Our proud history and alumni ambassadors
For more than 400 years our staff and students have been making their mark on the world. They’ve explored space, revolutionised surgery, won Nobel Prizes, published era-defining books, run the country, paved the way for life-saving breakthroughs and laid the foundations for solving the mysteries of the universe. By choosing further study or research at Edinburgh you will be joining a community of scholars who have been at the forefront of knowledge since 1583.

We are associated with 20 Nobel Prize winners, including physicists Peter Higgs, Charles Barkla and Max Born, medical researcher Peter Doherty, economist Sir James Mirrlees and Biologist Sir Paul Nurse. Our distinguished alumni include NASA astronaut Piers Sellers, former MI5 Director-General Dame Stella Rimington, Olympians Sir Chris Hoy and Katherine Grainger and historical greats such as philosopher David Hume, physicist and mathematician James Clerk Maxwell, inventor Alexander Graham Bell and Sherlock Holmes creator Sir Arthur Conan Doyle.

Teaching and research excellence
We are consistently ranked as one of the world’s top 50 universities. We are 17th in the 2014/15 QS World University Rankings. As home to more than 30,000 students from some 137 countries, studying across 100 academic disciplines, the University of Edinburgh continues to attract the world’s greatest minds. In the Research Excellence Framework (REF) 2014, 83 per cent of our research was judged world-leading or internationally excellent. We’re ranked fourth in the UK for research power, based on the quality and breadth of our research. Our excellent teaching was also confirmed in the latest report from the Quality Assurance Agency, which awarded us the highest rating possible for the quality of the student learning experience.

Collaborations and international partnerships
As an internationally renowned centre of academic excellence, Edinburgh is the site of many world-class research collaborations. Our postgraduate students are crucial to our continued success and development and, along with our staff, they forge research links through regular travel and overseas exchanges. We take pride in our partnerships with other institutions 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 – to name but a few. We are a member of both the League of European Research Universities and the Coimbra Group, giving us strong links with leading European institutions from Barcelona to Berlin.

Linking research and commerce
Edinburgh was one of the first UK universities to actively develop commercial links with industry, government and the professions. Edinburgh Research and Innovation (ERI) has continued, for the past four decades, to develop the promotion and commercialisation of the University’s research excellence. ERI assists our postgraduates in taking a first step to market, whether it’s through collaborative research, licensing technology or providing consultancy services.

Enhancing your career
We’re ranked 18th in the world for the employability of our graduates. With one of the best track records for graduate employment in the Russell Group, we’re committed to embedding employability into your teaching and learning experience. From offering access to volunteering schemes to providing support from our sector-leading Careers Service, the University provides myriad opportunities to develop your skills, knowledge and experience giving you the edge in a competitive job market.

An inspiring destination
Your first-class education will take place in one of Europe’s most striking capital cities, a UNESCO World Heritage Site that is regularly voted one of the best places in the world to live. Edinburgh enjoys a solid reputation as a centre for innovation, whether as home to the 18th-century Scottish Enlightenment, as a modern source of pioneering science, medicine and technology, or as the host of the world’s largest and longest-established arts festival. You couldn’t ask for a more inspiring setting in which to further your knowledge and broaden your horizons.

Join us
Edinburgh offers unparalleled academic breadth and diversity, making it a vibrant, challenging and stimulating environment for postgraduate study. Whether you plan to change direction, enhance your existing career or develop in-depth knowledge of your area of study, the University of Edinburgh provides a world-class learning experience.

* Latest Emerging Global Employability University Rankings

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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)
WELCOME TO THE COLLEGE OF MEDICINE & VETERINARY MEDICINE

The College of Medicine & Veterinary Medicine is a leading force internationally in basic-to-clinical translational research and teaching.

The Research Excellence Framework (REF) 2014 reaffirmed our position as one of the world’s leading centres of medical and veterinary medical research. We entered three units of assessment – medicine, veterinary medicine and neuroscience. In all three we were ranked in the top five institutions and retained our first place ranking as the UK’s top veterinary school. Overall, 84 per cent of our research was rated world-leading or internationally excellent. Our submissions were some of the largest in the UK, emphasising the enormous breadth and strength of our research in human and animal medicine and health.

Dynamic experience

We offer our postgraduate students a dynamic experience. Here you will find a broad range of world-leading research centres, including MRC-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. The College’s groundbreaking 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. Research themes include:

- cancer;
- cardiovascular science;
- health and welfare of animals;
- 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.

Illustrious history

Medicine in Edinburgh can trace its origins back nearly 500 years. The Royal (Dick) School of Veterinary Studies was founded in 1823. For centuries, medicine and veterinary medicine at Edinburgh have held an international reputation for research and teaching leadership, and for improving the health and wellbeing of communities across the globe.

Pioneers and trailblazers

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

- 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;
- James Syme, pioneering surgeon;
- Margaret Barry, 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;
- Julius Jefferys, inventor of the respirator;
- Alexander Woods, who introduced the hypodermic syringe;
- 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;
- Matthew Kaufman, one of the first scientists to culture the embryonic stem cells of mice and cultivate them in a laboratory, paving the way for stem cell research;
- Ian Frazer, who discovered that human papilloma virus (HPV) could develop into cervical and other types of cancer.

Global influence

Edinburgh veterinary practitioners took the Edinburgh model around the world with unprecedented success. William Dick was an outstanding practitioner who made great strides in establishing veterinary education in Scotland. Besides establishing the Vet School in 1823, he was appointed Veterinary Surgeon in Scotland to Queen Victoria in 1844. Our more recent history includes the creation of the world’s first animal to be cloned from an adult somatic cell, by the team of scientists led by Professor Sir Ian Wilmut. Our ethos

Interdisciplinary research and high-quality teaching are at the heart of our ethos. All students, whether taught or research, belong to one of two Schools:

- Royal (Dick) School of Veterinary Studies; or
- Edinburgh Medical School.

Edinburgh Medical School consists of three Deaneries:

- Clinical Sciences
- Biomedical Sciences
- Molecular, Genetic and Population Health Sciences.

The College’s research is organised into five institutes, where clinical and basic scientists interact closely around their basic-to-translational goals:

- Queen’s Medical Research Institute
- Institute of Genetics and Molecular Medicine
- Edinburgh Neuroscience
- Roslin Institute
- Usher Institute of Population Health Sciences and Informatics
Graduate School

Our Graduate School provides an interdisciplinary, college-wide support network for all postgraduate students and staff. It is home to more than 2,400 postgraduate students studying within the Royal (Dick) School of Veterinary Studies or Edinburgh Medical School.

The Graduate School supports and fosters the best possible learning and research environment, working in partnership with our two Schools and the University’s central services to ensure our postgraduate student experience is world-class. It promotes the sharing of good practice across all teaching and research platforms, and aims to ensure that whether you study on campus or online, your academic and pastoral needs are appropriately provided for.

The Graduate School hosts a number of events including the open day and online chat sessions for prospective students, welcome events, and our round of the international 3 Minute Thesis competition.

Graduate School Hubs
Whether you’re studying online or in Edinburgh, your programme will belong to one of our Graduate School Hubs. Your Hub will provide you with an accessible point of personal contact – in person, online or by phone – from application to graduation. Hubs are arranged thematically to bring together students working in similar fields. However all students in all Hubs work together as part of the wider Graduate School. Our Hubs are in:

- Biomedical Sciences
- Clinical & Translational Sciences
- Dental Institute
- Edinburgh Neuroscience
- Institute of Genetics and Molecular Medicine
- R(D)SVS & Roslin Institute
- Usher Institute.

Community

We aim to foster a close community of postgraduate staff and students.

On campus, masters students work closely with their classmates through tutorials, lectures and seminars, becoming part of a close-knit group over the duration of their programme.

Distance isn’t a barrier for our online distance-learning postgraduates; a diverse group of students from all over the world united through their academic interests. Using our award-winning interactive learning environments, our online students and tutors maintain a supportive virtual community that ensures successful online study.

Each research student joins an individual research centre within the College, and within each centre there are both social and academic opportunities to integrate with the wider postgraduate community, such as through seminar series, team-building and development exercises at College and University level or through the University’s Postgraduate Society.

Networking spaces are vital in the fostering of a strong community and we are fortunate within the College to have excellent communal spaces for this purpose on all of our campuses.

Joining professional societies can also be beneficial to postgraduate training and allows membership of a wider academic community. In many cases societies offer travel grants for students and membership usually entitles reduced or waived registration fees to society meetings.

You will have access to all the support services available across the University, ranging from the Careers Service, International Office and the Edinburgh University Students’ Association, through to the independent Advice Place and the Student Counselling Service.

More information: www.ed.ac.uk/staff-students/students/student-services
Research and teaching environment

Each year, we support the training of more than 800 research students, and around 1,500 students undertaking taught programmes on campus or online. Whether you’re undertaking a specialist research degree or a masters dissertation, we offer a wealth of interdisciplinary opportunities.

Research is organised across our two Schools and delivered within the five institutes described below, which each host a number of research centres. Our interdisciplinary groups, centres and institutes bring together basic and clinical academic staff and students in broad, thematic research concentrations encompassing basic sciences, translational and clinical research.

Queen’s Medical Research Institute (QMRI) is a world-class clinical research institute addressing a range of diseases at the most fundamental cellular level. Research is broadly focused on normal and diseased cells and inflammation and tissue repair. In QMRI, the research emphasis is towards clinical translational science, with two-way iteration from bench-to-bedside. Centres within the institutes are hubs for interdisciplinary research and training, and investigators collaborate widely, fostering the beneficial sharing of knowledge, ideas, skills, scientific cultures and infrastructure. QMRI hosts four research centres:

- **BHF Centre for Cardiovascular Science:** [www.cvs.ed.ac.uk](http://www.cvs.ed.ac.uk)
- **Centre for Clinical Brain Sciences:** [www.ccbss.ed.ac.uk](http://www.ccbss.ed.ac.uk)
- **Centre for Cognitive and Neural Systems:** [www.ccneds.ac.uk](http://www.ccneds.ac.uk)
- **Centre for Genomic and Experimental Medicine:** [www.cgem.ed.ac.uk](http://www.cgem.ed.ac.uk)

The Roslin Institute

The Roslin Institute’s vision brings together a coordinated commitment to research and research training that improves the health and welfare of animals and humans, protects the environment and supports safer and more secure food supplies, and more resilient rural communities. Our research focuses on Food and Environmental Security and One Biology/One Health, two of the greatest challenges facing humanity. It hosts Edinburgh Infectious Diseases and research from the Royal (Dick) School of Veterinary Studies.

The Usher Institute of Population Health Sciences and Informatics

The Usher Institute’s vision is to conduct transformative research that impacts upon health care to improve the health and wellbeing of patients, communities and populations locally and globally. It brings together a critical mass of researchers, with expertise in epidemiology, statistics and modelling, informatics, computer science, clinical science, sociology, social policy, governance, ethics, politics, medical law, psychology, economics, geography, health promotion and medicine to create a truly interdisciplinary research institute. Our research and innovation community will also support leadership and delivery for Edinburgh Data Science. The Usher Institute hosts the Centre for Population Health Sciences.

Research centres

You can find out more about our interdisciplinary research centres online:

- **BHF Centre for Cardiovascular Science:** [www.cvs.ed.ac.uk](http://www.cvs.ed.ac.uk)
- **Centre for Clinical Brain Sciences:** [www.ccbss.ed.ac.uk](http://www.ccbss.ed.ac.uk)
- **Centre for Cognitive and Neural Systems:** [www.ccneds.ac.uk](http://www.ccneds.ac.uk)
- **Centre for Genomic and Experimental Medicine:** [www.cgem.ed.ac.uk](http://www.cgem.ed.ac.uk)
- **Centre for Integrative Physiology:** [www.ed.ac.uk/integrative-physiology](http://www.ed.ac.uk/integrative-physiology)
- **Centre for Neuroregeneration:** [www.cnre.ac.uk](http://www.cnre.ac.uk)
- **Centre for Population Health Sciences:** [www.cpphs.mvm.ed.ac.uk](http://www.cpphs.mvm.ed.ac.uk)
- **Edinburgh Cancer Research Centre:** [www.ecrc.ed.ac.uk](http://www.ecrc.ed.ac.uk)
- **Edinburgh Infectious Diseases:** [www.eid.ed.ac.uk](http://www.eid.ed.ac.uk)
- **MRC Centre for Inflammation Research:** [www.eid.ed.ac.uk](http://www.eid.ed.ac.uk)
- **MRC Centre for Regenerative Medicine:** [www.crm.ed.ac.uk](http://www.crm.ed.ac.uk)
- **MRC Centre for Reproductive Health:** [www.mrc.ed.ac.uk](http://www.mrc.ed.ac.uk)
- **MRC Human Genetics Unit:** [www.hgu.mrc.ac.uk](http://www.hgu.mrc.ac.uk)
- **The Roslin Institute:** [www.roslin.ed.ac.uk](http://www.roslin.ed.ac.uk)
- **Centre for Clinical Brain Sciences:** [www.ccbss.ed.ac.uk](http://www.ccbss.ed.ac.uk)
- **Centre for Cognitive and Neural Systems:** [www.ccneds.ac.uk](http://www.ccneds.ac.uk)
- **Centre for Genomic and Experimental Medicine:** [www.cgem.ed.ac.uk](http://www.cgem.ed.ac.uk)
- **Centre for Integrative Physiology:** [www.ed.ac.uk/integrative-physiology](http://www.ed.ac.uk/integrative-physiology)
- **Centre for Neuroregeneration:** [www.cnre.ac.uk](http://www.cnre.ac.uk)
- **Centre for Population Health Sciences:** [www.cpphs.mvm.ed.ac.uk](http://www.cpphs.mvm.ed.ac.uk)
- **Edinburgh Cancer Research Centre:** [www.ecrc.ed.ac.uk](http://www.ecrc.ed.ac.uk)
- **Edinburgh Infectious Diseases:** [www.eid.ed.ac.uk](http://www.eid.ed.ac.uk)
- **MRC Centre for Inflammation Research:** [www.eid.ed.ac.uk](http://www.eid.ed.ac.uk)
- **MRC Centre for Regenerative Medicine:** [www.crm.ed.ac.uk](http://www.crm.ed.ac.uk)
- **MRC Centre for Reproductive Health:** [www.mrc.ed.ac.uk](http://www.mrc.ed.ac.uk)
- **MRC Human Genetics Unit:** [www.hgu.mrc.ac.uk](http://www.hgu.mrc.ac.uk)
- **The Roslin Institute:** [www.roslin.ed.ac.uk](http://www.roslin.ed.ac.uk)

Facilities

We cater for our wide range of disciplines with extensive facilities and critical investment in order to create the perfect environment for discovery.

Our facilities include:

- a Medical School, next to the Royal Infirmary of Edinburgh at Little France;
- the Roslin Institute, housed in a state-of-the-art building on a new, shared campus with the Royal (Dick) School of Veterinary Studies;
- a new teaching facility for the Vet School;
- the Queen’s Medical Research Institute, which houses three world-class medical research centres and more than 800 researchers;
- the Institute of Genetics & Molecular Medicine, home to around 500 world-leading medical researchers;
- Edinburgh Neuroscience, one of the largest neuroscience groupings in the world;
- the Usher Institute’s Clinical Research Imaging Centre;
- the Wellcome Trust Clinical Research Facility with trials and clinical research governance support;
- recently refurbished, pre-clinical research centres on the central campus;
- the latest imaging technologies;
- the Scottish Centre for Regenerative Medicine, based at our Little France campus;
- Edinburgh BioQuarter, a major medical research commercialisation initiative, also at our Little France campus;
- the Usher Institute of Population Health Sciences and Informatics, our newest institute, based at our Little France campus.

www.ed.ac.uk/medicine-vet-medicine/postgraduate
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, Essay Planning and Writing.

Our research students can develop their planning skills, professional development, communication and IT skills through study skills training packages in the UK. Our experts provide information, events and courses to benefit from the University’s Institute to the next stage of your career.

The IAD also offers one of the longest-running world-class study skills programmes. Our experts provide information, events and courses to benefit from the University’s Institute to the next stage of your career.

The Institute provides research students with dedicated training in topics such as research management; personal effectiveness; communication skills; public engagement, networking and teamworking; leadership; and career management. You can gain expertise in information technology and presentation skills; confidence in undertaking independent and creative research; the ability to critically evaluate source materials; and the capacity to construct intellectually rigorous arguments. By developing these broader professional skills and qualities, our postgraduate students are always in high demand.

Careers Service

The University’s award-winning Careers Service aims to expand the horizons of all our students, empowering you to make successful career decisions. It works closely with the University’s Employability Consultancy to support students to take advantage of every opportunity to enhance your employability while studying.

The Service provides specialist support for postgraduate students to help with career planning and decision making. Its team of friendly experts can support you to explore different career options, identify your skills and what you want out of a career, think about effective job search strategies, and prepare for job applications and interviews.

The Service has a team dedicated to developing our already strong links with employers from all industries and employment sectors; from the world’s top recruiters to small enterprises based here in Edinburgh. The team provides a programme of opportunities for students to meet employers on campus and virtually, and advertises a wide range of part-time and graduate jobs.

Connect.ed

Edinburgh encourages its alumni to stay in touch with current students who are interested in a similar career path. Connect.ed is a networking system run by the Careers Service that provides a confidential opportunity for alumni to share their occupational knowledge and experience with current students, who can contact them for advice and guidance on their future career.

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

Backing bright ideas

LAUNCH.ed is the University’s award-winning programme for student entrepreneurs. Each year, LAUNCH.ed works with hundreds of students to assess their ideas and develop their business skills and helps many start their businesses. We have helped Edinburgh students and alumni launch almost 100 new businesses in the last three years, ranging from language tuition to robotics companies.

More information:
www.LAUNCH.ed.ac.uk

Eurolife postgraduate student exchange visits

The College of Medicine & Veterinary Medicine is a member of the Eurolife consortium, which comprises eight European, research-led, life sciences universities. Established in 1999, Eurolife promotes transnational interactions through research collaboration, postgraduate programmes and student mobility programmes. Eurolife offers you the opportunity to undertake learning and/or research in another leading European university, while gaining new contacts, skills and experience.

The eight Eurolife universities are:

• The University of Edinburgh, College of Medicine & Veterinary Medicine
• Karolinska Institute, Sweden
• University Medical Center, Göttingen, Germany
• University of Barcelona, Spain
• Medical University of Innsbruck, Austria
• University of Strasbourg, France
• University of Antwerp, Belgium
• School of Medicine, Trinity College, Dublin, Ireland
• Leiden University Medical Center, Netherlands

*Latest Emerging Global Employability University Rankings

Eurolife postgraduate student exchange visits are for up to six months, to undertake masters-level course modules and/or a research project. Normally each institution will accept exchange visits by up to two students from each partner institution per academic year. Eurolife student exchange visits do not incur tuition fees. Students intending to undertake an exchange visit should contact the College Research Officer by email, mmresearch@ed.ac.uk, at least seven months in advance of a proposed visit start date, to discuss submitting an application.

More information:
www.ed.ac.uk/medicine-vet-medicine/eurolife

Global Health Academy

The University’s Global Health Academy draws on a wide range of expertise, crossing all boundaries in global health. Because global health is not one single discipline, but multiple disciplines cutting across traditional institutional functions and boundaries, the University has brought together world-class research drawn from numerous academic areas in order to deliver a greater impact. For example, public health and clinical physicians work closely with our leading anthropologists, biomedical scientists, epidemiologists, geographers, health economists, management specialists, mathematicians, political scientists and sociologists. The umbrella of the Global Health Academy also extends outwards to specialists across the globe who wish to lend their expertise to our training, teaching or research for shorter or longer periods.

More information:
www.ed.ac.uk/global-health
Online distance learning masters programmes

Our flexible, online distance learning masters programmes are making a difference to a new generation of postgraduate students around the world.

The University of Edinburgh is the largest provider of postgraduate online distance learning programmes in the Russell Group. The College of Medicine & Veterinary Medicine has been offering innovative postgraduate programmes online since 2005 and now has more than 25 programmes for you to choose from. With more than 1,500 online students in our College, we can assure you that we take the delivery of teaching online as seriously as we do on campus. You can choose to study at a time and in a place that suits you, saving relocation costs and allowing you to maintain professional and personal commitments.

Our online learning technology is fully interactive and enables you to communicate with our highly qualified teaching staff from the comfort of your own home or workplace. We give you as much access to our staff as if you were here in Edinburgh. Our online students not only have access to Edinburgh’s excellent resources, but also become part of a supportive online community, bringing together students and tutors from around the world. You can choose to study intermittently then your tuition fees will be charged on a course-by-course basis. Full details can be found online.

More information:
www.ed.ac.uk/student-funding/fees-postgraduate

New programmes

We are expanding our online distance learning portfolio and plan to launch the following programmes for September 2016 intake:

**Advanced Clinical Practice**
M VetSc/PgDip/PgCert/Short courses
This qualification will support veterinary practitioners seeking to develop advanced specialist skills and apply for RCVS Advanced Practitioner status. It may also support those intending to progress to European Diploma (veterinary specialist) through the available institutional programmes. It is designed to allow you to improve your clinical skill set to enhance the quality of your practice, by improving patient care, client services and business success, and your own employability. This flexible programme will have a clinical focus, and will include courses in cardiology, ophthalmology and dermatology, ideal for veterinary graduates.

**Applied Disease Ecology in Livestock Production**
MSc/PgDip/PgCert/Short courses
This programme will allow those working in animal health to identify fundamental drivers of disease outbreaks, enabling you to control the disease at the farm level, rather than just treat the symptoms. It will provide the latest research in disease systems, and facilitate the application of this knowledge in your own areas. Ideal for vets and science graduates who wish to enhance their knowledge and understanding of the implications of managed and natural environments for disease risk and control.

**Clinical Animal Behaviour**
MSc/PgDip/PgCert/Short courses
This programme is about dealing with the problem behaviour of animals, mainly dogs and cats, and will be taught by a range of international animal experts including clinical animal behaviour practitioners. It will offer a recognised and credible qualification for students interested in becoming professionally involved in the field. Ideal for biologists, vets, vet nurses, animal scientists, animal welfare specialists, dog and cat charity workers, or psychology graduates.

**Data Science**
PgCert/Short courses
This programme is aimed at professionals wishing to develop an awareness of applications and implications of data intensive systems. It is intended to allow different points of entry into data science, across sciences, medicine, arts and humanities. It will promote deeper knowledge through domain experience and instruction in technology, concentrating on active uses of data research. You will gain an understanding of how data richness, combined with enabling technologies, opens up radical new ways of approaching research, innovation and education.

**Veterinary Anaesthesia & Analgesia**
MSc/PgDip/PgCert/Short courses
This programme is designed to allow people who are working within anaesthesia in a variety of roles to gain a qualification to accompany that experience and knowledge. You will be supported by a team of anaesthetists who are experienced both in anaesthesia and analgesia but also in teaching. Ideal for veterinary surgeons with an interest in veterinary anaesthesia, or veterinary nurses or researchers who are involved with anaesthesia in veterinary practice or research.

For more up-to-date information on these programmes, check online: www.ed.ac.uk/pg/degrees
Anatomical Sciences

Programme description
This programme provides an opportunity for students who want to explore aspects of human anatomy through the flexibility of an online distance learning programme. It is ideal for medical, biomedical, 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
The programme consists of courses that draw on material currently used in the on campus masters degree in Human Anatomy and our medical degree programme. Each of the taught courses has a set of modules that are released to students on a weekly basis from our virtual learning environment. The modules consist of the following structure:

- a recorded lecture to introduce the topic;
- interactive content (video/animated/narrative);
- a set of resource links to course reading – library and research;
- a discussion board facilitated by a tutor; and
- a set of multiple choice questions (MCQs) which students can take at the end of each week – these are formative and do not contribute to the final mark.

At the end of each module there is a further set of multiple choice questions which students take to contribute to the final mark.

YEAR 1

Fundamental Human Anatomy 1; Fundamental Human Anatomy 2; Embryology; Neuroanatomy.

YEAR 2

Advanced Human Anatomy 1; Advanced Human Anatomy 2; Imaging; Histology.

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 transferrable skills, which will be relevant to your current career, further study or 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.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in one of the following areas: biological sciences, biomedical sciences, medicine, veterinary medicine, or sports science. Personnel in professions allied to medicine will also be considered.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
for funding information see also page 58.

Programme Director
Gordon Findlater
Tel +44 (0)31 650 2977
Email gordon.findlater@ed.ac.uk

Biodiversity, Wildlife & Ecosystem Health

MSc PgDip PgCert 3 yrs, 2 yrs or 1 yr PT

Programme description
This flexible 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 Academy, www.ed.ac.uk/globalacademies

Programme structure
The programme is delivered using innovative online learning. It involves a mixed teaching approach which includes independent study and reflection as well as online discussion and group project work. More information: www.web.mm.ed.ac.uk/coursesinfo.html

YEAR 1: CERTIFICATE
You will study the following areas: evolution and biodiversity; ecosystem health and sustainability; ecosystems and governance; and conservation ethics.

YEAR 2: DIPLOMA
You will choose six option courses from the following: Climate Change; Policy and Practice; Communication and Public Engagement of Conservation; Genomics; Environmental Law; Ex-Situ Wildlife Management; Extreme and Fragile Ecosystems; An Introduction to Taphonomy; Disease Introduction to GIS and Spatial Data Analysis; Invasive Non-Native Species; Land Use and Food Security; Managing Ecosystems for Human Health and Wellbeing; The Marine Environment; The Modern Zoo; The Use of Artificial Reproductive Technologies in Threatened Species; Water and Sanitation; Wildlife Crime and Forensic Investigation; Wildlife, Animal Health and Environment; Wildlife Tourism; Zoonotic Disease.

YEAR 3: MASTERS
You complete your own choice of dissertation of 10,000-15,000 words.

Our award-winning online learning technology is fully interactive and enables you to communicate with your highly qualified teaching staff from the comfort of your own home or workplace.

Career opportunities
This programme has been designed to help you find work in environmental, intergovernmental, national and international agencies, as well as lobby groups, NGOs and other research groups.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a zoological, biological, environmental, veterinary or a relevant bioscience topic. Applicants with relevant work experience may be considered on a case-by-case basis.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
for funding information see also page 58.

Programme Director
Gordon Findlater
Tel +44 (0)31 650 2977
Email gordon.findlater@ed.ac.uk

Clinical Education

MSc PgDip PgCert 3 yrs, 2 yrs or 1 yr PT

Programme description
Our Clinical Education programme takes advantage of our world-renowned expertise to enhance your abilities to teach and assess students in a clinical environment. This is an ideal programme for those responsible for tutoring health care professionals and veterinary practitioners, including doctors, nurses, dental practitioners and those involved with veterinary education.

Our aim is to 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. As a result you will learn the knowledge and skills you need to deliver, develop and research high-quality clinical education in your own discipline. This programme is affiliated with the University’s Global Health Academy.

Programme structure
There are three courses at the certificate stage and three at the diploma stage. This is followed by your thesis in the third year. We deliver lectures and tutorials online and you will be expected to use self-directed learning, peer discussion boards, tutorials, peer presentations and other similar learning activities to help engage with and get the most from the course materials.

YEAR 1: CERTIFICATE
Principles of Teaching and Learning; Assessment, Examinations and Standard Setting; The Curriculum

YEAR 2: DIPLOMA
Principles of Developing the Individual: Research in Clinical Education; Policy, Leadership, Management and Evaluation

YEAR 3: MASTERS
A research report of approximately 15,000 words.

Career opportunities
This programme has been designed to enhance your prospects as a teacher and as an educator in your clinical or animal health field. It promotes high quality clinical education by helping participants reflect upon and share insights about their practice, to understand and apply educational theories and evidence from the literature, and to help participants develop a good solid foundation in clinical education and educational research upon which they can continue to build their own academic career.

Minimum entry requirements
A primary clinical qualification, such as an MBChB, BVS, BDS, Bachelor of Nursing, or equivalent is required. Applications from those with biomedical science qualifications or non-university professional qualifications such as RGN with appropriate clinical experience will be considered on an individual basis. You must be currently involved in clinical, medical, allied healthcare or veterinary education – for example, teaching, undergraduate or postgraduate students.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
for funding information see also page 58.

Programme Director
Sharron Ogle
Email Email online@mcs.ed.ac.uk

Clinical Management of Pain

MSc 3-6 yrs, PgDip 2-4 yrs, PgCert 1-2 yrs

Programme description
Through a solid, theoretical understanding of the biological, psychological and social concepts that drive, develop and maintain pain, this programme offers an indepth nature of pain and its effects. You will gain an advanced understanding of the specialist area of pain management including the biological and physiological concepts needed for the effective assessment and management of patients in pain. You will gain the knowledge, understanding and evaluative skills to provide advanced clinical care so as to improve outcomes for patients.

Programme structure
You will progress from PgCert to PgDip to MSc as you successfully complete each year of coursework. The PgCert courses are compulsory and provide the theoretical foundation for PgDip and MSc. Beyond the PgCert you will have the opportunity to broaden your understanding of specialist areas of pain management and to develop the knowledge required to meet specific professional and academic needs. The PgDip allows you to select from a number of options that are relevant to your employment prospects, personal interests and career goals, and the MSc allows you to explore a specialist area of interest in the form of a dissertation or structured project.

If you are interested in pain with a sub-specialty focus, there is the option to study pain management with a headache management 'stream'. On successful completion, you would be awarded a Postgraduate Diploma or MSc in the Clinical Management of Pain and Headache Disorders.

Career opportunities
Graduates will have gained skills suitable for employment in a range of industries including research establishments; educational facilities; government or political organisations; charity and welfare organisations, and within industry. A postgraduate qualification will also provide additional knowledge to supplement and support an ongoing clinical career.

Postgraduate Professional Development
If you are looking for a shorter course option, or are unsure if online postgraduate courses are for you, we offer one 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 Postgraduate Certificate, Postgraduate Diploma or MSc.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in medicine, nursing, dentistry, psychology, occupational therapy, physiotherapy, pharmacology or any other area of health care profession involved in the management of pain. Applications from those with non-university professional qualifications such as RGN with appropriate clinical experience will be considered on an individual basis.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
for funding information see also page 58.

Programme Director
Sarah Henderson
Email sarah.henderson@ed.ac.uk
**Clinical Microbiology & Infectious Diseases**

**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 fulfil continuing medical education requirements or who wish to obtain a formal qualification in clinical infectious diseases.

The programme is aligned with CRCPIT and RCPath training in infection disciplines; combined infection training and higher specialty training in infectious diseases, medical microbiology and medical virology. It is designed to support trainees/specialists in preparation for FRCPath Part 1 diploma in infection, infection specialty end-of-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.

**Programme structure**
This programme is designed to meet the needs of trainees and specialist practitioners from all over the world.

**YEAR 1**

- Introduction to Immunology: Science and Biology of Viruses; Science and Biology of Fungi; Parasites and Prions; Laboratory Practice in Microbiology, Virology and Toxicology; Antimicrobial Therapy and Resistance.

**YEAR 2**

- Immuno-pathology: Molecular Diagnostics of Infection; Community Acquired Infections and Public Health; Infection Prevention & Control: HIV Infection and Other Immunocompromised Patients; Clinical Syndromes and Infection; The Traveler: Diagnosis, Investigation and Management of Imported Infection; Bioinformatics and Study Design in Infectious Diseases; Emerging Infectious Disease.

**YEAR 3**

- Research in Infection Medicine. Written reflective element (project).

**Career opportunities**
This unique 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.

**Minimum entry requirements**
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a biomedical, medical, public health or relevant biological science topic. Applicants who fall below these entry requirements, but have relevant work experience, may be considered on a case-by-case basis. You may be admitted to the Certificate level only in the first instance.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate For funding information see also page 58.

**Conservation Medicine**

**Programme description**
Conservation Medicine is an emerging discipline that studies the complex relationships between animal health, human health and ecosystem health. This programme provides veterinarians with the skills and knowledge required to be effective practitioners of conservation medicine.

This programme is ideal for veterinarians who wish to achieve a world-class understanding while maintaining busy professional and personal commitments. You will gain the capacity and necessary expertise to contribute to the rapidly growing multidisciplinary field and to enhance career opportunities.

This programme is affiliated with the University’s Global Health Academy.

**Programme structure**
The flexible nature of this programme will allow you a maximum of six years to complete it. Each year will consist of three, 11-week terms, structured into two blocks of five weeks of study, with a week in between for independent study and reflection. It is also possible to complete the masters within two years and there are options for studying for a certificate or a diploma.

**YEAR 1: CERTIFICATE**

- Conservation Medicine & Clinical Trials; Eco-System Health and Species Conservation; Applied Epidemiology and Surveillance.

**YEAR 2: DIPLOMA**
You will study Veterinary Techniques and Interventions for Conservation Medicine and Wildlife Disease Management plus four option courses from a choice of ten.

**YEAR 3: MASTERS**
The written reflective element of the programme gives you the opportunity to further develop your scientific skills and utilise scientific theory in a written dissertation, a casebook relating to relevant professional experience, a personal portfolio of reflective and practical activity or a short research project.

**Career opportunities**
You can use your conservation medicine qualification to enhance your career prospects in academia, research, governmental and non-governmental organisations and consultancies.

**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 30 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.

**Minimum entry requirements**
A UK 2:1 honours degree or its international equivalent (www.ed.ac.uk/international/country) in veterinary medicine or veterinary science.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate For funding information see also page 58.

**Programme Director**
Anna Meredith
Email: conservation.medicine@ed.ac.uk
Programme description

This programme involves an in-depth scientific approach to managing health and welfare, reproduction, behaviour, nutrition and exercise for horses. You will also learn how to practically apply a scientific approach to benefit horse health, welfare and performance.

Our online programme is the first and only Equine Science programme within an international centre of veterinary excellence. It provides students with detailed knowledge and understanding of equine science and its applications and is excellent preparation for future independent research or a PhD.

Programme structure

The taught part of the programme consists of the following courses, while the final year is devoted to a dissertation.

The full MSc programme can be completed within two years if students study all taught courses in one year and devote the second year to a dissertation project. Alternatively you can take up to six years to complete the MSc. There is also the option to graduate with an Equine Science postgraduate certificate or diploma.

Programme description

This programme provides high quality, medical education in Family Medicine by distance learning, to an international audience in India and other partner countries where health systems are beginning to identify Family Medicine as a clinical specialty.

The programme will give doctors a comprehensive understanding of the principles, processes and practices of Family Medicine, and the essential medical knowledge and skills as an on-going challenge for the most common presenting health issues.

It is based on the competencies identified by the World Association of Family Medicine:

- an understanding of health promotion, prevention, diagnosis, treatment and care within a district hospital/health centre/community setting;
- skills in leadership and management of primary health care teams; and
- an understanding of continuity and contextualisation of care of the individual, the family and the community.

Programme structure

This distance learning programme is delivered with the support of our partner institution COMC Vellore, India. In addition to the courses delivered online and a dissertation, the programme requires a total of 30 days each year in residence at a rural hospital.

There are seven compulsory courses, which cover family medicine, reflective practice and principles of general practice, and evidence-based medicine for rural family medicine in rural settings.

Career opportunities

This programme will shape practitioners to become quality family doctors in rural and peri-urban areas in low income countries.

Minimum entry requirements

A UK 2:1 honours degree or its international equivalent (www.ed.ac.uk/international/country) in medicine. Applications are particularly welcome from medical graduates working in India or other low income countries with a commitment to continue working in poorly resourced areas.

English language requirements

See page 58.

Fees and funding

www.ed.ac.uk/student-funding/postgraduate

For funding information see also page 58.

Programme Contact

Jo Ntawuyamara-Marshall
Email family.medicine@ed.ac.uk

The 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.

Ijoma A Azodo, ChM in General Surgery

Fees and funding

www.ed.ac.uk/student-funding/postgraduate

For funding information see also page 58.

Programme Director

Ewen Harrison
Email gensurginfo@rcsed.ac.uk
Global eHealth

MSc 3 yrs, PgDip 2 yrs, PgProfDev up to 2 yrs, PgCert 1 yr PT

Programme description
This interdisciplinary programme introduces eHealth in the context of international health systems and global health challenges, supported by specialist courses covering areas such as public health informatics, telehealthcare and mHealth.

The term eHealth describes a diverse field concerned with the application of ICT to support the organisation and delivery of healthcare services and to enable citizens to manage their own health and wellness. It has become a priority area for the international healthcare sector and is attracting considerable global investment.

This programme is aimed at a wide audience, including health professionals, policymakers, NGOs, researchers, eHealth vendors and ICT practitioners. It is unique in addressing the topic from a truly international perspective, including a consideration of low and medium income economies.

Programme structure
This programme is delivered entirely online using a combination of online tuition, multimedia interactive learning materials, peer-to-peer discussion and independent study. A professional team of experts and e-learning technologists will support your progress.

YEARS 1 AND 2: CERTIFICATE AND DIPLOMA

Courses include: Introduction to Global eHealth; Introduction to Health Informatics; The Ethics and Governance of eHealth; Telemedicine and mHealth; The Business of eHealth; mHealth in High and Low Resource Settings; Global Health Challenges; User-centred Design; Public Health Informatics; Project Management.

YEAR 3: MASTERS

In the final phase of the programme, students are assessed on the basis of a structured research dissertation, based on a piece of original empirical research using a range of methods suited to the technology context and questions under investigation.

Career opportunities
Opportunities may exist within academic and commercial research in eHealth; eHealth industry – design, development, Ad agencies/NGOs – eHealth deployments and evaluation; Governments and health providers – eHealth policy and management; and International Agencies – eHealth policy, analysis, delivery.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in the field of clinical and allied health sciences, health policy, psychology, allied health sciences or a relevant related subject.

English language requirements
See page 58.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director
Claudia Pagliari
Email claudia.pagliari@ed.ac.uk

Global Health & Infectious Diseases

MSc 3-6 yrs, PgDip 2-4 yrs, PgProfDev up to 2 yrs PT, PgCert 1-2 yrs PT

Programme description
In the past few decades there has been almost one new disease emerging each year and more than 75 per cent of these diseases derive from zoonotic origins. There is now more demand for investment and research to help us manage these diseases better. This programme aims to address the challenges posed by infectious diseases in the 21st century by offering you courses in surveillance, prevention and control of infectious diseases, as well as evaluating how they impact public health.

This is a professional 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

Programme structure
The programme normally takes three years, beginning with a series of courses and followed by an individual project or dissertation.

YEAR 1: CERTIFICATE

Courses include Global Health Fundamentals and Understanding Infectious Diseases; you will also choose either a single course in Applied Epidemiology and Public Health or the two courses: Global Citizenship and Globalisation and Health.

YEAR 2: DIPLOMA

You will choose from a range of courses that includes: Emerging Infectious Diseases; Forensic Medicine and Science; Global Health: Mortality; Hospital-acquired Infections; Neglected Tropical Diseases; Newborn and Child Health; Public Health Systems in the Developed and Developing Worlds; Severe Transmitted Infections; Water and Sanitation; Zoonotic Disease.

YEAR 3: MASTERS

You will conduct a written reflective element of 10,000–15,000 words.

Career opportunities
This programme has been designed to help you fulfil leadership roles in international and national organisations that manage health and disease issues. A number of students have also raised their academic profile through the publication and dissemination of their final year research.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a biomedical, medical, public health and veterinary personnel or relevant bioscience topic. Relevant work experience may be considered. Applicants who fail below these entry requirements, but have relevant work experience, may be considered on a case-by-case basis.

English language requirements
See page 58.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director
Kim Picozzi
Email ghill.onlinesc@ed.ac.uk

Global Health Challenges

PgCert 1 or 2 yrs PT

Programme description
This programme is designed to equip those already working in global health and development, or those planning to work with international agencies and policy makers, with the tools, knowledge and skills to engage with complex problems related to equitable and just health and wellbeing. It will also be of immense value for those interested in global development and aid, those interested in careers in health journalism, or those who work in international business in the health and social care fields, or in corporate social responsibility and sustainability.

The programme will use the particular expertise that the University of Edinburgh and its global partners offer in global health including its medical, nursing and biomedical excellence, and its strengths in political and social science.

You will develop an understanding of the processes and procedures by which the global health agenda is shaped. You will also gain the analytical and conceptual skills necessary to critically evaluate the nature of global health issues and to understand the interconnectedness of health with social, environmental, psychological and economic determinants. This programme is affiliated with the University’s Global Health Academy: www.ed.ac.uk/global-health

Programme structure
The programme is delivered using an innovative blend of online learning opportunities and environments. It will involve mixed teaching approaches with world expert leads, online discussion, group project work, and individual work and reflection. After successfully completing this postgraduate certificate, you may choose to take two further postgraduate certificates in Global Development Challenges and Global Environment Challenges. Completion of all three certificates leads to an MSc in Global Challenges.

Our award-winning online learning technology is fully interactive and enables you to communicate with our highly qualified teaching staff from the comfort of your own home or workplace. You will not only have access to Edinburgh’s excellent resources, but also become part of a supportive online community, bringing together students and tutors from around the world.

Career opportunities
Graduates will have an understanding of the knowledge and skills required for pursuing a career with global health agencies, political institutions, businesses or academia.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in medicine, nursing, social science, science, biomedicine, or other related discipline. Applicants who fall below these entry requirements, but have relevant work experience, may be considered on a case-by-case basis.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director
Liz Grant
Email liz.grant@ed.ac.uk

Global Health Studies

PgProfDev up to 2 yrs, PgCert 1 yr PT

Programme description
This programme is designed to enable those with a personal, academic or professional interest in global health to study a variety of related subjects and provide them with global experience.

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 and non-communicable diseases, sanitation and water issues, conservation and global citizenship, forensic medicine and science. Some courses benefit from a scientific background although this is not a requirement.

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 awarded course level, allowing you to choose your curriculum content and manage your learning within flexible 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 that manage global health issues.

Postgraduate Professional Development
The certificate offers 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 credit bearing courses which run for five or 11 weeks at a time, and upon completion can 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 used towards obtaining a higher award, such as a Postgraduate Certificate, Postgraduate Diploma or MSc.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country). Some courses benefit from a scientific background although this is not an entry requirement. Relevant work experience may be considered on a case-by-case basis.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director
Kim Picozzi
Email globalhealth.studies@ed.ac.uk
Programme description
This course is aimed at those interested in imaging sciences, light microscopy, preclinical imaging and clinical imaging (including courses in cardio-thoracic, oncology and inflammation imaging).

The programme integrates the University’s rich and multidisciplinary imaging educational opportunities and provides a tailored imaging learning experience targeted at the diverse needs and interests of students with backgrounds in clinical medicine, basic sciences and engineering; and information technology.

Programme structure
You may study to Postgraduate Certificate or Diploma, or MSc level.

YEAR 1: CERTIFICATE
You will complete the compulsory courses Techniques & Physics and Practications & Safety. You will also complete two courses from the following options: Applications in Disease Research, Clinical Applications of Digital Image Processing & Analysis; Image Interpretation & Evaluation.

YEAR 2: DIPLOMA
You will complete the compulsory courses Statistics and Study Design. You will also complete four courses from the following options: Biomechanics/Acid Microscopy; Preclinical Imaging; Neuro-anatomy; Body Anatomy; Translational imaging: Cardiovascular Imaging; Oncologic Imaging; imaging in Inflammation & Infection.

YEAR 3: MASTERS
You will complete practical work (a project) and assessed activities.

Career opportunities
Clinical graduates will exit the programme with improved clinical image educational opportunities and provides a tailored imaging learning experience targeted at the diverse needs and interests of students with backgrounds in clinical medicine, basic sciences and engineering; and information technology.

Programme structure
This programme is made up of compulsory and option courses.

COMPELLING COURSES
Clinical Pharmacology: Science of Medicine, Laboratory Medicine; Imaging in Medicine; Genomics and Molecular Imaging; Clinical Decision-Making; Clinical Skills (Communication, Examination and Medical Procedures); Introductory Skills (IT Skills); Research/Literature Evaluation and Writing Skills; Research Methods.

OPTION COURSES
Cardiology; Dermatology; Neurology: Clinical Genetics; Translational Medicine; Clinical Education and Teaching; Medical Ethics; Palliative Care and Palliative Interventions; Study Design.

Our award-winning online learning technology is fully interactive and enables you to communicate with our highly qualified teaching staff from the comfort of your own home or workplace. You will not only have access to Edinburgh’s excellent resources, but will also become part of a supportive online community, bringing together students and tutors from around the world.

Career opportunities
This programme is designed to help medical professionals gain the next step in their medical career, with a highly regarded qualification and first-rate experience.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in medicine or a clinically relevant subject, plus work experience in a clinical context. Applicants who do not meet these requirements but have relevant work experience may be considered on a case-by-case basis.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Contact
Email Internal.medicine@ed.ac.uk
Neuroimaging for Research

MSc 3-6 yrs. PgDip 2-4 yrs. PgProfDev up to 2 yrs PT
PgCert 1-2 yrs.

Programme description
Neuroimaging research techniques are now in demand from expanding areas of research that require expert understanding of brain function. These include neuroscience, psychology, pharmacology, informatics, physics, computer science, neuroradiology and linguistics. This flexible, part-time, online programme allows you to improve your neuroimaging expertise and gain a highly regarded masters qualification, while remaining at work in your field and in your location. A professional team of neuroimaging experts and e-learning technologists will support your progress.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level.

YEAR 1: CERTIFICATE
You will complete the compulsory courses: Techniques and Physics; Applications in Disease; Common Image Processing Techniques; Practicabilities of MR.

YEAR 2: DIPLOMA
You will complete the compulsory courses: Anatomy; Statistics; Study; Design; Common Image Processing Techniques 2. You will also choose one of the following: Functional Imaging; Image Analysis; Translational Imaging and Clinical Trials.

YEAR 3: 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 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.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in neuroscience, physiology, pharmacology, informatics, psychology, physics or a related subject.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate

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

One Health

MSc 3-6 yrs. PgDip 2-4 yrs. PgProfDev up to 2 yrs PT
PgCert 1-2 yrs.

Programme description
One Health is an emerging discipline that studies the complex relationships and interactions between animal health, human health and ecosystem health. The new, re-emerging and recurring global health threats that we are facing require a long-term, more strategic approach to global health preparedness. Underlying the problem is the growing interaction between human and animal populations driven by growth in the human population, new trends in animal production practices, changing patterns of wildlife populations, human intrusion on new ecosystems, and trans-border mobility of humans, animals, food and feed products.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level.

YEAR 1: CERTIFICATE
Introduction to One Health; Applied Epidemiology; Surveillance and Observational Studies; One Health Policy and Practice.

YEAR 2: DIPLOMA
At least one of Social Economic Principles for One Health; Ecosystem Health; and One Health Management and Risk Assessment; plus your choice from: Emerging Infectious Diseases; Zoonotic Diseases; Communication, Public Engagement and Conservation; Introduction to GIS and Spatial Analysis; Surveillance and Control of Trans-boundary Diseases affecting International Trade; Wildlife Disease Management; Ex-situ Wildlife Management; Wild Animal Welfare; Environmental Law; Extreme and Fragile Ecosystems; Water and Sanitation.

YEAR 3: MASTERS
An assignment of 10,000-15,000 words; either a written dissertation, a casebook (relating to relevant professional experience); a personal portfolio of reflective and practical activity or a research project.

Career opportunities
This qualification will enhance your career prospects in academia, research, governmental and non-governmental organisations and private sectors, to advance One Health beyond the theoretical to the practical and bring attention to policy and operational issues in public and animal health sectors, and in food hygiene. The programme will equip you to travel worldwide for employment or research.

Postgraduate Professional Development
If you are looking for a shorter course, we offer online credit-bearing courses which run for 11 weeks. 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 scheme. These credits will be recognised in their own right or may be put towards an award, such as Postgraduate Certificate, Postgraduate Diploma or MSc.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in veterinary medicine, medicine, life/biological sciences, biomedical science, ecosystem health, environmental sciences, social science, or economics.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate

Programme Co-ordinator
Neil Anderson
Email: neil.anderson@ed.ac.uk
The programme is designed to give you the educational background you need to manage medical emergencies in children, throughout the world. The final year of the programme can be tailored to your circumstances and career goals.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level. You will study a number of suggested topics.

YEAR 1: CERTIFICATE
You will study a range of topics in Paediatric Medicine.

YEAR 2: DIPLOMA
You will take the following compulsory courses: Medical Emergencies; Surgical Emergencies & Trauma; Anaesthesia & Sedation; Additional Topics in Paediatric Emergency Medicine.

YEAR 3: MASTERS
You will study the compulsory course Management Issues in Paediatric Emergency Medicine and undertake a written reflective element from a number of suggested topics.

Programme description
This programme is offered by the University of Edinburgh and the Royal College of Surgeons of Edinburgh and has been developed in partnership with NHS Education for Scotland (NES). It is aimed at supporting optometrists seeking formal postgraduate training in community-based clinical care and also medical and surgical trainees entering optometry training. This programme offers first rate preparation for the Fellowship of the Royal College of Surgeons of Edinburgh (FRCES) and Fellowship of the Royal College of Optometrists (FCOphth) examinations or equivalent.

Programme structure
This programme involves approximately 10 hours of study each week in a flexible, modular manner. At Postgraduate Certificate and Postgraduate Diploma levels, students must attend an end-of-year examination, held in Edinburgh for UK-based students or with a pre-approved partner institution for international students.

In the MSc level, you are required to take part in weekly tutorials and discussions. It is estimated that 15–20 hours of clinical time and personal study will be required per week.

Career opportunities
This programme is aimed at high-calibre graduates in medicine involved in the management of clinical emergencies in children. It is ideal for trainees in paediatrics and emergency medicine, and also highly relevant for anaesthetists who wish to develop skills in paediatric anaesthesia or paediatric intensive care. It will also help primary care practitioners who work in remote and rural areas without paediatric support.

For funding information see also page 58.

www.ed.ac.uk/student-funding/postgraduate

www.ed.ac.uk/pg/667
Paediatric Emergency Medicine
MSc/PgDip/PgCert 3 yrs, 2 yrs or 1 yr PT

Programme description
This programme is aimed at high-calibre graduates in medicine involved in the management of clinical emergencies in children. It is ideal for trainees in paediatrics and emergency medicine, and also highly relevant for anaesthetists who wish to develop skills in paediatric anaesthesia or paediatric intensive care. It will also help primary care practitioners who work in remote and rural areas without paediatric support.

The programme is designed to give you the educational background you need to manage medical emergencies in children, throughout the world. The final year of the programme can be tailored to your circumstances and career goals.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level. You will study a number of suggested topics.

YEAR 1: CERTIFICATE
You will study a range of topics in Paediatric Medicine.

YEAR 2: DIPLOMA
You will take the following compulsory courses: Medical Emergencies; Surgical Emergencies & Trauma; Anaesthesia & Sedation; Additional Topics in Paediatric Emergency Medicine.

YEAR 3: MASTERS
You will study the compulsory course Management Issues in Paediatric Emergency Medicine and undertake a written reflective element from a number of suggested topics.

Programme description
This programme is offered by the University of Edinburgh and the Royal College of Surgeons of Edinburgh and has been developed in partnership with NHS Education for Scotland (NES). It is aimed at supporting optometrists seeking formal postgraduate training in community-based clinical care and also medical and surgical trainees entering optometry training. This programme offers first rate preparation for the Fellowship of the Royal College of Surgeons of Edinburgh (FRCES) and Fellowship of the Royal College of Optometrists (FCOphth) examinations or equivalent.

Programme structure
This programme involves approximately 10 hours of study each week in a flexible, modular manner. At Postgraduate Certificate and Postgraduate Diploma levels, students must attend an end-of-year examination, held in Edinburgh for UK-based students or with a pre-approved partner institution for international students.

Programme description
This programme is aimed at high-calibre graduates in medicine involved in the management of clinical emergencies in children. It is ideal for trainees in paediatrics and emergency medicine, and also highly relevant for anaesthetists who wish to develop skills in paediatric anaesthesia or paediatric intensive care. It will also help primary care practitioners who work in remote and rural areas without paediatric support.

The programme is designed to give you the educational background you need to manage medical emergencies in children, throughout the world. The final year of the programme can be tailored to your circumstances and career goals.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level. You will study a number of suggested topics.

YEAR 1: CERTIFICATE
You will study a range of topics in Paediatric Medicine.

YEAR 2: DIPLOMA
You will take the following compulsory courses: Medical Emergencies; Surgical Emergencies & Trauma; Anaesthesia & Sedation; Additional Topics in Paediatric Emergency Medicine.

YEAR 3: MASTERS
You will study the compulsory course Management Issues in Paediatric Emergency Medicine and undertake a written reflective element from a number of suggested topics.

Programme description
This programme is aimed at high-calibre graduates in medicine involved in the management of clinical emergencies in children. It is ideal for trainees in paediatrics and emergency medicine, and also highly relevant for anaesthetists who wish to develop skills in paediatric anaesthesia or paediatric intensive care. It will also help primary care practitioners who work in remote and rural areas without paediatric support.

The programme is designed to give you the educational background you need to manage medical emergencies in children, throughout the world. The final year of the programme can be tailored to your circumstances and career goals.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level. You will study a number of suggested topics.

YEAR 1: CERTIFICATE
You will study a range of topics in Paediatric Medicine.

YEAR 2: DIPLOMA
You will take the following compulsory courses: Medical Emergencies; Surgical Emergencies & Trauma; Anaesthesia & Sedation; Additional Topics in Paediatric Emergency Medicine.

YEAR 3: MASTERS
You will study the compulsory course Management Issues in Paediatric Emergency Medicine and undertake a written reflective element from a number of suggested topics.

Programme description
This programme is aimed at high-calibre graduates in medicine involved in the management of clinical emergencies in children. It is ideal for trainees in paediatrics and emergency medicine, and also highly relevant for anaesthetists who wish to develop skills in paediatric anaesthesia or paediatric intensive care. It will also help primary care practitioners who work in remote and rural areas without paediatric support.

The programme is designed to give you the educational background you need to manage medical emergencies in children, throughout the world. The final year of the programme can be tailored to your circumstances and career goals.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level. You will study a number of suggested topics.

YEAR 1: CERTIFICATE
You will study a range of topics in Paediatric Medicine.

YEAR 2: DIPLOMA
You will take the following compulsory courses: Medical Emergencies; Surgical Emergencies & Trauma; Anaesthesia & Sedation; Additional Topics in Paediatric Emergency Medicine.

YEAR 3: MASTERS
You will study the compulsory course Management Issues in Paediatric Emergency Medicine and undertake a written reflective element from a number of suggested topics.

Programme description
This programme is aimed at high-calibre graduates in medicine involved in the management of clinical emergencies in children. It is ideal for trainees in paediatrics and emergency medicine, and also highly relevant for anaesthetists who wish to develop skills in paediatric anaesthesia or paediatric intensive care. It will also help primary care practitioners who work in remote and rural areas without paediatric support.

The programme is designed to give you the educational background you need to manage medical emergencies in children, throughout the world. The final year of the programme can be tailored to your circumstances and career goals.

Programme structure
You may choose to study to Postgraduate Certificate, Postgraduate Diploma or MSc level. You will study a number of suggested topics.

YEAR 1: CERTIFICATE
You will study a range of topics in Paediatric Medicine.

YEAR 2: DIPLOMA
You will take the following compulsory courses: Medical Emergencies; Surgical Emergencies & Trauma; Anaesthesia & Sedation; Additional Topics in Paediatric Emergency Medicine.

YEAR 3: MASTERS
You will study the compulsory course Management Issues in Paediatric Emergency Medicine and undertake a written reflective element from a number of suggested topics.
RCVS Certificate in Advanced Veterinary Practice

Programme description
The RCVS Certificate in Advanced Veterinary Practice (CertAVP) is a flexible, modular approach to achieving veterinary postgraduate qualifications. Credits are awarded by RCVS and not the University of Edinburgh and as such the programme is not eligible for any University award. You will design your own programme, choosing a combination of elements that reflect your interests and are directly relevant to your work. You may choose modules from a number of accredited institutions in the UK. You are also encouraged to support your study by undertaking appropriate continuing professional development (CPD) and working closely with a mentor or senior colleague with experience in the subject area and/or professional experience of undertaking veterinary postgraduate qualifications.

Programme structure
The Certificate can be taken over 10 years, with each module taking one to two years, it is possible to complete the full programme in one year, though this will depend on the assessment timetable for each module. Modules are structured to allow sequential progression. For most candidates the usual route of study is:

- A FPV foundation skills – one year of study.
- 8 core skills modules – one year of study.
- 3 Advanced skills modules (av) – two years of study per module allowing time to gather cases etc.
- Synoptic assessment to achieve a designated certificate as required.

While it is recommended that the certificate is taken in this way, it is possible to take the modules in any order. Assessment submission links and support materials are provided online via Blackboard Learn.

Career opportunities
Holders of the RCVS Certificate will have the qualities and transferable skills necessary for professional veterinary work. Candidates may elect to progress to a European Diploma following completion of the Certificate.

Minimum entry requirements
You must be a member of RCVS, or hold a registrable degree; have at least one year’s postgraduate experience working as a veterinary surgeon; and be enrolled with RCVS to take the Certificate in Advanced Veterinary Practice (enrolment valid for 10 years). A list of recognised international qualifications is available online: www.rcvs.org.uk

It is also recommended that candidates who graduated after 2007 will have already declared themselves competent in their ‘Year One Competencies’, by completing the Professional Development Phase [PDP] before enrolling for any modules.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

CertAVP Administrator
Tel +44 (0)131 650 6149
Email cert.avp@ed.ac.uk

Science Communication & Public Engagement

Programme description
The fields of science communication and public engagement are currently of growing interest due to the increasing governmental scrutiny of science and a desire for a stronger evidence base for policy decisions. Many career opportunities are emerging at the interface between scientific research and various public groups.

You will experience a variety of science communication and public engagement methodologies and issues. In the process, you will develop critical thinking and self-evaluation skills through reflective practice.

Programme structure
YEAR 1: CERTIFICATE
Introduction to Science Communication and Public Engagement; Science and Society 1; Science and Society 2; Principles and Practice in Public Engagement with Science; Science Education; The Role of Social Media in Science Communication.

YEAR 2: DIPLOMA
Dialogue for Science Communication and Public Engagement; Science, Policy and Practice; Science and the Media; Effective Exhibit and Programme Development; Creative Arts in Science Engagement; Science Communication/Public Engagement Placement.

YEAR 3: MASTERS
SCPE Critical Analysis/Research Project or SCPE Practical Project.

Career opportunities
To address the need for effective science communication and public engagement with science, there has been a significant rise in opportunities available for professionals with the specialist knowledge, skills and attributes necessary to pursue roles at the interface between scientific research and publics.

These roles can be found, 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, and policy and knowledge brokers, in addition to the traditional science communication role.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a science-related subject. Other qualifications, at honours degree level combined with relevant experience, will also be considered on a case-by-case basis.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director
Elizabeth Stevenson
Email e.stevenson@ed.ac.uk

Surgical Sciences

Programme description
This online programme is jointly offered by the University of Edinburgh 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 (MRCSE) 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, Postgraduate Diploma or MSc. At Postgraduate Certificate and Postgraduate Diploma levels, students must attend an end-of-year examination, held in Edinburgh for UK-based students or with a pre-approved partner institution for international students.

YEAR 1
Introduction to the ESSG: Cardiovascular and Respiratory; Neurosurgery, Trauma and Orthopaedics and Haematology; Gastrointestinal 1; Gastrointestinal 2 and Transplant; Colorectal; Urology; Locomotor and Plastic; Endocrinology, Breast and Skin; ENT/DAMPS.

YEAR 2
Preoperative Assessment: Principles of Preoperative and Critical Care; Principles of Surgical Management; Surgical Communication Skills; Academic Activity.

YEAR 3
A masters research project in which you will plan, execute and develop a research paper, potentially involving clinical or laboratory research. Our award-winning online learning technology is fully interactive and enables you to communicate with our highly qualified teaching staff from the comfort of your own home or workplace. You will not only have access to Edinburgh’s excellent resources, but you will also become part of a supportive online community, bringing together students and tutors from around the world.

Career opportunities
The programme is designed to let you study towards your MRCS in a flexible way.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in medicine. You must also demonstrate that you will be in a supervised clinical environment while you are studying.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director
Stephen Wigmore
Email essqinfo@rcsed.ac.uk

Trauma & Orthopaedics

Programme description
This programme is offered by the Royal College of Surgeons of Edinburgh and the University of Edinburgh, and leads to the degree of Master of Surgery (CMH).

Based on the UK Intercollegiate Surgical Curriculum, the CMH in Trauma and Orthopaedics provides the opportunity for you to select advanced courses relevant to your declared specialty and supports learning for the Fellowship of the Royal College of Surgeons (FRCS) examinations.

The programme is designed to run alongside clinical training and complement workplace assessment.

Programme structure
The programme runs on a semester basis, over two years, and involves approximately 10 hours of study each week, in a flexible modular manner.

It is anticipated that some of this study would receive credit or mirror ‘in-the-workplace’ activities. The online distance learning nature of this programme is perfect for doctors working unsociable shift patterns.

YEAR 1
You will explore research and teaching methodology, and develop your ability to analyse and critically evaluate and write clinical communication skills. You will complete an academic dissertation project in your chosen subspeciality area of work.

We actively encourage you to seek publication of your work after completion of the programme.

YEAR 2
Compulsory courses cover the core elements of the subspecialties of the orthopaedic syllabus. These are taught and assessed using a clinical problem-based approach, supported by systems-based review of the course material. You will be expected to critically analyse reference material and formulate your own opinion.

Career opportunities
You will be able to demonstrate in-depth knowledge of your chosen subspeciality and be able to apply this knowledge to the systematic assessment and management of surgical patients in the elective, urgent and emergency clinical setting.

Minimum entry requirements
A basic medical qualification recognised by the General Medical Council. You must normally have acquired your MRCS (or equivalent assessment milestones) and be an Advanced Trainee in Trauma and Orthopaedics (ST [specialist training years] 5/6 in UK or equivalent outside UK).

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Directors
John McKinley & Matt Moran
Email cmhinfo@rcsed.ac.uk
Urology

ChM 2 yrs PT

Programme description
This programme is offered by the Royal College of Surgeons of Edinburgh and the University of Edinburgh and leads to the degree of Master of Surgery (ChM). Based on the UK Intercollegiate Surgical Curriculum, it provides the opportunity for trainees in urology to select those advanced modules relevant to their declared specialty and supports learning for the Fellowship of the Royal College of Surgeons (FRCS) examinations. The programme is designed to run alongside clinical training and complement workplace assessment.

Programme structure
The programme runs on a semester basis over two years and involves approximately 10 hours of study each week, in a flexible modular manner. It is anticipated that some of this study would receive credit or mirror ‘in-the-workplace’ activities. The online distance learning nature of this programme is perfect for doctors working unsocial hours.

YEAR 1

Compulsory courses will cover the basic elements of the specialty of urology, including oncology, andrology, stone disease, reconstructive urology, paediatric urology and renal transplantation.

YEAR 2

You will explore research and teaching methodology, and develop the ability to analyse published evidence and enhance your interactive and written clinical communication skills. You will be required to complete an academic critique/dissertation in an appropriate subspecialty area of work.

You will be expected to lead e-seminars and e-journal clubs, and produce an e-dissertation in the second year. A written examination (MCQs and EMIs) is held in the second year, following completion of compulsory courses, with a formal written examination (MCQs and EMIs) that will replicate the trainees’ upcoming exit exams.

Career opportunities
Graduates will be able to demonstrate in-depth knowledge of their chosen surgical subspecialty and to apply this knowledge to the systematic assessment and management of surgical patients in the elective, urgent and emergency clinical setting.

Minimum entry requirements
You must hold a basic medical qualification recognised by the General Medical Council, and would normally have acquired your MRCS [or equivalent assessment milestone] and be an Advanced Trainee in Urology.

English language requirements
See page 60.

Fees and funding
See page 58.

Programme Director
Grant Stewart
Email: chminfo@rcsed.ac.uk

See also...
You may also be interested in online distance learning programmes offered by other Schools within the University, particularly Next Generation Drug Discovery, which is offered by the School of Biological Sciences, and Research Informed Science Education, which is offered by the School of Physics & Astronomy.

www.ed.ac.uk/pg/792
On-campus masters and masters by research programmes

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

Taught masters programmes take 12 months to complete. They are taught through lectures, tutorials and seminars, as well as practical and lab work, and conclude with a dissertation.

An MSc by Research is also a 12-month programme, but is much more focused on developing your research skills, making it an excellent stepping stone to a PhD.

**Animal Biosciences**

**MSc 1 yr FT**

**Programme description**
This programme gives graduates the scientific knowledge and practical skills to carry out research in the emerging area of animal science and ‘One Health’, by providing foundation knowledge about the functioning of the animal body. We explore applications of basic animal sciences to veterinary and human medicine, the livestock industry and food security. The programme is held in the world famous Roslin Institute, which is housed in a new state-of-the-art research building on the Easter Bush campus, adjacent to the Royal (Dick) School of Veterinary Studies. You will become part of this Institute, enjoying our world-class reputation for research and a vibrant, successful academic community.

You will acquire expert scientific knowledge and practical skills in animal sciences, veterinary and human medicine, the livestock industry and food security.

**Programme structure**
The programme involves courses that are a blend of lectures, guided practical studies and independent research. You will also complete your own dissertation.

**COURSES**
Courses include: Foundations of Animal Sciences; Laboratory Tools for the Animal Sciences; Comparative Animal Models; Avian Development and Biology; Advanced Analytical Methods in Animal Biosciences; One Health, Zoonosis and Emerging Infections.

**DISSERTATION**
You will prepare a research proposal based on your laboratory (or bioinformatic) research project and will carry out this project under the supervision of a member of the Roslin Institute staff.

**Career opportunities**
This programme develops theoretical knowledge and practical skills, giving graduates a number of potential career development options in academia or industry. We envisage that at least 50 per cent of our graduates will find a PhD placement after this MSc. Our programme has been tailored to fulfil industry demand for in vivo skills and a wide range of our industrial partners have told us that graduates from this programme will become part of this Institute, enjoying our world-class reputation for research and a vibrant, successful academic community.

**Minimum entry requirements**
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in biological, veterinary or medical sciences. You are also required to have a working knowledge of molecular biology and laboratory experience.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director: Robert Daiziel
Email: roslin.mscstudies@roslin.ed.ac.uk

**Applied Animal Behaviour & Animal Welfare**

**MSc 1 yr FT (2 yrs or 3 yrs PT available for UK/EU students)**

**Programme description**
This programme has popular international appeal and is endorsed by many international organisations for its up-to-date understanding and application of the latest animal welfare methods and practices.

We will provide you with an understanding of animal welfare that can be applied in animal research, management, care, production, inspection, assessment and preparation of legislation. In addition to the core teaching team, many guest lecturers travel to Edinburgh each year to teach on the programme, allowing you to benefit from the experience and knowledge of professionals working throughout the animal behaviour and welfare community.

Our students benefit from the expertise of organisations such as the RSPCA, WSPA, SSPCA and Humane Slaughter Association.

**Programme structure**
The programme involves taught courses and your own dissertation. Throughout the taught courses, you will take part in many visits to farms and animal facilities. You can complete the programme over one, two or three years.

**COURSES**
You will study the following courses: Introduction to Applied Animal Behaviour and Animal Welfare; Biology of Suffering; Animal Cognition and Consciousness; Scientific Methodology; Animal Welfare Applications.

**DISSERTATION**
From March until August, you will work on a research project.

**Career opportunities**
Graduates move on to a variety of jobs such as research technicians, scientific advisors and lecturers. Many will also continue their study and enrol in a PhD.

**Minimum entry requirements**
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in animal science, biology, psychology, zoology or veterinary science.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Programme Director: Susan Jarvis
Email: susan.jarvis@sruc.ac.uk

“Studying in a large institution provides the opportunity to meet with different people from different countries and an ideal environment to interact and share knowledge.”

Olayinka Abejide, MSc Animal Biosciences
Biomedical Sciences

MSC by Research 1 yr FT

Programme description

This one year, full time programme provides an excellent grounding for PhD study in the biomedical sciences. You will learn valuable research skills, biomedical laboratory techniques and other transferable skills that will give you an advantage for the rest of your career. You can also choose two subjects, each one semester, that best suit your interests and career goals.

Programme structure

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

PROJECT 1 (SEPTEMBER TO FEBRUARY)

Options: Cardiovascular Biology; Cell Communication; Genomics & Genetic Pathways; Infectious Diseases; Mechanisms of Infectious Disease; Reproductive Science 1.

PROJECT 2 (APRIL TO AUGUST)

Options: Biomedical Imaging; Cancer Biology; Cancer Stem Cells; Genomic Technologies; Molecular & Cellular Mechanism of Inflammation; Reproductive Science 2.

You may also be able to undertake projects in neuroscience, infectious diseases, Cancer Cell Biology, or From Ovum to Organism: How Bodies Build Themselves, with the permission of the programme director. You would also be required to attend the taught element of another theme as appropriate.

RESEARCH PROPOSAL

Students 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.

Minimum entry requirements

A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in the biological, chemical or physical sciences.

English language requirements

See page 60.

Fees and funding

www.ed.ac.uk/student-funding/postgraduate

For funding information see also page 58.

Programme Director Andrew Hall
Email a.hall@ed.ac.uk

Cardiovascular Biology

MSC by Research 1 yr FT

Programme description

The aim of this programme is to give you a broad-based training in biomedical research, with a focus on cardiovascular science. This includes an introduction to cardiovascular development, the development of cardiovascular disease, organ function and dysfunction, and the cardiovascular system in reproduction and inflammation. You will gain an integrated view of the physiology and pathology of the cardiovascular system from both basic and clinical scientists.

Programme structure

You will attend research seminars and tutorials by senior clinicians and basic scientists, and conduct research projects in our internationally renowned laboratories in the Centre for Cardiovascular Science. You will also deliver research-oriented presentations and gain skills in critical reading of scientific literature and in the writing of scientific reports.

Career opportunities

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

Minimum entry requirements

A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a relevant biological discipline, or a medical/veterinary degree.

English language requirements

See page 60.

Fees and funding

www.ed.ac.uk/student-funding/postgraduate

For funding information see also page 58.

Programme Director Matthew Bailey
Email matthew.bailey@ed.ac.uk

Human Anatomy

MSC 1 yr FT

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. This will involve the dissection of a human body over two semesters. The other is the development of different methods for teaching human anatomy. Complementing these strands will be a lecture-based, embryology course providing you with an understanding of normal human development and how normal development can go wrong, manifested in commonly observed congenital abnormalities.

You will also study health and safety, and legal aspects of handling the body, and an introduction to the ethics of using bodies in medical education. The teaching component of the programme will introduce you to the various methods used in teaching anatomy, and their effectiveness. This will involve preparing and carrying out a teaching session to both small and large groups of students.

Programme structure

Teaching is by lectures, seminars and tutorials. The dissection component of the course will be largely self-directed but with regular lectures to complement the practical work.

There will also be guest lectures by experts in their specific field to complement the lecture course.

You have the option to finish after the second semester and graduate with a Diploma in Human Anatomy. Alternatively, to gain your masters, you need to complete a project that can be either library-based or practical or laboratory-based.

Career opportunities

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

Minimum entry requirements

A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in biological, veterinary or medical sciences.

English language requirements

See page 60.

Fees and funding

www.ed.ac.uk/student-funding/postgraduate

For funding information see also page 58.

Programme Director Gordon Findlater
Email gordon.findlater@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 2011
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 start with a taught component in the first 12 weeks, and attend ‘themed weeks’, which run in parallel with option courses.

OPTION COURSES
Option courses include: Developmental Neurobiology; Neural Circuits; Neurodegeneration and Regeneration.

The option courses run during the first 12 weeks on two half-days per week. These will give you a deeper insight into the concepts and methodology of a specific field of interest.

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. More than 90 per cent of students on the MSc by Research in Integrative Neuroscience have achieved positive next destinations, including PhD, research or clinical career paths.

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

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

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

Medical Sciences
MMedSci by Research 1 yr FT (2 yrs PT available for UK/EU students)

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 degree.

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 statistics 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.ecat.ed.ac.uk 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.

Minimum entry requirements
An undergraduate degree, or its international equivalent (see www.ed.ac.uk/international/country), in medicine.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

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

MClinDent 2 yrs FT

Programme description
This programme is for dental surgery graduates who wish to extend their knowledge, clinical practice experience and expertise in oral surgery. The programme will give you a theoretical and practical understanding of oral surgery and how it relates to other dental specialties. The syllabus includes components of the core competencies for oral surgery training for the General Dental Council and Royal College of Surgeons of England guidelines:

- Extraction of extracted and retained roots/pathology.
- Management of associated complications including oro-antral fistula.
- Management of odontogenic and all other oral infections.
- Management of impacted teeth.
- Management of complications.
- Peri-oral surgery.
- Intra-oral and labial biopsy techniques.
- Treatment of intra-oral benign and cystic lesions of hard and soft tissues.
- Management of benign salivary gland disease by intra-oral techniques and familiarity with the diagnosis and treatment of other salivary gland diseases.
- Insertion of osseointegrated dental implants including bone augmentation and mucosal management.
- Appropriate pain and anxiety control including the administration of standard conscious sedation techniques.
- Management of adults and children as in-patients, including the medically at risk patient.
- Management of dento-alveolar trauma and familiarity with the management and treatment of fractures of the jaws and facial skeleton.
- Management of oro-facial pain including temporomandibular joint disorders.
- Clinical diagnosis of oral cancer and potentially malignant diseases, familiarity with their management and appropriate referral.
- The diagnosis of dentofacial deformity and familiarity with its management and treatment.
- Diagnosis of oro-facial diseases and familiarity with their management and appropriate referral.
- Control of cross-infection.
- Medico-legal aspects of oral surgery.

Programme structure
You will participate in lectures, seminars and a rehearsal of procedures in the clinical skills laboratory. You will also undertake an integrated programme of theoretical, clinical and laboratory teaching.

Career opportunities
This programme has been designed for dental surgery graduates who wish to specialise in oral surgery.

Minimum entry requirements
A Bachelor of Dental Surgery degree, or the equivalent primary dental qualification, plus a minimum of two years’ postgraduate experience is required.

All successful applicants will be required to join Disclosure Scotland’s Protecting Vulnerable Groups (PVG) Scheme before starting the programme. 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 60.

Fees and funding
For funding information see also page 58.

Programme Director
Issam Bakri
Email epid@ed.ac.uk

Orthodontics

MClinDent 2 yrs FT

Programme description
This programme has been designed for those practitioners ready to take up a specialist interest in orthodontics. It provides you with a deeper understanding of, and further technical and diagnostic skills in, orthodontics. It involves a large clinical component as well as your own research project.

You will learn to:

- diagnose anomalies of the dentition;
- detect development deviations;
- formulate a treatment plan and predict its course;
- evaluate the need for orthodontic treatment;
- carry out treatment using fixed, functional and removable appliances; and
- treat adults, orthognathic, surgical cases and cleft palate patients.

In addition to developing your scientific approach, the programme will teach you the psychological aspects of treatment.

Programme structure
The programme begins with an introduction of care topics, followed by an introduction to our laboratory facilities and the basics of wire-bending skills, appliance design and appliance construction and mechanics. Clinical patient care is also established early in the first term. This is followed by five structured terms of theoretical seminars and tutorials, with diagnostic tests on your knowledge carried out regularly. There are written examinations at the end of each term. You must pass the written examinations at the end of the first year before proceeding to the second year.

Your final MClinDent examination will consist of written examinations, diagnostic test case presentations, and the presentation of your research dissertation.

Career opportunities
This programme has been designed for orthodontist specialists.

Minimum entry requirements
A Bachelor of Dental Surgery degree, or an equivalent primary dental qualification, plus a minimum of two years’ postgraduate experience is required.

All successful applicants will be required to join Disclosure Scotland’s Protecting Vulnerable Groups (PVG) Scheme before starting the programme. 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 60.

Fees and funding
For funding information see also page 58.

Programme Director
Niall McGuinness
Email epid@ed.ac.uk

Paediatric Dentistry

MClinDent 2 yrs FT

Programme description
This programme is designed as part of the training programme in paediatric dentistry by the Specialist Advisory Committee in Paediatric Dentistry. For those in possession of a training number awarded by the Postgraduate Dental Dean for Scotland.

Our programme will develop your knowledge and skills in all areas of paediatric dentistry, including diagnosis, treatment planning, clinical skills and all aspects of patient management. You will also complete a supervised piece of research and learn research methodology, data analysis and the ability to report results appropriately.

Your syllabus will include:

- a Clinical Skills course;
- examination of the child and adolescent;
- the management of anxious children and adolescents;
- dental caries and periodontal disease in the child and adolescent;
- restoration management of the primary dentition;
- examination, diagnosis and management of dento-alveolar trauma;
- advanced restorative dentistry for children and adolescents;
- management of medically, physically and intellectually compromised patients;
- paediatric orthodontics, oral surgery and oral pathology; basic principles of orthodontics;
- comprehensive treatment planning for the child and adolescent; and
- research methods, basic statistics, critical appraisal, clinical governance and clinical audit.

Programme structure
We start with an introductory programme of lectures, seminars and rehearsal for procedures in the clinical skills laboratory. This is followed by five structured terms, which will cover the clinical care of patients, seminars, journal clubs and trauma discussion groups, plus your supervised research dissertation. There are examinations at the end of each term and regular essay and critical appraisal exercises.

Career opportunities
This programme has been designed for those practitioners ready to specialise in paediatric dentistry.

Minimum entry requirements
A Bachelor of Dental Surgery degree, or the equivalent primary dental qualification, plus a minimum of two years’ postgraduate experience is required.

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 60.

Fees and funding
For funding information see also page 58.

Programme Directors
Graeme Lyllywhite
Email epid@ed.ac.uk

Prosthodontics

MClinDent 2 yrs FT

Programme description
This programme is recognised by the Royal College of Surgeons of Edinburgh as being two of the three years of specialist training you require if you wish to sit the Membership in Prosthodontics (the UK specialist qualification in the discipline). The Specialist Advisory Committee in Restorative Dentistry also approves this programme as part of the training programme in Prosthodontics. If you have a training number awarded by the Postgraduate Dental Dean for Scotland.

The programme addresses five components:

- the scientific basis of prosthodontic care;
- the relationship of other dental disciplines to prosthodontic care;
- diagnosis and treatment planning for patients with advanced prosthodontic problems;
- the clinical treatment of patients with advanced prosthodontic problems; and
- clinical treatment involving combined prosthodontic and other dental therapy.

Programme structure
The programme has three major teaching strands. These include seminars and practical classes, supervised clinical and laboratory practice where treatment planning, clinical procedures and technical work are performed for patients. The programme concludes with an oral examination (a viva voce) and a written assessment. All successful candidates will be expected to complete a research dissertation. The programme will lead to your dissertation.

Career opportunities
This programme has been designed to help you specialise in prosthodontics.

Minimum entry requirements
A Bachelor of Dental Surgery degree, or the equivalent primary dental qualification, plus a minimum of two years’ postgraduate experience is required.

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 60.

Fees and funding
For funding information see also page 58.

Programme Directors
Antonella Busuttil Naudi
Email epid@ed.ac.uk
Public Health

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 efforts of society. This is the ideal programme if you are 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 then develop the best professional practice in epidemiology, public health and social science, ethics and health. This programme is affiliated with the University’s Global Health Academy: www.ed.ac.uk/global-health

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 data collected especially for your dissertation.

COMPULSORY COURSES
- Introduction to Epidemiology; Introduction to Quantitative Research; Introduction to Research Ethics; Introduction to Statistics; Introduction to Systematic Reviews;

OPTION COURSES
- Advanced Protocol Development; Clinical Trials; Communicable Disease Control and Environmental Health; Developing and Evaluating Complex Public Health Interventions; Epidemiology of Chronic Diseases; Epidemiology for Public Health; Further Statistics; Genetic Epidemiology; Global Health Epidemiology; Health Promotion; Introduction to Global Health; Investing in Global Health and Development; Public Health Ethics; Qualitative Research in Health; Resource Allocation & Health Economics; Sociology of Health & Illness; Statistical Modelling.

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.

Minimum entry requirements
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), e.g., China (80–85%); India (60%); Nigeria 3.5 (Upper Second); North America 3.25. Overseas applicants from regions not listed here can request specific entry requirements from the programme team. For those with non-health related backgrounds or those who have been out of full-time education for some time, both academic qualifications and work experience will be considered.

English language requirements
See page 60.

Fees and funding
- www.ed.ac.uk/student-funding/postgraduate
- For funding information see also page 58.

Programme Director Niall Anderson
Email cphs.pg@ed.ac.uk

Regenerative Medicine: Clinical & Industrial Delivery

MSc 1 yr FT

Programme description
The pharmaceutical and life sciences industries are investing in stem cells, either in direct applications where the stem cells themselves would be used for therapy or indirectly, where stem cell derived tissues will be used for drug screening and toxicity testing. This programme is intended to meet current and future needs of the pharmaceutical industry and health care providers by providing a cadre of well-trained scientists capable of fulfilling managerial, administrative, research and technical roles within the developing commercial regenerative medicine sector.

Our programme covers key theoretical and practical aspects of the growth and maintenance of pluripotent stem cell lines, the directed differentiation of these cells into defined tissue phenotypes, and the maintenance of the differentiated state under conditions suitable for drug testing/screening programmes. Essential elements of good practice will also be included, such as quality assurance and the regulatory framework that surrounds the derivation, storage and use of human cells.

Our teaching is multidisciplinary, with contributions from the fields of medicine, biology, chemistry and bioinformatics.

Programme structure
The programme contains both taught and independent project components.

COMPULSORY COURSES
- Fundamental Biology of Stem Cells; Basic Techniques in Regenerative Medicine; Stem Cells and Regenerative Medicine; Production of Differentiated Cells; Regenerative Medicine and the Clinic; or Regenerative Medicine and Industry; Industrial placement.

There will be an industrial placement of three months, situated within a life sciences company specialising in aspects of regenerative medicine. Financial assistance may be available to cover travel expenses to the location of the industrial placement.

Career opportunities
Graduates will be equipped for a variety of roles within the developing commercial regenerative medicine sector.

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

English language requirements
See page 60.

Fees and funding
- www.ed.ac.uk/student-funding/postgraduate
- For funding information see also page 58.

Programme Director Paul Travers
Email paul.travers@ed.ac.uk
The MSc is intended for high-achieving students with biological, veterinary or medical science backgrounds. It is designed for those ambitious for a career in research and wishing to undertake a research project in a laboratory or department relevant to their specialist. The choice of research projects is wide, and ranges from bench research to clinical research. You will need to secure a supervisor and decide upon your project before starting the programme. Subjects include:

- Epidemiology
- Gene delivery
- Genetics
- Immunology
- Microbiology
- Neuroscience
- Parasitology
- Pathology
- Welfare and zoo animals.

Programme structure
The programme begins with a month of teaching to give you an overview of a particular group of techniques used in research. The first two weeks comprise lectures on subjects from stem cell biology to ethics and from clinical trials and statistics training. This is followed by two weeks of practical workshops in cell biology and molecular medicine, learning practical techniques including basic tissue culture and cell handling. After the first month of studying you will move to a laboratory most relevant to your own specialist.

Careers opportunities
Most MSci graduates go on to study for a PhD. Those who choose to return to clinical practice do so with a broader experience of research than is afforded by the undergraduate clinical veterinary curriculum. Interlocating undergraduate veterinary students may also be eligible to apply.

English language requirements
See page 58.

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/pg/790

Reproductive Sciences

**MSc by Research 1 yr FT**

**Programme description**
This MSc by Research 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 patient care. The programme is intended for high-achieving students with biological science, medical or veterinary backgrounds.

Research topics offered include problems in all reproductive organs, and throughout pregnancy and labour, in the fetus and neonate, and in fetation programming resulting in increased risk 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 with these centres, reflecting the interdisciplinary research environment, where students and trainers are regarded as the lifeblood for 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 ideal for those wishing to embark on a PhD, or in a technical laboratory role, in the field of reproductive medicine, spanning the biosciences, 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.

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

**English language requirements**
See page 60.

www.ed.ac.uk/pg/204

Science Communication & Public Engagement

**MSc 3 yr PT (available for UK/EU students)**

**Programme description**
This programme will give you in-depth expertise and knowledge of the science, regulations and international practices in transfusion, transplantation and tissue banking, for those aiming for more senior management roles in healthcare organisations.

The programme covers the following areas:
• fundamentals of transfusion science;
• quality and GMP;
• blood donation processing and testing;
• immunology and molecular biology of transfusion;
• clinical blood banking;
• transplantation and tissue banking;
• information technology and donation;
• biopharmaceutical transfusion and clinical trials;
• management and communication;
• governance/ethical/legal issues of transfusion and research skills.

**Programme structure**
The programme involves eight 12-week courses, over two years, that combine lectures, tutorials and assessments. A variety of learning experiences and assessment methods will stimulate interest, encourage participation and develop transferable skills. You will be required to undertake self-directed learning between courses. Throughout the programme, summative and formative assessment techniques will be employed.

After two years you will take three exams for the diploma qualification. If you are successful, you can carry out a research project in the third year to achieve your masters qualification.

**Career opportunities**
This programme is designed to help you progress within health services in the transfusion, transplantation and tissue banking fields.

**Minimum entry requirements**
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a relevant biological science. Applicants should also, preferably, have at least two years’ experience of working in a relevant discipline, in a healthcare setting, and currently be working in a transfusion, transplantation or tissue-banking environment.

**English language requirements**
See page 60.

**Programme Director**
Anne Thomson
Email: anne.thomson2@nhs.net

*The next intake for this programme will be September 2017*

www.ed.ac.uk/pg/233

Transfusion, Transplantation & Tissue Banking

**MSci by Research 1 yr FT (2 yrs PT available for UK/EU students)**

**Programme description**
This programme is the only one of its kind in the UK. It is designed for high-achieving veterinary graduates from clinical backgrounds who want to explore and benefit from veterinary research, perhaps with a view to pursuing a PhD or a career in research.

The programme offers you the opportunity to undertake a research project in a laboratory or department relevant to your specialist. The choice of research projects is wide, and ranges from bench research to clinical research. You will need to secure a supervisor and decide upon your project before starting the programme. Subjects include:

- Epidemiology
- Gene delivery
- Genetics
- Immunology
- Microbiology
- Neuroscience
- Parasitology
- Pathology
- Welfare and zoo animals.

**Programme structure**
The programme begins with a month of teaching to give you an overview of a particular group of techniques used in research. The first two weeks comprise lectures on subjects from stem cell biology to ethics and from clinical trials and statistics training. This is followed by two weeks of practical workshops in cell biology and molecular medicine, learning practical techniques including basic tissue culture and cell handling. After the first month of studying you will move to a laboratory most relevant to your own specialist.

**Career opportunities**
Most MSci graduates go on to study for a PhD. Those who choose to return to clinical practice do so with a broader experience of research than is afforded by the undergraduate clinical veterinary curriculum. Interlocating undergraduate veterinary students may also be eligible to apply.

**Minimum entry requirements**
An undergraduate degree, or its international equivalent (www.ed.ac.uk/international/country), in clinical veterinary medicine. Interlocating undergraduate veterinary students may also be eligible to apply.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

**Programme Director**
Natalee Waran
Email: natalie.waran@ed.ac.uk

www.ed.ac.uk/pg/240

Veterinary Sciences
A world-class research experience

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

Little France campus
Our teaching and research facilities at Little France are next to the Royal Infirmary Edinburgh, a major teaching hospital that provides a full range of acute medical and surgical services for patients from across Lothian. It also offers specialist services for people from across the south-east of Scotland and beyond, and hosts Scotland’s biggest maternity unit – the Simpson Centre for Reproductive Health – where more than 6,000 babies are born each year. Our researchers are based within state-of-the-art buildings including the Queen’s Medical Research Institute (QMRI), which hosts more than 800 researchers focusing on key research themes in inflammation, cardiometabolic risk, reproductive health and development, and the MRC Centre for Regenerative Medicine.

Research centres
- BHF Centre for Cardiovascular Science: www.cvs.ed.ac.uk
- MRC Centre for Inflammation Research: www.cir.ed.ac.uk
- MRC Centre for Reproductive Health: www.cir.ed.ac.uk
- Queen’s Medical Research Institute (QMRI): www.igmmed.ac.uk
- MRC Centre for Reproductive Health – where the biggest maternity unit – the Simpson Centre for Reproductive Health
- Edinburgh Research and Innovation Imaging Centre: www.cric.ed.ac.uk
- Royal (Dick) School of Veterinary Studies: www.roslin.ed.ac.uk
- Edinburgh Infectious Diseases: www.eid.ed.ac.uk
- Global Health Academy: www.ed.ac.uk/pathway-medicine
- Division of Pathway Medicine: www.ed.ac.uk/pathway-medicine

Easter Bush campus
Easter Bush is home to the University’s renowned Royal (Dick) School of Veterinary Studies and the world famous Roslin Institute. The site was redeveloped in 2011, providing both institutions with new and improved buildings that not only provide cutting-edge environments for teaching and research, but also benefit from close proximity to veterinary hospitals and practices. Research carried out at Roslin seeks to tackle some of the most pressing issues in animal health and welfare and their implications for human health. The Institute’s researchers investigate the health and welfare of animals, and applications of basic animal sciences in human and veterinary medicine, the livestock industry and food security.

- The Royal (Dick) School of Veterinary Studies: www.ed.ac.uk/vet
- The Roslin Institute: www.roslin.ed.ac.uk
- The Western General campus
The Western General site is home to the MRC Institute for Genetics and Molecular Medicine (IGMM), an exciting development bringing together the MRC Human Genetics Unit, the Edinburgh Cancer Centre and the Centre for Genomic and Experimental Medicine. With more than 600 research and support scientists, IGMM is one of the largest centres for human genetics and molecular medicine in the world. IGMM’s priorities are basic through to clinical research, across the major themes of brain biology and disease, cancer, common disease genetics and paediatrics. All are underpinned by strong basic science. A £3.5 million award from the Wellcome-Wolfson Foundation is allowing the IGMM to create a dynamic new centre to support research in the emerging discipline of systems medicine. The IGMM supports both three- and four-year PhD studentships offering an outstanding training to both basic and clinical scientists.

- The MRC Institute for Genetics and Molecular Medicine: www.igmm.ac.uk
- Research centres
- Edinburgh Cancer Research Centre: www.ed.ac.uk/cancercentre
- Centre for Genomic and Experimental Medicine: www.cgem.ed.ac.uk
- The MRC Human Genetics Unit: www.hgu.mrc.ac.uk

Central Area campus
The Central Area is home to members of Edinburgh Neuroscience and the Centre for Population Health Sciences.

- Edinburgh Neuroscience, which functions as a research institute ‘without walls’, integrates basic and clinical research in order to drive the fundamental genetic, cellular, organ, systems and computational neuroscience underpinning pathogenesis into mechanistic understanding, future diagnostics and therapeutics of important diseases of the nervous system. It consists of approximately 400 staff, 140 postdoctoral researchers, 230 PhD students and 30 MSc students, working in approximately 120 research laboratories: www.edinburghneuroscience.ed.ac.uk
- The Centre for Population Health Sciences brings together researchers with expertise in epidemiology, statistics and modelling, sociology, social policy, psychology, economics, geography, health promotion, nursing and medicine. Thus the Centre’s research projects can take advantage of a multidisciplinary approach when needed, which is often the case in population health research.

- Research centres
- Centre for Clinical Brain Sciences: www.ccb.s.ed.ac.uk
- Centre for Cognitive and Neural Systems: www.cccs.ed.ac.uk
- Centre for Neuroregeneration: www.cnc.ed.ac.uk
- Centre for Integrative Physiology: www.ed.ac.uk/integrative-physiology
- Centre for Population Health Sciences: www.cphs.mvm.ed.ac.uk

Edinburgh Infectious Diseases
Edinburgh Infectious Diseases is the organisational hub for an extensive community of infectious disease scientists working across several different campuses in the city. This is a large and diverse group with 550 research workers and graduate students and more than 70 Principal Investigators: www.ed.ac.uk/vet

Case study: Edinburgh’s research with impact

The GRACE risk score

There are more than 100,000 heart attacks in the UK each year, and one in five patients is likely to die within five years of their initial heart attack. Keith Fox, Professor of Cardiology at the University’s Centre for Cardiovascular Science, has dedicated more than a decade of his successful career to researching a critical form of cardiovascular disease, using the latest equipment and other resources at the Centre to lower the risk of heart attack in susceptible subjects.

Project background
Acute Coronary Syndrome (ACS), which includes heart attack and unstable angina that may lead into heart attack, is a major burden on healthcare and society around the world. Before 2000, predicting what would happen in the heart after early ACS symptoms was particularly difficult as the ACS population was uncharacterised. Clinical trials had not taken into consideration the full spectrum of patients and the diversity of clinical practice. In response to this situation, Professor Fox, and Professor Joel Gore of the University of Massachusetts, established a 10-year research programme and the largest multinational study of ACS.

Project results
The result is the Global Registry of Acute Coronary Events (GRACE), which provides clinicians with a powerful yet user-friendly means of identifying higher-risk patients, at the time of their presentation. Using Professors Fox and Gore’s GRACE risk score, eight factors – age, heart rate, systolic blood pressure, renal function, congestive heart failure, ST-segment deviation, cardiac arrest and elevated biomarkers – independently predict risk of heart attack and/or death. Through the development of the GRACE risk score, and its subsequent use worldwide, the University of Edinburgh has made an invaluable contribution to the evaluation of treatment outcomes and patient care.

GRACE provides clinicians with a powerful yet user-friendly means of identifying higher-risk patients, at the time of their presentation.
Research opportunities

All of our research areas are available to study at PhD level, and many also offer MSc by Research opportunities.

An MSc by Research degree gives students an excellent grounding in research, and can serve as a stepping stone to a PhD.

A PhD is a research degree 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 a particular academic area, through original investigation and experimentation. A PhD typically takes three years to complete and is assessed by thesis.

The following list of research areas offered by the College is not exclusive. Potential applicants should get in touch with the contacts listed under the relevant area to informally discuss their proposed project before applying.

Entry requirements

The minimum entry requirement for our research programmes is an undergraduate degree, with an excellent or very good classification (equivalent to first or upper second class honours in the UK). Higher degrees such as DDS and MD have additional requirements. Please view their programme entries online for full details.

www.ed.ac.uk/pg/208

Cardiovascular Science

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 Cardiovascular Science aims to foster and deliver research into the causes, consequences and therapy of cardiovascular diseases.

We offer postgraduates 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. In 2008, the Centre was designated one of four British Heart Foundation Centres of Research Excellence (CoRE) and was awarded £7.6 million over a six-year period.

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, circladian biology and cell biology.

English language requirements

See page 60.

Fees and funding

www.ed.ac.uk/student-funding/pgpostgraduate
For funding information see also page 58.

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)
MSc by Research 1 yr FT (2 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 young 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, Lothian Primary Care Trust and NHS Greater Glasgow and Clyde. We also have ongoing collaborations within the University of Edinburgh.

English language requirements

See page 60.

Fees and funding

www.ed.ac.uk/student-funding/pgpostgraduate
For funding information see also page 58.

Contact

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

www.ed.ac.uk/pg/235

Clinical Brain Sciences/ Clinical Neurosciences

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.

CCBS is a major University interdisciplinary group that comprises the Division of Clinical Neurosciences, the Division of Psychiatry, the Royal Hospital for Sick Children, the Simpson Centre for Reproductive Health and Community Paediatrics, Lothian Primary Care Trust and NHS Greater Glasgow and Clyde.

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 in 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 their thesis committees. 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 60.

Fees and funding

www.ed.ac.uk/student-funding/pgpostgraduate
For funding information see also page 58.

Contact

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

www.ed.ac.uk/pg/861

Clinical Education

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

Research profile

This PhD in Clinical Education 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. It will appeal to those seeking leadership positions or to undertake independent high-quality research in clinical education.

Some of our current research focuses on:

• Faculty development;
• Assessment and feedback in medical education;
• Psychometrics;
• Learning outcome development and mapping;
• Students learning to teach and Peer Assisted Learning (PAL);
• Preparation for practice;
• International medical education; and
• Clinical skills.

We have good collaboration between university faculty, clinicians, NHS Education for Scotland and other institutions.

English language requirements

See page 60.

Fees and funding

www.ed.ac.uk/student-funding/pgpostgraduate
For funding information see also page 58.

Contact

Michael Ross
Email michael.ross@ed.ac.uk
Clinical Veterinary 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
Our research aims to enhance understanding of disease processes in animals and to translate that understanding into improved therapies for both animal and human disease.

Research focuses on:
- the improvement of health and welfare of domestic animal species;
- the protection of public health;
- alleviation of human poverty (in the context of tropical diseases); and
- providing holistic solutions to global challenges in human and veterinary medicine and the livestock industry.

Most of our research is carried out within the Roslin Institute. The veterinary campus at Easter Bush includes the state-of-the-art Roslin Institute building, the Small Animal and Large Animal Hospitals, and the Riddel Swan Cancer Imaging Centre, as well as the Royal (Dick) School of Veterinary Studies. Our facilities include: rodent, bird and livestock animal units and associated lab areas; comprehensive bioinformatic and genomic capability; a range of imaging facilities; extensive molecular biology and cell biology labs; cafés and an auditorium where we regularly host workshops and invited speakers.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact Postgraduate Secretary
Email vetpgresearch@ed.ac.uk

Cognitive & Neural Systems

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 Centre of Cognitive and Neural Systems (CCNS) are divided into different research groups with a focus on human cognitive neuroscience (including ageing), the neurobiology of learning, memory and plasticity (focusing on hippocampus and cortex), the processing of nociceptive somatosensory information, cerebrovascular physiology and pharmacology and the consequences of drug action, including drugs of abuse.

The scientific goal of the CCNS is to understand information processing by the central and peripheral nervous systems, at several levels of analysis, from cognitive psychology through cognitive neuroscience and brain imaging, behavioural neuroscience and neuropharmacology, and extending to theoretical models of neuronal networks.

The CCNS is based at the Central Area campus, and has excellent facilities for cognitive and systems neuroscience, including human cognitive neuroscience, functional MRI facilities, rodent surgical facilities, testing rooms for water mazes, event arenas and wet-lab facilities. We also offer expertise and facilities for functional imaging in animals and excellent genetic models of CNS diseases. Molecular and cellular analysis of cell death and plasticity underpin in vivo investigating.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact Postgraduate Secretary
Email tims-postgraduate@ed.ac.uk

Dentistry (DClinDent)

DClinDent 3-6 mths FT
Oral Surgery; Orthodontics; Paediatric Dentistry; Prosthodontics

Research profile
Our DClinDent programmes in Oral Surgery, Orthodontics, Paediatric Dentistry and Prosthodontics are suitable for individuals already holding a taught MClinDent/MSc. They allow the pursuit of specialist training, attainment of a Taught Professional Doctorate in the chosen clinical discipline and preparation for the Specialty Membership Examinations of one of the Royal Colleges of Surgeons.

These programmes provide doctoral level educational opportunities to enable you to develop, consolidate and enhance your range of academic and clinical competencies to enable independent and reflective practice at the standard of a specialist in each clinical discipline.

The duration of the DClinDent for each discipline will be 36 months, offered on a full-time basis only. Those entering with a MClinDent/MSc from another UK/EU or international institution with at least 240 credits held at Level 12 in the relevant MClinDent/MSc will only be required to study for 12 months.

Each programme will be structured over three semesters and during this time, you will be timetabled to four protected academic sessions each week with the remaining time dedicated to primarily independent clinical practice and interdisciplinary patient management.

Each programme will consist of the following four academic and clinical elements: Systematic Review; Specialist-Level Clinical Care; Clinical Governance Project; Specialist-Level Clinical Case-Reports.

Entry requirements
A taught MClinDent from the University of Edinburgh, or a taught MClinDent/MSc from another UK/EU or international institution – 360 SCQF credits, with at least 240 credits held at Level 12 in the relevant MClinDent/MSc, are required.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact Jennie Foley
Email edpdi@ed.ac.uk

Developmental Biology

Research profile
Research in the Division of Developmental Biology aims to enhance fundamental knowledge of the control of cellular growth and differentiation aiming to underpin the development of better disease intervention strategies. We will advance our understanding of function in these essential biological processes through mechanistic studies at the cell, tissue and whole animal level with particular focus on:
- animal stem cells;
- tissue and organ development;
- tissue damage and repair; and
- regulatory networks in development.

Normal growth of an animal, from the fertilized egg through to end-of-life maturity, requires concerted action of all the genes found in the animal genome. Not all genes are active at any one stage or in any one cell type. Gene expression is dynamic yet programmed. Sometimes this programmed process goes awry and disease ensues. Research in the Division of Developmental Biology aims to characterise, understand and ultimately exploit the ever-changing profile of gene expression found in mammals. This will allow the development of a better understanding of biology, which in turn will enable new biotech, agricultural and biomedical advances to become reality.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact Postgraduate Secretary
Email vetpgresearch@ed.ac.uk
Doctor of Dental Surgery

DDS 2 yrs FT (3-4 yrs PT available for UK/EU students)

Programme description
This is a research based qualification that can be taken either full-time or part-time. The programme is aimed at those in the dental profession who wish to develop high level research skills by pursuing original research in the field of study, relating particular research to the general body of knowledge in the field, and presenting the results of the researches in a critical and scholarly way.

Edinburgh Dental Institute (EDI) works in partnership with two major organisations to deliver high quality education, research and patient care.

The activities of EDI are as a result of strong cooperation and collaboration between the University of Edinburgh, NHS Lothian, NHS Education for Scotland and the Royal College of Surgeons of Edinburgh.

Training
Our welcoming and friendly environment offers great opportunities for high quality education and research. Our transferable skills programme delivers generic training in presentation, project management and writing skills.

Facilities
The EDI was established in 1999 to develop education opportunities for dental undergraduates and the dental team.

We have excellent facilities and are situated centrally within the historic and vibrant capital of Scotland.

We are located in Lauriston Place in central Edinburgh and occupy the top three floors of the Lauriston Building, a dedicated outpatient centre for dentistry and a number of other medical disciplines.

Minimum entry requirements
Candidates must meet the following criteria:

• hold a qualification which is registrable with either the General Dental Council or the General Medical Council or both;

• have been engaged since graduation for at least two years either in scientific work bearing directly on the applicant’s profession, or in the practice of another profession or other related disciplines;

• perform their work in the south-east of Scotland, or as an NHS employee or a research worker, employed, self-financed or grant-funded, in the University of Edinburgh, an associated institution or an NHS establishment.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/pg/student-funding/postgraduate
For funding information see also page 58.

Contact Paul Gladwell
Email paul.gladwell@ed.ac.uk

Edinburgh Cancer Research UK Centre

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
Edinburgh Cancer Research UK Centre (ECRC), 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 60.

Fees and funding
www.ed.ac.uk/pg/student-funding/postgraduate
For funding information see also page 58.

Contact Pauline McDonald
Email ecrc_pg_administration@ed.ac.uk

Doctor of Medicine

MD 2 yrs FT (3 or 4 yrs PT available for UK/EU students)

Research profile
The MD is a higher degree undertaken by clinically qualified staff normally during their postgraduate medical training. A thesis for the degree of MD must deal with one or more of the subjects of study in the curriculum for the degrees 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 qualification that is registrable with the General Medical Council. Applicants must have been engaged, since graduation for at least one year, either in scientific work bearing directly on the candidate’s profession, or in the practice of medicine or surgery, and will perform their work in the south-east of Scotland, either employed as a member of staff of the University of Edinburgh or as an NHS employee or a research worker, employed, self-financed or grant-funded, in the University of Edinburgh, an associated institution or an NHS establishment.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/pg/student-funding/postgraduate
For funding information see also page 58.

Contact Paul Gladwell
Email paul.gladwell@ed.ac.uk

Edinburgh, an associated institution or an NHS establishment.

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
Research in Genetics and Genomics aims to advance understanding of complex animal systems and the development of improved predictive models through the application of numerical and computational approaches in the analysis, interpretation, modelling and prediction of complex animal systems from the level of the DNA and other molecules, through cellular and gene networks, tissues and organs to whole organisms and interacting populations of organisms.

The biology and traits of interest include: growth and development, body composition, feed efficiency, reproductive performance, responses to infectious diseases and inherited diseases.

Research encompasses basic research in bioscience and mathematical biology and strategic research to address grand challenges, such as food security. Research is focused on, but not restricted to, target species of agicultural importance including cattle, pig, poultry, sheep, farmed fish such as salmon, and companion animals. The availability of genome sequences and the associated genomics toolkits enable genetic research in these species.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/pg/student-funding/postgraduate
For funding information see also page 58.

Contact Postgraduate Secretary
Email vetpgresearch@ed.ac.uk

Contact

For funding information see also page 58.

Case study: Edinburgh’s research with impact

Dolly the Sheep – the first cloned adult mammal

In 1996, Professor Sir Ian Wilmut (Inaugural Director of the MRC Centre for Reproduction and Professor at the College of Medicine & Veterinary Medicine at the University of Edinburgh), and his colleagues, made world headlines with the birth of Dolly the sheep, the first mammal to be cloned using adult somatic cells. Since then, the team at the Centre has continued to lead the way in cloning research.

Project background
The team’s success with Dolly followed its improvements to the single cell nuclear transfer (SCNT) technique used in the cloning process. SCNT cloning is the only technology available that enables generation of 98.8 per cent genetically identical offspring from selected individuals of adult animals (including sterilized animals). As such, it is an efficient multiplication tool to support specific breeding strategies of farm animals with exceptionally high genetic value. The work of the team at the Centre has focused on developing this highly sophisticated technology and increasing the range of possible applications.

Project results
Dolly subsequently became a global scientific icon, and SCNT technology created by the University’s researchers has spread around the world. It has been widely adopted and successfully create clones of other animals, such as livestock, which provides the world with more food and other animal products by enabling the growth of large quantities of the most productive, disease-resistant animals. It has also been used to conserve several animal breeds: for example, in 2012 an increasingly rare Himalayan pashmina goat breed was successfully cloned as part of the National Agricultural Innovation Project of the Indian Council of Agricultural Research. With more than 10 million people reliant on the $85 million shawl industry, served by the availability of the exceptionally fine wool produced by these rare animals, the value of a successful cloning programme is evident.

“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 Neuroscience 2005, PhD Neuroscience 2011

See more online: www.ed.ac.uk/research/impact
**Genetics & Molecular Medicine**

**Research profile**
The Institute of Genetics and Molecular Medicine (IGMM) forms part of the University of Edinburgh and is a large, integrated research institute composed of the Centre for Genomic and Experimental Medicine, the MRC Human Genetics Unit, and the Edinburgh Cancer Research Centre. The IGMM’s priorities are basic biomedical research through to clinical research across a wide range of themes. Programmes of work include: genetics of common and complex human diseases, epigenetics, development biology and pediatrics, brain biology and disease, cancer biology and biomedical systems analysis (computational biology). There are currently well over 100 PhD students in training across the IGMM, with a thriving postgraduate society.

**English language requirements** See page 58.

**Fees and funding**
See page 60.

**Programme Director** Professor Cathy Abbott
Email: catherine.abbott@igmm.ed.ac.uk

**www.ed.ac.uk/pg/838**

**Genomic & Experimental Medicine**

**Research profile**
The Centre for Genomic and Experimental Medicine (CGEM) is part of the MRC/University of Edinburgh Institute of Genetics and Molecular Medicine (IGMM). CGEM’s mission is to use genetics and genomics to understand the mechanisms of disease and design novel intervention strategies. In the last Research Assessment Exercise, the research outputs of CGEM mechanisms of disease and design novel intervention strategies. In the last Research Assessment Exercise, the research outputs of CGEM scored highly, with particular strength in computational biology. There are currently well over 100 PhD students in training across the IGMM, with a thriving postgraduate society.

**English language requirements** See page 58.

**Fees and funding**
See page 60.

**Programme Director** Dr Kathy Evans
Email: kathy.evans@igmm.ed.ac.uk

**www.ed.ac.uk/pg/839**

**Geriatric Medicine**

**Research profile**
Our research activities and collaborations span preclinical science, experimental medicine and clinical trials, with the focus on the key geriatric syndromes of cognitive impairment, stroke and frailty, each a leading cause of morbidity. Our work also encompasses the broader field of healthy ageing.

The research programmes in geriatric medicine have their main bases in three hospitals:

- **Royal Infirmary of Edinburgh**
  Here, researchers study the effects of use, disease, ageing, and disease on muscle structure and function. In addition, work continues on the development of casemix-adjusted outcome assessment to facilitate increasingly sophisticated comparisons of hip fracture care in different centres. The Royal Infirmary is also the base for studies investigating the role of fitness training after stroke, the effect of stroke on muscle function and fatigue after stroke, in close collaboration with the Centre for Clinical Brain Sciences; and for new studies investigating the role of glucocorticoids in the aetiology of delirium following surgery.

- **Western General Hospital**
  Here, you’ll have the opportunity to work with researchers studying brain ageing and its disorders, the SFC Brain Imaging Research Centre and the MRC Human Genetics Unit, examining factors influencing age-associated changes in cognitive function, including early life influences. There are also studies of the health of older adults with learning disabilities.

- **Borders General Hospital**
  Borders General Hospital in Melrose, a town in the Scottish Borders, is the base for Scotland’s first comprehensive stroke ascertainment study, which is creating a wide range of research opportunities, in addition to providing information crucial for service planning and development.

**English language requirements** See page 58.

**Fees and funding**
See page 60.

**Contact**
Gillian Mead
Email: a.young@ed.ac.uk

**www.ed.ac.uk/pg/214**

**Global Health**

**Research profile**
This programme offers you the opportunity to work in a multi- and interdisciplinary way, building on your knowledge, skills, interest and passion to carry out innovative global health research that makes a new contribution to the existing knowledge base. There are many opportunities to study Global Health. Contact us with your idea and we will endeavour to match you with potential centres of excellence and supervisors. We have many research priorities, including such global health issues as:

- mapping and measuring the shifting burden of global disease;
- neglected and emerging tropical diseases;
- infectious diseases;
- non-communicable diseases;
- global palliative care;
- population health;
- social inequalities in health;
- sexual and reproductive health;
- e-health and tele-medicine;
- migration and minority ethnic health;
- culture, faith and health; and
- translation of leading scientific advances into effective interventions.

This programme is affiliated with the University’s Global Health Academy:

www.ed.ac.uk/global-health

**English language requirements** See page 58.

**Fees and funding**
See page 60.

**Contact**
Liz Grant
Email: liz.grant@ed.ac.uk

**www.ed.ac.uk/pg/698**

**Infection & Immunity**

**Research profile**
Research on infection and immunity aims to enhance understanding of the mechanisms of host defence against infection, and translate this understanding into prevention and treatment. The research programmes include a wide range of activities including studies of host/pathogen interactions (including work on viruses, bacteria, parasites and spongiform encephalopathy agents), the immune systems of animals and how they respond to pathogen challenge, genetic resistance to disease and epidemiology of disease. These activities are underpinned by major programmes in animal genomics and bioinformatics.

**English language requirements** See page 58.

**Fees and funding**
See page 60.

**Contact**
Postgraduate Secretary
Email: vet forgedresearch@ed.ac.uk

**www.ed.ac.uk/pg/831**

**Infectious Diseases**

**MSc by Research 1 yr FT**

**Programme description**
This programme is designed to help you in your research career.

<table>
<thead>
<tr>
<th>Minimum entry requirements</th>
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<tbody>
<tr>
<td>A UK 2:1 undergraduate degree, or its international equivalent (see <a href="http://www.ed.ac.uk/international/country">www.ed.ac.uk/international/country</a>), in a relevant subject.</td>
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</tbody>
</table>

**English language requirements** See page 58.

**Fees and funding**
See page 60.

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

**www.ed.ac.uk/pg/195**

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*The University of Edinburgh*

*Medicine & Veterinary Medicine Postgraduate Opportunities 2016 entry*

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Inflammation

Research profile
The Centre for Inflammation Research (CIR) was established in 1998. It aims to promote the prevention, diagnosis and treatment of inflammatory diseases through interdisciplinary study of the initiation, regulation and resolution of inflammatory responses and provision of an outstanding environment for research training in the field. CIR investigators aim to characterise and manipulate key control points in inflammation.

We have particular interest in inflammatory diseases of the lung and kidney but the principles derived will have ready application to inflammatory responses in the liver, bowel, bone/ joint and skin. There is also increasing development of research in the CIR into the links between inflammation and cancer.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact
Karen Colvin
Email karen.colvin@ed.ac.uk

Neurobiology

Research profile
The Neurobiology division conducts research in the fields of neurobiology and neuropharmacology. Our researchers investigate mechanisms that regulate normal brain function as well as the causes and consequences of dysfunction during ageing and in acute or chronic neurodegenerative disease.

Our programme of research uses a wide spectrum of approaches, from the molecular to the whole animal. We address how multiple systems in the periphery and multiple cell types in the central nervous system impact on the function and dysfunction of the brain.

Some of our current research focuses on:
- identifying new transmissible spongiform encephalopathy (TSE) strains and their aetiological potential, examining routes of transmission and the genetics of host susceptibility to disease;
- characterising the pathways and cells involved in the uptake and transport of TSE agents to the brain using rodent models and our own natural scrapie sheep flock;
- understanding mechanisms of neurodegeneration associated with both chronic and acute neurodegenerative disease using unique disease models;
- understanding the long-term consequences of adverse experiences in early life on future health; and
- identifying novel mechanisms regulating homeostasis and responses to stress in neuronal networks.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact
Postgraduate Secretary
Email pgresearch@ed.ac.uk

Orthopaedic & Trauma Medicine

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 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

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

Pathology

Research profile
Members of the Division of Pathology have major research interests in human cancer biology, cell and tissue injury, immunopathology, molecular epidemiology, osteoarthritis and neuropsychological disorders.

Academic staff are key members of most of the research centres within the College of Medicine and Veterinary Medicine, reflecting the collaborative and overarching role of pathology in translational medicine. There are also close links to research and development within adjacent hospitals across Edinburgh.

The Division includes the Edinburgh Breakthrough Breast Cancer Research Unit, Scottish Academic Health Sciences Tissue Governance Unit, MRC Sudden Death Brain Bank and CJD Brain Bank. Within Edinburgh, there are strong links with clinical colleagues and scientists across the University.

The large diagnostic histopathology service that the division undertakes makes it a favourable environment in which to combine fundamental cellular and applied clinical studies of human disease. There are excellent facilities for molecular and cell biology, immunology, image analysis and cell culture.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact
Sarah Howie
Email s.a.m.howie@ed.ac.uk

Neuroscience

Research profile
The Centre for Neuroregeneration (CNR) conducts research at the cellular and molecular levels. There is active collaboration with clinical neuroscientists as well as computational neuroscientists working in neuroinformatics. The Edinburgh CSRI-CNR community maintains the highest standards of research training and a long tradition of research publication in international journals. The division has several interdisciplinary research groups studying the degeneration and repair of neurons and the mechanisms that underlie human neurological diseases.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact
Postgraduate Secretary
Email ibms-postgraduate@ed.ac.uk

Pathway Medicine

Research profile
The central goal of the Division of Pathway Medicine (DPM) is to integrate post-genomic science with medicine in order to provide a better understanding of disease processes. This will provide the basis for the development of new medical innovations for the diagnosis and treatment of human diseases. To do this the DPM promotes multidisciplinary interactions between science and medicine.

The DPM has two main research themes:
1) pathway biology of infection and immunity involving the study of host-pathogen interactions in immune cells and the modelling of molecular pathways that control immune cell function in health and disease; and
2) biochip medicine in systems' response to disease involving the development of advanced biochip techniques and platforms for translating genomic and pathway research into clinical healthcare.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

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

Population Health Sciences

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 sciences, the social sciences and clinical researchers throughout the University and beyond.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact
Stuart Mallen
Email phs.msc@ed.ac.uk

Integrative Physiology

Research profile
The Centre for Integrative Physiology (CIP) fosters research into fundamental mechanisms and pathways relevant to human function and disease. CIP 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 organism level. We also exploit the most appropriate model organisms/systems to investigate the delicate balance between high biomedical relevance (for example human, mouse, rat) and high model organisms/systems to investigate the delicate balance between fundamental mechanisms and pathways relevant to human function.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact
Postgraduate Secretary
Email ibms-postgraduate@ed.ac.uk
Regenerative 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 Regenerative Medicine (CRM) is a world-leading research centre based at the University of Edinburgh. Together we study stem cells, disease and tissue repair to advance human health. Our research is aimed at developing new treatments for major diseases including cancer, heart disease, 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 within the Centre, 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. Since 2011, the Centre has been housed in a new, specially designed building that provides high quality research facilities, including:

- state-of-the-art centralised cell culture facility for isolation and culture of primary and established cell lines including embryonic and induced pluripotent stem cells;
- clinical-grade CMP cell culture facility;
- SPF animal facility;
- transgenic service covering derivation and provision of mouse embryonic stem cells, blastocyst injection, morula aggregation and production of defined genetic alterations;
- ultrasonography equipment;
- flow cytometry service consisting of cell sorters, MoFlo, FACS jazz and FACS Avio that are operated by facility staff and analysts, the LSR Fortessa and FACS Calibur that can be operated by users after training.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

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

Rehabilitation Studies

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
Rehabilitation Studies has considerable expertise in measuring outcomes in the context of disabling disease and has major interests in cardiac, locomotor and neurological disorders and their rehabilitation. A driving-assessment facility and a national head-injury rehabilitation centre are incorporated within the clinical services.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

Contact Alan Carson
Email alan.carson@hlslothian.scot.nhs.uk

Reproductive Health

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 Health (CRH) is recognised internationally as a centre of excellence in research and teaching in reproductive sciences, health and medicine. The CRH has arranged its research under three themes:

- the niche in long term germ cell function and tissue regeneration;
- scars, healing and repair;
- developmental programming by steroids and reproductive resilience.

These themes illustrate some of the remarkable properties that make reproductive systems such relevant and powerful models for translational studies across a wide spectrum of human diseases and pathologies in other systems. The CRH has close links with other research centres in the Queen’s Medical Research Institute (QMRI), with the Clinical Department of Obstetrics and Gynaecology and the Simpson’s Centre for Reproductive Health, and with other research centres on the same Edinburgh Royal Infirmary site, and elsewhere within Edinburgh. Many student projects are organised with and between these centres, reflecting the interdisciplinary research environment, where students and trainers are regarded as the ‘lifeblood’ for the future.

English language requirements
See page 60.

Fees and funding
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

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

Case study:
Edinburgh’s research with impact

Enabling women to have children, despite cancer treatments

Traditionally, female cancer patients who have become infertile after treatment have had limited options, including emergency in vitro fertilisation (IVF). Scientists at the University’s MRC Centre for Reproductive Health and the University’s Queen’s Medical Research Institute, including Professors Richard Anderson, David Baird and Hamish Wallace, have shown that there is an alternative that could ultimately lead to successful conception after completion of chemotherapy and/or radiotherapy. This is profoundly significant for female survivors of cancer therapy who would otherwise face an infertile future.

Project background
Each year about 160,000 women in the UK – and many more throughout the world – are diagnosed with cancer. The aim of the project was to research ways in which those who had become infertile after treatment could increase their options for having a child. Calling on their extensive research expertise and the world-class resources of the University, the team led by Professors Anderson, Baird and Wallace developed an innovative procedure, which involved obtaining ovarian tissue via laparoscopy (keyhole surgery) and cryopreserving it (frozen for long-term storage). This was introduced into clinical practice for the first time, in collaboration with the Tissue Services directorate of the Scottish National Blood Transfusion Service, in 1997.

Project results
Since then, ovarian cryopreservation, or oncofertility, has become widespread in clinical practice worldwide. Major centres of expertise and national programmes operate in Denmark, Belgium, France, Spain, Germany, the US and Australia. Appropriate fertility preservation is now regarded as standard care in the UK and many other countries. Professors Anderson and Wallace have continued their pioneering work in post-cancer fertility, being instrumental in establishing the International Society for Fertility Preservation in 2009 and, in 2010, a task force for fertility preservation of the European Society for Human Reproduction and Embryology, whose aims are to develop ovarian tissue cryopreservation for much wider access to women across Europe and worldwide.

Ovarian cryopreservation, or oncofertility, has become widespread in clinical practice worldwide.

See more online: www.ed.ac.uk/research/impact

The University of Edinburgh
Medicine & Veterinary Medicine Postgraduate Opportunities 2016 entry

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Respiratory 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. You are also encouraged to attend the transferable skills courses provided by the University and participate in relevant external courses.

Students who have secured their own funding are welcome to apply. 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.

**Minimum entry requirements**
A UK 2:1 honours degree or above, or its international equivalent (www.ed.ac.uk/international/country), in a science related subject. For some non-UK applicants the entry requirement is a masters degree.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

**Contact**
Karen Colvin
Email karen.colvin@ed.ac.uk

Science Communication

**Programme description**
This is a new PhD programme in an exciting area of research that aims to investigate the basic mechanisms of tissue repair. This information can then be used to find novel cell- or drug-based therapies to repair tissue that has been damaged due to disease, trauma or congenital conditions.

The programme is based on Edinburgh’s unique combination of strengths in different disciplines including stem cells and regenerative medicine, inflammation and fibrosis biology together with a wide range of clearly defined tissue and animal model systems. MRC Centres for Regenerative Medicine, Inflammation Research and Reproductive Health, BHF Centre for Cardiovascular Science and the Centre for Neuroregeneration are all involved in this unique multidisciplinary programme.

There is an inexorable rise in the number of people with chronic organ dysfunction, because of disease, trauma or genetic conditions. Current therapeutic approaches are focused on reducing further damage rather than promoting repair. Directed tissue repair either by cell- or drug-based therapies is required to complement existing approaches. However, there are no truly drug-based regenerative therapies in the clinic. Understanding tissue repair and the development of novel tissue repair therapies requires a broad range of strategies combining many different disciplines including stem cell, developmental, regenerative, inflammation and fibrosis biology, disease modelling and bioengineering. This innovative PhD programme aims to develop collaborative cross disciplinary projects that will broaden our understanding of regeneration and repair of a number of organ systems (including liver, brain, blood, cardiovascular and reproduction) and identify ways that these processes can be manipulated in the treatment of diseases.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

**Contact**
Postgraduate Administrator
Email tissuerepair@ed.ac.uk

Tissue Repair

**Programme description**
This is a new PhD programme in an exciting area of research that aims to investigate the basic mechanisms of tissue repair. This information can then be used to find novel cell- or drug-based therapies to repair tissue that has been damaged due to disease, trauma or congenital conditions.

The programme is based on Edinburgh’s unique combination of strengths in different disciplines including stem cells and regenerative medicine, inflammation and fibrosis biology together with a wide range of clearly defined tissue and animal model systems. MRC Centres for Regenerative Medicine, Inflammation Research and Reproductive Health, BHF Centre for Cardiovascular Science and the Centre for Neuroregeneration are all involved in this unique multidisciplinary programme.

There is an inexorable rise in the number of people with chronic organ dysfunction, because of disease, trauma or genetic conditions. Current therapeutic approaches are focused on reducing further damage rather than promoting repair. Directed tissue repair either by cell- or drug-based therapies is required to complement existing approaches. However, there are no truly drug-based regenerative therapies in the clinic. Understanding tissue repair and the development of novel tissue repair therapies requires a broad range of strategies combining many different disciplines including stem cell, developmental, regenerative, inflammation and fibrosis biology, disease modelling and bioengineering. This innovative PhD programme aims to develop collaborative cross disciplinary projects that will broaden our understanding of regeneration and repair of a number of organ systems (including liver, brain, blood, cardiovascular and reproduction) and identify ways that these processes can be manipulated in the treatment of diseases.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

**Contact**
Postgraduate Administrator
Email tissuerepair@ed.ac.uk

Surgery

**Programme description**
The department of surgery is headed by Professor O James Garden and has an international profile in surgical research. Strong research themes include liver injury and regeneration, innate immunity, the role of the macrophage in chronic kidney-graft rejection, foetal liver stem cell research, cancer inflammation, medical imaging using microbubbles, modification of stress response pathways and aspects of clinical research in hepatobiliary surgery and transplantation.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

**Contact**
Damian Mole
Email damian.mole@ed.ac.uk

Veterinary Advanced Clinical Training Programme

**Programme description**
The Royal (Dick) School of Veterinary Studies Clinical Training Programmes provide an opportunity for qualified veterinary surgeons to undertake a period of advanced clinical training in a variety of disciplines under the guidance and supervision of the Royal College of Veterinary Surgeons, European and American veterinary specialists.

Our Senior Clinical Training Programmes (residencies) are designed to train research-literate clinicians with specialist knowledge and expertise in their chosen field thereby giving them the opportunity to pursue career goals in teaching, research, clinical service and/or specialist practice. The majority of our programmes are approved by the relevant UK and European colleges.

We also offer Junior Clinical Training Programmes (internships) in a number of areas within the Hospital for Small Animals. These scholarships are suitable for recently qualified vets who are considering applying for a residency.

**English language requirements**
See page 60.

**Fees and funding**
www.ed.ac.uk/student-funding/postgraduate
For funding information see also page 58.

**Contact**
Veterinary Clinical Scholars Secretary
Email VetClinicalScholars@ed.ac.uk

www.ed.ac.uk/pg/836
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

**Funding**

**Loans available for study at the University of Edinburgh**

The University of Edinburgh offers a number of studentships in partnership with the following overseas government agencies:
- **Chile**: National Commission for Scientific and Technological Research (CONICYT): www.conicyt.cl
- **Colombia**: Administrative Department of Science, Technology and Innovation (Colciencias): www.colciencias.gov.co
- **Ecuador**: Secretaria Nacional de Educación Superior, Ciencia y Tecnología (SENERCYT): www.educacionsuperior.gob.ec
- **Iraq**: Ministry of Higher Education and Scientific Research: www.mohesr.gov.iq/
- **Mexico**: National Council of Science and Technology of the United Mexican States (CONACYT): www.conacyt.mx
- **Banco de Mexico and the Banco de Mexico’s FIDERH Trust (FIDERH)**: www.fiderh.gob.mx
- **Mexico’s FIDERH trust (FIDERH)**: www.funeremex.org

**Research council awards**

Research councils offer awards to masters, PhD and 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.

**University of Edinburgh scholarships**

The University offers a number of scholarships in partnership with the following overseas government agencies:
- **China**: National Commission for Scientific and Technological Research (CONICYT): www.conicyt.cl
- **Colombia**: Administrative Department of Science, Technology and Innovation (Colciencias): www.colciencias.gov.co
- **Ecuador**: Secretaria Nacional de Educación Superior, Ciencia y Tecnología (SENERCYT): www.educacionsuperior.gob.ec
- **Iraq**: Ministry of Higher Education and Scientific Research: www.mohesr.gov.iq/
- **Mexico**: National Council of Science and Technology of the United Mexican States (CONACYT): www.conacyt.mx
- **Banco de Mexico and the Banco de Mexico’s FIDERH Trust (FIDERH)**: www.fiderh.gob.mx
- **Mexico’s FIDERH trust (FIDERH)**: www.funeremex.org

**Other scholarship opportunities include:**
- **British Heart Foundation Centre of Research Excellence Award**
- **Four-year PhD studentship**
- **A number of scholarships are available to international students for masters study:**
- **Awarded to outstanding young graduates wishing to pursue a career in cardiovascular research:**
- **www.cvsc.ed.ac.uk/training/phdmsc**
- **China Scholarships Council/University of Edinburgh Scholarships**
- **A number of scholarships for PhD study to candidates who are citizens and residents of China:**
- **www.ed.ac.uk/student-funding/china-council**
- **College of Medicine & Veterinary Medicine PhD Studentships**
- **A number of PhD studentships are available for prospective PhD candidates who select research projects from those offered by the College’s medical schools and research centres. Projects are advertised on the appropriate research centre website at:**
- **www.findaphd.com. See also:**
- **www.ed.ac.uk/medicine-vet-medicine/about/medical-schools**
- **Colt Foundation Fellowships in Occupational/Environmental Health**
- **The Colt Foundation supports high quality research projects in the field of occupational and environmental health, particularly those aimed at discovering innovative research project ideas:**
- **www.findaphd.com. See also:**
- **www.ed.ac.uk/medicine-vet-medicine/about/medical-schools**
- **Polish School of Medicine Memorial Fund**
- **Set up to support early career, medically qualified scientists, working in Polish medical universities and research institutes, who wish to undertake a period of further study or research at the University of Edinburgh’s Medical School with a view to returning to their home country to further develop medicine and healthcare in Poland:**
- **www.ed.ac.uk/student-funding/colt**
- **Edinburgh Global Masters Scholarships**
- **A number of scholarships are available to international students for masters study:**
- **www.ed.ac.uk/student-funding/masters**
- **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**
- **Eric Liddell China Saltire Scholarships (China)**
- **Ten scholarships are available to Chinese citizens who are permanent residents of mainland China who are accepted on a full-time masters degree programme:**
- **www.ed.ac.uk/student-funding/liddell**
- **International Masters Scholarships for MSC in Science Communication and Public Engagement**
- **We offer five masters scholarships to 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**
- **Eric Liddell China Saltire Scholarships (China)**
- Ten scholarships are available to Chinese citizens who are permanent residents of mainland China who are accepted on a full-time masters degree programme: www.ed.ac.uk/student-funding/liddell

**International University of Edinburgh PhD Scholarships**

- **A number of scholarships, open to UK, EU and international PhD students:**
- **www.ed.ac.uk/student-funding/postgraduate**

**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.
- **Beit Trust Scholarships**
- **A number of partial and full funding scholarships are available to one-year masters students:**
- **www.beittrust.org.uk**
- **Chevening Scholarships**
- **A number of partial and full funding scholarships are available to one-year masters students:**
- **www.chevening.org**
- **Commonwealth Scholarships**
- **Scholarships available to students who are resident in any Commonwealth country, other than the UK:**
- **www.dfid.gov.uk/cscuk**
- **Fulbright Scholarships (USA)**
- **Scholarships open to US graduate students in any subject wishing to study in the UK:**
- **www.iie.org/fulbright**
- **Marshall Scholarships (USA)**
- **Scholarships available to outstanding US students wishing to study at any UK university for at least two years:**
- **www.marshallscholarship.org**
- **Silber Request**
- **Funding is available to help prospective postgraduate students living in the UK who have been granted refugee status:**
- **www.ed.ac.uk/student-funding/silber**

**Funding for online distance learning**

The University offers several scholarships specifically for online, part-time postgraduate programmes, including the Edinburgh Global Online Distance Learning Masters Scholarship, for which applicants to many of our masters programmes can apply:**
- **www.ed.ac.uk/student-funding/e-learning/online-distance**

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"I chose Edinburgh because of its complete package. The University allows me to pursue my passion with cutting-edge equipment and facilities, with some of the brightest minds in their field, all within this amazing and beautiful city."

Jason Weisz, PhD Molecular and Clinical Medicine, Edinburgh Global Research Scholarship
How to apply

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
Our usual minimum entrance requirement for postgraduate study is a UK undergraduate 2:1 degree, or its international equivalent (www.ed.ac.uk/international/country), 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

Contact us
Before you apply for a research degree, we strongly recommend that you contact us to obtain advice about your proposed programme. This will allow us to ensure the availability of facilities and expert supervision.

Further guidance on applying, specific to our College, can be found at: www.ed.ac.uk/medicine-vet-medicine/applying-postgraduate

Online and on-campus taught programmes

Deadline
The deadline for online distance learning programmes is usually early August but varies from programme to programme. The deadline for on-campus taught masters is 1 August. Programmes with especially high competition for places may have earlier closing dates. Check programme details online for details.

Procedure
• Thoroughly explore this prospectus and our website to identify your preferred programme of study.
• Check you meet all entry requirements.
• Check funding options and whether a separate funding application is needed. Check any deadlines.
• For online programmes, check that you have the right technology in place.
• Visit www.ed.ac.uk/pg/degrees, navigate to your chosen programme, and click on Apply. Follow the instructions within the online application system, including details of documentation you must supply.

Research programmes

Deadlines
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.

Procedure
• Thoroughly explore this prospectus and our website to identify the research centre that best matches your interests. Read online about the centre’s research projects and staff interests.
• Contact the member of staff you would like to work with to discuss the possibility of applying for one of their research projects. You should email them a covering letter and CV.
• Check you meet all entry requirements. Check funding options and whether a separate funding application is needed. Check any deadlines.
• Once you have identified a project and a supervisor, visit www.ed.ac.uk/pg/degrees, navigate to your chosen programme, and click on Apply. Follow the instructions within the online application system, including details of documentation you must supply.

Joining us from overseas
International applicants are advised to check the University’s website to find out more about their visa options and our Integrated English for Academic Purposes (IEAP) programme. More information: www.ed.ac.uk/international/ieap

International agents
The University has certified representative agents in the following locations: Brunei, Canada, China, Gulf Region, Hong Kong, India, Japan, Jordan, Korea, Malaysia, Mexico, Nigeria, Norway, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Taiwan, Thailand, Turkey, Zambia and Zimbabwe. International applicants can use an agent to help guide them through the application process if necessary. For more information visit: www.ed.ac.uk/international/country

English language requirements

Students whose first language is not English must show evidence of one of the qualifications listed below.

Biomedical Sciences (Life Sciences), Public Health (including Online Distance Learning), Science Communication & Public Engagement (including Online Distance Learning), Transfusion, Transplantation & Tissue Banking, Veterinary Advanced Clinical Training Programme and all 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 23 in each module).
PTE(A): total 67 (at least 56 in each module).
CAE and CPE: total 185 (at least 169 in each module).

Global Health Challenges (Online Distance Learning)

IELTS Academic: total 7.0 (at least 6.0 in each module).
TOEFL-iBT: total 100 (at least 20 in each module).
PTE(A): total 67 (at least 56 in each module).
CAE and CPE: total 176 (at least 169 in each module).

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/pg/degrees
Your English language certificate must be no more than two years old at the beginning of your programme.
We also accept recent degree-level study that was taught and assessed in English in a majority English speaking country (as defined by UK Visas & Immigration).

Abbreviations: IELTS − International English Language Testing System; TOEFL-iBT – Test of English as a Foreign Language Internet-based Test; PTE(A) – Pearson Test of English (Academic); CPE – Certificate of Proficiency in English; CAE − Certificate in Advanced English.

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

• CAE and CPE: total 185 (at least 169 in each module).

RCVS Certificate in Advanced Veterinary Practice (Online Distance Learning)

Candidates who are European graduates do not have to take an IELTS test to join the RCVS. For those graduating outside Europe, the RCVS expects a level 7 before candidates can sit the membership exam. We strongly recommend that you are confident in your level of written and spoken English.

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(A): 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).

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/pg/degrees
Your English language certificate must be no more than two years old at the beginning of your programme.
We also accept recent degree-level study that was taught and assessed in English in a majority English speaking country (as defined by UK Visas & Immigration).

Abbreviations: IELTS – International English Language Testing System; TOEFL-iBT – Test of English as a Foreign Language Internet-based Test; PTE(A) – Pearson Test of English (Academic); CPE – Certificate of Proficiency in English; CAE – Certificate in Advanced English.

www.ed.ac.uk/english-requirements/pg
Get in touch

Contact us
Tel +44 (0)131 242 6358/6460/6461/6478/6617
Email mvmpg@ed.ac.uk
www.ed.ac.uk/medicine-vet-medicine/postgraduate

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

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

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 18 November 2015. For more information, visit:
www.ed.ac.uk/postgraduate-open-day

The University also runs online information sessions for prospective postgraduate students throughout the year. For more information, visit: www.ed.ac.uk/postgraduate/online-events

Campus maps

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