Postgraduate prospectus 2016

Faculty of Health Sciences
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Tel +44 (0)117 928 8895
Welcome

We are committed to providing the highest standards of teaching in an excellent research environment.

Foremost among our resources are the staff and students who work here: world-leading researchers, dedicated teachers and clinicians, and talented postgraduates. Our facilities include the £20-million Dorothy Hodgkin Building in the city centre and a share in a new, state-of-the-art ‘Learning and Research’ building at the Southmead Hospital site.

The faculty has three schools: Clinical Sciences, Social and Community Medicine, and Oral and Dental Sciences.

We collaborate with colleagues across the University; in the NHS and in other local academic, healthcare and industrial organisations; and with researchers throughout the world. We encourage internationally renowned speakers to visit us to give us the benefit of their knowledge and foster collaborations. We aim to publish our work in the highest-ranking journals and present findings to national and international conferences. We strongly support patient and public involvement in research as well as other public engagement activities. Our work is funded by grants from research councils, government sources, major research charities, industrial partners, the European Union and other international agencies, and by philanthropic supporters.

The breadth of programmes we offer, together with our success in recruiting an international cohort of students, ensures a dynamic experience for all who choose us.

Our reputation for excellence in teaching and research means that we attract the best clinicians and academics to work with us.

Professor Jonathan Sandy
Dean, Faculty of Health Sciences
Funding your studies in the Faculty of Health Sciences

Funding for postgraduate study can come from a variety of sources. Our students are funded by governments, research councils, families, charities and employers from across the globe.

You will need to secure the majority of your funding before commencing your postgraduate studies. The University subscribes to the Alternative Guide to Postgraduate Funding (www.postgraduate-funding.com), which provides contact information for charities and organisations who offer grants for postgraduate study.

Don’t forget to use our Funding Search facility (bristol.ac.uk/fees-funding/search) to see whether there are any additional grants or awards which are relevant to your chosen studies.

You may wish to consider self-funding your programme by opting to take out a bank loan (eg a Professional and Career Development Loan) and/or use savings.

Postgraduate research programmes
The University of Bristol has one of the largest concentrations of funded Doctoral Training Partnerships and Centres in the UK, many of which offer full studentships. The Faculty of Health Sciences is proud to work with colleagues across the University as part of the following funded doctoral training initiatives:

Neural Dynamics – Wellcome Trust PhD
(see page 18)

Molecular, Genetic and Lifecourse Epidemiology – Wellcome Trust PhD
(see page 17)

Information and links to a variety of additional funding opportunities across the faculties can be found on the Bristol Doctoral College web pages at bristol.ac.uk/bdc.

Postgraduate taught programmes
At the time of going to print, details of the UK government’s proposed postgraduate loan scheme have not been confirmed. Our understanding is that the scheme will be available to UK students pursuing a taught master’s degree and will be income dependent. When details are confirmed, guidance will be available at bristol.ac.uk/fees-funding/postgraduate.

MSc Global Wildlife Health and Conservation
Applicants to this programme from specific Commonwealth countries may be eligible for a Commonwealth Shared Scholarship, covering fees and other expenses. For details please see bristol.ac.uk/fees-funding/awards.
Dental Implantology

This programme is intended for dental practitioners wishing to develop their theoretical knowledge and practical clinical experience in the treatment planning, surgical placement, restoration and maintenance of dental implants. The programme has been designed to allow you to gain experience of the use of dental implants in prosthodontic treatment within a supervised environment. Knowledge is developed using distance learning modules and study days. You will also have the opportunity to carry out a research project or literature review and prepare a dissertation.

We aim to produce caring, knowledgeable and skilful practitioners competent in the provision of the surgical and restorative dental aspects of dental implant treatment within the limits of the individual clinician.

Programme structure
The modular programme is divided into three sections – Certificate, Diploma and MSc levels. All students are admitted to the MSc in the first instance and can choose to exit the programme at Certificate or Diploma level.

Year One
Five theoretical and practical modules delivered over a minimum of six study days during the year as well as distance learning material and self-directed study. Concurrent to these modules, participants will also attend clinical practice placements at the Bristol Dental Hospital, Bristol Royal Infirmary and The Dental Implant Clinic in Bath, Somerset. During the clinical practice placements participants will diagnose, plan and carry out implant placement under supervision in preselected patients which are provided for you. Following the completion of Year One, candidates can exit the programme at Certificate level or proceed to Year Two.

Year Two
A further five modules delivered over a minimum of six study days, distance learning material, self-directed work and work-based study. In addition you will again attend clinical practice placements. Upon successful completion of Years One and Two, candidates may exit the programme with the awards of a Postgraduate Diploma in Dental Implantology.

Year Three
After a further year, the award of MSc will be achieved upon the successful completion of a dissertation.

Entry requirements
BDS or equivalent United Kingdom General Dental Council registerable dental qualification. At least one year’s demonstrable postgraduate clinical experience. Evidence of registration with the General Dental Council and adequate medico-legal indemnity insurance in order to place dental implants at the start of the clinical component of the programme. Evidence of Hepatitis B, Hepatitis C and HIV immunity status. Basic computer skills and access to a PC with internet connection.

For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information
Programme Co-ordinator
School of Oral and Dental Sciences
Dental School
Lower Maudlin Street
Bristol BS1 2LY
Tel: +44 (0) 117 342 4439
Email: ords-dentimp@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.
Dental Postgraduate Studies

This distance-learning programme is a unique form of dental postgraduate education, designed to be attractive to busy dental practitioners.

From a choice of eleven four-month units, you must successfully complete three units to achieve the Postgraduate Certificate (CPDS) or six units to achieve the Postgraduate Diploma (DPDS). Each unit provides a structured programme involving reading, writing and educational participation, totalling 200 hours’ academic work, including study days and assessment.

This method of study is not led by teachers in a classroom but is supported by tutors and administration at a distance, offering the flexibility to suit your personal needs. The units are specially written for the programme and are designed to be interactive, giving you the opportunity to think and learn for yourself.

Following successful completion of the DPDS, you may carry out a research project and prepare a dissertation to achieve the MSc.

For those who do not wish to pursue a formal university qualification the occasional route of study is available.

Programme structure
Programme material will be available via an Online Learning Environment. There are between one and four elements per unit and they contain assignments to be completed by the student. The units currently available are:
- Anxiety Management
- Business Management Skills 1 & 2
- Conscious Sedation
- Endodontics
- Full Denture Prosthetics
- Law and Ethics
- Local Anaesthesia
- Periodontics
- Surgical Skills 1 & 2

There are normally one to two compulsory study days per unit, usually held Fridays or Saturdays. These cover areas that do not lend themselves well to distant study, such as ‘hands-on’ sessions. Further units will be introduced on a year-by-year basis.

Entry requirements
DPDS: BDS or other approved dental qualification and, ideally, you will have been qualified for at least three years. Students must be eligible for, or registered with, the General Dental Council.

MSc: DPDS or equivalent. Students must be eligible for, or registered with, the General Dental Council.

Contact for further information
BUOLD Administrator
School of Oral and Dental Sciences
University of Bristol
Lower Maudlin Street
Bristol BS1 2LY
Tel: +44 (0) 117 342 2405
Email: buold-office@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.
Global Wildlife Health and Conservation

This innovative programme aims to give you the knowledge, skills and practical training needed to work with wildlife, with special emphasis on its health and conservation at the global scale.

Cutting-edge topics include animal capture and handling techniques, the assessment, stabilisation and transport of injured animals, methods for improving the welfare of captive animals, concepts in behavioural ecology, endangered species breeding programmes, the reintroduction of captive populations to the wild, post-release monitoring, practical field-based conservation strategies, and the management of protected areas. The curriculum also delivers a comprehensive introduction to wildlife disease ecology, surveillance and control.

The MSc is based at the School of Veterinary Science near the Mendip Hills in Somerset, providing convenient access to Exmoor National Park and the rich wildlife habitats of south west England. A variety of small group workshops and practical sessions take place at Bristol Zoo, allowing you to gain hands-on experience of exotic animal care while working behind the scenes in a modern zoological garden.

By the end of the programme you will have gained the skills and knowledge to deal with a variety of practical situations that professional wildlife biologists face on a day-to-day basis.

Programme structure

Core units

The programme is split into two elements. A taught element from September to April provides training in:

- Applied Wildlife Conservation
- First Aid for Injured Animals
- Wildlife Care and Rehabilitation
- Captive Wildlife Management
- The Re-release of Wildlife into the Field
- Wildlife Diseases and Integrated Health
- Animal Behaviour and Welfare
- Professional Skills

A research element from May to August provides an opportunity for you to carry out an applied project on a wildlife topic of special interest to you. You will undertake a literature review, collect and analyse data and present your results as a written report suitable for publication. In previous years many of these projects have been carried out at Bristol Zoo or in Australia.

Entry requirements

An upper second-class honours degree (or international equivalent) in a biological, veterinary, environmental or other natural science subject.

Contact for further information

Dr Andrew Kennedy
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University of Bristol
Langford House
Langford
Bristol BS40 5DU
Tel: +44 (0)117 928 9653
Email: wildlife-msc@bristol.ac.uk

Applications

Details of how to apply are available at bristol.ac.uk/pg-study.
Health Sciences Research

This programme aims to give you a firm foundation in biomedical research by enhancing your knowledge, understanding and critical awareness of the scientific method, and providing practical experience in an area related to your interests. Taught units provide intensive training in research methodology, experimental design, statistical analyses and data interpretation. Skills training in verbal and written communication is also emphasised.

The core of the programme is an eight-month research project, conducted within one of the University of Bristol’s internationally recognised research groups in either the Faculty of Health Sciences or the Faculty of Biomedical Sciences. Opportunities will be available in laboratory or clinical-based investigations.

The programme is suitable for medical, dental and veterinary students interested in pursuing a research-intensive intercalation option after three years of study. It is also suitable for graduates in medicine, dentistry, veterinary science and bioscience subjects who wish to develop their research skills.

Programme structure
This programme is delivered by research scientists and clinicians through lectures, practical sessions, seminars and tutorials.

Unit 1: Introduction to Research Methods in Health Sciences Research (10 credits)
This unit introduces a variety of research methods used in basic and applied clinical research including: finding and reading relevant research information; presenting research results; basic statistical analysis; data interpretation; ethics; public engagement; and commercialising research.

Unit 2: Further Research Methods in Health Sciences Research (20 credits)
This unit aims to develop further knowledge and practical experience in statistical analyses, experimental design and laboratory methods, and includes training in the use of a statistical software package and practical experience in several laboratory techniques (including molecular biology, cell culture, and imaging).

Unit 3: Project Proposal in Health Sciences Research (20 credits)
This unit involves planning and writing a research project proposal (4,500 words), which includes a literature review, aims, impact, research plan, ethical considerations, contingency plans, timetable, and references.

Unit 4: Research Club in Health Sciences Research (10 credits)
This unit aims to develop your ability to present, critically evaluate and discuss scientific findings by contributing to journal clubs, attending and summarising research seminars, and presenting your own research.

Unit 5: Research Project in Health Sciences Research (120 credits)
During this unit you will gain extensive experience in scientific/clinical research by conducting an independent project related to an area of interest to you. You will write up your research in the form of a thesis (10,000 words), and present and discuss your work in a viva and research symposium.

Entry requirements
For intercalators and graduates in Medicine, Dentistry and Veterinary Sciences, a mark of at least 60% is required. For Science graduates, the requirement is an upper second-class honours degree (or international equivalent). For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information
Programme Directors
Faculty of Health Sciences
Molecular Neuroscience

This programme is organised by the School of Clinical Sciences and is housed in the state-of-the-art Dorothy Hodgkin Building with dedicated MSc facilities.

The programme provides intensive training in the neurosciences as they relate to the physiologic function and behaviour of the organism and builds upon the broad research strengths of recognised scientists, particularly in the fields of basic and clinical neuroscience, molecular and cell biology, neuroendocrinology, behaviour, neurodegeneration and psychopharmacology. Guest lecturers from other universities bring their specialist and advanced knowledge to the programme.

Throughout the programme, basic principles are taught and illustrated in the context of various brain diseases, including psychiatric and neurodegenerative disorders. Through the performance of practicals and a research project, you will gain valuable experience in experimental neuroscience. Importantly, tutorials and presentations will contribute to the further development of your communicative skills.

The programme will be of interest to those with a medical background who wish to diversify into research, and to science graduates who wish to further develop their knowledge and skills before embarking on a doctoral research programme.

Part-time study is available, but this is to be discussed with the Programme Director.

Programme structure

Core units

- Foundations of Neuroscience
- Cell Signalling
- Gene Expression in the Brain
- Neuroendocrinology
- Neurodegeneration: Symptoms, Molecular Mechanisms and Therapies
- Integrative Molecular Neuroscience
- Research Project

Entry requirements

An upper second-class (or exceptionally, a lower second-class) honours degree (or international equivalent) in a relevant subject. For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information

Email: molneuro-msc@bristol.ac.uk
Tel: +44 (0) 117 331 6824

Applications

Details of how to apply are available at bristol.ac.uk/pg-study.

Key facts

Why choose Bristol?
You will be based in the Dorothy Hodgkin Building, which offers excellent, dedicated teaching and research facilities.

School of Clinical Sciences

- Awards available: MSc, PG Diploma, PG Certificate
- Duration of programme: One year full-time
- Part-time study available?: Yes
- Open to international students?: Yes
- English Language Profile: E (see Introduction, ‘How to apply’, p15)
- Number of places: 20-25
- Fees (per year, subject to annual increase): Full-time: UK/EU £8,400; overseas £18,000 Part-time: UK/EU £4,200 Plus a bench fee of £2,000
- Funding: Please see p2

Website: bristol.ac.uk/clinical-sciences

Possible start dates: September 2016

Application deadline: 1 August 2016
Reproduction and Development

This innovative MSc programme makes extensive use of the internet to provide a comprehensive theoretical foundation in the areas of human reproduction and development.

The programme is designed to appeal to a wide range of postgraduate students including scientists, nurses and clinicians. Residential workshops are held in Bristol twice a year, and comprise lectures and seminars, as well as practical sessions and assessments. Each distance-learning module comprises online tutorials and lectures plus essays and online assessment.

Programme structure

Core units

**Reproductive Physiology and Endocrinology**
The structure, function and development of the organs of the male and female reproductive system and the role of the endocrine system in the control and maintenance of reproduction.

**Gametogenesis to Implantation**
The origin of gametes and gametogenesis in both the male and female; fertilisation; zygote formation; implantation.

**Human Development and Pregnancy**
The principles of human fetal and newborn development and growth, together with an understanding of the factors that influence normal and abnormal development of key body systems.

**Statistics and Research Methods**
The principles of basic statistics as applied to study design, analysis and interpretation of study results and critical evaluation of published research.

**Infertility – Diagnosis and Management**
The causes, prevalence and investigations of infertility to provide an understanding of the primary and secondary levels of infertility diagnosis and management, including the clinical and laboratory techniques used in the diagnosis of infertility.

**Assisted Reproductive Technologies**
The latest scientific and technological developments in ART to enable the understanding and application of these techniques in the diagnosis, management and treatment of patients.

**Research Project**
A detailed literature review in an appropriate area of study and a clinical audit, data analysis or research proposal. Students will complete a dissertation, a poster presentation and an oral examination on this project.

Entry requirements

An upper second-class honours degree (or international equivalent) in either medicine, a biological or related science, nursing or midwifery. Basic computer skills including word-processing and email. Computer connected to the internet (preferably broadband) for the duration of the programme.

All students will need to provide evidence of Hepatitis B immunity if they wish to perform laboratory practicals. A blood test showing antibody levels to the hepatitis B surface antigen (HBsAb) of >10IU/L will fulfil this requirement.

Contact for further information

Programme Administrator
Reproduction and Development MSc
School of Clinical Sciences
Dorothy Hodgkin Building
Whitson Street
Bristol BS1 3NY
Tel: +44 (0) 117 331 3151
Email: healthsciences-mres@bristol.ac.uk

**Key facts**

- **Why choose Bristol?**
  Online discussions, tutorials and assessment materials provide you with a comprehensive theoretical foundation in the subject.

- **School of Clinical Sciences**
  - Awards available: MSc, PG Diploma, PG Certificate
  - Duration of programme: One year full-time; two years part-time (Both options are offered distance learning only)
  - Part-time study available?: Yes; but students will be expected to attend Bristol-based workshops twice a year, in September and late February-March, for a period of no more than 2.5 weeks per workshop
  - Open to international students?: Yes; but you will not be able to obtain a Tier 4 student visa for this programme. International applicants will need to secure a student visitor visa for entry to the UK for each period of study

- **English Language Profile**
  (see Introduction, ‘How to apply’, p15)

- **Number of places**: 10 full-time equivalents

- **Fees (per year, subject to annual increase)**
  - Full-time: UK/EU £7,500; overseas £18,600
  - Part-time: UK/EU £3,750; overseas £9,300

- **Funding**: Please see p2

- **Website**: bristol.ac.uk/clinical-sciences

- **Possible start dates**: September 2016

- **Application deadline**: 1 July 2016 (early application advised)
Stem Cells and Regeneration

This innovative distance-learning programme is taught online and will provide you with knowledge and understanding in the highly topical and exciting field of stem cell biology and regeneration. You will be guided from the origins of this field through to its applications (and potential applications) in treating human disease, covering the latest tools and technologies available for study in this area. Programme content is delivered by researchers active in the field, ensuring that the very latest breakthroughs are communicated.

Using a creative distance-learning model, the programme delivers lectures, online discussions and assessments over the internet. This offers you more flexibility than traditional campus-based courses as you can study in your own environment. You will only be required to visit Bristol for the completion of your formal examinations at the end of the academic year. This distance-learning model, together with a part-time study option, makes the programme particularly appealing to those students who wish to combine full-time employment with studying towards a qualification.

Programme structure

Core units

- Introduction to Stem Cells and Regeneration
- Neurodegeneration and Ophthalmic Disorders
- Molecular Tools in Stem Cells and Regeneration
- Peripheral Neuropathy and Spine
- Cell Signalling
- Biomaterials and their Use in the Skeletal System
- Stem Cells in Cardiac Systems
- Research Project/Dissertation

Entry requirements

An upper second-class (or, exceptionally, a lower second-class) honours degree in a relevant subject (science or medicine). Basic computer skills including word-processing and email. Computer connected to the internet (preferably broadband) for the duration of the programme. For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information

Dr Kate Whittington, Programme Director
Tel: +44 (0)117 331 3181
Email: stemcells-msc@bristol.ac.uk

Applications

Details of how to apply are available at bristol.ac.uk/pg-study.

Key facts

Why choose Bristol?

This innovative distance-learning programme delivers lectures, discussions and assessments online.

School of Clinical Sciences

Awards available
MSc, PG Diploma, PG Certificate

Duration of programme
One year full-time; two years part-time
(Both options are offered distance learning only)

Part-time study available? Yes; but students will be expected to attend Bristol-based workshops twice a year, in September and late February-March, for a period of no more than 2.5 weeks per workshop

Open to international students? Yes; but as the programme is taught online, our international students are not eligible to obtain a Tier 4 student visa and will need to obtain a student visitor visa to attend the formal examinations in Bristol at the end of the academic year.

English Language Profile

E (see Introduction, ‘How to apply’, p15)

Number of places
20-25 full-time equivalents

Fees (per year, subject to annual increase)
Full-time: UK/EU £7,500; overseas £18,600
Part-time: UK/EU £3,750; overseas £9,300 plus a bench fee of £2,000 for ‘wet’ projects

Funding
Please see p2

Website
bristol.ac.uk/clinical-sciences

Possible start dates
September 2016

Application deadline
26 August 2016
This programme aims to develop teaching, planning and assessment skills for health professionals, with modular units that build up into a Postgraduate Certificate, Postgraduate Diploma or MSc. Emphasis is on the practical application of educational methods and theory and the development of reflective, evidence-based practice as well as a positive, student-centred approach to teaching and learning. Highly rated, interactive, small-group teaching, flexible and friendly learner support, and ideas and guidance for research are among the many strengths of the programme.

The Certificate or Diploma can be completed in one year, part-time or spread over up to three years. The Essentials route allows you to gain 30 transferable Masters-level credits and progress to Certificate level if and when you wish. Teaching takes place in Bristol and at other convenient venues in the Severn Deanery area.

Programme structure

**Core units**

- Teaching, Learning and Assessing in the Health Professions
- Creating a Learning Environment to Support Learner Diversity
- Further Assessment and Feedback
- Further Planning and Teaching
- Research Methods (Diploma/MSc)
- Dissertation (MSc)

**Optional units**

- Clinical and Work-Based Teaching
- Supporting Learners with Difficulties
- Evidence-Based Teaching
- Course Design
- Supporting the Struggling Professional
- Teaching and Learning with Simulators
- Technology-Enhanced Learning
- Teaching Ethics in the Health Professions
- Effective Communication Skills Development
- Coaching and Mentoring in Medical Education

- Leading in Education and Training
- Developing Professionalism

**Dissertation**

To qualify for the MSc, you will need to submit a 15,000-word dissertation/thesis.

**Entry requirements**

- Relevant first degree (or international equivalent) from a recognised institution with good final grades or a relevant professional qualification plus at least three years’ full-time (or equivalent part-time) professional experience.
- Currently working in the health professions or a health service environment.
- Currently undertaking some form of teaching and/or support of learning with the opportunity to be observed in a teaching role.
- Basic computer literacy (broadly equivalent to the standard of the European / International Computer Driving Licence).

Accreditation of prior credits must be authorised within the University’s policy.

**Contact for further information**

TLHP Office, Medical Education
Faculty of Health Sciences
University of Bristol
First Floor, Senate House
Tyndall Avenue
Bristol BS8 1TH
Tel: +44 (0) 117 331 6830
Email: tlhp-office@bristol.ac.uk

**Applications**

Details of how to apply are available at bristol.ac.uk/pg-study.
This programme aims to develop your interest in translational cardiovascular research and medicine and equip you with an enhanced knowledge, understanding and critical awareness of the current approaches and emerging research in this area. The programme provides a firm theoretical grounding in the basic scientific principles and clinical applications of translational cardiovascular medicine, and will help you to develop essential skills and prepare for employment or a further higher degree in this field. You will also be introduced (via online videos) to key practical techniques employed in this field.

The programme is designed to appeal to a wide range of students including scientists and clinicians.

Programme structure
This programme is delivered by clinicians and scientists via distance e-learning. Three two-week residential workshops will also be held in Bristol, comprising lectures and seminars as well as journal clubs, practical sessions and assessments. Each distance-learning module will comprise online tutorials and lectures plus essays and assessment by email and conferencing.

Core units
- **Generic Laboratory Skills:** The theoretical aspects and the practical details of laboratory methods that are relevant for translational cardiovascular medicine research.
- **Clinical Trials and Statistics:** The underlying principles of good clinical trial design and appropriate use of statistics.
- **Coronary Artery Disease I:** An overview of the clinical problem of coronary artery disease (including risk factors, diagnosis, imaging and pathobiology).
- **Coronary Artery Disease II:** The current clinical and drug interventions used for coronary artery disease and emerging new technologies and research.
- **Heart and Valve Disease:** Key topics related to cardiac and valve disease, including diagnosis of disorders and integration of pathophysiology with clinical management.
- **Paediatric Heart Disease:** Genomics and epidemiology of congenital heart disease and the pathology of congenital heart defects and their complications, current interventions and emerging new approaches.
- **Aneurysm, Peripheral Vascular Disease and Stroke:** Clinical, pathobiology and translational aspects.

Research project
This can either be a ‘wet’ (based in Bristol) or a ‘dry’ (remote) project of an appropriate area of study and presented in written form and orally with a mini-poster.

Entry requirements
An upper second-class (or, occasionally, a lower second-class) honours degree in a science or medicine-related subject. Basic computer skills including word-processing and email. Access to a computer with internet (preferably broadband) access for the duration of the programme. For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information
Professor Sarah Jane George, Programme Director
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Research Floor Level 7
Bristol Royal Infirmary
Upper Maudlin Street
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Tel: +44 (0) 117 342 3154
Email: socscardiology-msc@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.
Clinical Sciences

The School of Clinical Sciences is one of the largest in the University of Bristol. Staff and students are based in high-quality research and clinical settings across the city, including the Bristol Royal Infirmary, Southmead Hospital and the advanced laboratory facilities in the Dorothy Hodgkin Building. The school undertakes laboratory-based, translational and applied research, fostering a high level of collaboration between staff and students. It comprises a mix of basic and medically trained scientists enabling high quality collaborative translational and health care research using a wide range of techniques from molecular biology to epidemiology.

Our work focuses on clinical research and a significant part of this has translated into clinical trials that are led by the school. These include ongoing trials related to cardiac surgery, uveitis, childhood vaccination and anti-microbial therapy, treatment of obesity in childhood and adult life, therapies for diabetic neuropathy, treatment of early Alzheimer’s disease, neurosurgical approaches to Parkinson’s disease, immunotherapy and bone marrow stem cell therapy in multiple sclerosis, interventions for treatment of neonatal brain injury, type 1 diabetes prevention, improvement of outcomes from joint replacement, novel methods of glucocorticoid treatment in critical illness and inflammatory disorders, treatment of nephrotic syndrome and management of pleural disease. These studies are complemented by translational clinical studies, engaging both clinical and basic scientists.

School staff are leaders in their fields, with extensive national and international research collaborations providing a wide range of skills that contribute to a first-class working environment in which to undertake interdisciplinary research and teaching.

Research groups

Cardiovascular
Bristol Cardiovascular aims to foster multidisciplinary cardiovascular, basic and applied research by stimulating collaboration between the University’s cardiovascular research groups. Our mission remains to gain a fundamental understanding of the cardiovascular system in health and disease, to use this knowledge for the benefit of our patients, and to provide leadership in training the next generation of top scientists and academic clinicians.

Research interests include:
• academic cardiac surgery - adult and paediatric
• atherothrombosis and vascular cell biology
• cardiac biochemistry
• cardiology
• cardiovascular physiology and electrophysiology
• hypertension
• regenerative medicine
• cardiovascular imaging.

Child Health
The School of Clinical Sciences is closely linked to the Bristol Royal Hospital for Children, St. Michael’s Hospital (Women’s and Children’s Services, University Hospitals Bristol NHS Trust), and North Bristol NHS Trust, where there are active programmes of research in bone marrow transplantation, burns, cardiology, dermatology, emergency medicine, endocrinology growth and obesity, gastroenterology, infection and immunity, intensive care and anaesthetics, metabolic diseases, neurosciences, nephrology, oncology, respiratory medicine, rheumatology, surgery and neonatal medicine. See also Bristol Neonatal Neurology group below.

Clinical Neurosciences
The Institute of Clinical Neurosciences is a confederation of research groups dedicated to translational neuroscience, housed in purpose-built clinical research facilities at Southmead Hospital:
• The Dementia Research Group conducts pre-clinical and clinical research using molecular genetic, biochemical, cell culture-based and neuropathological approaches as well as cognitive and neuroimaging studies in patients. The aim is to translate pre-clinical findings into applications that benefit patients with dementia, focusing on the molecular epidemiology and pathogenesis of Alzheimer’s disease and related dementias. Brain tissue research is underpinned by the group’s oversight and use of the South West Dementia Brain Bank.
• Molecular Neurobiology research is centred on gaining an understanding of the molecular mechanisms underlying Alzheimer’s pathogenesis, involving multi-disciplinary collaborations in translational protein and small molecule therapeutic design.
• Functional Neurosurgery researchers are focused on developing novel techniques of direct intracranial drug delivery and on pioneering work in deep brain stimulation surgery, with translational applications in the treatment of patients with Parkinson’s disease, epilepsy, essential tremor and primary brain tumour.
• The Multiple Sclerosis and Stem Cell Group focuses on the underlying cell biology of multiple sclerosis, the development and implementation of myelin repair treatments, and understanding mechanisms of neurodegeneration. We are interested in understanding the biology of tissue damage in MS, particularly injury to grey matter and to neurons and axons. Clinical research focuses on the causes of disability in chronic MS and a study of Primary Progressive MS.

• The Bristol Neonatal Neurology Group, based in St Michael's Hospital, investigates the mechanisms of brain injury in newborn infants and develops treatments to protect and repair the neonatal brain, reducing long-term disability. We do both pre-clinical and clinical research, including long-term development follow-up with brain imaging.

• Brain Tumour research aims to investigate each individual’s tumour according to what is driving the abnormal growth of that specific tumour. Surgery and a range of therapies can then be tailored to the individual, providing a personalised medicine approach.

Diabetes and Metabolism
The work of the Diabetes Research Group examines the causes, prediction and possible prevention of childhood type 1 diabetes. We have access to unique populations and sample collections for studying the pre-diabetic period, and have pioneered diabetes prediction methods based on immune, genetic and metabolic markers. More recent developments include a focus on novel mechanisms underlying autoimmunity including molecular and histological analysis of type 1 diabetes pancreas and pancreatic lymph nodes; international collaborations on the immunogenetic factors controlling the rate of progression to clinical symptoms; use of recombinant methodologies to study in detail the beta cell antigens that the immune system recognises as foreign in type 1 diabetes and seeking to understand why individuals with type 1 diabetes are at increased risk of thyroid and coeliac disease.

IGFs and Metabolic Endocrinology
The IMEG Research Group focuses on the role of nutrition in the development of chronic diseases, particularly obesity, insulin-resistance and epithelial cancers. We work closely with the Paediatric Obesity Clinic, ALSPAC (Avon Longitudinal Study of Parents and Children) and the School of Social and Community Medicine to examine dietary and lifestyle determinants of obesity, insulin-resistance and common cancers and the role played by insulin-like growth factors (IGFs) in their development. The group works with large cohort studies of populations, smaller clinical studies, and laboratory investigations using human cell models, including unique primary cultures of human adipocytes and skeletal muscle; and also has several cancer models including breast, prostate, bladder and colorectal investigating the cell biology of IGFs, their binding proteins and their role in cancer progression.

Integrative Neuroscience and Endocrinology
The Henry Wellcome Laboratories for Integrative Neuroscience and Endocrinology are co-located with the MRC Centre for Synaptic Plasticity in the Dorothy Hodgkin Building in central Bristol, forming a multi-disciplinary research centre. Working together, and in collaboration with the Faculty of Medicine and Dentistry’s Stem Cell Research Group housed in the Medical School, our researchers use state-of-the-art techniques in basic and translational neuroscience to identify novel therapies to treat major neurological diseases, including Alzheimer’s disease, stress-related psychiatric disease (such as depression) and neuroendocrine diseases. Major research areas are:

• Alzheimer’s and Neurodegenerative Disease: Studying the role of synaptic plasticity in learning and memory, and in particular the physiological and molecular mechanisms of long-term potentiation (LTP) and long-term depression (LTD); using viral delivery techniques to investigate the genes that regulate neuronal function in health and disease; using neuronal stem cells as experimental models and potential therapeutics; and studying the neurotrophins, a family of growth factors important in support of hippocampal and cholinergic basal forebrain neurons, and in memory formation.

• Cell Signalling and Stem Cells: Exploring the mechanisms by which cells respond and adapt to extra-cellular stimuli including hormones, neurotransmitter and growth factors. This is particularly pertinent to work on hippocampal, hypothalamic and pituitary cell populations as well as on the signalling networks controlling cell fate decisions such as differentiation, survival, death and commitment. Here, much emphasis is on potential treatments for neurodegenerative
diseases and stress-related disorders including Parkinson’s, Huntington’s, Alzheimer’s disease and depression.

• Stress and Endocrinology: Investigating the mechanisms through which the brain responds to different environmental stimuli: the hypothalamo-pituitary-adrenal (HPA) axis and how this responds to stress, exercise and altered time cues. How changes in HPA activity alter mechanisms of synaptic plasticity. The transcriptomic responses to osmotic and cardiovascular stimuli and the responses of the reproductive hypothalamo-pituitary-gonadal axis.

• Synaptic Plasticity and Repair: Studying the ability of synapses to alter activity in response to different stimuli, which is thought to underlie central functions such as learning, memory and chronic pain; aberrant plasticity is also thought to be involved in a wide range of neurological conditions including neurodegenerative disease, schizophrenia and epilepsy. Understanding the mechanisms involved in these processes and how they relate to both normal and pathophysiological function. Also, investigating the use of pluripotent stem cells as a mechanism to effect repair of the central nervous system following age-related or traumatic damage to the brain.

• Integrative Neuroscience and Behaviour: Investigating the neurobiological mechanisms underlying adaptive and cognitive behaviour: studies conducted at the molecular, cellular, neuroendocrine, neurophysiological, behavioural, and systems level. In our integrative research designs we apply state-of-the-art epigenetic, lentiviral, electrophysiological and imaging technologies to study changes in neuron function which form the basis of behavioural responses and memory formation, with the aim of improving treatment of stress-related psychiatric disorders such as major depression and anxiety.

• Musculoskeletal: The Musculoskeletal Research Unit specialises in toxicology, joint replacement and bone strength; it conducts research spanning the onset to the outcome of osteoarthritis, osteoporosis, fragility fractures and rheumatoid arthritis.

• Orthopaedic Surgery: Both laboratory and clinical research, focusing on joint replacement, osteoarthritis, long-term pain and related musculoskeletal conditions. The group’s health services research is focused on improving patients’ experience and outcome of joint replacement and involves clinical trials, cohort studies, systematic reviews and qualitative research. The group also hosts statistical analysis of the National Joint Registry and runs major programmes of research supported by the NIHR to improve outcomes after joint replacement. Methodological expertise includes outcome assessment, randomised trials, epidemiology and medical statistics, qualitative research and systematic reviews. Clinical studies use a variety of data collection techniques including quantitative sensory testing, accelerometry, interviews and self-report questionnaires. Basic science research is concerned with the safety of orthopaedic implants, with a particular focus on the systemic effects of cobalt and chrome. The group also works in the field of orthobiologics to promote bone regeneration, including biofunctionalising titanium, and developing enhanced bone graft substitutes.

• Academic Rheumatology: Research is focused upon epidemiological studies related to osteoporosis, osteoarthritis and other musculoskeletal conditions. The group is affiliated to the MRC Integrative Epidemiology Unit. Current research includes studies of the determinants of bone development based on the ALSPAC (Avon Longitudinal Study of Parents and Children) cohort, and the role of high impact physical activity in preserving bone mineral density in older people; investigations of scoliosis, hypermobility and vertebral fractures; and research into patients with High Bone Mass and a programme based on the National Hip Fracture Database.

• Obstetrics and Gynaecology: Members of the Academic Unit of Obstetrics and Gynaecology located within University Hospitals Bristol NHS Trust undertake clinical research with an emphasis on pregnancy complications and pre-term labour; also laboratory research into cell regulation in the myometrium and ovary which is often related to understanding the basis of clinical problems and improving diagnosis and therapy. Members of the academic unit based in North Bristol NHS Trust are developing new measures to improve healthcare in the field of obstetrics and parturition.

• Renal: Located in state-of-the-art laboratories in the Dorothy Hodgkin Building, Bristol Renal seeks to improve the management, treatment and prevention of renal disease through understanding the molecular basis
of glomerular and tubular disorders and investigating the links between renal disease and cardiovascular disease. The group’s laboratory research focuses on cellular and molecular biology of glomerular and tubular cells in culture, seeking to understand kidney function in terms of basic biochemistry and physiology, and the effects of disease states. We are taking the basic science advances into advanced models of disease with the ultimate aim of testing new and highly targeted therapies in patients with kidney disease. Clinical research is correspondingly directed towards study and treatment of kidney disease.

Respiratory
The Academic Respiratory Unit is located at Southmead Hospital and focuses on two main research areas. The Lung Cell Biology Team carries out research into a number of pulmonary diseases, which typically arise due to inappropriate, excessive or uncontrolled processes in the lungs. Our basic science and translational work has focused upon the inflammatory process and its regulation, which is fundamental to diseases not only of the lung, but also many other organs. The Pleural Disease Team undertakes clinical trials work relating to the pleura which are particularly susceptible to diseases such as cancer and infection. Pleural fluid or air can cause debilitating symptoms to patients and it is for this reason the team focuses on large-scale, practical clinical trials to improve management, overall outcomes and patient experiences. The team’s work is also expanding towards looking at the role of biomarkers and inflammatory markers in pleural diseases.

Key facts
Why choose Bristol?
Based in research and clinical settings across the city, including the Heart Institute and the Dorothy Hodgkin Building

Awards available
PhD, MD, DSc, MSc by Research

Duration of programme
PhD: Three years full-time; six years part-time
MSc by research: One year full-time; two years part-time
MD: Two years full-time; four years part-time

Part-time study available? Yes
Open to international students? Yes

English Language Profile
(see Introduction, ‘How to apply’, p15)

Number of places
Not fixed

Fees (per year, subject to annual increase)
Full-time: UK/EU £4,145; overseas £18,100
Part-time: UK/EU £2,073

Funding
Please see p2

Website
bristol.ac.uk/clinical-sciences

Possible start dates
Not fixed

Application deadline
Not fixed

Entry requirements
An honours degree (or international equivalent) in a biological or related science or medical subject. For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information
Senior Postgraduate Admissions Administrator
Faculty of Health Sciences
University of Bristol
Senate House
Tyndall Avenue
Bristol BS8 1TH
Tel: +44 (0) 117 331 6824
Email: fohs-pgadmissions@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.
Comparative and Clinical Anatomy

The Centre for Comparative and Clinical Anatomy (CCCA) is a recently formed unit which replaces the previous Department of Anatomy. Research within the centre is internationally recognised and is focused in the areas of cancer biology, developmental biology and neuroendocrinology.

The CCCA’s excellent facilities include the Vesalius Centre, which houses a state-of-the-art clinical anatomy suite that provides opportunities for using unfixed human tissue for both research and training purposes. This new centre provides a wide range of opportunities for translational research (for example, in the design and evaluation of medical implants or surgical procedures), strengthening links with Clinical Medicine and Veterinary Sciences. The centre also has access to faculty facilities such as the Wolfson Bioimaging Facility.

Research groups

Cancer Biology Research studies the dynamic interaction of cancer cells with normal (non-cancerous) epithelial cells and fibroblasts. Cancer cells surround and attack normal epithelial cells, whereas fibroblasts restrict distribution and movement of cancer cells; the cause and consequence of these interactions are investigated.

Developmental Biology Research investigates the molecular mechanisms that underlie macrophage migration in vivo, particularly how these immune cells prioritise competing cues, e.g. damage signals released from wounds, as well as guidance cues that direct their dispersal during embryogenesis and the presence of bacterial infection.

Neuroendocrinology Research is concentrated in two main areas which include the neuroendocrine mechanisms underlying the control of fertility and the neurobiology of stress responses. A multi-animal model strategy is used in combination with hypothalamic and pituitary cell lines to study the topics from in vivo systems to molecular level.

Entry requirements

An upper second-class honours degree or MSc (or international equivalent) in a medical or biological field. For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information

Senior Postgraduate Admissions Administrator
Faculty of Health Sciences
University of Bristol
Senate House
Tyndall Avenue
Bristol BS8 1TH
Tel: +44 (0)117 331 6824
Email: fohs-pgadmissions@bristol.ac.uk

Applications

Details of how to apply are available at bristol.ac.uk/pg-study.

Key facts

Why choose Bristol?
You’ll have access to a state-of-the-art clinical anatomy suite that provides opportunities for using unfixed human tissue for research

Awards available
MSc by research, MD, PhD

Duration of programme
PhD: Three or four years full-time, or part-time equivalent
MD: Two years full-time, or part-time equivalent
MSc by Research: One year full-time, or part-time equivalent

English Language Profile
C (see Introduction, ‘How to apply’, p15)

Number of places
Not fixed

Fees (per year, subject to annual increase)
Full-time: UK/EU £4,145; overseas £18,100 Part-time: UK/EU £2,073
(A bench fee may be charged depending on research project)

Funding
Please see p2

Website
bristol.ac.uk/fmvs/gradschool

Possible start dates
Not fixed

Application deadline
Not fixed
Molecular, Genetic and Lifecourse Epidemiology

Our ability to fully exploit new molecular and genetic technologies in epidemiology depends on a new generation of interdisciplinary scientists who can harness the benefits of these technologies in exciting and productive ways. This Centre for Doctoral Training and its innovative, four-year PhD programme equips students with the knowledge and technical skills to achieve this.

For applicants with a background in science, mathematics or population science, this programme offers generous funding from the Wellcome Trust and a distinctive cross-disciplinary approach. The first year is designed to offer you opportunities to investigate core subject areas such as epidemiology and biostatistics before you embark on your research study.

The programme will give you the opportunity to undertake research training tailored to your needs through a series of intensive short courses, and you will benefit from supervision by highly-regarded academics in a dynamic research environment.

Research groups
The School of Social and Community Medicine is a leading centre for research in population health sciences, contributing to significant health care improvements and policy change around the world.

Research in the school is collaborative and multidisciplinary, with staff coming from a wide range of academic disciplines and clinical specialities.

Further information can be found on our research webpages at bristol.ac.uk/social-community-medicine/research.

Programme structure

Year One

The first year involves three core attachments, each consisting of a 10-week mini-project and parallel core-topic short courses. The core attachments cover the following areas: Epidemiology; Biostatistics and Bioinformatics; and Molecular/Genetic Laboratory Skills.

These attachments will offer you the opportunity to study a range of research areas with different supervisors, allowing an informed decision at the end of Year One on your choice of PhD thesis project for years Two to Four.

Years Two to Four

Your main PhD project is carried out during this three-year period. You may attend additional short courses during this time. Your final PhD thesis will be submitted at the end of Year Four.

Entry requirements

Our aim is to attract outstanding and highly motivated science graduates who are excited by the revolution in molecular and genetic epidemiology. You will have a good honours (minimum requirement is a 2:1) or Masters degrees in relevant disciplines, and wish to pursue a career in molecular, genetic or lifecourse epidemiology.

Contact for further information
School of Social and Community Medicine
University of Bristol
Canynge Hall
39 Whatley Road
Bristol BS8 2PS
Tel: +44 (0) 117 928 7274
Email: scm-postgrad-admin@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.

Key facts

Why choose Bristol?
This innovative programme combines broad interdisciplinary skills training with high-impact research projects

Awards available PhD

Duration of programme
Four years full-time

Part-time study available? No

Open to international students? Yes

English Language Profile A
(see Introduction, ‘How to apply’, p15)

Number of places 3 per year

Fees (per year, subject to annual increase)
Full-time: UK/EU £4,145; overseas £18,100

Funding Please see p2

Website
bristol.ac.uk/social-community-medicine/courses/postgraduate/wellcome

Possible start dates October 2016

Application deadline
Dependent on funding deadlines. Please see our website for further details
Neural Dynamics

This programme will run in 2016 subject to confirmation of funding.

Neural dynamics is the study of the nervous system’s remarkable capacity to change, and, at a systems level, of the dynamic interplay between integration and segregation of brain regions that enables all aspects of behaviour, including learning, memory, homeostasis and sensorimotor control.

This fully funded Wellcome Trust PhD programme is different to a traditional PhD route: it provides you with a year of taught units and two extensive research projects before you embark on your primary research focus. This innovative structure enables you to explore several areas of neural dynamics research, giving you a broad understanding of the foundations that underpin your core interests. This equips you to make a fully informed decision on your major research focus for the remaining three years of your PhD.

Research groups
Bristol has one of the largest concentrations of neuroscientists in Europe and is a major centre for basic and clinical neuroscience. We are an acknowledged world leader in many key areas of neural dynamics research, from both an experimental and theoretical perspective, spanning molecular, cellular and systems levels of neuroscience. Together with experts in systems dynamics, based in the departments of Engineering Mathematics and Computer Science, the School of Mathematics, and the Bristol Robotics Lab, we can provide considerable scope for ground-breaking, integrative research projects.

Programme structure

Year One
Your first year comprises five taught units with related seminars, as well as two research projects lasting four months each, with a student conference concluding the year.

Taught units
• Foundations in Neuroscience
• Mathematical Modelling
• Computational Neuroscience
• An optional unit

These units will equip you with the necessary understanding and skills to engage with the research that will be the focus of your final three years. A tailored training plan will be drawn up for you by the programme directors and yourself.

Years Two to Four
One of the two research projects you undertook in your first year will be developed into your full PhD project, co-supervised by at least one experimentalist and one theoretician. During this period you will have the option to:
• make an international lab visit for one to three months;
• make an industrial lab visit for three to six months.

Entry requirements
A first or upper second-class undergraduate or Masters degree in a biomedical science discipline or a relevant theoretical discipline (mathematics, computer science or physics). You should also have some background in mathematics or computer science, eg A-levels or application of mathematical modelling / computational methods in undergraduate research. We are looking for talented and motivated students open to learning about new disciplines and working across different fields.

Contact for further information
Graduate Administration Manager
Medical Sciences Building
University Walk
Bristol BS8 1TD
Tel: +44 (0)117 331 1535
Email: fbs-pgenquiries@bristol.ac.uk

Key facts

Why choose Bristol?
Bristol has one of the largest concentrations of neuroscientists in Europe and is a major centre for basic and clinical neuroscience.

Awards available PhD
Duration of programme Four years full-time

English Language Profile A
(Number of places 5

Fees (per year, subject to annual increase)
Full-time: UK/EU £4,145; overseas £18,100
Part-time: UK/EU £2,073

Funding Please see p2

Website bristol.ac.uk/fmvs/gradschool

Possible start dates October 2016

Application deadline 12 noon GMT, 5 January 2016

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.

bristol.ac.uk
 Oral and Dental Sciences

The School of Oral and Dental Sciences performed highly in the Government’s most recent assessment of research quality across all UK higher education institutions (REF 2014). The results show 43 per cent of our research to be world-leading (4*) and a further 37 per cent to be internationally excellent (3*).

The school interfaces laboratory-based and clinically-applied research and fosters a high level of collaboration between staff and students. The research programme is funded both internally and by external grants from charities, research councils and industry.

Research groups
We have three research groupings:
- Applied Clinical and Materials Science (ACMS)
- Life-course Epidemiology and Population Oral Health (LEPOH)
- Infection and Immunology (IAI)

Each group comprises clinical and basic scientists to promote interdisciplinary and translational research.

Entry requirements
An upper second-class honours degree (or equivalent) in a relevant subject. Holders of non-UK degrees or other qualifications can obtain advice from the Faculty Office.

Contact for further information
Senior Postgraduate Admissions Administrator
Faculty of Health Sciences
University of Bristol
Senate House
Tyndall Avenue
Bristol BS8 1TH
Tel: +44 (0) 117 331 6824
Email: md-pgadmissions@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.

Key facts
Why choose Bristol?
The school interfaces laboratory-based and clinically applied research

Awards available
PhD, DDS, MD, MSc by research

Duration of programme
PhD: Three to four years full-time; six years part-time
MD: Two to five years full-time; four to seven years part-time
DDS: Three years full-time
MSc by research: One year full-time

Part-time study available? Yes

Open to international students? Yes

English Language Profile E
(see Introduction, ‘How to apply’, p15)

Number of places Not fixed

Fees (per year, subject to annual increase)
Full-time: UK/EU £4,145; overseas £18,100
Part-time: UK/EU £2,073

Funding Please see p2

Website bristol.ac.uk/dental/research

Possible start dates Not fixed

Application deadline Not fixed
Orthodontics

This programme aims to:
• provide a higher degree in orthodontics for dental graduates;
• prepare you for the Membership in Orthodontics (MOrth) at one of the Royal Colleges of Surgeons.

The programme produces motivated clinician scientists capable of obtaining high clinical standards in an objective manner. The Doctorate in Dental Surgery (DDS) will enable you to develop the ability to design, undertake and apply appropriate research to relevant clinical problems.

Applications for a position on this programme as a Specialist Trainee in Orthodontics will be made through the National Recruitment process, which is likely to be advertised in the British Dental Journal.

We will also accept university-based applications from international applicants, followed by shortlisting and interviews of selected candidates.

There are usually eight positions: one each in Taunton, Yeovil, Plymouth, Portsmouth and Exeter, and three opportunities for home students in Bristol/Bath. There is also the opportunity for two overseas students in Bristol/Bath and one overseas in Bristol/Swindon.

Programme structure
The programme is broadly divided between academic modules, treatment of patients under close supervision, and a research project.

The academic teaching component is a comprehensive lecture/seminar programme covering all aspects of orthodontics, relevant basic medical sciences and research methods. We have developed a programme with both internal and external speakers who have demonstrated excellence in their chosen topics. Please see the school website for a full list of areas covered by the modular programme.

Treatment sessions with your own patients, diagnostic clinics, case seminars and topic-related tutorials are included in the teaching. To increase the diversity of clinical experience, you will also be supervised by a number of different consultants during your training. A number of treated cases are prepared for the MOrth examinations of the Royal College of Surgeons in the summer of the third year of the programme.

As part of the programme, students carry out an investigation and prepare a research dissertation, which must include a critical review of the relevant literature. It is also a requirement that material is prepared and submitted for publication in a peer-reviewed journal during the three-year programme. Projects are diverse and cover contemporary areas of clinical practice and laboratory-based research in orthodontics. This research is examined in the autumn of the final year.

Entry requirements
BDS or equivalent qualification, which can be registered with the GDC, and the MFDS or equivalents are desirable. In some cases, satisfactory completion of a one-month period of pre-programme assessment during September of the year of entry will be required.

Contact for further information
Admissions Administrator
Faculty of Health Sciences
Senate House
Tyndall Avenue
Bristol BS8 1TH
Tel: +44 (0)117 331 6824
Email: fohs-pgadmissions@bristol.ac.uk
Social and Community Medicine

The School of Social and Community Medicine is a leading international centre for research and teaching of population health sciences. Staff in the school are leaders in their fields and have extensive national and international research collaborations, with several providing health policy advice for government organisations and international bodies. Our staff are multidisciplinary, and include statisticians, epidemiologists, geneticists, sociologists, psychologists, anthropologists, health economists, public health physicians, medical ethicists, computational biologists, neuroscientists, and various community-based physicians and nurses. We are keen to attract graduates from all these disciplines to carry out postgraduate research. The school has approximately 80 postgraduate research students. In the 2013 PRES (Postgraduate Research Experience) survey, 94% of our students were satisfied with their postgraduate experience. Ratings of quality of supervision, resources, research culture, progress assessment, research skills training and professional development all exceed sector averages.

A selection of fully-funded PhD opportunities are available within the school. We have a Wellcome Trust four-year PhD programme in Molecular, Genetic and Lifecourse Epidemiology. The MRC Integrative Epidemiology Unit provides four-year PhD opportunities on a range of cross-disciplinary projects integrating molecular and other data to investigate the causal effects of potentially modifiable exposures on health-related outcomes. Other funded studentships are also available for projects in any research area within the school. Students who have already secured funding are encouraged to discuss research topics with potential supervisors before applying. Please visit the school website to see current opportunities.

Research groups

Child and Adolescent Health
The Centre for Child and Adolescent Health is a joint initiative between the University of Bristol and the University of the West of England (UWE) which aims to promote the academic study of child health through interprofessional collaboration. Staff at the centre include senior academics and researchers from Bristol and UWE, and clinician-educators from North Bristol Trust, University Hospitals Bristol, and Bath.

Our research is structured into themes:
- Child Development and Disability
- Children with Complex Health Needs
- Child and Adolescent Injury

Children and young people’s participation and international child health are cross-cutting themes.

Epidemiology
The school’s research programme includes life-course epidemiology (studying how exposures at different stages of the life course interact to produce patterns of chronic disease) and clinical epidemiology (eg investigating the prognosis of HIV-infected patients starting antiretroviral therapy).

Major themes within epidemiology include:
- Cancer (cancer screening, aetiology, diagnosis, prognosis);
- Cardiovascular Disease (aetiology, prevention and management);
- Infectious Disease Modelling;
- Mental Health and Neurodegeneration;
- Nutrition and Metabolic Disorders (aetiology and prevention of poor nutrition at a population level).

Ethics in Medicine
At the Centre for Ethics in Medicine we examine ethics in medicine and bioscience, working together with colleagues from various disciplines (Law, Palliative Medicine, Psychiatry, Primary Care). The main areas of interest are:
- educating and supporting healthcare professionals (clinical ethics, research ethics, ethics education, professionalism);
- chronic illness, terminal illness and long-term care (end-of-life decision-making, older people, children and young people, psychiatry, health and social care policies);
- biotechnologies and biosciences (genetics, human enhancement, reproductive medicine, human tissue, surgical ethics).

Genetic and Molecular Epidemiology
This programme uses molecular (eg genomic, epigenomic, metabolomic) data from large cohort studies to investigate the molecular mechanisms of disease, to aid understanding of the relationships between life-course exposures and adult diseases, and to develop methods for disseminating and introducing these findings into practice. Major themes in the MRC Integrative Epidemiology Unit and the Bristol Genetic Epidemiology Laboratories include:
- Genome-wide Association Studies
- Mendelian Randomisation
- Epigenetics/Epigenomics
- Metabolomics
- Copy Number Variation
- Next-generation Sequence Analysis
- Bioinformatics
- Population Genetics
- Systems Biology
- Laboratory-based Genetic Epidemiology

Health Services and Public Health Research
We are a leading centre for methodological and applied research into the effectiveness, efficiency and acceptability of healthcare and health improvement. We actively contribute to health service and public health practice and policy-making.

Our Centre for Public Health includes the UKCRC DECIPHer Centre and we are partners
in the NIHR School for Public Health Research. We also host the NIHR Health Protection Unit in Evaluation of Interventions. Our major strengths include the design and conduct of randomised controlled trials led by the MRC ConDuCT trials methodology hub, the Bristol Centre for Surgical Research and the Bristol Randomised Trials Collaboration. We have vibrant research groups in systematic reviews and evidence synthesis, qualitative methods, biostatistics, health economics, and outcomes research.

**Primary Care**
The Centre for Academic Primary Care (CAPC) is one of the eight leading centres for primary care research in England which form the NIHR School for Primary Care Research (NSPCR). We conduct high-quality research of practical benefit to patient care and NHS decision-making.

CAPC has an important role in developing research capacity in primary care through hosting studentships and fellowships supported by the NIHR and other funders.

**Psychiatry**
The Centre for Academic Mental Health brings together researchers working on mental health, addiction and suicide research within the school. Our research involves investigating a wide range of biological, psychological and social factors and how they might influence the causation and course of psychiatric disorders.

Our strengths include:
- epidemiology, especially longitudinal studies to investigate depression, anxiety, suicide, addiction and psychosis;
- randomised controlled trials, particularly the treatment of depression and anxiety in primary care;
- systematic reviews and meta-analyses, especially interventions for common mental disorders.

In addition, we have interests in the biological basis of psychiatric disorder.

**Entry requirements**
An upper second-class honours degree (or equivalent) and/or a relevant Masters degree, and/or evidence of prior learning or achievement.

**Contact for further information**
Sharen O’Keefe, Postgraduate Administrator School of Social and Community Medicine University of Bristol Canynge Hall 39 Whatley Road Bristol BS8 2PR Tel: +44 (0)117 928 7274 Email: scm-postgrad-admin@bristol.ac.uk

**Applications**
Details of how to apply are available at bristol.ac.uk/pg-study.

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**Key facts**

**Why choose Bristol?**
The school is one of the UK’s leading centres for research and teaching in population health sciences.

**Awards available**
- PhD, MD, DSc, MSc by research

**Duration of programme**
- PhD: Three to four years full-time; six years part-time
- MD: Two to five years part-time
- MSc: One year full-time; two years part-time

**Part-time study available?** Yes

**Open to international students?** Yes

**English Language Profile**
A (see Introduction, ‘How to apply’, p15)

**Number of places** Approx 35

**Fees (per year, subject to annual increase)**
- Full-time: UK/EU £4,145; overseas £18,100
- Part-time: UK/EU £2,073

**Funding** Please see p2

**Website**
bristol.ac.uk/social-community-medicine

**Possible start dates** Not fixed

**Application deadline** Deadlines are advertised on the school website at various times throughout the year. We welcome enquiries at any time of the year.
RESEARCH PROGRAMME

Veterinary Science

Postgraduate research in the School of Veterinary Sciences is largely based on the Langford campus, which houses a large number of research groups together with Langford Veterinary Services and the University farm.

The strength of the school’s research programme is greatly enhanced by its position within the Faculty of Health Sciences. Our research extends from the fundamental to the applied and we collaborate with other research groups in the faculty and beyond, building on a policy of integration of basic science with veterinary activities.

Our postgraduate students join a large community of researchers in the faculty and greatly benefit from the training and collaboration opportunities this provides. We welcome enquiries and applications from prospective MSc and PhD students.

Programme structure
Research activities in the school are focused on three research themes and encompass both clinical excellence and strong basic science. These are:
- Animal Welfare and Behaviour (AWB)
- Infection and Immunity (including inflammation) (I&I)
- Comparative and Clinical Research (C&CR)

Translational Research is a major focus of the I&I and C&CR grouping and is directed to using natural disease and experimental intervention in animals to increase understanding of human and animal disease and inform the development of new therapeutic interventions. Within each of these themes we incorporate quantitative approaches through our Biostatistics, Epidemiology, Mathematics and Ecology (BEME) group. Research that goes across our themes is a major strength of the school and is also reflected by our participation in the following University initiatives:

- Food Security and Land Research Alliance
- Elizabeth Blackwell Institute for Health Research
- Cabot Institute for Environmental Research
- Bristol One Health
- South West Doctoral Partnership

Key facts

Why choose Bristol?
Academics in the school publish research regularly and share their cutting-edge research activity through their teaching.

Awards available PhD, MSc by research

Duration of programme
PhD: three to four years full-time; up to seven years part-time
MSc by research: one year full-time; part-time available

English Language Profile C (see Introduction, ‘How to apply’, p15)

Number of places 20-25

Fees (per year, subject to annual increase)
Full-time: UK/EU £4,145; overseas £18,100
Part-time: UK/EU £2,073

Funding Please see p2

Website bristol.ac.uk/vetscience

Possible start dates Not fixed, but in order to fully benefit from the induction process we strongly encourage students to start in September 2016

Application deadline Not fixed

Entry requirements
An upper second-class degree (or equivalent qualification) in a relevant subject. For information on international equivalent qualifications, please see bristol.ac.uk/international/countries.

Contact for further information
Postgraduate Admissions
School of Veterinary Science
Langford House
Langford
Bristol BS40 5DU
Tel: +44 (0)117 928 9204
Email: cvs-postgrad-enquiries@bristol.ac.uk

Applications
Details of how to apply are available at bristol.ac.uk/pg-study.
The information in this prospectus relates primarily to the session 2016/17 and every effort has been made to ensure it is correct at the time of going to press in August 2015. The University will use its reasonable efforts to deliver the programmes as described.

However, the University reserves the right for any reason without notice to withdraw or change any of the programmes included in this prospectus, to alter tuition fees, entry requirements, the facilities and/or services available from or provided by or on behalf of the University. You should also note that the choice of subjects may be limited by considerations of timetable, staffing and/or available places on a programme.

If you accept an offer of a place on a programme, the relationship between you and the University will be governed by the applicable Rules and Regulations for Students, which includes the Student Agreement.

Please see:

bristol.ac.uk/secretary/studentrulesregs
bristol.ac.uk/studentagreement

The University values its students and works to provide a set of support structures and a range of opportunities that will enable you to excel in every aspect of your life and make your university career a genuinely transformational experience. To help create a positive environment for learning and academic achievement, the University has established various rules and regulations that all students must follow if they accept an offer of a place to study with us. These rules and regulations include a Student Agreement, which sets out the relationship between the University of Bristol and its students. A copy of the agreement is available at bristol.ac.uk/studentagreement.

Prospective students should take into account when selecting a programme of study the inherent risks of their chosen career. For more information, see bristol.ac.uk/prospectus/postgraduate/health-safety.html.

For details of any changes made since publication, please refer to our online prospectus at bristol.ac.uk/pg-study.