# Medicine and health studies

## **Essentials**

#### **Taught programmes** MSc degree

Global Health

**Brighton and Sussex Medical School (BSMS)** 

In addition to the MSc in Global Health, BSMS will offer a range of postgraduate taught programmes for 2012 entry. Full details will be available in spring 2012 at

www.bsms.ac.uk/postgraduate

#### **Research programmes**

MD. MPhil. PhD

#### **Related programmes**

MSc in Health Psychology (p141) MSc in Imaging in Biomedical Research (p47)

#### **Admissions requirements**

For information on overseas qualifications that meet the admissions requirements, refer to pages 156-157

#### MSc, MPhil, and MPhil with potential to upgrade to PhD

A first- or upper second-class undergraduate honours degree in a subject relevant to the programme of study proposed

#### PhD (direct entry)

An MPhil in a subject relevant to the programme of study proposed

#### MD

Either a BM BS degree from Brighton and Sussex Medical School; or a registrable professional or other medical qualification; or eligibility for full or limited registration with the General Medical Council

#### **English language requirements**

IELTS 7.0, with not less than 7.0 in each section

#### Admissions procedure MSc in Global Health

Applications to the MSc in Global Health are made via the course leader, contact:

E globalhealth@bsms.ac.uk

#### Research programmes

Application forms are available from

www.bsms.ac.uk/postgraduate/researchdegrees/applying or by contacting:

Nichola Mayer,

Research Degrees Administrator, Medical Research Building Brighton and Sussex Medical School, University of Sussex, Falmer, Brighton BN1 9PS, UK

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Visit www.bsms.ac.uk/postgraduate/feesand-finances for more information about fees



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Research programmes Dr Sarah Newbury, Postgraduate Tutor,

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- The excellent reputation of Sussex in research related to medicine has been enhanced by the opening of BSMS. Working with partners such as the Genome Damage and Stability Centre at Sussex, BSMS executes high-quality research on disease identification from its molecular basis, developing new therapeutic interventions and driving forward translational research to ensure basic research is taken forward into clinical trials for the benefit of patients and the community.
- At present, 100 per cent of PhD students at BSMS have successfully completed their studies within four years.
- Our graduates have gone on to careers in policy-making; working for NGOs and medical charities; doing research for academia and the media; and health journalism. A research degree from BSMS gives you a competitive edge if you wish to enter a research career in the NHS or pharmaceutical sectors. You may be able to teach undergraduates while undertaking research, as good preparation for a career in academia.
- Institute of Postgraduate Medicine (IPGM), programmes mirror the professional demands of practitioners, providing good preparation towards professionally required exams, and are a useful step in applying for the increasing number of consultant posts in a number of specialties. For more information, visit www.bsms.ac.uk/ipgm
- On most BSMS programmes, you will have the opportunity to hear nationally or internationally renowned speakers from senior posts in the clinical setting.
- · Postgraduate students at BSMS are encouraged to present their work at national and international conferences. Many students have been awarded travel grants to present their work in the United States of America or in Europe.



#### Taught programmes

Taught postgraduate programmes at BSMS cover clinical specialties, public health and professional development. For details, visit www.bsms.ac.uk/postgraduate/taughtcourses

#### **MSc in Global Health** 1 year full time

In the 21st century, improving health and achieving equity in health are among the world's greatest challenges. At a time of unprecedented integration and interdependence of economies, environments, societies and cultures, global processes interact with national, local and personal factors to impact the health of individuals and populations. This MSc aims to develop your understanding of these global health determinants and their potential solutions in order to enable you to contribute to the improvement of health and the achievement of equity in health worldwide.

The MSc brings together experts from disciplines within and beyond the health sciences to deliver a vibrant programme that will appeal widely, covering topics such as poverty, inequalities and health; cultural understandings of health and healing; emerging infectious diseases; global disease burden of infectious and noncommunicable disease: climate change and health: and the relationship between disease. globalisation and global governance.

This MSc adopts dynamic and interactive teaching methods, using case studies alongside current evidence and insights to facilitate your understanding of global health issues.

You are encouraged to be self-directed and to manage your own learning through making use of the wide range of learning resources available at BSMS. The dissertation, which can be based in the UK or abroad, allows you to develop an area of expertise through the in-depth focus on a topic of your particular interest.

#### Career opportunities

This MSc aims to develop your skills to work as global health practitioners, policy makers or researchers in health systems, governments, non-governmental organisations and international health and development agencies.

#### Programme structure

You take five courses from Critical Perspectives in Global Public Health • Cultural Understandings of Health and Healing . Global Disease Burden • Global Health Principles • Global Politics of Disease • Research Methods and Critical Appraisal • Values, Ethics and Politics in Public Health. You also undertake work on your dissertation.

#### Assessment

Assessment is by a combination of unseen written exams, term papers, oral presentation and dissertations.



#### **Research programmes**

BSMS postgraduate projects range in scope from basic science related to cellular control mechanisms through clinical projects to ethics and social science.

BSMS' overlapping research groupings and research environment provide postgraduate students with potential for interdisciplinary interactions. Projects are available where supervisors with a background in fundamental science are working together with clinicians to provide an exciting and productive environment. In addition, some projects are enhanced by the input of ethics research into research on human genetics or disease.

Postgraduate students are often supervised both by BSMS faculty and faculty from the Universities of Sussex or Brighton, as well as by clinicians from the NHS, providing you with a rich research experience. You are able to take advantage of skills training courses at both Universities, as well as use the facilities and equipment provided in both Universities and in NHS research laboratories. There are also strong links with neighbouring research centres such as the Blond McIndoe Research Foundation, East Grinstead, which specialises in research into tissue regeneration.

At present, 100 per cent of PhD students at BSMS have successfully completed their studies within four years. We have a strongly supportive skills and training programme, where you are encouraged to communicate your research to other students and in more formal settings such as the Annual Research Student Symposium. The mix of backgrounds of research students, from clinical, basic science to social science, encourages an interdisciplinary and collaborative environment.

#### Funding

Most of the current BSMS postgraduate students registered for MPhil/PhD programmes are funded by research councils, BSMS, the Department of Health or medical charities such as the Wellcome Trust. Future funding may be available through several NHS funding initiatives, as well as commercial funding. Details of funding available for particular research programmes will be advertised along with each research project. For all projects we have to ensure that all funding is in place before the project starts.

#### **Current thesis titles**

Cellular and humoral mechanisms of allergic disease

Comparative study to identify the environmental trigger of podoconiosis in Ethiopia

Early detection and warning system in surgery

Imaging hepatic neutrophil migration in severe acute alcoholic hepatitis

Novel mechanisms of gene regulation in testis stem cells

Novel targets for epigenetic regulation in non small cell lung cancer

The assessment and management of older patients with colorectal cancer

The courage to participate? Patients' views on experimental neuroscience

The role of probiotics in reducing antibioticassociated diarrhoea including clostridium difficile The role of the tenocyte in tendon ossification: inherent plasticity or environmental cues?

The validity of quality of life measurement in capturing people's experiences of living with asthma

#### Career opportunities

A PhD at BSMS aims to develop your skills to work as a researcher in cutting-edge technologies in subjects related to health and biomedical science. Our PhD and MD graduates have progressed into clinical academic careers, are working in biomedical science companies, or have continued to work in academic science as postdoctoral researchers.

#### Specialist facilities

BSMS's state-of-the-art Medical Science Research Building on the Sussex campus provides an outstanding resource for around 50 medical research scientists working on cell and developmental biology, human genetics, cancer, asthma and immunology. Laboratory facilities include molecular biology equipment, tissue culture labs, advanced microscopy equipment, and a flow cytometer.

The newly refurbished Trafford Centre provides laboratory facilities for research groups working on cancer, cell signalling and neuroinflammation. Specialist equipment includes tissue culture, a pyrosequencer, robotic liquid handling equipment and molecular biology facilities. We also have the Clinical Imaging Sciences Centre, providing a resource for translational research in oncology and neuroscience. It houses an integrated 64-slice PET-CT imaging system and a 1.5T MR imager.

The 10-bedded Clinical Investigation and Research Unit at the Royal Sussex County Hospital provides bespoke facilities for detailed physiological investigation, as well as laboratory facilities and opportunities for qualitative research by interview, patient-centred research and postgraduate research training.

#### Faculty research interests

The research interests of BSMS faculty are based around a range of research areas briefly described below. For more information, visit www.bsms.ac.uk/research

### Cancer

Researchers in this area are investigating varied topics such as imaging of tumour angiogenesis and the spread of cancer cells, cancer biomarkers, epigenetics, and developing communication skills in working with patients with cancer.

#### Cell and developmental biology

Research in this area includes investigations into the fundamental mechanisms underlying stem cell pluripotency, cell migration, tissue regeneration, cell signaling and gene expression.

#### Elderly care and stroke

This group uses health services research methods to develop and evaluate new ways of maintaining health and managing disease.

#### Imaging

This is a vibrant cross-disciplinary programme of imaging research at BSMS, supported through PET and MRI facilities at the Clinical Imaging Sciences Centre at Sussex and Nuclear Medicine at the Royal Sussex County Hospital.

#### Infection and immunology

Infection and immunology encompasses a diverse group of researchers at BSMS, all of whom are trying to understand the roles that immunological, genetic, pathogenic or environmental factors play in disease.

#### Medical education

Medical education research at BSMS has developed along with the undergraduate BM BS programme through the Medical Education Unit (MEU), a multi-professional group involved in undergraduate and postgraduate teaching and learning.

#### **Medical ethics**

This group researches topics including stem cell research, foetal medicine, embryo experimentation, antenatal screening, ethics of cancer and palliative care, treatment of neurodegenerative disease, and bioethics research and practice in the developing world.

#### Medical informatics

Researchers at BSMS are working with specialists in informatics at the Universities of Sussex and Brighton, developing a programme of interdisciplinary research in electronic patient records.

#### Neuroscience

This group is focused on neurological conditions such as dementia, stroke, multiple sclerosis, motor neurone disease and chronic pain. Using molecular, physiological and neuroimaging techniques, researchers are examining the underlying mechanisms, diagnosis and treatments of these conditions, as well as the normal functioning of the nervous system.

#### Primary care and health services

The work of this group focuses mainly on allergy, sexually transmitted disease and cancer. Working with existing data sets enables this group to understand causes of disease and patterns of disease referral and management.

#### Paediatrics

Research in this area focuses on the relationship of genetic make-up with the susceptibility to asthma in children.

#### **Psychiatry**

Psychiatry at BSMS has strengths in affective neuroscience, biological psychiatry, neuropsychiatry and psychological medicine. Neuroimaging research programmes seek to define brain mechanisms underpinning normal and aberrant behaviours in psychiatric and neurological populations.

#### Rheumatology

This research group seeks to improve the understanding of disease mechanisms and treatment strategies with the ultimate aim of translating cutting-edge research into clinical practice.