; Bioinformatics and Study Design in Infectious Diseases; Emerging Infectious Diseases.

Masters courses previously offered include:
- Research in Infection Medicine, written reflective element (project).

Career opportunities
This programme will offer the student the knowledge and skills required to enhance their career progression in clinical or academic medicine. The programme will offer an alternative to traditional classroom-based research training for those candidates who do not wish to take time away from their professional commitments.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in a biomedical, medical, public health, or related bioscience topic. We may also consider your application if you have relevant work experience; please contact us to check before you apply. You may be admitted to certificate level only in the first instance.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Administrator Sarah Fraser
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www.ed.ac.uk/pg/646
www.ed.ac.uk/pg/246
www.ed.ac.uk/pg/580
www.ed.ac.uk/pg/891

The University of Edinburgh Medicine & Biomedical Sciences Postgraduate Opportunities 2020

www.ed.ac.uk/pg/646
www.ed.ac.uk/pg/246
www.ed.ac.uk/pg/580
www.ed.ac.uk/pg/891
Programme description
This programme is taught entirely online. It aims to support the demand for appropriately qualified dental practitioners who will lead clinical trials of all phases. It provides you with the opportunity to select courses relevant to your specialty and area of interest. The programme provides an enhanced learning experience which targets the diverse needs of students. The programme will be relevant for those wishing to gain an overall understanding of clinical trials before moving into the field. It is also ideal for those with the skills to access and appraise the medical literature, allowing you to actively participate in clinical discussions and developments as an independent and critical thinker, to appraise professional and secondary research and incorporate it into your personal practice.

Structure
You will study the clinical management of critically unwell adults through your compulsory courses and develop expertise in assessing, interpreting and integrating the findings of research into clinical care.

YEAR 1: CERTIFICATE COURSES INCLUDED:
- You will study: Fundamentals of Critical Care; Unlocking the Literature: Clinical Trials; Care in Practice; Critical Care Practice in Critical Care; Trauma, Infection; and Sepsis. You will also choose either Human Factors in Critical Care or Principles of Quality Improvement in Healthcare.

YEAR 2: DIPLOMA COURSES INCLUDED:
- You will study: Unlocking the Literature: Non-interventional Studies; Understanding Disease Mechanisms to Provide Optimal Support; Understanding Literature Evidence to Practice; Neurological Critical Care. You will be able to select two options from the following options to customise your programme:
- Clinical Practice, Ethics and Regulatory Issues.

YEAR 3: MASTERS COURSES INCLUDED:
- You will complete a masters dissertation in the form of a project report on a piece of original clinical research, a systematic review, the development of a substantial clinical guideline, a quality improvement project, or a report demonstrating practice change.

Career opportunities
Critical care is a growing specialty and the programme will provide essential knowledge required to provide a conscious sedation service within secondary care or formalise their existing training and experience. It is the only university-based programme in dental sedation in Scotland. This programme is offered predominantly by online learning but with a commitment of one day a month, hosted by the Edinburgh Dental Institute, where you will gain clinical experience in providing conscious sedation for patients. It is aimed at dental practitioners either in primary or secondary care who wish to introduce this invaluable skill into their practice or formalise their existing training and experience. It is the only university-based programme in dental sedation in Scotland.

Programme structure
This programme will provide dental practitioners with the skills and knowledge required to provide a conscious sedation service within their practice. The online courses run over a period of five weeks, with participation in online discussion boards and journal club expected. You are strongly encouraged to maintain a reflective personal journal of your clinical experience alongside a sedation logbook as you progress through the programme.

Fees and funding
For fees see page 58 and for funding information see page 60.

References
- www.ed.ac.uk/medicine-vet-medicine/postgraduate
- www.ed.ac.uk/pg/860
- www.ed.ac.uk/pg/809
- www.ed.ac.uk/pg/975
- www.ed.ac.uk/pg/958

The University of Edinburgh
Medicine & Biomedical Sciences Postgraduate Opportunities 2020
Family Medicine

Programme description

Strengthening family medicine has been recognised as a key component of achieving universal health coverage as part of the sustainable development goals to which every country committed at the last United Nations General Assembly. This programme aims to build on this momentum for strengthening primary care by developing competent family physicians who are empowered to become leaders and advocates for the future of the profession. It brings together students from a variety of countries across the world, each with their own unique experiences, to create a vibrant global learning community.

The programme will equip students with the skills to become expert family physicians whose approach will provide continuous, coordinated, comprehensive and cost effective care built around an understanding of the patient in the context of the family and the community.

Programme structure

There are three compulsory years in Courses 1 and 2 of the programme. This is followed by a project year, which includes a preparatory course in research methods. We deliver lectures and tutorials online and you will be expected to use self-directed learning, peer discussion boards, tutorials, and other similar e-learning activities to help engage with and get the most from the course materials.

Fees and funding

See page 58.

Contact

chm.info@ed.ac.uk

For fees see page 58 and for funding information see page 60.

General Surgery

CIM 2 yrs PT

Programme description

This programme is offered jointly by the Royal College of Surgeons of Edinburgh and the University of Edinburgh and leads to the award of Master of Surgery (CIM). It runs alongside clinical training and complements in the workplace training. Based on the UK Intercollegiate Surgical curriculum, it offers trainees in general surgery a chance to study topics relevant to the specialty, and supports preparation for final professional exit exams such as the FRCS.

Programme structure

Delivered through an online learning environment, the programme runs on a semester basis and involves 10-15 hours study each week in a flexible, modular manner. Knowledge and understanding will be assessed in Year 2 following completion of specialty courses, with a formal MCQ examination designed to replicate the FRCS exam.

YEAR 1 COURSES PREVIOUSLY OFFERED INCLUDE:

- Emergency Trauma, Critical Care and General Surgery 1 & 2
- Vascular & Transplant; Breast, Endocrine; Colorectal; Oesophago-gastric; Hepatopancreato-biliary.

YEAR 2 COURSES PREVIOUSLY OFFERED INCLUDE:

- Emergency Trauma, Critical Care and General Surgery 3; Core Academic Activity (Research Methodology; Study Design and Reflective ePortfolio); Specialist Academic Activity (Research Project); MCQ Examination.

Career opportunities

All of our students are in full-time surgical training posts during their study. The programme is designed to follow the FRCS curriculum and prepare the advanced trainee for their exit professional examinations. The award of CIM will highlight your commitment to continuing professional development and will ensure a competitive edge for those aspiring consultation.

Entry requirements

A medical degree (MRCS or equivalent) recognised by the General Medical Council. You should also have acquired MRCs (or equivalent assessment milestone) and be an advanced trainee in general surgery (UK ST 5/6 or equivalent).

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director Ewen Harrison

Email chm.info@ed.ac.uk

“ChM programme is a great practical and academic exercise for surgeons at the end of their general surgical training, looking to consolidate their knowledge as they prepare for independent practice.”

Ijeoma A Azodo, CIM in General Surgery

Global eHealth

PgCert 1-2 yrs PT, PgDip 5 or 10 weeks

Programme description

This programme aims to equip future leaders in eHealth to design, commission, lead and evaluate eHealth solutions, with a focus on improving patient outcomes by using cutting-edge technology to support healthcare systems and services. It combines theoretical and practical knowledge, preparing graduates for the healthcare and related sectors.

YEAR 1 COURSES PREVIOUSLY OFFERED INCLUDE:

- Introduction to Health Informatics and eHealth; Health Informatics - Core Technologies and Systems; The Ethics and Governance of eHealth; Telemedicine and Telehealth; The Business of eHealth.
- mHealth in High and Low Resource Settings; User-Centred Design; Public Health Informatics; Consumer and Patient eHealth; Managing Complex Public Health Data Sets; Clinical Data Science.

Career opportunities

Graduates will have the knowledge and skills to advance their existing careers or to pursue new opportunities within healthcare or government organisations, the innovation and corporate business sectors, global development agencies, or in research and consulting.

Entry requirements

A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in the field of clinical and allied health sciences, informatics, health policy, psychology, allied health sciences or a relevant related subject. We may also consider applicants with alternative qualifications, or equivalency professional experience; please contact us to check before you apply.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director Claudia Pagliari

Email global.ehealth@ed.ac.uk

Global Health & Infectious Diseases

MSc up to 6 yrs PT, PgDip up to 4 yrs PT, PgCert up to 2 yrs PT, PgDipDev up to 2 yrs PT

Programme description

This programme brings together a diverse community of online learners with trans-disciplinary opportunities to identify, explore and address regional and global health challenges related to infectious diseases. In the past few decades there has been almost one new disease emerging each year and more than 75% of these diseases derive from zoonoses. There is now more demand for investment and research to help us manage these diseases better. This programme aims to address this need and to be delivered by infectious diseases in the 21st century by offering you a range of courses focusing on a variety of global health contexts. This is a postgraduate qualification for biomedical, medical, public health, and veterinary personnel with an interest in global health and infectious diseases.

This programme is affiliated with the University’s Global Health Academy: www.ed.ac.uk/global-health

Fees and funding

See page 58.

Contact

global.ehealth@ed.ac.uk

For fees see page 58 and for funding information see page 60.

Programme Director Kim Pecizzly

Email ghid.onlinemscs@ed.ac.uk
Programme description
This programme is designed to equip those with a personal, academic or professional interest in global health to study a variety of related subjects and join colleagues and fellow students in a global community. The programme is structured to equip students with a comprehensive knowledge base in various aspects of global health. The emphasis is on the interdisciplinary nature of the subject and this is reflected by the wide range of courses it is possible to study within the programme – including animal health, biodiversity, global health, infectious diseases, sanitation and water issues, conservation and global citizenship.

Programme structure
Courses are taught entirely online. This is a postgraduate certificate for students from a diverse professional background but with a common interest in global health. The programme is modular, offering a flexible student-centred approach to the choice of courses studied; you may choose to study one or more individual courses or complete a sufficient number of course credits to be awarded the certificate. The programme is invoiced at course level, allowing you to choose your curriculum content and manage your learning within five- or 11-week teaching blocks, which are offered at fixed times across the academic year.

Career opportunities
We value interdisciplinary debate on our courses and effective, professional communication skills form an important part of the outcomes of the programme. Graduates can use their qualification to enhance their career prospects in international and national organisations and global health issues.

Postgraduate professional development
The courses we offer reflect the range of research and teaching interests of our academic staff and promote discussion of significant issues relating to global health – whether human, animal or environmental. These are credit-bearing courses which run for five or 11 weeks at a time, and which can be taken individually. You have the opportunity to lead to a University of Edinburgh postgraduate award of academic credit. You may take a maximum of 50 credits worth of courses through our postgraduate professional development scheme. These credits will be recognised in their own right at postgraduate level, or may be put towards gaining a higher award, such as a postgraduate certificate, postgraduate diploma or MSc.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in medicine, nursing, social science, science, biomedicine, or another related discipline. We may also consider your application if you have relevant work experience; please contact us to check before you apply.

Language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Director Liz Grant
Programme Coordinators David Christie
Kim Picozzi
Email globalhealthstudies.ed.ac.uk
Programme description
Livestock are vital to the lives of millions of people, but endemic and epidemic diseases that affect livestock limit productivity and exacerbate poverty. The diseases that can be transmitted between animals and people also threaten the health of livestock keepers, their families and their communities.

In many developing regions and animal health workers are often ill-equipped to deal with this risk. Building on a solid foundation of biological, immunological, pathological and epidemiological principles, this programme will equip you with the skills needed to identify, control and manage animal diseases and the expertise to tackle the international animal health challenges of the 21st Century.

This programme is affiliated with the University’s Global Health Academy, www.ed.ac.uk/global-health

Programme structure
You may study to postgraduate certificate or diploma or MSc level.

MSc up to 6 yrs PT, PgDip up to 4 yrs PT, PgCert up to 2 yrs PT, PgProfDev up to 2 yrs PT

Programme description
Neuroimaging for Research
Neuroimaging research techniques are now in demand from expanding areas of research, including animal health, medicine, neuroscience, psychology, education, engineering, and the humanities.

You will complete a dissertation, of between 10,000–15,000 words, on a topic of your own choosing.

CERTIFICATE COURSES PREVIOUSLY OFFERED INCLUDE:
- Techniques and Physics
- Applications in Disease
- Common Image Processing Techniques
- Practicalities and Safety.

DIPLOMA COURSES PREVIOUSLY OFFERED INCLUDE:
- Anatomy
- Statistics
- Study Design
- Common Image Processing Techniques
- Animal Health and Imaging.

MASTERS
You will complete practical work and assessments.

Career opportunities
This is an ideal programme to help you in your neuroimaging research based career, giving you advanced and well-recognised expertise in the field.

Postgraduate Professional Development
If you are looking for a shorter course option, we offer online credit-bearing courses which run for 11 weeks at a time. These lead to a University of Edinburgh postgraduate award of academic credit. You may take a maximum of 50 credits worth of courses through our Postgraduate Professional Development course.

You will have the option to complete courses in Paediatric Emergency Medicine (Surgical Emergencies & Trauma/Aneasthesia & Sedation and Additional Topics in Paediatric Emergency Medicine), or in Paediatric Critical Care Medicine (Paediatric Critical Care Medicine 1 and Paediatric Critical Care Medicine 2).

This programme will provide graduates with the skills and knowledge necessary to distinguish themselves not just as a patient safety advocate but as an expert (and leader) in the field. Healthcare management has a current focus on patient safety so a postgraduate qualification in this area could be seen as a means of securing promotion. This programme will be of interest to individuals who wish to play a leading role in driving patient safety and quality improvement initiatives.

Entry requirements
A 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in veterinary medicine, agricultural science, biology or a related science discipline. We may also consider your application if you have relevant work experience; please contact us to check before you apply. You may be admitted to certificate level only in the first instance.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Contact
Charis Alexakis
Email: neuroimaging.msc@ed.ac.uk

Key PT: Full time; PT: Part time.

www.ed.ac.uk/pg/241

www.ed.ac.uk/pg/234

www.ed.ac.uk/pg/667

www.ed.ac.uk/pg/962
Online learning programmes

**Primary Care Ophthalmology**

MSC up to 6 yrs PT, PGdip up to 4 yrs PT, PgCert up to 2 yrs PT

Programme description

This MSC, jointly offered by the University and the Royal College of Surgeons of Edinburgh, was developed in partnership with NHS Education for Scotland (NES). It supports optometrists seeking formal training in community-based clinical care with an interest in extended, shared care roles managing ophthalmic patients in partnership with ophthalmology and early career medical and surgical trainees entering ophthalmology specialist training. It is also relevant to GPs with a special interest in ophthalmology, nurses, orthoptists, dispensing opticians, ophthalmic science practitioners and other allied professionals. Courses align to the ophthalmology curricula of the Royal College of Surgeons of Edinburgh (RCoSEd), Royal College of Ophthalmologists (RCoOpth) and International Council of Ophthalmology and reflect the postgraduate curricula of the College of Optometrists in the UK.

Programme structure

You will study for a minimum of 10-15 hours a week, participate in online, in-course assessments and attend an end of year exam.

**Public Health**

MPH 3 yrs PT, PGdip 2 yrs PT, PgCert 1 yr PT, PgProfDev up to 2 yrs PT

Programme description

Public Health is about preventing disease, prolonging life and promoting health through the efforts of society. This is the ideal programme for those wishing to address today’s problems in public health. You will gain an understanding of how different scientific disciplines can be used to invest managers to then develop the best professional practice in epidemiology, public health and the social sciences of health. This programme is taught by lecturers at the Usher Institute for Population Health Sciences and Informatics, an interdisciplinary research hub that draws together researchers, clinicians and practitioners from public health, primary care, medical informatics and biomedical and social sciences. It incorporates the Centre for Population Health Sciences, the Centre for Medical Informatics and the Centre for Global Health Research, which is also a WHO Collaborating Centre for Population Health Research and Training. This programme is affiliated with the University’s Global Health Academy: www.ed.ac.uk/global-health

Programme structure

You can study to masters, diploma or certificate level. All students follow the same compulsory Year 1 courses, which provide a solid foundation in the fundamentals of public health, whilst a suite of option courses offer you the opportunity to explore areas of interest in more depth and to tailor the programme to your own learning needs and career goals.

**YEAR 1: CERTIFICATE COURSES PREVIOUSLY OFFERED INCLUDE:**

- Introduction to Public Health
- Introduction to Health Promotion
- Epidemiology for Public Health Practice
- Fundamentals of Health Economics
- Introduction to Epidemiology and Statistics

**YEAR 2: DIPLOMA COURSES PREVIOUSLY OFFERED INCLUDE:**

The following courses are compulsory: Public Health Policy; Introduction to Qualitative Research Methods; Research Design for Public and Global Health. You will then choose 30 credits of option courses (see online for full list).

**YEAR 3: MASTERS**

Either a dissertation project worth 60 credits or a compulsory 20-credit individual project. Integrating Public Health Practice, plus 40 credits of option courses. Stipulated academic requirements have to be met to move into year 3.

Career opportunities

This MSc will highlight your commitment to continuing professional development and lend a competitive edge when applying for clinical positions and share care roles across primary and secondary care. It will prepare you to integrate your academic or research into your career, without taking time out of training or practice, and offers first-rate preparation for the ophthalmology fellowship exams of the Royal College of Surgeons of Edinburgh (RCoSEd), the Royal College of Ophthalmologists (RCoOpth) and International Council of Ophthalmology.

Programme description

PET/MR Principles & Applications

PgCert up to 2 yrs PT

Programme description

Combining Positron Emission Tomography (PET) and Magnetic Resonance (MR) is an imaging technology which allows information on metabolic function, physiology and anatomy to be collected in a single scanning session for diagnostic and research purposes (such as investigating dementia and cancer).

This programme aims to disseminate hybrid imaging knowledge, skills, and understanding to enable effective and efficient PET-MR and PET-CT use clinically and in research, and to educate a new generation of hybrid imaging operators and users.

PET-MR scanners are increasingly being installed in clinical and research settings but current training in how to run and best use such facilities is limited, often requiring long periods of residency, away from work and other personal commitments. We are one of just seven UK centres with a PET-MR scanner and personnel with the expertise to run and use it. This programme harnesses our expertise and translates it into online learning opportunities which will allow you to train in this field without having to be resident in Edinburgh.

Programme structure

Compulsory courses are focused on topics relevant to understanding how PET and MR imaging modalities are brought together into a single scanning unit.

**COMPULSORY COURSES PROPOSED INCLUDE:**


**Career opportunities**

Completion of this programme will allow radiographers and other professionals to acquire a knowledge base and skill set that will support working in a PET-MR or PET-CT unit.

**Entry requirements**

A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry). In fields such as medicine, veterinary medicine, radiology, radiography, radiotherapy, nursing, biological sciences, biomedical sciences, pharmacology, chemistry, physics, engineering, image analysis, image processing, computer science, informatics, neurology, neuropsychiatry, psychology, stroke medicine, geriatrics, medicine of the elderly, or neurosciences. We may also consider your application if you have a minimum of three years’ work experience in a related scientific area, e.g. in hospital or research laboratories. Please contact us to check before you apply.

**English language requirements**

See page 58.

**Fees and funding**

For fees see page 58 and for funding information see page 60.

Programme Contact: Charis Alexakis

Email imaging.msc@ed.ac.uk

**Public Health**

www.ed.ac.uk/pg/868

**PET-MR Principles & Applications**

www.ed.ac.uk/pg/965

**Restorative Dentistry**

PgCert up to 2 yrs or 1 yr PT

Programme description

This programme provides masters-level education for primary care clinicians, with a particular emphasis on restorative dentistry. It is designed to meet the needs of dentists and those from all over the world.

The programme develops your ability to take an evidence-based approach to clinical practice and to assess and provide quality restorative dental care.

Programme structure

Each course will run over a period of five or 10 weeks with participation in online discussions and completion of timed tasks being a compulsory part of the process. The programme is supported by a virtual learning environment and all the educational material is available online.

Maintenance of a portfolio of evidence is an essential component of assessment. You are strongly encouraged to include a reflective element and to maintain a personal journal. There is a significant commitment of time required to complete this course and you will be required to take part in weekly tutorials and discussions. It is estimated that 15-20 hours a week of clinical time and personal study will be required.

**YEAR 1 (CERTIFICATE) AND YEAR 2 (DIPLOMA) COURSES PREVIOUSLY OFFERED INCLUDE:**

- Assessment & Management of Occlusion; Introduction to Clinical Evidence; Introduction to Dental Clinical Photography; Endodontics; Indirect Restorations; Oral Health Assessment & Diagnosis; Periodontal Management; Prevention & Management of Dental Caries; Restoration of Missing Teeth; Treatment Planning.

**YEAR 3: MASTERS**

You will complete a research project and carry out clinical case reports.

**Career opportunities**

This MSc does not allow entry to any specialist lists but will aid promotion in a general dental care career pathway, particularly within a salaried service.

General dental practitioners who wish to be involved with teaching or research will also find this an important qualification. The Faculty of General Dental Practice UK (FGDP(UK), at the Royal College of Surgeons of England, has accredited the programme towards its Fellowship career pathway.

**Summer school**

An annual five-day summer school will be run in the Edinburgh Dental Institute to reinforce the clinical skills coaching element of the teaching.

**Entry requirements**

A primary dental qualification (such as Bachelor of Dental Surgery), or its international equivalent (www.ed.ac.uk/international/graduate-entry), plus a minimum of one year's post-qualification experience in general dental practice or equivalent.

**English language requirements**

See page 58.

**Fees and funding**

For fees see page 58 and for funding information see page 60.

Programme Director: Donagh Lourie

Email msc.restorative dentistry@ed.ac.uk

**Online learning programmes**

www.ed.ac.uk/international/graduate-entry

www.ed.ac.uk/pg/886

www.ed.ac.uk/pg/789

www.ed.ac.uk/pg/886

www.ed.ac.uk/pg/789
Science Communication & Public Engagement

Programme description
The fields of science communication and public engagement are currently enjoying unprecedented growth. This is being driven by a greater need to demonstrate the impact of publicly-funded research, the need for science to be valued and a desire for a stronger evidence base for policy decisions. Many career opportunities are emerging at the interface between academic research and various stakeholders.

You will experience a variety of science communication and public engagement methodologies and you will engage with current science communication challenges. In the process, you will develop your ability to think critically and to effectively reflect on your practice. The learning from one course is transferable to other courses, thus ensuring interconnection across the programme.

This programme is affiliated with the University’s Global Academies: globaled.ac.uk/globalacademies

Please see page 31 for the on-campus version of this programme.

Programme structure

YEAR 1: CERTIFICATE COURSES PREVIOUSLY OFFERED INCLUDE:
Introduction to Science Communication and Public Engagement; Science and Society (A); Science and Society (B); Principles and Practice in Public Engagement with Science; Science Education; The Role of Social Media in Science Communication.

YEAR 2: DIPLOMA COURSES PREVIOUSLY OFFERED INCLUDE:
Dialogue for Science Communication and Public Engagement; Science, Policy and Practice; Science and the Media; Museum Exhibitions; Interpretation and Informal Learning; Creative Arts in Science Engagement; Principles and Practice in Public Engagement 2.

YEAR 3: MASTERS COURSES PREVIOUSLY OFFERED INCLUDE:
Science Communication and Public Engagement Dissertation. The masters dissertation can be a research or practical project.

Career opportunities
To address the need for effective science communication and public engagement with science, there has been a significant rise in the number of science communicators who are well equipped with an MSc in the subject, on account of the significant growth in demand for science communicators. These roles can be found in, for example, higher education institutions, research centres, museums, science centres, learned societies and consultancies for democratic decision-making. Examples of specific roles are engagement managers, information and education officers, press officers, science communication officers, science communicators for policy and knowledge brokers, in addition to the traditional science communications roles such as science writers, science journalists and science editors. These roles can also be found in, for example, higher education institutions, museums, science centres, science education centres, science communication centres, science communication agencies and science communication consultancies.

Surgical Sciences

Programme description
This online programme is jointly offered by the University and the Royal College of Surgeons of Edinburgh. It covers the UK Intercollegiate Surgical Curriculum. This programme gives you first-rate preparation for the Membership of the Royal College of Surgeons (MRCSEd) examination, with additional emphasis on acquired knowledge and its application. The third-year MSc research project also serves as an opportunity to develop an academic career in surgery.

Programme structure
Delivered through an online learning environment, students accumulate credits through a series of courses leading to a Postgraduate Certificate (PgCert), Postgraduate Diploma (PgDip) or MSc. At PgCert and PgDip levels, you must attend an end-of-year examination, held in a pre-approved local examination centre.

YEAR 1 COURSES PREVIOUSLY OFFERED INCLUDE:
Cardiorespiratory Science; Endocrine, Breast and Cell Biology; Gastrointestinal Surgery; Urology and ENT/OOMS; Locomotor System.

YEAR 2 COURSES PREVIOUSLY OFFERED INCLUDE:
Pre-operative Assessment and Peri-operative Care; Surgical and Communication Skills; Principles of Surgical Management; Critical Care and Trauma; Academic Surgery.

YEAR 3
A masters research project in which you will plan, execute and develop a research study, potentially involving clinical or laboratory research.

Career opportunities
All of our students are in full-time surgical training posts during their study. The CMM programme is designed to follow the FRCs curriculum and prepare the advanced trainee for their exit professional examinations. The award of CMM will highlight your commitment to continuing professional development and will ensure a competitive edge for those approaching consultancy.

Entry requirements
You must hold a medical degree (MBChB or equivalent) recognised by the General Medical Council and would normally have acquired your MRCS (or equivalent assessment milestone) and be an advanced trainee in surgery and orthopaedics (ST 5/6 or equivalent) and an advanced trainee in trauma and orthopaedics (ST 7 or equivalent) and be an advanced trainee in surgery (ST 7 or equivalent) and an advanced trainee in surgery (ST 7 or equivalent).

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Director
John McKinley & Matt Moran
Email: chm.info@ed.ac.uk

"I’m very satisfied and proud to be part of the ChM. The wealth of knowledge I’m gaining not only helps my clinical judgement for the patients’ benefit but helps me engage in academic discussions with my consultants." Surgical trainee
Postgraduate professional development

You can choose to study either a single course or multiple courses via the Postgraduate Professional Development (PPD or PgProDev) scheme. This is aimed at working professionals who want to advance their knowledge through a postgraduate-level programme, without the time or financial commitment that is required to embark on a full masters degree, postgraduate diploma or postgraduate certificate.

Individual courses on many of our online programmes may be taken as academic credit-bearing, PPD. You may take a maximum of 50 credits worth of courses through our PPD scheme. These credits will be recognised in their own right at postgraduate level, or may be put towards gaining a higher award, such as a postgraduate certificate or diploma, or an MSc. PPD is an excellent choice if you only want to take a single course or if you are unsure about either the commitment required or the experience of studying online.

Full details can be found online: www.ed.ac.uk/medicine-vet-medicine/professional-development

See also...
You may also be interested in our on-campus programmes (see pages 24-31) or the online learning programmes offered elsewhere in the University, particularly One Health, offered by the Royal (Dick) School of Veterinary Studies. www.ed.ac.uk/studying/prospectus-request

“What I like best about my programme is its flexibility and accessibility. With my unpredictable work schedule, I am grateful for the opportunity to study when, where and how I can. It has been great.”
Kristina Thompson, MSc Clinical Education (online learning)
On-campus taught masters and masters by research programmes

Our on-campus programmes are designed to develop knowledge or techniques in specialised subjects that are studied more generally at undergraduate level.

**Taught masters**

**What are they and who are they for?**
A taught masters programme is an intensive, higher level academic degree normally consisting of a series of taught courses, delivered through lectures, tutorials and practical work, and culminating in the submission of a dissertation or project. A taught masters can be completed in one year full time or up to six years part time.

A taught masters is the choice for you, if you have completed an undergraduate degree and want to develop more specialised knowledge in the same subject area. It might also be the right choice if you want to change or develop your area of specialisation. This might be particularly relevant if your career aspirations involve professional examinations or qualifications.

**Why choose a taught masters degree and what to expect?**
A taught masters will provide you with an excellent opportunity to delve deeper into a specific area of knowledge or to acquire expertise in a field that you haven’t studied academically before. You will develop a well-rounded and transferable skill set, including time management, communication, project management and critical analysis, that will enhance your employability. The qualification will show potential employers that you have drive and motivation. The knowledge and skills you will learn will enhance your CV and help you stand out from the crowd in the competitive jobs market.

**Destinations**
Recent data shows that of students completing a Masters by Research in Edinburgh, 57 per cent went on to further study (mostly PhD programmes), and 35 per cent entered work – 87 per cent of these in graduate-level jobs.

**Masters by research**

**What are they and who are they for?**
A masters by research is for you if you want to increase your specialised subject knowledge and gain experience of practical research work in an environment that promotes independence. A masters by research will get you out of the classroom and into a working environment. You will learn by undertaking focused project work, embedded in an established research area, combined with elements of training in vocational and translational skills. A masters by research will be ideal if you are considering a PhD but would like more research experience beforehand, or if you simply want to increase your research experience before entering employment.

**Why choose a masters by research and what to expect?**
A masters by research provides direct experience of the realities of working at the forefront of academic research. Typically you will undertake up to three individual research projects during the year, under the supervision of an active member of research staff. You will learn how to conduct research, perfecting the techniques relevant to your project alongside approaches to project management. You will be expected to develop the ability to plan and work independently but within a team structure. The skills you obtain will prepare you for a higher degree (PhD) or a career in research (academic or industrial) and will provide you with planning, problem solving and analytical abilities relevant to a range of different career paths.

**Destinations**
Recent data shows that of students completing a Masters by Research in Edinburgh, 57 per cent went on to further study (mostly PhD programmes), and 35 per cent entered work – 87 per cent of these in graduate-level jobs.

“...My programme is designed to build your skills and techniques, which will be beneficial in both academic and industrial careers, irrespective of your background. It also gives you valuable opportunities to meet and interact with renowned scientists from across the biomedical sector.”

Nithya Nair,
MSc by Research Biomedical Sciences
Biomedical Sciences (Life Sciences)

MSc by Research 1 yr FT

Programme description
The programme includes core skills training, seminars, taught courses and laboratory projects in our world-recognised research facilities. You will carry out two 20-week research projects; a research proposal is prepared for the second project.

Programme structure
The programme includes core skills training, seminars, taught courses and laboratory projects in our world-recognised research facilities. Students will carry out two 20-week research projects; a research proposal is prepared for the second project.

PROJECT 1 (SEPTEMBER TO MARCH)
Projects previously offered have included those in the research areas of: Cardiovascular Biology; Cell Communication; Genomics & Biological Pathways; Infectious Diseases; Mechanisms of Inflammatory Disease; Reproductive Science; Stem Cells; Tissue Injury and Regenerative Medicine.

PROJECT 2 (APRIL TO AUGUST)
Projects previously offered have included those in the research areas of: Biological Architecture; Biomedical Imaging; Cancer Biology; Genes & Disease; Genomic Technologies; Molecular & Cellular Mechanism of Inflammation; Reproductive Science.

You may also be able to undertake projects in integrative neuroscience or in other areas of biomedical sciences, with the permission of the Programme Director.

RESEARCH PROPOSAL
You will submit a research proposal based on the work performed for Project 2. This takes the form of a grant application, as would be prepared for a research organisation, and is assessed.

Career opportunities
This programme is an excellent stepping stone to a PhD, or a career in biomedical research or industry. Most of our recent graduates are pursuing further research, working for universities, research institutes and pharmaceutical companies in the UK, US and Asia.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in biological, chemical or physical sciences.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Director
Paul Le Tissier
Email paul.le-tissier@ed.ac.uk

"My masters by research gave me the chance to undertake two very different projects. This helped me to decide on my future career, while building a wide range of skills.”

Nithya Nair, MSc by Research Biomedical Sciences

Cardiovascular Biology

MSc by Research 1 yr FT

Programme description
This programme provides broad-based training in biomedical research with a focus on cardiovascular biology. Subject areas are aligned with the themes pursued by researchers within the Centre for Cardiovascular Science and include cardiovascular injury, repair and regeneration; metabolism, obesity and diabetes; hypertension and renal; and cardiometabolic imaging. You will gain integrated training in the physiology and pathology of the cardiovascular system from both basic and clinical scientists, with opportunities to gain experience in cutting edge methodologies.

Although the majority of your time will be spent conducting laboratory-based research, structured teaching from leading principal investigators is also included within the course to provide a wide-ranging overview of the field.

Programme structure
You will carry out two 10-week research projects and one 20-week research project. Each research project will be followed by a final scientific report. Prior to initiating your final 20-week project, you will compile a research proposal. You will also deliver a research-oriented presentation and gain skills in critical reading of scientific literature. Experts in their scientific field will provide twice-weekly tutorial and lecture-style teaching, and there will be opportunities for you to attend guest seminars from internal and external speakers throughout the year.

Career opportunities
This is the ideal programme for high-achieving students who wish to progress to a PhD in cardiovascular science.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in a relevant biological discipline, or a medical/veterinary degree.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Director
Scott Webster
Email scott.webster@ed.ac.uk

"I started studying the MSc Human Anatomy because I’d always wanted to do medicine, but had applied and didn’t get in. I have now got a place to study medicine but, as I enjoyed my masters so much, I intend to go into some kind of medical education, as well as being a practising doctor, when I graduate.”

Chloe Gelder, MSc Human Anatomy graduate

Endodontontology

DClinDent 3 yrs FT

Programme description
This programme will enrol general dental practitioners who are seeking to become specialist practitioners in the discipline of endodontology.

You will take lectures and seminars along with a component of supervised clinical work in order to meet the General Dental Council (GDC) requirements for entry on to the specialist list. Upon completion, you will also be eligible to sit the specialist exit examination (MEndo) at the Royal College of Surgeons.

Programme structure
This programme is designed to provide general dental practitioners with the academic and clinical skill set of a specialist in endodontology. It will use a blended structure of specialist-supervised clinical training in both endodontics and the other restorative disciplines, as well as a structured academic seminar and lecture programme. Upon completion of the DClinDent you will be eligible to sit the specialist exit examination in the mo-nospecialty at the Royal College of Surgeons of Edinburgh or London.

Career opportunities
On graduation, you will find opportunities in private practice, public healthcare settings and academia. Many graduates will have multiple roles and you will be encouraged to develop into the teachers of tomorrow within the discipline of endodontology.

Entry requirements
A primary dental qualification (such as Bachelor of Dental Surgery), or its international equivalent (www.ed.ac.uk/international/graduate-entry), plus a minimum of two years’ post-qualification experience.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Vasiliki Pothitou
Email pg.dentistry@ed.ac.uk

www.ed.ac.uk/pg/244

www.ed.ac.uk/pg/205

www.ed.ac.uk/pg/967

The University of Edinburgh
Medicine & Biomedical Sciences Postgraduate Opportunities 2020

www.ed.ac.uk/medicine-vet-medicine/postgraduate
Human Anatomy

Programme description
Our programme aims to improve your theoretical and practical knowledge of human anatomy and to develop your skills as an effective teacher of this subject.

This programme has two main strands. One is the in-depth study of the anatomy of the human body. Anatomical knowledge will be learned to a level to teach undergraduate and postgraduate students and professions allied to medicine. This strand will involve the dissection of a body in groups of three to five students. The other strand is anatomy pedagogy, covering the theoretical and practical aspects of teaching anatomy.

Alongside theoretical lectures and workshops, you will focus on observing the teaching of anatomy to medical undergraduate students, then prepare and carry out your own teaching sessions. Complementing these strands will be an embryology course providing you with an understanding of normal human development and how it can go wrong, manifested in commonly observed congenital abnormalities. You will also study neuroanatomy, the health and safety of embalming procedures and handling bodies, the legal and historical aspects of anatomy in Scotland and the UK, an introduction to the ethics of using bodies in medical education and explore clinical techniques used to image the body.

Programme structure
The programme is made up of five courses plus a summer dissertation project. You will study: Basic Human Anatomy, Imaging, Embryology 1; Anatomy Law and Ethics; Neuroanatomy. Teaching Anatomy. Your dissertation will include a 10,000 word report and an oral presentation.

You will have the option to leave after the second semester and, based on your credits, a diploma could be awarded. Alternatively, to gain your masters, you need to complete the dissertation project, which can be either library-based, practical-based or laboratory-based.

Career opportunities
This programme has been designed to help you understand and teach anatomy.

Entry requirements
A UK 2.1 honours degree, or its international equivalent.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Medical Sciences

MSc by Research 1 yr FT

Programme description
The Master of Medical Sciences programme is the only one of its kind in the UK and is proven to give graduates the competitive edge in the job market. It's designed for high-achieving medicine graduates who want to explore and benefit from medical research, perhaps with a view to pursuing a PhD or a career in research. We offer you the opportunity to undertake a research project in a laboratory or department relevant to your specialism. The choice of research projects carried out is wide and ranges from bench research to clinical research. You will need to secure a supervisor and project before starting the programme.

Programme structure
The programme begins with a month of teaching, providing you with an overview of the whole range of techniques used in medical research. In the first two weeks you will attend lectures on subjects ranging from stem cell biology to ethics and clinical trials. You will also receive training and will attend practical workshops in cell biology and molecular medicine. While you are learning these subjects you will be taught practical techniques, including basic tissue culture, and how to run polymerase chain reactions and western blots.

Around 20 per cent of the course will consist of taught classes and seminars. The rest is spent in your host department. To consider your research interests and opportunities we advise you to visit Edinburgh's Clinical Academic Training centre (ECAT) www.ed.ac.uk/medical-sciences or speak to the Programme Director.

Career opportunities
Around a quarter of our students continue to PhD study. Those who choose to return to clinical practice do so with a broader experience of research than is afforded by the undergraduate clinical medicine curriculum. As an example, we have graduates who completed the programme working as MD, Orthopaedic registrar and Paediatrics resident.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry).

Programme Director
Richard Weller
Email richard.weller@ed.ac.uk

Fees and funding
For fees see page 58 and for funding information see page 60.

Molecular Pathology & Genomic Medicine

PgCert 1 yr PT

Programme description
This programme is aimed primarily at NHS laboratory and clinical staff. It is designed for anyone wishing to expand their understanding of molecular pathology and how it applies to clinical diagnosticians. The practice of medicine, especially in the disciplines of pathology and genetics, is increasingly reliant on genomic technology. This programme aims to increase the knowledge and capability of scientific and clinical staff using genetic data in their daily work, allowing you to engage confidently with the scientific concepts of molecular pathology and genomic medicine, and to use your skills to improve patient care. It could also provide a foundation for a clinical academic career.

The University of Edinburgh is at the forefront of genomic technology. To adequately realise the potential of these technologies in a diagnostic setting this programme will cover the scientific underpinning and clinical application of genomic technology to enable clinicians and scientists to provide maximum benefit to patients.

The programme is designed around central themes of scientific foundation, diagnostics, and patient management and treatment. It will provide a structured environment in which to develop cutting edge knowledge and practical skills in clinical genomics and molecular pathology. Upon graduation you will be able to:

• explain how genetic variation is involved in human disease and the development of cancer;
• critically evaluate molecular pathology diagnostics and select the appropriate diagnostic for disease stratification to determine patient treatment;
• analyse next generation sequence data in the context of germline mutations that cause human genetic disease, and somatic mutations involved in cancer; and
• understand how genetic variation can be a major determinant of patient treatment and apply this knowledge to clinical scenarios in genomic medicine and molecular pathology.

Programme structure
You will study two compulsory courses including an extended project. You will develop critical analysis and communication skills and learn how to perform variant analysis and next generation sequencing data analysis using relevant bioinformatics tools.

Career opportunities
Graduation will be of benefit to a wide range of individuals as this qualification can be used to support FRC Path, Clinical Scientist Development and Genetic Technologies registration. It can be used as a component of STP and could potentially contribute the first 60 credits towards an MSc. It will also provide the scientific underpinning to genetic counselling.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in a medical, biomedical or nursing area. We may also consider your application if you have a 2.2 degree and at least three years’ relevant laboratory experience; please contact us to check before you apply.

Programme Director
Dr Mary Porteous
Email mary.porteous@ed.ac.uk

Fees and funding
For fees see page 58 and for funding information see page 60.

Neuroscience (Integrative Neuroscience)

MSc by Research 1 yr FT

Programme description
This is a one-year, full-time research programme covering all levels of modern neuroscience, which makes it an ideal programme to prepare you for a PhD. We include molecular, cellular, systems, regenerative, cognitive, clinical and computational neuroscience. We also allow you to choose your specialism right from the start, allowing you to shape your learning around your interests and career goals.

Programme structure
You will start with a taught component in the first 12 weeks, and attend ‘themed weeks’, which run in parallel with option courses.

RESEARCH PROJECT
For your research you can choose available projects or contact principal investigators from more than 120 groups in the Edinburgh neuroscience community to develop your own project, on any topic chosen from a broad range, from psychology to nanoscience.

Career opportunities
This programme is designed to help you in your research career. A high number of students proceed to PhDs at Edinburgh and elsewhere. Other positive next destinations include continued medical studies, teaching and research assistance posts.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in biological sciences (including neuroscience) or a medical, dental or veterinary degree.

Programme Director
Thomas Becker
Email thomas.becker@ed.ac.uk

Fees and funding
For fees see page 58 and for funding information see page 60.

It’s easy to find your place here.” Artemis Papadaki-Anastasopoulou, MSc by Research Integrative Neuroscience
Entry requirements

A primary dental qualification (such as Bachelor of Dental Surgery), or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), plus a minimum of two years’ post-qualification experience. All successful applicants will be required to join Disclosure Scotland’s Protecting Vulnerable Groups (PVG) Scheme before starting the programme. In addition, all applicants who do not live in the UK, or who have spent more than a year abroad, will need to provide equivalent verification from the relevant national authority.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director

Julie Burke
Email anna.atluri@ed.ac.uk

Key FT: Full time. PT: Part time.

Programme description

This programme aims to provide dental professionals with the skills, knowledge and experience to work independently and contribute to the development of evidence-based orthodontic care.

Entry requirements

A primary dental qualification (such as Bachelor of Dental Surgery), or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), plus a minimum of two years’ post-qualification experience. All successful applicants will be required to join Disclosure Scotland’s Protecting Vulnerable Groups (PVG) Scheme before starting the programme. In addition, all applicants who do not live in the UK, or who have spent more than a year abroad, will need to provide equivalent verification from the relevant national authority.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director

Antoniaieta Busuttil-Naudi
Email anna.atluri@ed.ac.uk
On-campus taught programmes

Niall Anderson and Margaret Douglas

For fees see page 58 and for funding information see page 60.

Fees and funding

Career opportunities

MPH 1 yr FT (2 yrs PT available for UK/EU students)

Programme description

Public Health is about preventing disease, prolonging life and promoting health through the organised efforts of society. This is the ideal programme if you have a professional or new to the subject and you wish to address today’s problems in public health.

You will gain an understanding of how different scientific disciplines can be used to investigate and develop the best professional practice in epidemiology, public health and sociomedical ethics and health.

This programme is based in the Usher Institute for Population Health Sciences and Informatics, an interdisciplinary research hub which draws together researchers, clinicians and practitioners from public health, primary care, medical informatics and biomedical and social sciences.

The institute incorporates three research centres: the Centre for Population Health Sciences, the Centre for Medical Informatics and the Centre for Global Health Research. The last of these is also a WHO Collaborating Centre for Population Health Research and Training.

In addition, the programme is affiliated with the university’s Global Health Academy.

Programme structure

The year is divided into two semesters of taught courses, followed by completion of a dissertation between May and August. Teaching is by lectures, seminars and workshops. Course assessments are mainly essay-based, with a few examinations and presentations. Your dissertation can involve either a review of existing research or analysis of data from a secondary source or collected especially for your dissertation.

COMPULSORY COURSES PREVIOUSLY OFFERED INCLUDE:

Introduction to Epidemiology; Introduction to Qualitative Research; Introduction to Statistics; Introduction to Systematic Reviews; Principles of Public Health.

OPTION COURSES PREVIOUSLY OFFERED INCLUDE:

Advanced Epidemiology; Communicable Disease Control and Environmental Health; Developing and Evaluating Complex Public Health Interventions; Further Statistics; Genetic Epidemiology; Global Health Epidemiology; Health in All Policies and Health Impact Assessment; Health Promotion; Investing in Global Health and Development; Public Health Ethics; Qualitative Research in Health; Sociology of Health & Illness; Statistical Learning.

Career opportunities

This programme will prepare you for a career in research or academia, professional public health service, clinical epidemiology, health technology assessment, public health protection and a wide range of national and international organisations concerned with preventing disease and improving the health of populations.

Entry requirements

A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in medicine, nursing, social sciences, biology, or a related discipline.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Directors

Hilliard Anderson and Margaret Douglas

Email mph.campus@ed.ac.uk

Reproductive Sciences

MSc by Research 1 yr FT

Programme description

This programme aims to introduce you to modern molecular and cellular biological research in the field of reproductive sciences, reproductive health and reproductive medicine in a stimulating, challenging and vibrant research atmosphere, at the interface between basic science and clinical and patient care. The programme is intended for high-achieving students with biological, clinical and veterinary backgrounds.

Research topics offered include problems in all reproductive organs, and throughout pregnancy and labour, in the fetus and neonate, and in male fertility. Reproductive medicine is increasingly required in the treatment of chronic disease in adulthood. The MRC Centre for Reproductive Health (CRH) has close links with other internationally recognised research centres. Many student projects are organised in collaboration with these centres, reflecting the interdisciplinary research environment, where students and trainees are regarded as the lifeblood of the future. Research at the CRH addresses questions of crucial importance to reproductive health that have implications for resilience and repair in other organs.

Programme structure

The programme provides a core grounding in basic science and interlinked medical aspects of reproductive sciences. It is delivered through a two-week laboratory skills training course, followed by two 20-week laboratory-based research projects. These projects provide you with hands-on laboratory experience and training in a wide range of techniques in molecular and cellular biology. You will also gain professional and scientific skills such as effective communication, and scientific writing through project reports and a grant application.

Alongside the project work there is a series of lecture courses and seminars delivered by internationally recognised experts, together with both staff- and student-led small-group tutorials.

Career opportunities

This programme is the ideal route for those wishing to embark on a PhD, or a technical laboratory role, in the field of reproductive health, reproductive biotechnologies, clinical and veterinary fields. The skills gained are also readily transferable into careers at the clinical laboratory interface and in the broader biosciences industry. This programme does not amount to training to become a clinical embryologist.

Entry requirements

A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in a relevant biological, medicine or veterinary medicine discipline.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director

Richard Smith

Email r.smith@med.ed.ac.uk

Science Communication & Public Engagement

MSc 1 yr FT

Programme description

This MSc aims to equip students with specialist knowledge, skills and attributes necessary to pursue roles at the interface between scientific research and the public. Such roles might include engagement managers, and information and education officers, in environments such as museums, science centres and higher education institutions.

Entry requirements

A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/internationalgraduate-entry), in a science-related subject. We will also consider your application if you have other qualifications, a UK honours degree level and relevant experience.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director

Elizabeth Stevenson

Email e.stevenson@ed.ac.uk

See also...

You may also be interested in masters programmes offered by other schools of the University, particularly the School of Biological Sciences, the School of Chemistry, the School of Health in Social Science and the School of Social & Political Science.

www.ed.ac.uk/studying/prospectus-request
Studying for a PhD: a world-class research experience

We produce world-leading and internationally-recognised research. Our research centres and institutes are based at campuses across the city, providing an exceptional environment for trainees.

What are the different types of doctoral study and who are they for?

We offer a number of different models for PhD study, including:

- the traditional 3-year research programme;
- 3.5- and 4-year programmes;
- 1+3 programmes, with an introductory masters by research year followed by the PhD project;
- PhDs with integrated study, in which you take credit bearing courses to complement your research work; and
- studentships with an industrial placement.

Many of our programmes have the option of part-time as well as full-time study. Increasingly, our PhD programmes are cohort-based, allowing you increased administrative and peer support to complement the support you receive from your supervisors.

Why to choose our different doctoral study options and what to expect?

For many students, the choice of programme is directed by the research on offer, enabling specialised research training in a specific subject area. Some students may want to start immediately on their PhD project, while others prefer the opportunity to take a 1+3 programme and gain experience of several different projects before deciding which is their preferred PhD.

Where will you study – our institutes and research groups

The College of Medicine & Veterinary Medicine has facilities in several different parts of the city. Most of our research is conducted in modern state-of-the-art research centres or institutes. You will be embedded in the team of your research supervisor(s) but collaboration is encouraged, providing you with the opportunity to work with colleagues in different labs. You should expect to work hard in well-equipped labs under the supervision of committed and supportive senior staff.

How to become a research student with us

The best way to apply to become a PhD student at the University of Edinburgh is through the links to specific programmes on our website or through FindAPhD.com. If you are interested in specific projects, we recommend you contact the member of staff linked to the project to ask for further details.

Destinations

Completing a PhD opens up a multitude of potential career pathways for our graduates. These include careers in academia, industry, science engagement and communication, and scientific writing.

Natalie Courtney
PhD Integrative Physiology

“My PhD looked to further our knowledge of Spinal Muscular Atrophy (SMA), a motor neuron disease that predominantly affects children. Motor neurons are extremely long cells that connect the spinal cord to muscles and allow our muscles to move. In SMA, motor neurons break down and as a result patients experience progressive paralysis. I investigated where and how this breakdown begins in order to better understand where we need to be targeting a therapy that can stop this from happening.”

Why is your research important?

“Research into SMA has been incredibly successful in the past few years and huge breakthroughs have meant that the first therapies are now beginning to become available for patients. However, it is widely accepted that these therapies can still be improved and the only way to do this is by continuing to increase our understanding of what exactly is causing the symptoms of this disease.”

“Ultimately, I hope that by continuing to increase our knowledge surrounding the breakdown of motor neurons, we can continue to help those affected by this disease and indeed all motor neuron diseases.”

Bérengère Digard
PhD Psychiatry

“My research project has taught me such a huge and diverse set of skills. I feel I will be able to rely on what I’ve learned during my PhD no matter where my career takes me, whether it is in academia or not.”
Research opportunities

Many of our research areas are available to study at PhD and MSc by Research level.

We offer two types of masters by research (MSc by Research) programme. Those listed in this section are pure research programmes where you will spend 12 months in one lab working on one project. This gives you an excellent grounding in research that can serve as a stepping stone to a PhD. Alternatively we offer MSc by Research programmes that contain a significant taught element (see pages 24-31), allowing you to study two 20-week research projects in two different lab environments, and MMedSci by Research Medical Sciences (see page 26) which begins with a month of teaching before you spend the rest of the year in one lab.

A PhD is a research programme entailing research training and supervised research, either on an individual basis, or as part of a team. The aim of the PhD is to provide a thorough training in the particular academic area, through original investigation and experimentation. A PhD typically takes three years to complete and is assessed by thesis.

Potential applicants should get in touch with the contacts listed under the relevant area to informally discuss their proposed project before applying.

Funded PhD programmes

Several of our PhD programmes offer eligible UK/EU candidates full funding for the duration of study. If you are not eligible for funding, you are still welcome to apply to study on these programmes but will be required to self-fund or identify an external source of funding. Our funded PhDs include:

- BBSRC EASTBIO Doctoral Training Partnership (DTP)
- Cancer (Edinburgh Cancer Research Centre)
- Centre for Cardiovascular Science studentships
- EPSRC and MRC Centre for Doctoral Training in Optical Medical Imaging (OPTIMA)
- Medical Research Council (MRC) DTP in Precision Medicine
- MRC Centre for Reproductive Health
- MRC Human Genetics Unit
- Wellcome Trust 4-year PhD in Tissue Repair
- Wellcome Trust 4-year PhD in Translational Neuroscience

For further information, see: edin.ac/mvm-funded-phds

Additional funding opportunities

Many of our other PhDs may also offer funding. Available funding will usually be advertised on the relevant programme page online and on FindaPhd.com. For further funding information, please see page 60.

Entry requirements

You should have an undergraduate degree in medicine or veterinary medicine, or a UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in an appropriate subject. For PhD, a UK masters degree or equivalent may also be required. Please check the specific entry requirements for your programme online before applying. Higher qualifications such as doctor of clinical dentistry (DClinDent), doctor of dental surgery (DDS) and doctor of medicine (MD) have additional requirements. Please view their programme entries online for full details.

www.ed.ac.uk/pg/190

Anatomical Sciences
(Biomedical Sciences)

Research profile

Anatomical sciences research encompasses a broad range of subjects and interests, with a common focus on understanding the underlying structure of the body in health or during disease (mainly human, but sometimes also comparative).

Our research interests and strengths span from high-resolution investigations of the human nervous system through to tissue engineering (building new body parts) and anatomical education research.

Many of these areas engage multidisciplinary approaches, where anatomists work alongside clinicians, data scientists, engineers, chemists and educational theorists.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact
Postgraduate secretary
Email bmsm-postgraduate@ed.ac.uk

www.ed.ac.uk/pg/237

Cancer (Edinburgh Cancer Research Centre)

PhD 3-4 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile

Edinburgh Cancer Research UK Centre (ECRU), based at the Western General Hospital, strives to take a comprehensive approach to cancer research, combining both laboratory-based research and clinical approaches. The Centre studies the genetic and biological basis of cancer and disease pathology and devises and tests new forms of therapy arising from our basic, translational and clinical research programmes. Our aim is to carry out high-quality research into effective cancer prevention, diagnosis and treatment, as well as the symptoms associated with cancer.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact
Professor Valerie Brunton
Email student-admin@igmm.ed.ac.uk

www.ed.ac.uk/pg/208

Cardiovascular Science

PhD 3-4 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile

The Centre for Cardiovascular Science aims to foster and deliver research into the causes, consequences and therapy of cardiovascular diseases. We offer postgraduate students the opportunity to work within internationally-leading research programmes addressing fundamental development and control of the cardiovascular system and the origins and consequences of cardiovascular disease.

Major research efforts are directed at the metabolic syndrome and risk factors for cardiovascular disease, mechanisms of atherosclerotic plaque formation and disruption, prenatal programming of cardiovascular disease, renal dysfunction and hypertension, mechanisms of endothelial dysfunction, circadian biology and cell biology.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact Matthew Bailey
Email matthew.bailey@ed.ac.uk

www.ed.ac.uk/pg/209

Child Life & Health

PhD 3 yrs FT (6 yrs PT available for UK/EU students)

Research profile

Child Life and Health conducts research in paediatric and adolescent medicine. We seek to foster and deliver internationally-leading research and training into the causes, consequences and management of childhood onset diseases as well as optimising the healthy development of children and younger people.

Our main areas of research include brain and acute injury, brain and handicap, cancer and late effects, gastroenterology and nutrition, growth and endocrinology, immunology of respiratory viral infections, asthma and allergy, and surgery.

We collaborate with National Health Service (NHS) researchers including the Royal Hospital for Sick Children, the Simpson Centre for Reproductive Health and Community Paediatrics, Lutthian Primary Care Trust and NHS Greater Glasgow and Clyde. We also have ongoing collaborations within the University.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact Jurgen Schwarze
Email jurgen.schwarze@ed.ac.uk

www.eastscotbiodtp.ac.uk

BBSRC EASTBIO Doctoral Training Partnership

PhD 4 yrs FT

Research profile

The EASTBIO programme covers training linked to research skills, core bioscience and transferable skills, as well as the Professional Internships for PhD Students (PIPS) scheme. EASTBIO DTP provides world-class bioscience doctoral training in four areas of strategic priority: basic bioscience underpinning health (aging), bioenergy and industrial biotechnology; food security; and world-class bioscience. We offer an excellent programme of collaborative training for PhD students at four of the UK’s leading research universities – Aberdeen, Dundee, Edinburgh and St Andrews.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

EASTBIO studentships cover fees and stipend for four years. Studentships are subject to Research Council funding eligibility criteria. We have a limited number of studentships for which EU nationals can apply.

Contact Maria Filipakopoulos
Email enquiries@eastscotbiodtp.ac.uk
Clinical Brain Sciences

PHD 3 yrs FT (6 yrs PT available for UK/EU students)

Research profile
The Centre for Clinical Brain Sciences (CCBS) is a multidisciplinary translational centre without walls that combines basic and applied research to study the causes, consequences and treatment of major brain disorders. It is a major University interdisciplinary group that comprises the Division of Clinical Neurosciences (www.ed.ac.uk/clinical-brain-sciences) and the Division of Psychiatry (www.ed.ac.uk/psychiatry).

Our research approach is to integrate laboratory and clinical studies using a range of experimental tools and methodologies that include:
- human stem cells
- disease modelling
- advanced clinical imaging
- epidemiological based observational disease cohort studies
- clinical trials – first into man and large-scale international trials; and
- systematic reviews of treatments (experimental and clinical).

As a postgraduate student you are mentored and supported by at least two supervisors and receive longer term guidance from your thesis committee. We offer a transferable skills programme and project specific courses. PhD meetings and an annual CCBS Day offer valuable opportunities for interdisciplinary collaboration.

English language requirements See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact Programme administrator
Email ccbs.phd@ed.ac.uk

Clinical Education

PHD 3 yrs FT (6 yrs PT available for UK/EU students)

Research profile
This PhD builds on our world-renowned expertise in the field of clinical education, and our well-established and respected Masters in Clinical Education programme.

It is ideal for those wishing to further their career in academic clinical or medical education, who already have experience of delivering education for healthcare professionals, whether students, doctors, nurses, allied health professionals, or dental or veterinary practitioners, or want the opportunity to undertake independent high-quality research in clinical education.

Our particular interests are:
- assessment; and
- postgraduate learning and teaching.

We also have methodological expertise in qualitative approaches and psychometrics. We enjoy good collaboration between university faculty, clinicians, NHS Education for Scotland and other institutions.

Entry requirements
A master's degree in a relevant field e.g. clinical, medical or health professions education is required as well as a primary clinical qualification, such as an MBChB, BVS, BDS, Bachelor of Nursing or other degree.

Applications from those with biomedical or social science qualifications, such as an MBChB, BVS, BDS, Bachelor of Nursing or other degree, are welcome. Applicants from those with biomedical or social science qualifications, or non-university professional qualifications such as RGN with appropriate clinical experience, may be considered. You must have experience of clinical, medical, allied healthcare or veterinary education, for example teaching undergraduate or postgraduate students.

English language requirements See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact Derek Jones
Email derek.jones@ed.ac.uk

My supervisor has allowed me the freedom and opportunity to explore interesting questions, even if they were not the primary aim of my PhD at the outset.”

Tim Wilkinson, PhD Clinical Brain Sciences

Contact Programme administrator
Email ccbs.phd@ed.ac.uk

Key
FT: Full time. PT: Part time.

Pharmacy

PHD 3 yrs FT (6 yrs PT available for UK/EU students)

Research profile
This PhD builds on our world-renowned expertise in the field of clinical education, and our well-established and respected Masters in Clinical Education programme.

It is ideal for those wishing to further their career in academic clinical or medical education, who already have experience of delivering education for healthcare professionals, whether students, doctors, nurses, allied health professionals, or dental or veterinary practitioners, or want the opportunity to undertake independent high-quality research in clinical education.

Our particular interests are:
- assessment; and
- postgraduate learning and teaching.

We also have methodological expertise in qualitative approaches and psychometrics. We enjoy good collaboration between university faculty, clinicians, NHS Education for Scotland and other institutions.

Entry requirements
A master's degree in a relevant field e.g. clinical, medical or health professions education is required as well as a primary clinical qualification, such as an MBChB, BVS, BDS, Bachelor of Nursing or other degree.

Applications from those with biomedical or social science qualifications, such as an MBChB, BVS, BDS, Bachelor of Nursing or other degree, are welcome. Applicants from those with biomedical or social science qualifications, or non-university professional qualifications such as RGN with appropriate clinical experience, may be considered. You must have experience of clinical, medical, allied healthcare or veterinary education, for example teaching undergraduate or postgraduate students.

English language requirements See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact Derek Jones
Email derek.jones@ed.ac.uk

“... has allowed me the freedom and opportunity to explore interesting questions, even if they were not the primary aim of my PhD at the outset.”

Tim Wilkinson, PhD Clinical Brain Sciences

Contact Programme administrator
Email ccbs.phd@ed.ac.uk
Doctor of Medicine

Research profile
The MD is a higher qualification undertaken by clinically-qualified staff normally during their postgraduate medical training. A thesis for the award of MD must deal with one or more of the subjects of study in the curriculum for the programmes of MBChB or with subjects arising directly from contemporary medical practice. We cover cancer, cardiovascular, clinical brain sciences, cognitive and neural systems, genetics, infectious diseases, inflammation, molecular medicine, neuroscience, population health sciences, regenerative medicine and reproductive health.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), and a qualification that can be registered with the General Medical Council. You should also have at least one year of experience in scientific work bearing directly on your profession, or be in the practice of medicine or surgery.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact PG Admissions
Email mvmpg@ed.ac.uk

Genetics & Molecular Medicine (MRC Human Genetics Unit)

Research profile
Part of the Institute of Genetics and Molecular Medicine (IGMM), we research how changes in our DNA impact our lives. We combine the latest computational and experimental technologies to investigate how genomes work to control the function of molecules, cells and tissues in people and populations. For more than 50 years our research has been dedicated to understanding human genetic disease. Today we continue to apply clinical and scientific expertise, harnessing complex data to improve health and the lives of patients and their families. We deliver outstanding research in a vibrant scientific community and friendly research environment that is rich in scientific and social opportunities.

Research profile
The Centre for Genomics and Experimental Medicine (CGEM) is part of the MRC/University of Edinburgh Institute of Genetics and Molecular Medicine (IGMM). Our mission is to use genetics and genomics to understand the mechanisms of disease and design novel intervention strategies. In the last Research Excellence Framework, the research outputs of our investigators in the clinical- and hospital-based subjects unit of assessment received the highest possible rating. We undertake detailed studies of populations, families and individuals to study a wide range of health-related conditions. We use state-of-the-art genetic, epigenetic, genomic, statistical, bioinformatic, biological and molecular approaches in model systems and clinical studies for systematic investigation of disease aetiology. With this knowledge, we aim to improve disease prediction, prevention and prognosis. Our translational agenda encompasses the development of new medicines and genetically informed use of existing medicines in clinical trials.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Programme Director Dr Kathy Evans
Email student-admin@igmm.ed.ac.uk

Geriatric Medicine

Research profile
Our research activities and collaborations span from preclinical science to clinical trials, with a focus on clinically-applicable research on the key geriatric syndromes of cognitive impairment, stroke and frailty. Our work also encompasses the broader field of healthy ageing, and we have strong interdisciplinary links, for example with nurses, allied health professionals, and social scientists, as well as with the Centre for Clinical Brain Sciences and Usher Institute.

Researchers at the Royal Infirmary of Edinburgh and Western General Hospital welcome informal enquiries to discuss research opportunities. These include delirium, dementia (particularly in the acute hospital), stroke, exercise for health, Parkinson’s Disease, frailty, and the health and wellbeing of care home residents.

We employ a variety of research designs, including systematic reviews, observational studies, diagnostic test accuracy studies, biomarker identification, neuroimaging studies, linkage of healthcare data, qualitative research, and randomised controlled trials.

Research is based at the Royal Infirmary and Western General Hospitals. Contact us to discuss potential applications before applying.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact Geriatric Medicine
Email geriatricmedicine@ed.ac.uk
Research opportunities

Sebastien Georges

For fees see page 58 and for funding information see page 60.

English language requirements

This programme is affiliated with the University’s Global Health Academy:
• translating leading scientific advances into effective interventions.
• culture, faith and health; and
• migration and minority ethnic health;
• e-health and tele-medicine;
• sexual and reproductive health;
• population health;
• global palliative care;
• non-communicable diseases;
• infectious diseases;
• antibiotic resistance and healthcare-associated infections;
• arthropod vector biology and vector-borne diseases;
• epidemiology and mathematical modelling of animal and human infectious;
• functional genomics and bioinformatics;
• molecular diagnosis and point-of-care detection of infectious diseases;
• the immunology of bacterial and parasitic infections;
• the pathogenesis of viral diseases (animal and human, including herpes and HIV).

Programme structure

The learning process centres upon a one-year research project. In addition, you will be expected to attend local research seminars and lectures related to your area of research, and encouraged to attend those events organised by EID and the Global Health Academy more generally. Training in transferable skills is offered by the Institute for Academic Development.

Career opportunities

This postgraduate programme provides an introduction to research methodologies for biologists, medics and veterinarians. Many of our recent graduates have taken this programme as a stepping stone to PhD study, or have chosen a career in research or industry.

Entry requirements

A UK 2:1 undergraduate degree, or its international equivalent (see www.ed.ac.uk/internationalgraduate-entry), in a relevant subject.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Programme Director Kim Picozzi
Email kim.picozzi@ed.ac.uk

Email s.georges@ed.ac.uk

Contact Sebastien Georges

Fees and funding

See page 58.

English language requirements

Research profile

This programme offers research opportunities from across Edinburgh Infectious Disease (EID), an organisation that brings together 170 research groups and 860 scientists across the spectrum of infectious disease science and clinical medicine at Edinburgh.

Previous students have undertaken projects in the following areas:
• antibiotic resistance and healthcare-associated infections;
• arthropod vector biology and vector-borne diseases;
• epidemiology and mathematical modelling of animal and human infectious;
• functional genomics and bioinformatics;
• molecular diagnosis and point-of-care detection of infectious diseases;
• the immunology of bacterial and parasitic infections;
• the pathogenesis of viral diseases (animal and human, including herpes and HIV).

Infectious Diseases

MSc by Research 1 yr FT

Programme description

This programme offers research opportunities from across Edinburgh Infectious Disease (EID), an organisation that brings together 170 research groups and 860 scientists across the spectrum of infectious disease science and clinical medicine at Edinburgh.

Previous students have undertaken projects in the following areas:
• antibiotic resistance and healthcare-associated infections;
• arthropod vector biology and vector-borne diseases;
• epidemiology and mathematical modelling of animal and human infectious;
• functional genomics and bioinformatics;
• molecular diagnosis and point-of-care detection of infectious diseases;
• the immunology of bacterial and parasitic infections;
• the pathogenesis of viral diseases (animal and human, including herpes and HIV).

Infection Medicine

MSc by Research 1 yr FT

Programme description

Infection Medicine (IM) is a multidisciplinary centre consisting of academic and clinical research groups within the University of Edinburgh working across fundamental, clinical and translational aspects of infection medicine: www.ed.ac.uk/infection-medicine

This programme allows you to participate in advanced research training in the diverse research themes undertaken by our IM centre. The centre offers excellent research facilities to support our interdisciplinary approach to infection medicine, including advanced high-throughput systems for molecular, cytological and immunological screening. We are closely linked to clinical research studies via interactions with infection medicine clinicians.

As well as being highly relevant for biomedical science graduates, this programme is particularly attractive to international medical students and practitioners interested in gaining a PhD, within the relatively short time frame of three years, as an important step on the track to becoming a research clinician in the field of infection medicine.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact Douglas Roy
Email douglas.roy@ed.ac.uk

Contact Alexandra Moreira
Email alexandra.moreira@ed.ac.uk

Fees and funding

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact Douglas Roy
Email douglas.roy@ed.ac.uk

Contact Alexandra Moreira
Email alexandra.moreira@ed.ac.uk
Research opportunities

For further information please contact Zhejiang University.

The 21st century’s centre of economic gravity is shifting eastwards and this poses career opportunities.

Combining this with strong links to an established global campus, the Centre for Discovery Brain Sciences (CDBS) carries out research at molecular, cellular, systems and behavioural levels to understand fundamental mechanisms and pathways relevant to brain and body function in health and disease. CDBS investigators exploit rapid advances in the enabling technologies available from genomics, proteomics, imaging, informatics, and in-vivo analysis to understand the function of gene products at the cell, organ and whole-animal level. They exploit the most appropriate model organisms/systems to investigate the delicate balance between high biomedical relevance (for example human, mouse, cat) and high genetic power (such as C. elegans, drosophila or zebrasfish).

Research focuses on understanding fundamental mechanisms and pathways relevant to human function in health and disease across the life course. You will have access to state-of-the-art equipment and extensive collaborations exist with the wider biomedical and clinical communities to support your research in a world-class environment. Supervisors maintain the highest standards of research training, with a strong research output in leading international journals.

Integrative Biomedical Sciences (Based in China)

PhD 4 yrs FT (including taught elements)

This programme is based entirely in China. Please refer online for further information such as fees and living costs and the specific facilities that will be available to you during your studies.

Research profile

Our vision for this programme is predicated on the view that a key reason for failures in translation, from fundamental research to the human subject, is the poor understanding that non-clinical biomedical scientists often have about common human disorders and how basic science can be translated.

This programme aims to train non-clinical students to align cutting edge experimental animal modelling, cellular, regenerative, computational, genetic technologies and analytical tools with comprehensive knowledge of the translational environment. In so doing, it will equip you with the distinct skills required to bridge the knowledge gap between the design, execution and interpretation of fundamental research and the challenges of translating this knowledge in humans.

ZJU-UoE Institute

The ZJU-UoE Institute is a collaboration in the field of biomedical sciences between Zhejiang University and the University of Edinburgh. Together, we have established an international research Institute at the International Campus of Zhejiang University in Haining, China. The Institute builds on the existing strengths of each university and aims to foster collaboration in teaching and research. This programme will be taught in English and will be based entirely in Haining, China.

Career opportunities

Joining this joint UK-China PhD programme offers you the opportunity to gain research and life experience in the dynamically expanding East Asian biomedical and biotechnology industry as an insider rather than a tourist.

You will have the opportunity to learn the Chinese language and gain entry and insight into China’s rich ancient culture and modern, rapidly developing economy and society.

The 21st century’s centre of economic gravity is shifting eastwards and many research and academic career opportunities are also shifting in that direction. Combining this with strong links to an established global and European research university offers a unique combination of global career opportunities.

Entry requirements

A UK 2:1 honour degree, or its international equivalent, in biomedical sciences or a related subject. Applicants may hold a masters degree, but this is not a requirement. Applicants will be required to meet additional requirements for visa entry to China.

For further information please contact Zhejiang University.

Contact: Jie Zhou
Email: jizhou127@zju.edu.cn

Integrative Physiology

PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile

The Centre for Discovery Brain Sciences (CDBS) carries out research at molecular, cellular and systems levels to understand fundamental mechanisms and pathways relevant to brain and body function in health and disease. CDBS investigators exploit rapid advances in the enabling technologies available from genomics, proteomics, imaging, informatics, and in-vivo analysis to understand the function of gene products at the cell, organ and whole-animal level. They exploit the most appropriate model organisms/systems to investigate the delicate balance between high biomedical relevance (for example human, mouse, cat) and high genetic power (such as C. elegans, drosophila or zebrasfish).

Research focuses on understanding fundamental mechanisms and pathways relevant to human function in health and disease across the life course. You will have access to state-of-the-art equipment and extensive collaborations exist with the wider biomedical and clinical communities to support your research in a world-class environment. Supervisors maintain the highest standards of research training, with a strong research output in leading international journals.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact: Paul Skehel
Email: sbms-postgraduate@ed.ac.uk

Medical Informatics

PhD 3–4 yrs FT
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Programme description

Advance in data capture platforms in both medicine and life sciences, supported by modern computing and informatics, have greatly energised the overlapping fields of medical informatics and data intensive biomedicine. The Centre For Medical Informatics at the Usher Institute of Population Health Sciences and Informatics was inaugurated at the University of Edinburgh in 2015. The combination of informatics and biomedicine is fundamental for advances towards 4P medicine – personalised, predictive, preventive and participatory.

The Centre for Medical Informatics is well placed to be a lead in medical informatics and data intensive research, and is co-located with the Farr Institute in Bioquarter Building 9. Scotland is in a leading position to exploit health data and is uniquely placed in having high-quality linkable datasets optimised for research purposes. These data are also key to the development of commercially exploitable know-how and intellectual property.

This new PhD programme will provide multidisciplinary training in medical informatics and data intensive biomedicine. A variety of projects will be offered, aligned with the research programmes of group leaders within the Usher Institute of Population Health Sciences and Informatics. The programme will be suitable for students from a variety of academic backgrounds, such as physics, mathematics, medicine, biology, data science, epidemiology, statistics, population health and computing science. The common theme across this interdisciplinary group is to build a form of data intensive science that acts as a driving force for new developments in medicine and healthcare.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact: Sebastian Georges
Email: s.georges@ed.ac.uk

Neuroscience

PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Programme description

The Centre for Discovery Brain Sciences (CDBS) carries out research at molecular, cellular, systems and behavioural levels to understand fundamental mechanisms and pathways relevant to brain and body function in health and disease. CDBS investigators exploit rapid advances in the enabling technologies available from genomics, proteomics, imaging, informatics, and in-vivo analysis to understand the function of gene products at the cell, organ and whole-animal level. They also exploit the most appropriate model organisms/systems to investigate the delicate balance between high biomedical relevance (for example human, mouse, cat) and high genetic power (such as C. elegans, drosophila or zebrasfish). Research encompasses the study of the central and peripheral nervous systems, at multiple levels of analysis, from the molecular and cellular levels through to cognitive neuroscience, brain imaging, and behavioural neuroscience. Researchers have access to state-of-the-art equipment to facilitate their research objectives and extensive collaborations exist with the wider biomedical and clinical communities, helping ensure you are supported in a world-class research environment. Supervisors maintain the highest standards of research training with a strong research output in leading international journals.

English language requirements

See page 58.

Fees and funding

For fees see page 58 and for funding information see page 60.

Contact: Thomas Becker
Email: thomas.becker@ed.ac.uk

“Postgraduate research at the College gave me the opportunity to learn different techniques and collaborate with different researchers around the world, which was invaluable. I had the chance to explore different aspects of research which helped me to choose the career path I would like to pursue. Research is great fun!”

Dorothy Tse, MSc by Research PhD Neuroscience
Optical Medical Imaging with Healthcare Innovation & Entrepreneurship

Research profile
OPTIMA is the EPSRC and MRC Centre for optical medical imaging, which brings together world-class research teams in both the clinical and physical sciences in order to address the priority area of Optical Medical Imaging.

OPTIMA is hosted by the University of Edinburgh and the University of Strathclyde. Our focus is to train the next generation of scientific entrepreneurs in healthcare technologies and we place great emphasis on interdisciplinary projects, commercially relevant training and strong ties to the clinical environment.

Our supervisors are of international standing in their respective fields. They have published more than 1,300 peer-reviewed papers, are in receipt of research grant income in excess of £110 million and have supervised more than 300 PhD students. This programme combines:
• excellent research and PhD supervision in world-leading scientific environments;
• a bespoke programme of business training in healthcare innovation and entrepreneurship.

OPTIMA students can choose from a portfolio of exciting and innovative projects that break down the barriers between physics, chemistry, medicine and engineering. Our students use cutting-edge optical technologies to address key clinical questions via medical imaging.

In addition to research in the theme of optical medical imaging, you will embark on a bespoke programme of integrated study in healthcare innovation and entrepreneurship. We want the integrated study portion to constantly inform and educate your studies throughout your time with us, so the training modules that form the integrated study portion run concurrent with the research over four years. We want you to understand and appreciate the innovative leaps you are making and to be able to capitalise on your discoveries.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Hamish Simpson
Email hamish.simpson@ed.ac.uk

Programme Director
Jean O’Donoghue
Email j.odonoghue@ed.ac.uk

Orthopaedic & Trauma Medicine

PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile
We offer a comprehensive research programme covering a diverse range of musculoskeletal disorders. There are ongoing projects in musculoskeletal tissue engineering, stem cells and regenerative medicine; orthopaedic engineering and modelling of the musculoskeletal system; osteoporosis and fracture repair; and clinical outcome studies. The orthopaedic engineering unit and the musculoskeletal research unit, along with the microCT facilities, are located at our Little France campus. Facilities for collaborative projects are based in the Centre for Regenerative Medicine and the Centre for Integrative Physiology, also at Little France.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Hamish Simpson
Email hamish.simpson@ed.ac.uk

Programme Director
Jean O’Donoghue
Email j.odonoghue@ed.ac.uk

Pathology

PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile
Members of the Division of Pathology have major research interests in human cancer biology, cell and tissue injury, inflammation, fibrosis, transplant pathology, immunopathology, osteoarthritis and neuropathological disorders.

The Division of Pathology has academic staff as key members of most of the centres and institutes within the College of Medicine & Veterinary Medicine, reflecting the collaborative and overarching role of pathology in translational medicine. There are also close links to research and development within the hospitals across Edinburgh. The Division also includes the Centre for Comparative Pathology that studies animal models of disease.

The large diagnostic NHS histopathology service based in the Royal Infirmary Edinburgh and Western General Hospital, in which members of the division partake, makes it a favourable environment in which to combine fundamental cell biological and applied clinical studies of human disease.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Simon Herrington
Email simon.herrington@ed.ac.uk

Programme Director
Jean O’Donoghue
Email j.odonoghue@ed.ac.uk

Population Health Sciences

PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile
The Centre for Population Health Sciences supervises postgraduate research students in a wide range of population health disciplines, including epidemiology, genetic epidemiology, health promotion, health services research, medical statistics, molecular epidemiology and sociology, and on a wide range of topics including allergic and respiratory disease, clinical trial and statistics methodology, e-health, ethnicity and health, genetic epidemiology of complex diseases, global health, palliative care and cancer, society and health, and families and relationships. Prospective students are encouraged to align their research proposal with one of the main areas of research supported by the Centre and with the research interests of academic members of staff who may act as first supervisors. A principal aim is to foster interdisciplinary research involving quantitative and qualitative approaches via effective collaboration with biomedical scientists, epidemiologists, social scientists and clinical researchers throughout the University and beyond.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Sebastien Georges
Email s.georges@ed.ac.uk

Programme Director
Jean O’Donoghue
Email j.odonoghue@ed.ac.uk

"I value how much the PhD has increased my confidence and the skills that it has allowed me to gain, which will be incredibly valuable not only in my career but also throughout life.”

Natalie Courtney, PhD Integrative Physiology
PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile
Our research focuses on the mechanisms underlying the development of major psychiatric disorders using the latest genomic and neuroimaging approaches (genetic, epigenetic, and multimodal imaging). We take a data science approach, maximising use of large population-based data resources, such as Generation Scotland and UK Biobank, together with health record linkage, to discover aetiological factors and inform stratification approaches. We use this information to guide the development of early detection and novel therapeutic strategies. Our neuroimaging research focuses on how causal factors (genetic and environmental) contribute to conditions through their impact on brain structure and function, and identify when brain structure and function mediate effects on behaviour. We have extensive links with several international consortia including the Psychiatric Genomics Consortium and ENIGMA, and have led some of the first studies predicting schizophrenia and depression, together with some of the largest genome- and phenotype-wide analyses studies of depression to date.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Andrew McIntosh
Email andrew.mcintosh@ed.ac.uk

Clinical Medicine

PhD 3 yrs FT (6 yrs PT available for UK/EU students)
MSc by Research 1 yr FT (2 yrs PT available for UK/EU students)

Research profile
The MRC Centre for Reproductive Medicine (CRM) and the new Centre for Tissue Repair (CTR) are world-leading research centres based at the heart of Edinburgh BioQuarter – the University’s biomedical campus. CRM and CTR together form the Institute of Reproduction and Repair (IRR), bringing together a dynamic community of more than 600 scientists and clinician scientists studying stem cell biology, regenerative medicine, and matrix and inflammation biology to advance human health.

We offer an integrated and structured postgraduate PhD training programme incorporating taught and research elements to provide high-level training in theoretical and practical aspects of stem cell biology, inflammation research and regenerative medicine. Combined with our research expertise, which ranges from basic to translational fundamental biology to clinical trials, we offer one of the strongest interdisciplinary research environments for research in stem cell biology and regenerative medicine currently available in the UK.

Our research is aimed at developing new treatments for major diseases, including cancer, heart disease and diabetes, degenerative diseases such as multiple sclerosis and Parkinson’s disease, and liver failure. Our work is currently organised into five themes. To promote collaboration across research groups we adopt a flexible approach to these themes with each principal investigator having one or more secondary affiliations. Two themes focus on fundamental research: pluripotency and IPS, and lineage and cell specification. The other three aim to translate fundamental research discoveries into clinical programmes relevant to brain, blood and liver diseases and to tissue repair.

CRM and CTR are housed in specially designed buildings that provide high-quality research facilities, including centralised cell culture facilities, clinical-grade CMP cell culture facility, SPF animal facility, flow cytometry core facility providing comprehensive-multiparameter flow cytometry; histology service lab, imaging facility and high content screening facility.

English language requirements
See page 58.

Fees and funding
For fees see page 58 and for funding information see page 60.

Contact
Kelly Douglas
Email kelly.douglas@ed.ac.uk

Contact
Dean Ainscough
Email dean.ainscough@ed.ac.uk
Research Medicine

Programme description
We have more than 20 years’ experience in science communication practice and have forged lasting partnerships with Edinburgh International Science Festival, National Museums Scotland, Edinburgh Zoo, National Galleries Scotland, Our Dynamic Earth and Edinburgh International Festival and Fringe.

Potential research areas include informal science learning, the role of social media, and cultural differences in science communication. You will be linked to two academic supervisors and will pursue your research under continuous guidance, resulting in a thesis that makes an original contribution to knowledge. You will be encouraged to present your research at conferences and in papers for academic journals during your PhD.

The University has an extensive library collection of books and journals, many available electronically. Our partnerships with external organisations enable us to expand the range of facilities on offer.

Entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in any discipline, plus either an MSc in Science Communication or at least one year’s experience of work in science communication (paid or voluntary).

English language requirements
See page 58.

Fees and funding
See page 58 and for funding information see page 60.

Contact
Alexandra Moreira
Email alexandra.moreira@ed.ac.uk

Science Communication/Public Engagement

Programme description
This is a prestigious training programme run by the University of Edinburgh and funded by the Wellcome Trust and the College of Medicine and Veterinary Medicine (CMVM). It provides studentships for cutting-edge, cross-disciplinary PhD training that build on the breadth of world-class biomedical research performed within the College.

Successful advancement of tissue repair relies on combining expertise from basic to translational research in areas of regenerative medicine, stem cell biology, neurology, reproductive health, inflammation and cardiovascular science. Such a cross-disciplinary approach will underpin the design of novel cell- and drug-based therapies that stimulate repair of tissues damaged due to disease, trauma or congenital conditions. The programme follows a six-months/three-years/six-months format.

Programme structure
The aim of our programme is to train the next generation of scientific leaders in tissue repair. Therefore, during the first six months of the programme, you will undertake two three-month rotation research projects and receive training in a range of practical core research skills. Following these first six months you are able to make an informed choice about the topic of your three-year PhD research project and your PhD supervisor. To ensure a comprehensive training and broadening of your knowledge of tissue repair, you will participate in discussion groups and lab meetings and attend seminars and conferences throughout the programme. During the last six months of the programme you will focus on writing your thesis and preparing for your final examination.

Studentships
Tissue repair studentships are awarded competitively. Applicants should hold at least an upper second class degree in an appropriate subject, or an equivalent qualification in biomedical sciences. The tissue repair studentships fall under the Wellcome Trust ‘Four-year PhD Studentships in Science’ scheme, rendering medically qualified applicants (for example, medical, dentistry, vets and clinical psychologists) ineligible.

English language requirements
See page 58.

Fees and funding
See page 58 and for funding information see page 60.

Contact
Kelly Douglas, Postgraduate Administrator
Email tissue.repair@ed.ac.uk

Tissue Repair

Programme description
This innovative research and training programme will focus on the advancement of knowledge, expertise and skills in clinical translation and will draw on Edinburgh’s unique research strengths in diseases across the life-course. Created and delivered by Edinburgh Neuroscience, this programme will train non-clinical students to combine cutting-edge experimental technologies (such as cellular, regenerative, computational, genetic, or animal modelling technologies) and analytical tools, with a comprehensive knowledge of the clinical brain research environment.

By doing so, we intend to equip students with the distinct skills required to bridge the knowledge gap between the design, execution and interpretation of cellular experiments and the challenges of experimental medicine.

During the first year, you will undertake three research projects, each from a different stage of the life-course, from development through to adolescence/adult/hood and, finally, old age/degeneration. In parallel you will undertake a bespoke training programme that will draw on the expertise of clinical and basic researchers to deliver a range of tutorials, seminars and clinic visits that will lead to an appreciation, and understanding, of life-course disorders and the methodologies used to investigate them. These sessions will provide an opportunity to integrate knowledge from across basic and clinical disciplines and provide a deeper understanding of the role of brain function at the intermediate stage of the bench and bedside.

Drawing on your experience during the rotation projects, you will select your PhD projects towards the end of Year 1 from a large range of projects that draw on both basic and clinical elements. You will be co-supervised throughout your PhD by a basic and clinical researcher. During Years 2 and 3 there will be continued coaching in life-course disorders/methodologies, building on the Year 1 activities. You will then submit your PhD thesis by the dissertation by end of Year 4.

Edinburgh Neuroscience brings together neuroscience researchers from across the University, from fundamental, clinical, psychological and informatics arenas to provide an outstanding collegiate and dynamic environment in which to undertake cutting-edge research. We are perfectly placed to provide a unique training experience that encourages interaction across disciplines and the life-course.

Entry requirements
A UK 2:1 honours degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry). If you have a medical degree you are not eligible to apply unless you are no longer clinically active.

English language requirements
See page 58.

Fees and funding
See page 58 and for funding information see page 60.

Contact
Jane Halley
Email jdydhyp@ed.ac.uk

Translational Neuroscience

Programme description
This innovative research and training programme will focus on the advancement of knowledge, expertise and skills in clinical translation and will draw on Edinburgh’s unique research strengths in diseases across the life-course. Created and delivered by Edinburgh Neuroscience, this programme will train non-clinical students to combine cutting-edge experimental technologies (such as cellular, regenerative, computational, genetic, or animal modelling technologies) and analytical tools, with a comprehensive knowledge of the clinical brain research environment.

By doing so, we intend to equip students with the distinct skills required to bridge the knowledge gap between the design, execution and interpretation of cellular experiments and the challenges of experimental medicine.

During the first year, you will undertake three research projects, each from a different stage of the life-course, from development through to adolescence/adult/hood and, finally, old age/degeneration. In parallel you will undertake a bespoke training programme that will draw on the expertise of clinical and basic researchers to deliver a range of tutorials, seminars and clinic visits that will lead to an appreciation, and understanding, of life-course disorders and the methodologies used to investigate them. These sessions will provide an opportunity to integrate knowledge from across basic and clinical disciplines and provide a deeper understanding of the role of brain function at the intermediate stage of the bench and bedside.

Drawing on your experience during the rotation projects, you will select your PhD projects towards the end of Year 1 from a large range of projects that draw on both basic and clinical elements. You will be co-supervised throughout your PhD by a basic and clinical researcher. During Years 2 and 3 there will be continued coaching in life-course disorders/methodologies, building on the Year 1 activities. You will then submit your PhD thesis by the dissertation by end of Year 4.

Edinburgh Neuroscience brings together neuroscience researchers from across the University, from fundamental, clinical, psychological and informatics arenas to provide an outstanding collegiate and dynamic environment in which to undertake cutting-edge research. We are perfectly placed to provide a unique training experience that encourages interaction across disciplines and the life-course.

Entry requirements
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English language requirements
See page 58.

Fees and funding
See page 58 and for funding information see page 60.

Contact
Jane Halley
Email jdydhyp@ed.ac.uk

See also...
You may also be interested in research opportunities offered by other Schools within the University, particularly the School of Biological Sciences, the School of Health in Social Science and the Royal (Dick) School of Veterinary Studies.

www.ed.ac.uk/studying/prospectus-request
About Edinburgh Medical School

Established in 1726, Edinburgh Medical School was the pre-eminent medical centre of the 18th and 19th centuries. Today it retains its status as a leading force internationally in basic-to-clinical translational research and teaching.

Dynamic experience
We offer you the opportunity to study in an environment where research is an important component of every student’s life, nurturing a way of thinking that will equip you to deliver positive change for humanity. By bringing together clinicians and basic scientists, we create opportunities to develop cutting-edge work that makes a real difference to people’s lives.

Here at Edinburgh you will find a broad range of world-leading research centres, including Medical Research Council-funded centres, working side by side. We offer state-of-the-art facilities; co-location and close collaboration with NHS Lothian hospitals; all major imaging technologies; clinical trials support; and commercialisation training and opportunities. Our ground-breaking collaboration with Edinburgh BioQuarter, a landmark life science development on the Little France campus, is establishing Edinburgh and Scotland as one of the world’s major centres for biomedical commercialisation.

Breadth and diversity
We offer enormous breadth and depth of research and learning opportunities. Our research themes include:

- cancer;
- cardiovascular science;
- application of basic animal sciences in human and veterinary medicine;
- genetics and molecular medicine;
- global health;
- infectious diseases;
- inflammation;
- neuroscience;
- regenerative medicine; and
- reproductive health.

Research excellence
Edinburgh Medical School is part of the College of Medicine & Veterinary Medicine. The College’s reputation as one of the world’s leading centres of medical and veterinary medical research was reaffirmed by the Research Excellence Framework (REF) 2014 results. The College’s three submissions to REF were some of the largest REF submissions in the UK. This emphasises the enormous power of the University’s research in human and animal medicine; and health. In clinical medicine, 88 per cent of our research activity was rated 4*, world leading, or 3*, internationally excellent, on the overall quality profile. Clinical medicine was the University’s largest REF submission and was ranked in the UK top five by research power (Research Fortnight REF 2014). In psychology, psychiatry and neuroscience we were ranked fourth in the UK by research power (Research Fortnight REF 2014), out of a total of 82 submissions, representing a major advance.

Pioneers and trailblazers
Pioneering staff and students of our College have included the following distinguished individuals:

- Lorna Marson, first female president of the British Transplant Society;
- Sarah Tabrizi, who led the fight against Huntington’s Disease;
- Clara Mpanga Munthali, first female Malawian graduate of surgical sciences;
- Lorna Williamson, pioneer of blood stem cell and tissue donation for transplantation;
- Gertrude Herzfeld, Scotland’s first female practising surgeon;
- Joseph Lister, discoverer of life-saving antiseptic;
- Charles Darwin, world-renowned naturalist and author of On the Origin of Species;
- Sir James Young Simpson, pioneer of chloroform use;
- Margaret Ilarry, the first woman to graduate from a British medical school;
- William Gregory, who devised a procedure for crystallising morphine, opening up its use for pain relief;
- James Horton, who was one of the first Africans to study medicine in Europe;
- Sir George Beatson, the father of oophorectomy;
- Sir John Crofton, who led the team that developed a cure for tuberculosis, the biggest killer of adults in the western world at the time;
- Sir Paul Nurse, who discovered several key regulators of the cell cycle, a breakthrough for which he was awarded the Nobel Prize;
- Sir Robert Edwards, awarded the Nobel Prize in recognition of his role in pioneering in vitro fertilisation or IVF;
- Sir Kenneth Murray, one of the pioneers of DNA sequencing methods and inventor of the first genetically engineered vaccine for hepatitis B;
- Sir George Porter, who discovered that human papilloma virus (HPV) could develop into cervical and other types of cancer.

Deaneries
Edinburgh Medical School consists of three Deaneries:

- Edinburgh Medical School: Biomedical Sciences
- Edinburgh Medical School: Clinical Sciences
- Edinburgh Medical School: Molecular, Genetic & Population Health Sciences.

Global influence
Medical research at the University has an impact in more than 100 countries, including many developing countries, and benefits millions of individuals in areas such as sleeping sickness, childhood pneumonia prevention, reduction in blood transfusions, more effective cardiovascular and liver surgery, ovarian cryopreservation and stroke prevention and management. Our “one medicine, one health” strategy is built upon the integration of research from bench to bedside and from process to population. We are constantly developing global networks and innovative research opportunities with partner institutions. Our suite of practical and clinically appropriate online learning qualifications enables students to train in their own countries to deliver the services so desperately needed by their communities. Edinburgh Medical School has more than 1,000 online learning students from 100 countries around the globe.

Interdisciplinary research and high-quality teaching are at the heart of our ethos. Clinical and basic scientists work closely together linking basic and translational research goals. This allows us to offer you an outstanding educational experience with a wide range of interdisciplinary opportunities and learning outcomes.

Our association with the Royal (Dick) School of Veterinary Studies provides further opportunities for collaboration and interaction. We aim to provide you with all the support and training you require to enhance your careers and allow you to reach your full potential.
Student support

Studying should be an enjoyable, stimulating and fulfilling experience. The University is committed to supporting you during your studies, and provides a wide range of support services and structures to help you make the most of your time with us.

All our students are offered academic and professional development and study skills support through the Institute for Academic Development (IAD). Our award winning Careers Service is also on hand to help you achieve your professional goals throughout your studies and for up to two years after graduation. For further information on these services, see page 56.

In addition, there is a wealth of support and training available to help you improve your computing, software, and technology skills.

If you experience difficulties at any time during your studies, you can also access the Student Counseling Service and Edinburgh University Students’ Association, which provides free and confidential guidance to students through the Advice Place.

Edinburgh Global can offer international students a range of services to help you feel at home.

PhD students
For those students studying towards a PhD, immediate support is provided by your team of (at least two) supervisors. This is augmented by a structured thesis committee process involving scheduled meetings with academics who can provide additional advice and support. Students in individual Deaneries will also be supported by their designated Director of Postgraduate Research, while the Director of Postgraduate Student and Early Career Researcher Experience can provide support at a College level.

Masters students
For those students studying a taught masters programme, immediate support will be provided by your programme team who will be able to direct you to the appropriate support services and sources of advice within the wider University.

In addition, you will be assigned a Personal Tutor who will provide academic guidance and help you reflect on your academic progress so that you get the most out of your studies.

Research student community
If you are a research student, you will join an individual research centre within the College. Within each centre there are social and academic opportunities to integrate with the wider postgraduate community, such as seminars, team building and development exercises at College and University level, or through the University’s Postgraduate Society.

Research students are encouraged to get to know each other and interact through a series of induction activities within their Deanery and through campus-based postgraduate societies.

You are encouraged to interact with the wider University postgraduate community through cross school networks such as Edinburgh Neuroscience, Edinburgh Infectious Diseases and the Edinburgh Immunology Group, and by participating in the University-wide Three Minute Thesis competition.

You are also encouraged to take part in public engagement events to actively communicate your work to an audience outside the University. Networking spaces are vital in the fostering of a strong community and we are fortunate to have excellent communal spaces for this purpose on all our campuses.

“My supervisors are extremely supportive and let me work at my own pace. Even though I am based in a lab, my supervisors are happy for me to work from elsewhere from time to time if I feel like I will work better that way. They really offer me the best balance between guidance, support and freedom to grow.”

Bérengère Digard, PhD Psychiatry
Research and teaching environment

Each year we support more than 1,000 research students and 3,000 students undertaking a taught masters either on campus or online.

On-campus study
Most masters programmes involve 12 months of full-time study. If you study part time, either on campus or online, it will take you longer to complete the programme. Taught masters generally include coursework with assessments that are chosen to suit the circumstances and practice of the discipline you are studying. You will also undertake independent work, which is normally submitted as a dissertation. We also offer masters by research, which are designed to provide a thorough training in a particular discipline area through original investigation and research. This gives you an excellent 12-month grounding in research and may be used as a stepping stone to a PhD. We offer two different routes for masters by research – a pure research route where you spend 12 months in one lab working on one project, or a taught route that includes seminars and core training alongside research projects.

Online study
When you choose to start an online masters programme at the University of Edinburgh, you are joining a worldwide community of learners, where all of your teaching and interaction with tutors and classmates happens within our online learning platform. This platform hosts all your course materials, including readings and resources, and is accessible 24/7. Any courses that have live lecturers will normally be recorded for you to watch at a time more convenient to you. Flexible participation is a key feature of our online masters programmes. However, you will work through your courses as a class cohort with assignment and project deadlines. Many exercises, such as discussion boards, are asynchronous, enabling you to advise your academic knowledge at a time that suits you. Most of our online programmes are assessed through coursework. You will be able to upload your assignments online and receive your marks and feedback in this format as well. Group collaboration and learning from other professionals is what makes online learning so valuable. Our students tell us this is what they like the most – the opportunity to learn from others and hear how they applied what they have learned within their own working environment, wherever they live in the world.

PhD Study
The ‘product’ of a PhD programme is the graduate: a skilled, highly-trained researcher. This gives you an excellent 12-month grounding in research and may be used as a stepping stone to a PhD. We offer two different routes for PhDs – a pure research route where you spend 12 months in one lab working on one project, or a taught route that includes seminars and core training alongside research projects.

Why is your research important?
"At the moment, we do not have treatments that prevent, delay or cure dementia. We now think that, for potential dementia treatments to work, we might need to give them to people years before they develop symptoms. This is difficult, because we don’t currently have a way of reliably predicting who will go on to develop dementia in the future.

"For my PhD I’m trying to use ‘Big Data’ to develop a risk prediction model that would allow us to identify people at risk of dementia years before they develop memory symptoms, so they can be targeted early for treatment."

Many of our students are located within the Edinburgh BioQuarter, a leading global destination for healthcare delivery, groundbreaking medical research and life sciences innovation and entrepreneurship.

Beyond our impressive academic facilities, we also invest in welfare, support, leisure and community facilities that are a student here. This online skills development service offers an extensive library of more than 250,000 high-quality video tutorials in digital, technology, creative and business skills.

Library facilities
You will have access to vast and diverse library collections, excellent study spaces, and award-winning library staff. In total, our Main Library, site libraries and library storage facilities hold in excess of 1.8 million printed volumes and provide access to a host of electronic resources, including:

• 10 million journal article downloads;
• 8 million e-book chapter downloads;
• 700,000 e-books;
• 100,000 e-journals; and
• 700 licensed databases.

You can access our electronic resources on or off campus, 24 hours a day.

Online learning platforms:
A variety of platforms are used to deliver content and enable you to collaborate with other students and academic staff. These platforms will typically include: virtual learning environments (VLEs) such as Moodle or Learn; discussion boards and web forums; real-time video conferencing and collaboration tools; and video streaming services like YouTube or Vimeo.

Sports and Exercise
Edinburgh is one of the UK’s leading sport Universities. Whether you are a recreational gym-user or a top performance athlete going for gold, our world-class sports facilities and coacher caters for you. Our 10 gyms include our spin studio, Velo-city, the recently upgraded Katherine Grainger Rowing Gym and a 102-station cardiovascular gym, complete with network fitness.

Facilities
Our postgraduate students have access to state-of-the-art learning and scientific facilities and infrastructure, which we constantly develop and evolve.
Employability and graduate attributes

The University is here to support you in the successful completion of your postgraduate training and to prepare you for your career. We provide information and advice on how to plan your career and develop the skills you will need now and in the future.

Throughout your postgraduate studies we support you with advice and training on effective study, exams and assignments, numeracy and data analysis, specific postgraduate writing skills, and finding and using academic sources. We offer learning opportunities to develop your information and IT skills, for personal development and to help you work, study and research more effectively.

We run a series of workshops for taught masters students, specifically Masters Study Skills; Critical Reading, Writing and Thinking; Managing Your Study; and Exam Revision; as well as public lectures and IT skills through a wide range of courses developed specifically with the medical and veterinary medicine sectors in mind.

Institute for Academic Development
All postgraduate students can benefit from our Institute for Academic Development (IAD), which provides information, events and courses to develop the skills you will need throughout your studies and in the future. IAD events also offer the perfect opportunity to meet and network with other postgraduates from across the University.

Further information is available online: www.ed.ac.uk/iad/postgraduates

For taught postgraduates, IAD provides a popular study-related and transferable skills support programme. It is designed to help you settle into postgraduate life, succeed during your studies and move confidently to the next stage of your career. We offer on-campus and online workshops and one-to-one study skills consultations, plus online advice and learning materials. Workshops and learning resources cover key topics tailored to different academic stages, including: pre-arrival sessions; getting started with your studies; critical reading, writing and thinking; managing your exams; and planning for and writing up your dissertation.

IAD also provides a comprehensive programme of transferable-skills training, resources and support for researchers completing a doctorate. The workshop programme is designed to help you successfully prepare for the various milestones of your PhD, from getting started with your research, to writing up and preparing for the viva, as well as developing personal and professional skills that can be transferred to your future employment. Workshops cover topics such as writing skills, reference management tools, statistics, preparing for conferences, delivering presentations, time and project management, and personal development.

IAD also offers online resources and planning tools to help get your research started, as well as support for tutoring and demonstrating, and public engagement and communication.

Careers Service
Our Careers Service plays an essential part in your wider student experience at the University, offering a range of tailored careers and personal development guidance and support. We support you to recognise the wealth of possibilities ahead, while at university and after graduation, helping you explore new avenues, tap into your talents and build your employability with confidence and enthusiasm. We provide high-quality, tailored support to all students. From exploring career options to making decisions, from CV writing to interview practice, from Employ.ed internships to graduate posts and from careers fairs to postgraduate alumni events, we will help you prepare for the future. We sustain and continually develop links with employers from all industries and employment sectors, from the world’s top recruiters to small enterprises based here in Edinburgh. Our employer team provides a programme of opportunities for you to meet employers on campus and virtually, and advertises a wide range of part-time and graduate jobs.

More information: www.ed.ac.uk/careers/postgrad

Platform One
Platform One is an online meeting place where members of the University community, past and present, can gather. It aims to provide a supportive environment where students, alumni, staff and volunteers can share knowledge and experiences. Together, we form a single community that meets on Platform One. Join us and find out more about the people and possibilities.

More information: www.ed.ac.uk/platform-one

Back ing bright ideas
Edinburgh innovations, the University’s commercialisation service, offers free support to student entrepreneurs including one-to-one business advice and a range of workshops, bootcamps, competitions and networking events. Successful recent clients include David Hunter, inventor of the performance-tracking golf watch Shot Scope; Orfeas Boteas, creator of the Dehumaniser sound effects software used by Hollywood movies and blockbuster video games; and Enactus Edinburgh, a team of student social entrepreneurs who represented the UK in the Enactus World Cup with their local and international projects.

Research Highlights

The University of Edinburgh is one of the world’s top research-intensive universities. We were ranked fourth in the UK for research power, based on the 2014 Research Excellence Framework (Times Higher Education, Overall Ranking of Institutions) with 83 per cent of our research activity classified world leading or internationally excellent. If you choose to study with us, you will be working alongside world-renowned researchers and scientists and will play a role in developing scientific understanding.

This is a small selection of our recent research projects:

Air pollution restricts children’s lung growth
Children exposed to air pollution have poor lung health, putting them at risk of lifelong breathing disorders, research shows. The study – based on samples in London’s Low Emission Zone – showed that lung problems persisted despite small improvements in air quality. This demonstrates the need to adopt more ambitious efforts to reduce pollution in order to protect health.

Surgical infections linked to drug-resistant bugs
People having surgery in low-income countries are more likely to develop an infection than those in wealthier nations, which may be linked to drug-resistant bacteria, research suggests. The findings shed light on a link between antibiotic use and infection and highlight an urgent need to tackle surgical infection in low income nations.

Ovarian cancer drug delays patient relapse
Women with a type of ovarian cancer caused by mutations in their DNA could be helped by a drug that slows the progression of the disease. A breakthrough clinical trial found the treatment can delay relapse of the disease by at least three years, in women with advanced ovarian cancer caused by mutations in the BRCA gene.

DNA may predict potential lifespan
A team of experts from our Usher institute analysed the combined effect of genetic variations that influence lifespan to produce a scoring system that is able to predict a person’s longevity. Their findings also revealed fresh insights into the biological mechanisms involved in ageing.

A cure for the common cold?
A simple sea salt water solution could help to reduce the symptoms of a cold. The homemade remedy was shown to shorten the length of a cold by almost two days and to reduce the need for over-the-counter medicines by a third.

Tools to watch cells eating could aid diagnoses
Scientists in Biomedical Imaging have developed a new imaging technology to visualise what cells eat, which could aid the diagnosis and treatment of diseases such as cancer. Doctors could also use the technology to monitor how patients are responding to treatment, by tracking the molecules that are eaten by healthy and diseased cells. This is an important advance that could improve understanding of the metabolism of diseased cells and one day help develop better therapies.

Read more about these and other projects here: ed.ac/ResearchNews
Applications and fees
We have an online application process for all postgraduate programmes. It’s a straightforward system with full instructions, including details of supporting documentation you need to submit.

When applying, you will set up an account, which lets you save your application if you wish to continue and submit your application at another time. Full guidance on our application system is available at: www.ed.ac.uk/postgraduate/applying

General requirements
Usually a UK 2:1 honours undergraduate degree, or its international equivalent (www.ed.ac.uk/international/graduate-entry), in a subject related to your chosen programme. You will also need to meet the University’s language requirements (see below). Entry requirements for individual programmes can vary, so check the details for the specific programme you wish to apply for.

References
For applications to taught programmes, the normal requirement is one reference, although an additional reference may be requested in individual cases, for applications to research programmes, two references are required. You should check the entry online for exact requirements for your intended programme of study. For general guidance on references, visit: www.ed.ac.uk/postgraduate/references

Deadlines
Online and on-campus taught programmes
The deadline for online learning programmes is usually late August, although a high competition for places may have earlier closing dates. Please check online for details.

Research programmes
For many research programmes, you can start at any time of year – check with the particular programme for further information on start dates. College studentships are usually advertised in November, with a January or February deadline, for programmes that will start the following September.

English language requirements
You must demonstrate a level of English language competency at a level that will enable you to succeed in your studies, regardless of your nationality or country of residence. We accept the following English language qualifications at the grades stated:

Biomedical Sciences (Life Sciences), Public Health (including online learning), Science Communication & Public Engagement (including online learning), and most programmes offered by the Postgraduate Dental Institute

- IELTS Academic: total 7.0 (at least 6.5 in each module).
- TOEFL-IBT: total 100 (at least 20 in each module).
- PTE Academic: total 67 (at least 56 in each of the Communicative Skills sections; the Enabling Skills sections are not considered).
- CAE and CPE: total 185 (at least 169 in each module).
- Trinity ISE: ISE III (with distinctions in all four components).

All other programmes

- IELTS Academic: total 6.5 (at least 6.0 in each module).
- TOEFL-IBT: total 92 (at least 20 in each module).
- PTE Academic: total 61 (at least 56 in each of the Communicative Skills sections; the Enabling Skills sections are not considered).
- CAE and CPE: total 176 (at least 169 in each module).
- Trinity ISE: ISE II (with distinctions in all four components).

Please note:
- English language requirements can be affected by government policy so please ensure you visit our degree finder to check the latest requirements for your programme: www.ed.ac.uk/postgraduate/degrees
- Your English language qualification must be no more than three and a half years old at the beginning of your programme, unless you are using IELTS, TOEFL, PTE Academic or Trinity ISE, in which case it must be no more than two years old.
- We also accept recent degree-level qualifications at the grades stated.
- We also accept recent degree-level qualifications at the grades stated.

For EU/UK students

- All taught programmes: £11,300 / £13,000

For international students

- All taught programmes: £22,850–£28,150

All fees are subject to annual increases. The University reserves the right to increase fees by approximately five per cent per annum. This annual increase should be taken into account when you are applying for a programme. In addition to tuition fees, your programme may be subject to an application fee and additional costs. Programme costs may apply. Please check the latest programme information online.

Asylum seeker tuition fee status and scholarship
Information for applicants seeking asylum within from the United Kingdom, who wish to commence a programme of study at the University in 2020, is available online. This includes our tuition fee rates and scholarship opportunities: www.ed.ac.uk/student-funding/asylum

Tuition fees for EU students
EU students enrolling in the 2020/21 academic year will be admitted as Scottish/EU fee status students. Taught masters students will be eligible for the same tuition support as Scottish domiciled students from the Student Awards Agency Scotland (SAAS).

For UK/EU students

- All taught programmes: £11,300 / £13,000
- Regenerative Medicine: Clinical & Industrial Delivery FT: £13,000
- MClinDent: £21,900
- All MPhil 2-years FT / PhD 3-years FT: £4,327*
- All MPhil 4-years PT / PhD 6-years PT: £2,164*
- All MSc by Research/MMedSci by Research 1-year FT: £8,750

Online Learning

- £460–£545
- £4,870–£6,550

Abbreviations: IELTS – International English Language Testing System; TOEFL – Test of English as a Foreign Language Internet-Based Test; PTE – Pearson Test of English; CAE – Certificate of Proficiency in English; CPE – Certificate of Advanced English; Trinity ISE – Integrated Skills in English.

www.ed.ac.uk/english-requirements/pg

Tuition fees
The following table provides an overview of indicative fee levels for programmes commencing in 2020.

Please note:
- International students starting full-time taught programmes of study lasting more than one year will be charged a fixed annual fee.
- All other students on full-time and part-time programmes of study lasting more than one year should be aware that tuition fees are subject to revision and are typically increased by approximately five per cent per annum. This annual increase should be taken into account when you are applying for a programme.

- All other fees quoted are indicative of 2020/21 fee levels. Because these figures are indicative, it is important you check online before you apply and check the up-to-date fee level that will apply to your specific programme: www.ed.ac.uk/student-funding/tuition-fees/postgraduate

* Figure shown is the 2019/20 fee level
All other fees quoted are indicative of 2020/21 fee levels. Because these figures are indicative, it is important you check online before you apply and check the up-to-date fee level that will apply to your specific programme: www.ed.ac.uk/student-funding/tuition-fees/postgraduate

Medicine & Biomedical Sciences Postgraduate Opportunities 2020

The University of Edinburgh
www.ed.ac.uk/medicine-vet-medicine/postgraduate
Funding

A large number of scholarships, loans and other funding schemes are available for your postgraduate studies. It is only possible to show a small selection in print. To see the full range, please visit: www.ed.ac.uk/student-funding/postgraduate

Awards are offered by the College of Medicine & Veterinary Medicine, the University of Edinburgh, the Scottish, UK and international governments and many funding bodies. The majority of our taught students are self-funded although there are some funding packages available for both on-campus and online learning students. Here we list a selection of potential sources of financial support for postgraduate students applying to the College of Medicine & Veterinary Medicine. This list was correct at the time of printing but please check the full and up-to-date range online (see above).

University of Edinburgh Alumni Scholarships We offer a 10 per cent scholarship towards postgraduate fees to all alumni who graduated from the University as an undergraduate, and to all students who spent at least one semester studying at the University on a visiting programme: www.ed.ac.uk/student-funding/alumni-scholarships

Scholarships at the University of Edinburgh

- **College of Medicine & Veterinary Medicine Funded PhDs**
  The College offers a number of funded PhD programmes every year, including:
  - Wellcome Trust 4-year PhD in Translational Neuroscience
  - Wellcome Trust 4-year PhD in Tissue Repair
  - Medical Research Council (MRC) DTP in Precision Medicine
  - BBSRC EASTBIO Doctoral Training Partnership (DTP)
  For further information on funded PhDs see: edin.ac/fitted-funded-phds

- **Edinburgh Global Research Scholarships**
  These scholarships are designed to attract high-quality international research students to the University: www.ed.ac.uk/student-funding/global-research

- **International Masters Scholarships for MSc Science Communication & Public Engagement (online)**
  We offer five masters scholarships of £2,000 to international (non-EU) students who are currently resident in one of the countries on the Development Assistance Committee (DAC) list of Official Development Assistance (ODA) recipients: www.ed.ac.uk/student-funding/science-communication

- **Polish School of Medicine Memorial Fund**
  This scholarship enables medical scientists, normally medical doctors at the outset of their careers and working in Polish medical universities, to undertake a period of further study or research at the University and return to their home institution in Poland: www.ed.ac.uk/student-funding/polish-medicine

The fund also supports the offer of a limited number of places on short courses at Edinburgh Medical School: www.ed.ac.uk/medicine-vet-medicine/staff-and-current-students/scholarships

- **Principal’s Career Development PhD Scholarships**
  These provide a valuable opportunity for PhD students to undertake training and skills development and offer opportunities in areas such as teaching, public engagement, entrepreneurship, data science, and research. Each award covers the UK tuition fee and a stipend: www.ed.ac.uk/student-funding/development

- **Wellcome Trust PhD Awards**
  The Welcome Trust offers scholarships to support applicants studying Translational Neuroscience or Tissue Repair. These studentships cover UK/EU tuition fees, research costs and a stipend: www.edinburghneuroscience.ed.ac.uk/funding/www.tissuerepairphd.ed.ac.uk

Research council awards

Research councils offer awards to PhD students in most of the Schools within the University of Edinburgh. All studentship applications from the research councils must be made through the University, through your School or College office. Awards can be made for both taught and research programmes.

Normally only those UK/EU students who have been resident in the UK for the preceding three years are eligible for a full award. For some awards, candidates who are EU nationals and are resident in the UK may be eligible for a fees-only award.

The UK Government has confirmed that EU postgraduate research students commencing their studies in 2020/21 will retain their fee status and eligibility for research council support for the duration of their programme: www.ed.ac.uk/student-funding/research-councils

The University also offers a number of scholarships in partnership with the following overseas government agencies:

- **Mexico**
  Banco de Mexico and the Banco de Mexico’s FIDERH trust (FIDERH):
  Fundacion Mexicana para la Educacion, la Tecnologia y la Ciencia (FUNEED):
  www.funedmx.org

- **United States**
  The US Government has confirmed that US postgraduate research students commencing their studies in 2020/21 will retain their fee status and eligibility for research council support for the duration of their programme: www.ed.ac.uk/student-funding/research-councils

Other sources of funding

The following are examples of the many scholarships and support schemes available to students from particular countries who meet certain eligibility criteria.

- **Chevening Scholarships**
  A number of partial and full funding scholarships are available to one-year masters students: www.chevening.org

- **Columbia Foundation Fellowships in Occupational/Environmental Health**
  The Columbia Foundation supports high-quality research projects in the field of occupational and environmental health, particularly those aimed at discovering the cause of illness arising from conditions in the workplace. The Foundation makes a number of grants each year to PhD students who are investigating topics relevant to this field of research: www.ed.ac.uk/student-funding/columbia

- **Commonwealth Scholarships**
  Scholarships available to students who are resident in any Commonwealth country, other than the UK: www.dfid.gov.uk/keywords

- **Marshall Scholarships (USA)**
  Scholarships available to outstanding US students wishing to study at any UK university for at least two years: www.marshall.org.uk

Postgraduate Doctoral Loans England

- **Student Finance England** offers postgraduate loans for doctoral study, payable to eligible students and divided equally across each year of the doctoral programme: www.gov.uk/postgraduate-loan

Postgraduate Doctoral Loans Wales

- **Student Finance Wales** offers loans for postgraduate doctoral study, payable to eligible students, divided equally across each year of the doctoral programme: www.studentfinancewales.co.uk/postgraduate-students/postgraduate-doctoral-loan

Postgraduate Loans (PGL)

- **England**
  Student Finance England offers postgraduate loans for taught and research masters programmes, payable to eligible students: www.gov.uk/postgraduate-loan

- **Northern Ireland**
  Students Finance Northern Ireland offers eligible students a tuition fee loan for taught and research programmes, at certificate, diploma, and masters level, which will be paid directly to the University: www.studentfinanceni.co.uk

Postgraduate Loans (SAAS)

- **Scotland and EU**
  The Student Awards Agency Scotland offers eligible students tuition fee loans for taught and research programmes at diploma and masters level, which will be paid directly to the University. Full-time students resident in Scotland can also apply for a non-income assessed living cost loan: www.saas.gov.uk

Postgraduate Master’s Finance Wales

- **Student Finance Wales** offers eligible students postgraduate finance for taught and research masters programmes: www.studentfinancewales.co.uk/student-funding/us-loans

Postgraduate Loan (UK)

- **EU Students**
  The University is eligible to certify loan applications for EU loan students. Full details on eligibility and how to apply can be found online: www.ed.ac.uk/student-funding/us-loans

Key

- **Taught masters programmes**
- **Masters by Research programmes**
- **Research programmes**
Campus maps

The College of Medicine & Veterinary Medicine is based at sites throughout the city of Edinburgh. Many of our teaching and research facilities are located side by side with clinical practice.

Detailed maps can be found at: www.ed.ac.uk/maps

Edinburgh Bioquarter

01 Queen’s Medical Research Institute
02 Edinburgh Imaging Facility QMRI
03 Chancellor’s Building
04 The Royal Infirmary of Edinburgh
05 Anne Rowling Neurology Clinic
06 Scottish Centre for Regenerative Medicine
07 Royal Hospital for Sick Kids

Parking

Western General

01 Edinburgh Cancer Research Centre (Institute of Genetics & Molecular Medicine (IGMM) South)
02 MRC Human Genetics Unit (IGMM Central & West)
03 New Institute of Genetics & Molecular Medicine (IGMM Building IGMM East)
04 Centre for Genomic & Experimental Medicine (IGMM North)

Parking
Get in touch

Contact us
Tel +44 (0)131 242 6307/6460/6478/6617
Email mvmpg@ed.ac.uk
www.ed.ac.uk/medicine-vet-medicine/postgraduate

Explore postgraduate life through our films, e-zines and student blogs.
www.ed.ac.uk/medicine-vet-medicine/postgraduate-life

Join in the conversation on Twitter.
twitter.com/thedickvet

Visit us
Our Postgraduate Open Day is your opportunity to come and meet current staff and students. Our next campus-based Open Day takes place on Wednesday 13 November 2019. For more information, visit:
www.ed.ac.uk/postgraduate-open-day

Our visits to you
If you are unable to visit the University, we attend events throughout the year so you can meet and speak to us in person.

UK and Europe:
www.ed.ac.uk/postgraduate/events

International:
www.ed.ac.uk/international/our-visits-overseas

Chat online
We offer all postgraduate students online information sessions. To find out more and see when the next session will be:
www.ed.ac.uk/postgraduate/online-events

For international students, Edinburgh Global also offers regular online chats. To find out more:
www.ed.ac.uk/international/chat-to-us-online

“You are now in a place where the best courses upon Earth are within your reach…such an opportunity you will never again have.”
Thomas Jefferson, American Founding Father and President (speaking to his son-in-law, Thomas Mann Randolph, as he began his studies at Edinburgh in 1786)
On 23 June 2016 the UK electorate voted in a national referendum to leave the European Union. EU postgraduate taught students enrolling in the 2020/21 academic year will be admitted as Scottish/EU fee status students and eligible for the same tuition support as Scottish domiciled students for the duration of their studies. This will still be the case in the event of a Brexit no deal scenario. For the latest information for students and applicants from the EU, please visit our website: www.ed.ac.uk/news/eu

The University’s standard terms and conditions will form an essential part of any contract between the University of Edinburgh and any student offered a place here. Our full terms and conditions are available online: www.ed.ac.uk/student-recruitment/terms-conditions

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