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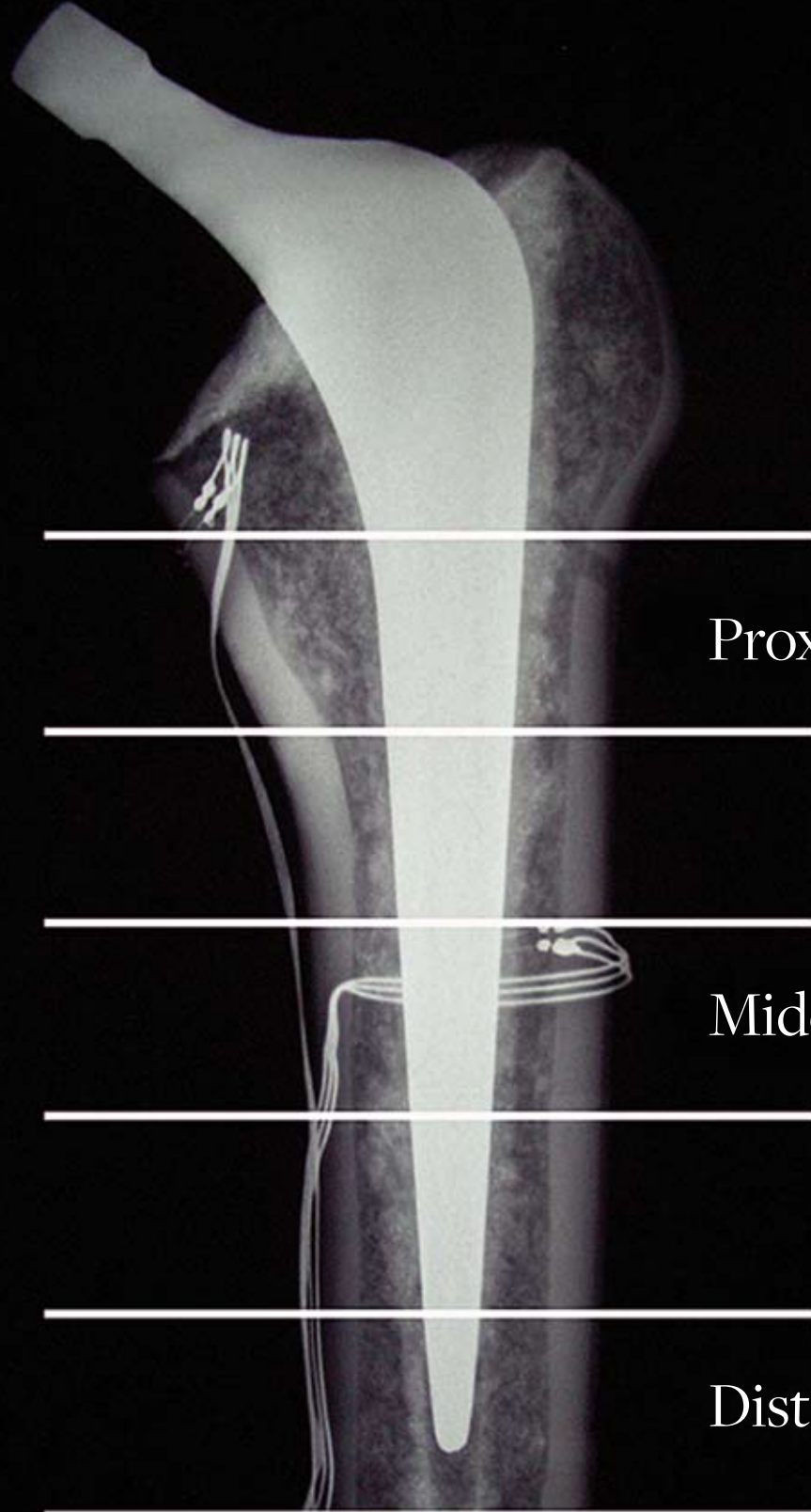
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SEI

Innovate, initiate,  
and translate  
Postgraduate  
opportunities  
at the  
School of Medicine



Proximal (b)

Middle (c)

Distal (d)

Main image: CT femoral coronal slice demonstrating impacted bone graft with a cemented femoral hip prosthesis in situ

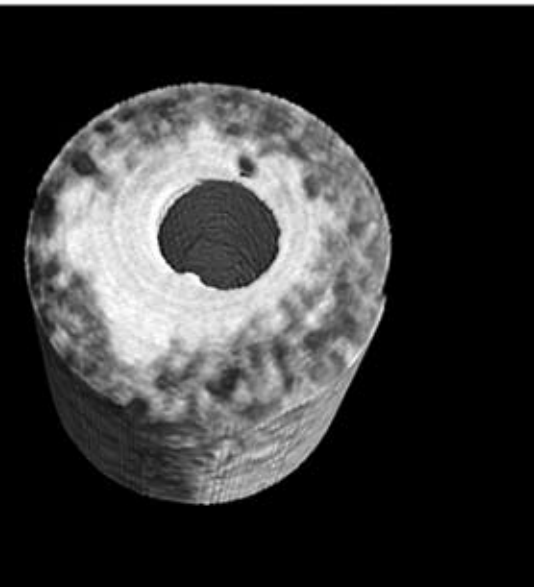
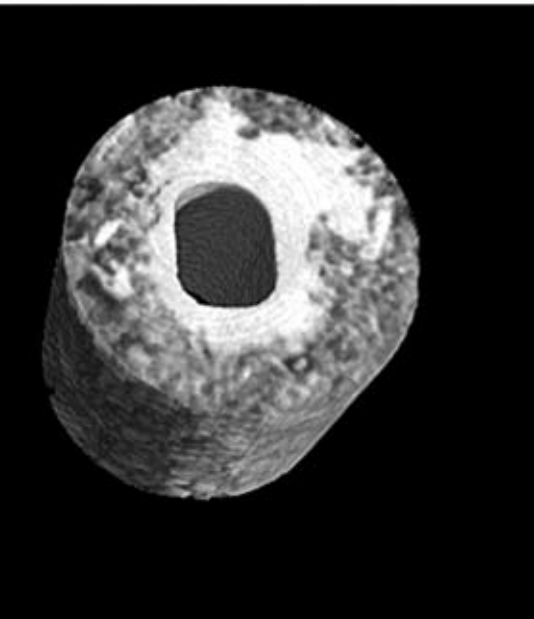
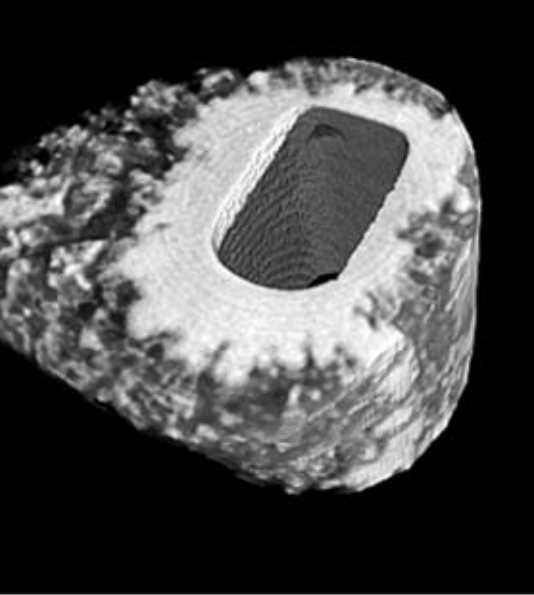
Other images: CT axial slices through proximal, middle and distal regions of the femur demonstrating impacted bone graft and cement mantle

Images: Ben Bolland, Andrew New, Richard Oreffo and Doug Dunlop (Bone and Joint Research Group)

b

c

d



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Our research programmes are delivered in multidisciplinary divisions, ranging from Cancer Sciences and Human Genetics to the study of the Developmental Origins of Health and Disease. Particular strengths are respiratory disease, nutrition and development, cancer sciences, and bone and joint disease, in addition to cross-divisional themes including stem cells and regeneration, and translational immunology. We encourage collaborations across the wider University and have strong links with the physical sciences in bioengineering and chemical biology. We also encourage enterprise and innovation in research and education. As an example, a number of our key research programmes have led to successful commercial endeavours with the creation of five spin-out companies in recent years.

We have 250 graduates currently studying for their doctorates, including two cohorts on our innovative four-year integrated PhD programme. A further 100 students are registered for postgraduate certificates, diplomas or masters of science in Allergy or Public Health Nutrition. As a postgraduate student you will join a community at the forefront of basic science and translational research both within the School of Medicine and as part of the Faculty of Medicine, Health and Life Sciences. You will work with and be supervised by cutting edge clinicians and scientists and will be able to share professional and social time with the faculty postgraduate society and the school's lively postdoctoral association.

We have strong links with the NHS, both in teaching hospitals and the local community. Our postgraduate programmes are based mainly on the biomedical sciences campus at Southampton University Hospitals Trust. This major teaching hospital also hosts the Wellcome Trust Clinical Research Facility and two recently awarded biomedical research units in respiratory disease and nutrition, providing the infrastructure to support translational research and education programmes and recognising Southampton's international reputation in these disciplines.

Whether you wish to study basic science or clinical research, the School of Medicine in Southampton will give you a great environment in which to develop your skills and provide the foundation upon which to build an exciting research career.



**Professor Iain Cameron**  
Head of School



# Research in the School of Medicine

We have a highly focused and managed research strategy, with a structure based on a number of large interdisciplinary research divisions. This structure was formed to create a critical mass of co-located researchers enabling exploration of areas of common intellectual interests centred on important clinical problems.



▲ Live cell microscopy and imaging in the Roger Brooke Laboratory, School of Medicine

Photo submitted by: AAIR Charity

Photography: Southampton University Hospitals NHS Trust (SUHT) Learning Media



# Research in the School of Medicine

The School of Medicine is part of the Faculty of Medicine, Health and Life Sciences within the University of Southampton, one of the top ten research-led universities in the UK. In line with the University, we are committed to:

- the advancement of knowledge through critical and independent scholarship and research of international significance;
- the communication of knowledge in an active learning environment involving staff at the forefront of their disciplines;
- the application of knowledge for the benefit of society, both directly and by collaboration with other organisations.

Such commitment ensures that as a School, we continually pursue excellence and modernism in health and social care research, education and professional practice.

## **Research Assessment Exercise ratings**

The Research Assessment Exercise (RAE) measures the quality of research in UK universities and colleges, and the ratings are used to inform the selective distribution of public funds for research. Over 70% of the School of Medicine's activity was rated as World Leading or Internationally Excellent in the UK Research Assessment Exercise 2008.

Our postgraduate training programmes contribute to the research culture of the School: where staff and postgraduate students alike share the process of learning and discovery. By becoming deeply involved in high-quality basic science delivered in a clinically relevant way, you will gain the necessary knowledge, skills and attitudes required for a career in academia, health, industry and a range of other related sectors.

During your time here, you will have the support of a 250-strong network of students who are undertaking research degrees across the full range of research interests within the School. Cross-disciplinary and collaborative projects are also encouraged and more than 30 per cent of our 260 supervisors come from other university disciplines, the NHS or from external institutions. We form one core element of a faculty graduate school that provides world-class expertise in biomedical, biological and health sciences.

We work closely with Southampton University Hospitals Trust, a partnership that has recently won two new biomedical research units funded by the Government's National Institute for Health to undertake translational clinical research in the priority areas of respiratory disease and nutrition.

Translational research takes the discoveries and breakthroughs made by our own researchers and applies them to clinical situations to benefit patients



▲ Paediatric clinical trial

A Wellcome Trust research nurse takes basic observations for a volunteer

# Clinical translational research

## **Institute for Life Sciences (IfLS)**

Launching soon, the Institute for Life Sciences will be home to an academy of scientists from across the University researching at the interface between the life sciences and other disciplines. It will create an environment for innovative thinkers that best meets the challenges of a knowledge-based economy and will bring together teams of cross-disciplinary investigators that create knowledge and deliver solutions to major problems facing society. These include medicine, physical sciences/engineering, health sciences, mathematics and environmental/earth sciences. Its hub will be in the new Life Sciences Building, with spokes radiating into many schools across the University. It will set the agenda for cross-disciplinary research, learning, innovation and the development of future generations of life scientists.

## **Biomedical research units (BRUs)**

Recently, in partnership with the NHS Trust, the School of Medicine won two major competitive grants from the National Institute for Health Research (NIHR) to establish biomedical research units in both respiratory disease, and nutrition, diet and lifestyle (including obesity). These join the CRUK/DoH funded Experimental Cancer Medicine Centre to create world-leading centres where basic medical research is taken out of the laboratory and into the hospital clinic – meaning patients will benefit more quickly from new scientific breakthroughs.

The Respiratory BRU supports five clinical programmes, including preventing asthma in young children, preventing lung damage in premature babies and overcoming antibiotic resistance in cystic fibrosis. This will be underpinned by a further programme aimed at developing better imaging of the lungs.

Within the Nutrition BRU, by improving the health of the people in and around Southampton and establishing a focus of excellence on the south coast, a model will be established which will help to define national policy and to which others in the world can aspire.

The Cancer Medicine Centre is developing new treatments in the areas of immune therapy for cancer and novel molecular therapy. It is the centre of a national network for developing and validating immunological assays for monitoring the success of complex new therapies in clinical trials.

Translational research in the BRUs and the ECMC is supported by the SCRI.

## **Southampton Clinical Research Institute (SCRI)**

The SCRI aims to encourage, facilitate and enhance high-quality clinical, translational and experimental research and its dissemination for the benefit of patients. It brings together a variety of research support groups from the University and the local NHS Trust, enabling researchers to design, achieve funding for and implement high-quality, ethical and well-governed studies. The core groups include: Research Design Service; Public Health Sciences and Medical Statistics; Wellcome Trust Clinical Research Facility; SUHT Research and Development; and the University of Southampton Clinical Trials Unit.

We help researchers to design and carry out high-quality clinical, translational and experimental research involving patients and the public. This support can include assistance with submission of funding proposals; access to a suitably equipped, modern environment in specialist or dedicated facilities; support to ensure compliance with ethical, clinical and research governance procedures; and assistance with training investigators and staff.



# Working together: cross-divisional and interdisciplinary research themes

The School of Medicine leads the international research community  
in a range of major interdisciplinary themes.

# Cardiovascular science

## Research focus

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Understanding the biological mechanisms by which environmental, epigenetic and genetic processes interact to influence human pre-implantation embryo, stem cell growth and differentiation, organogenesis and early fetal growth

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How fetal, placental and postnatal adaptive responses determine the limits of later cardiovascular health

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The use of new knowledge of normal human embryonic and early fetal development to refine and direct human pluripotent and adult mesenchymal stem cell research

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Investigating the genetic basis of congenital heart disease and integrating this with knowledge of normal human cardiac development

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Exploiting expertise in embryonic and fetal development, clinical and epidemiological research to achieve translation of research discoveries into novel approaches to the prevention and early treatment of cardiovascular disease

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This exciting research is working towards the prevention of cardiovascular disease and related disorders by translating clinical discoveries in human stem cell biology, developmental and clinical physiology, and population-based research into health promotion measures and interventions.

By choosing this area of research, you will be concentrating on the heart, blood vessels, pancreas, liver and musculoskeletal tissues to increase understanding of the early developmental processes that initiate cardiovascular disease. We are just starting to understand how a mother's diet and body composition before and during pregnancy, combined with genetic predisposition and influences in infancy and childhood, can determine the way cardiovascular disease develops.

You will work in new, purpose-built laboratories, where your research can be linked with research in human developmental and stem cell biology and regeneration, integrative physiology, nutrition, together with clinical research on mothers and their offspring in the Southampton Women's Survey. You can also benefit from important links with cancer sciences research on apoptosis in cardiac myocyte ischaemia/reperfusion injury.

We have strong links with clinical directorates the Wessex Institute for Health Research and Development, and the Wellcome Trust CRF. This gives our work a strong focus on questions of clinical relevance and helps us to translate our new discoveries into clinical care.

Our core programmes include:

- human and animal developmental cardiovascular physiology;
- clinical cardiovascular and metabolic physiology;
- nutrition, body composition and human fetal growth;
- the cardiovascular consequences of perturbed embryo development and epigenetic markers;
- human stem cells and the genetics of cardiac development;
- the interaction between immune responses and fatty acid metabolism in vascular disease;
- epidemiology.

# Research at the physical sciences interface

This pioneering area of research involves at least 30 research groups across the University.

Biomedical research within the School of Medicine is increasingly interdisciplinary involving integrated teams from diverse backgrounds focussing on biologically and medically relevant research questions. The school is fully integrated with the Institute for Life Sciences which co-ordinates research activity at the interface between the life sciences and other disciplines within the University, including medicine; physical sciences/ engineering; health sciences; mathematics and environmental/ earth sciences.

Research “at the interface” will drive novel areas of basic scientific research and enable technological problems to be solved, providing translational outcomes in areas such as medical therapeutics or in-vivo diagnostics.

Our core programmes include:

- semibiotic systems, which are synthetic structures or devices that incorporate, or are constructed from, complex biological components;
- chemical biology, including high-content screening of small molecule libraries, combinatorial libraries and biological libraries that target pathways relevant to cancer, cardiovascular disease, neuroprotection and immune responses; rational design and synthesis in immunity and in artificial tissues;
- modelling, including complex modelling systems in biomechanics, tissue engineering and molecular pathways;
- bioengineering, including mechanobiology and tissue engineering; microfluidics and lab-on-a-chip technology.

## **Research focus**

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Bio-interface science: development of advanced micro/nano-fluidic devices and technologies, often incorporating nano-textured surfaces using controlled surface chemistry

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Synthetic biology: developing the toolkit for reliable isolation, reconstitution, interfacing and self-assembly techniques and processes that will allow biological systems or sub-cellular fractions to be used as modular components within or as part of new devices

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Modelling: to assist experimental characterisation of biological systems at the molecular cellular, tissue and organ levels during normal physiology and disease

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Novel small molecules and biologicals interacting with cell-survival pathways and mediators of innate immunity

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# Epidemiology

## Research focus

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Bone and joint disease

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Obesity

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Metabolic syndrome

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Cancer epidemiology\*

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Occupational medicine\*

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Epidemiology of chronic kidney and liver disease\*

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\* In partnership with the Community Clinical Science Division

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Epidemiology in Southampton supports linked programmes of research within DOHaD into bone and joint disease, cardiovascular disease and metabolic syndrome in India. Furthermore, strong interdisciplinary collaborations have been established for a future research programme into musculoskeletal ageing with the Schools of Health Sciences, Psychology, and Social Sciences, to permit observational studies to be translated into health interventions.

The MRC Epidemiology Resource Centre manages unique cohort studies (the Hertfordshire Cohort Study and Southampton Women's Survey) and provides a network of specialist expert epidemiologists and statisticians. This resource secures Southampton's place at the forefront of research which demonstrates how growth and development in fetal life, infancy and childhood have powerful and long-lasting influences on the risk of adult-onset diseases. It also serves as a resource-hub for linked programmes of research across other divisions and in particular the Community Clinical Science Division.

Our core programmes include:

- population studies on musculoskeletal disease, type 2 diabetes mellitus and cardiovascular disease;
- major intervention study in India of micronutrient-rich foods before and during pregnancy;
- Applied clinical epidemiology in chronic illness;
- Epidemiology of work-related hazards such as low back pain and upper limb disorder.



# Early human development and stem cells

This group has pioneered the collection and use of human embryonic and fetal tissues for the investigation of normal and abnormal development. Use of embryonic and fetal tissues for research is an emotive issue and access is varied across the world. We are proud to say that we are at the forefront of discovery in combined research models on human embryonic stem cells (hES), human embryonic germ cells (hEG) and human embryonic/early fetal development.

We were the second group worldwide to report hEG cell derivation. We also focus on studies in cardiogenesis and congenital heart disease, endocrine development (including pancreatic beta-cell), adrenal and gonad development, and neural development. Collaborating with teams across the faculty, we are leading investigations into mesenchymal stem cells in fetal bone, fetal lung development and predisposition to asthma, fetal kidney stem cells and single cell manipulation and characterisation (with the School of Electronics and Computer Science).

Our core programmes include:

- blastocyst biogenesis, signalling and nutrients;
- metabolism of pre-implantation human embryos and ES cells;
- germ cell pluripotency;
- cardiogenesis and cardiomyocyte culture;
- stem cells and toxicity screening;
- skeletal or mesenchymal stem cells;
- neuronal stem cell regeneration;
- osteogenesis and regenerative bone therapies.

## **Research focus**

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Understanding the events during blastocyst formation and the contribution of tight junction formation, the effects of nutrients and cellular signalling

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Investigating the effects of culture conditions on the integrity of preimplantation embryos and pluripotency of embryonic stem cells

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Using embryonic tissues and stem cells as models for drug toxicity screening in particular the effects of cardiotoxic drugs on ion channels expressed in cardiomyocytes

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The investigation of normal human cardiac development and establishing the cause of cardiac defects in children

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The use of skeletal or mesenchymal stem cells for the investigation of bone and cartilage formation and the utilisation of 3-D matrices

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The development of regenerative cellular therapies for degenerative bone and joint disease and their translation to clinical delivery

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Role of the niche in the regulation of hippocampal neural stem cells in patients with temporal lobe epilepsy

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# Immunology

## **Core programmes**

Examples include basic and applied research into:

T cell biology and costimulation

MHC biology and antigen processing

Dendritic cell biology

Regulatory networks

B cell biology

Innate immunity

Inflammation

Neuroimmunology

Nutritional immunology

Translational immunology and

Immunotherapy

Immunology research at the School of Medicine spans several divisions including Cancer Sciences, IIR and Clinical Neurosciences. It draws on appreciation of the underlying immunological causes of diseases presenting to diverse medical specialties, thereby linking previously disparate organ-based disciplines with process-driven immunological research.

These interests span oncology, respiratory medicine and allergy, dermatology, gastroenterology, haematology, infectious disease, neurobiology and nutrition.

Strong links to clinical immunology provide unique opportunities to study models of immune responses in patients with primary genetic immunodeficiencies.

Strong basic and clinical programmes feed translational research which has a focus in the Translational Immunology Group formed within the Cancer Sciences Division and funded by a CRUK Clinical Cancer Centre, and will expand to include translational immunology programmes in other diseases.

Interest in immunology is supported by weekly seminars and by the Wessex Immunology Group: a local group of the British Society for Immunology which holds an annual symposium in the School of Medicine.

Postgraduate training in immunology is strong and includes an MSc in Allergy and an integrated four-year PhD programme in the Immunology and Cell Biology of Cancer as well as traditional PhDs.

# Southampton Neuroscience Group (SoNG)

This integrated initiative is a collaboration between the Clinical Neurosciences Division and the Schools of Biological Sciences and Psychology. The group promotes close interactions and training in experimental and clinical neurosciences and offers new approaches for the investigation and treatment of neurological diseases.

We have achieved notable success in our research with the School of Biological Sciences into Alzheimer's disease, including the role of systemic inflammation in clinical progression and the influence of systemic inflammation on CNS inflammation and cognitive decline.

Work in the Neurodegeneration Group concerns the basic cell biology of acute and chronic neurodegeneration in clinical areas including head injury, dementia, stroke and epilepsy, with particular emphasis on the importance of inflammatory processes.

The Mental Health Group has a wide ranging programme of work including studies of the relationships between physical and mental health, mood disorders, addictions and the use of psychological treatments in serious and enduring mental health problems.

The Paediatric Neuroscience Group has a particular interest in hearing impairment, sleep disorders and brain tumours. Vision research is focussed on conditions including macular degeneration, and the genetics of common eye disorders.

The Hearing Research Group has made important breakthroughs in the development of new hearing tests for newborn infants.

Our core programmes include:

- brain injury and neurodegeneration;
- mental health;
- paediatric neuroscience;
- vision research;
- hearing research.

## **Research focus**

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Neurodegeneration

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Neuroinflammation

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Synaptic signalling and plasticity

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Psychoneuroimmunology

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Neuropsychology

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# Enterprise within the School of Medicine and the MHLS Faculty

## **We have created five spin-out companies since 2001**

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Capsant Neurotechnologies

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Genvax

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iQur

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Karus Therapeutics  
(with the School of Chemistry)

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Synaigen

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Southampton is one of the UK's leading entrepreneurial universities with a strong enterprise agenda and excellent relationships with business and industry. Collaborative projects with industrial partners account for 40 per cent of our research income, ranging from large multinationals to small and medium-sized companies (SMEs). We are ranked the top UK university, both in income and numbers, for working with SMEs and believe that enterprise should provide added value complementary to the highest quality of research and teaching undertaken.

These are exciting times within the School of Medicine and the Faculty of Medicine, Health and Life Sciences (MHLS), with a number of groups and academics delivering innovative science offering intellectual property, commercial potential and a knowledge base that offers opportunities for consultancy, teaching and training. Enterprise encompasses education, research and teaching, and thus cuts across the complete University spectrum of activities.

Research is expensive. We help to fund our research by a balanced portfolio of external income. We collaborate closely with industry and this allows us to maintain a vigorous enterprise agenda, while the University provides dedicated support from the Research and Innovation Services department and through Entrepreneur in Residence Andrew Wood, Head of Global Research at Eli Lilly, enhancing links with the pharmaceutical industry.

Our strong record of creating spin-out companies and our success in commercialising academic research was recognised in a recent Library House Report, placing Southampton third in the world, behind Stanford University in the USA and Cambridge in the UK.

## **Enterprise and innovation**

Research and Innovation Services supports enterprise activity across the University and the exchange of knowledge between the University and business for the benefit of the UK economy and society. Support is provided through research contract management, consultancy development, intellectual property

protection, commercialising research through the creation of start-up companies and licensing, and the facilitation of a portfolio of modes of collaboration, including knowledge transfer partnerships, engineering doctorates and industry-driven master's courses.

To facilitate these activities with industry, the University has a number of active Industry Advisory Boards, often comprising board-level personnel from multinational companies and SMEs. These experienced individuals inform and shape these collaborations to ensure they meet the needs of the university and industry.

### **Entrepreneurship**

The University has developed a unique and highly successful entrepreneurs' society, Fish on Toast. The society has a programme of speakers and workshops designed to encourage enterprise at the University, and can provide "fish food" funding to help get innovative ideas off the ground. In addition, we provide one-on-one advice via business surgeries, as well as free residential courses, business simulation workshops, training days and competitions. We take part in SIFE (Students in Free Enterprise), in which students design and implement projects which create economic opportunities for others. SIFE is dedicated to nurturing the entrepreneurial skills of students in a way that is both effective in developing their future careers and meaningful to the community.

### **Knowledge transfer partnership**

The SETsquared Partnership is a collaboration of the Universities of Southampton, Bath, Bristol and Surrey, and represents the largest single source for academic knowledge transfer in the UK, with a collective research base of more than 6,500 researchers. The partnership generates quality spin-outs from research discoveries; prepares students and staff with business skills; links established companies with university experts and facilities; facilitates international research collaborations; and supports science and technology entrepreneurs with business mentoring, affordable office space and routes to funding.

### **MHLS Faculty contact**

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### **School of Medicine contact**

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Innovation and Enterprise  
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### **Fish on Toast**

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[www.fishontost.com](http://www.fishontost.com)

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### **SIFE**

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[www.southampton.ac.uk/  
studententerprise](http://www.southampton.ac.uk/studententerprise)

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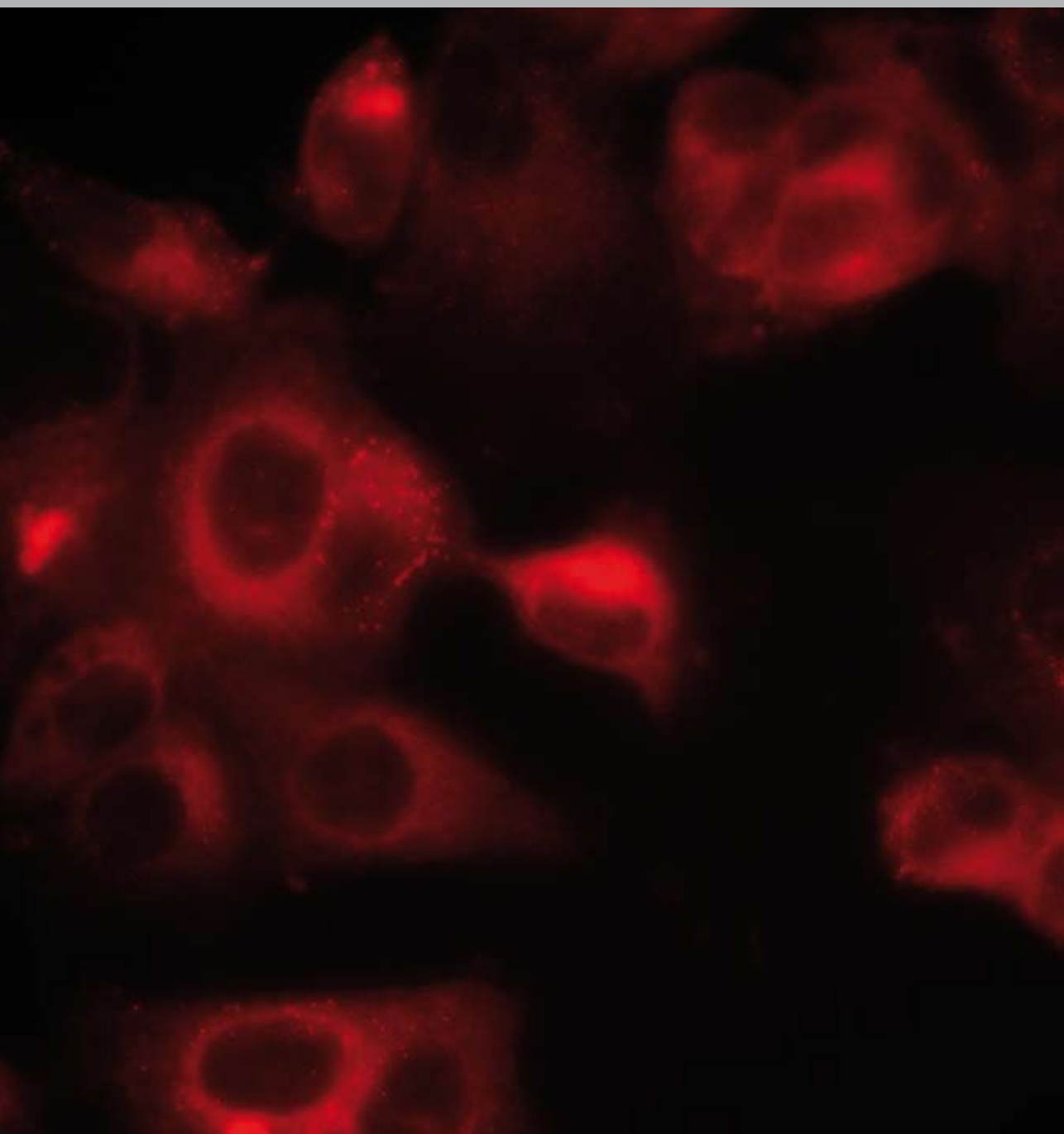
### **Knowledge Transfer Partnership**

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[www.setsquaredpartnership.co.uk](http://www.setsquaredpartnership.co.uk)

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Showcase  
ACADEME TO KARUS



## Innovate

The safe and effective treatment of major chronic diseases, including cancer, rheumatoid arthritis and psoriasis, remains an important challenge to healthcare providers. Addressing this challenge is a new generation of innovative, targeted, therapeutics that form an important part of the physician's arsenal. Medicines such as Herceptin®, Avastin® and Velcade®, for example, are transforming the treatment of cancer and the lives of cancer patients. These drugs, the products of innovative research from leading biotechnology companies, are also proving to be a significant commercial success: Avastin®, for example, reported sales of \$1.7 billion in 2006.

## Initiate

However, there is still a need for new therapeutics which build on existing knowledge to produce economic yet highly effective medicines. The recent past has shown that academe is a precious source of this invaluable knowledge, with the rise of University spinouts having dramatic impacts on pharmaceutical research and development. For example, the University of Southampton has generated a number of ventures, most recently Karus Therapeutics.

Karus is an emerging pharmaceutical company which is developing proprietary "best-in-class" drugs, initially targeted to inhibit histone deacetylases (HDACs) that have the potential to transform a number of major, chronic diseases including cancer, cardiovascular, psoriasis and rheumatoid arthritis. Karus believes that these new drugs, known as synthetic depsipeptides, have blockbuster potential. Clearly, academic expertise in innovative biology and chemistry has been translated into developing new medicines.

## Translate

Karus was established to develop and build on important intellectual property generated during a four-year collaboration between three of our leading researchers. This intellectual property included the key discovery of an innovative synthesis of the natural depsipeptides, FK228 and Spiruchostatin A, which allowed the creation and optimisation of a whole new family of potent and selective HDAC inhibitors that can be optimised as cancer therapeutics.

The company was founded in mid 2005, following a seed investment from the IP Group and the SULIS fund. Since then, Karus has been successful in building a strong team of scientists and scientific advisors, with an experienced and commercially focused management team lead by CEO Dr Simon Kerry. This has allowed Karus to make phenomenal progress in a short space of time. By the middle of 2007, Karus had raised £1.6 million in investment and had signed a valuable co-development deal for its first cancer programme with Ethical Oncology Sciences SpA, Milan, to drive novel depsipeptide HDAC inhibitors through human proof of concept studies (Phase IIA).

This is an exciting time for Karus. We have realised the academic proficiency and capability within the School of Medicine and combined it with enterprise focus, vision and hypothesis-driven science. Add to this a proactive and experienced management team and this has led to the birth of an exciting and rapidly evolving company.

## Key current academic staff

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Professor Graham Packham

Cancer Sciences Division

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Dr Paul A Townsend

Reader, Human Genetics Division

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Dr A Ganesan

Reader, School of Chemistry

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## Postgraduate students who have worked on this topic

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Alex Yurek-George

---

Krystle Carey

---

Simon Crabb

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## For further information

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[www.karustherapeutics.com](http://www.karustherapeutics.com)

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Email: [p.a.townsend@soton.ac.uk](mailto:p.a.townsend@soton.ac.uk)

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### ◀ Breast cancer cell differentiation induced by histone deacetylase inhibitors

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The HDAC inhibitor, Spiruchostatin A, was incubated with breast cancer cells and compared to its control (the DMSO solvent alone). A dye for intracellular lipids, Nile Red, was used to stain the cells as a marker of differentiation. Increasing amounts of lipid droplets suggests that Spiruchostatin A causes cancer cell differentiation.

SJ Crabb et al, *Biochem. Pharmacol.* 76(4):463-75, 2008



## Our research divisions

- Cancer Sciences
- Community Clinical Sciences (CCS)
- Clinical Neurosciences
- Developmental Origins of Health and Disease (DOHaD)
- Human Genetics
- Infection, Inflammation and Repair (IIR)



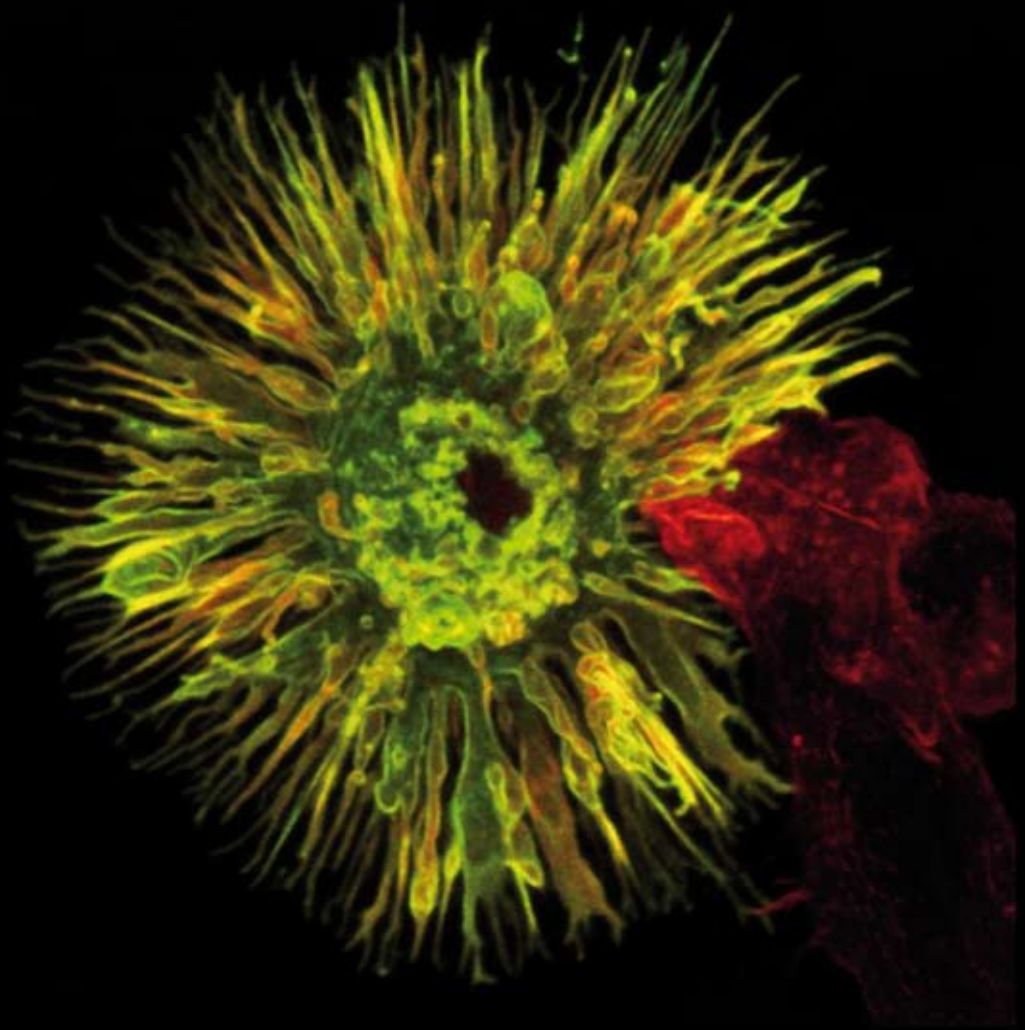


Wherever possible, we aim to bring researchers together across disciplines, allowing exciting new connections and developments to be made that might otherwise have been missed. Our staff are world leaders in their area of interest and our six research divisions focus on areas of significant research strengths in Southampton.

We work closely with Southampton University Hospitals Trust, which has recently won funding from the National Institute for Health for two new biomedical research units to undertake translational

clinical research in the priority areas of respiratory disease and nutrition.

The newest development on the biomedical campus at Southampton General Hospital is the Institute of Developmental Sciences and the Somers Cancer Building, which are linked by communal space. The building houses the DOHaD Centre, the Centre for Human Development, Stem Cells and Regeneration and part of the Cancer Sciences Division.



#### Dendritic cell

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The dendritic cell is a particular type of immune system cell. By patrolling the body, the dendritic cell can capture infectious agents to be dealt with by the immune system

Dr Sonya James, Cancer Sciences Division

Our research ranges from basic cellular and molecular biology through to the epidemiology of service provision. We are committed both to creating new knowledge through our research and to applying that knowledge to new treatments. We work with Cancer Research UK, and are proud to be both one of their Clinical Centres and an Experimental Cancer Medicine Centre, helping to bring ideas and laboratory observations into clinical practice as rapidly as possible and ensure that the scientific hypotheses underlying the treatments are properly tested.

We undertake basic research into antigen processing, T cell immunology, innate immunity, immune regulation, co-stimulation and B cell immunology. This supports our cutting edge programme of translational research into novel immunotherapies and molecular diagnosis. Our cell survival pathways and DNA repair programmes are delivering promising new pharmacological possibilities for the treatment of cancer.

We offer a four-year integrated PhD programme in the Immunology and Cell Biology of Cancer as well as supporting traditional three- and four-year PhD projects.

Current research includes:

- T cell based vaccines against cancer;
- antigen processing, presentation and immune regulation;
- antibody based immunotherapy;
- small molecule modulators of cell survival;
- molecular and cytogenetics of solid and haematological cancer.

## **Research groups**

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Molecular mechanisms

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Molecular and cellular immunology

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Antibody and vaccine-based treatment of cancer

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Translational and clinical research

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Molecular cancer and genetics

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## **Cross divisional research themes**

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Immunology

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Chemical biology and interface science

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## **Contact us**

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[www.som.soton.ac.uk/research/cancersciences](http://www.som.soton.ac.uk/research/cancersciences)

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▲ One of our doctors examining a patient in a clinical trial

The division's research strengths lie in both defining the epidemiology and improving the care of common and costly conditions, especially acute infections, mental health problems, kidney disease, liver disease and occupational disorders

# Community Clinical Sciences (CCS)

Major public health problems can be devastating to society. Our research seeks to prevent and manage these problems by increasing the evidence base we have to call on. Our research covers primary medical care, public health, complementary medicine and occupational medicine.

Key topics include research into the management of acute self-limiting illness, prevention of cardiovascular disease, common mental health problems and specific and non-specific effects in complementary and alternative medicine. Methodologies include RCTs, predictors of response; cohort studies, case control, validation studies, qualitative and observational and questionnaire. The group collaborates with non-medical research scientists in multi-disciplinary projects including statisticians, social scientists, health economists, and psychologists.

We particularly welcome you if you have a good degree in one of the basic science areas, such as psychology or social science, or if you are a health professional wishing to study part-time for a PhD.

Current research includes:

- randomised controlled trial to determine the cost-benefit threshold for antidepressant treatment (THREAD);
- acupuncture for back pain, evaluating patient outcomes and their determinants;
- targeted screening for alcohol-related liver disease in primary care;
- cultural and psychosocial influences on illness and disability attributed to occupational hazards (CUPID);
- decision rule for severe symptoms and complications of acute red throat in everyday practice (DESCARTE).

## **Research groups**

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Treatment decisions group

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Primary medical care

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Complementary and alternative medicine

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Applied clinical epidemiology group

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Public health science

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Occupational health

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## **Cross divisional research themes**

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Epidemiology

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## **Contact us**

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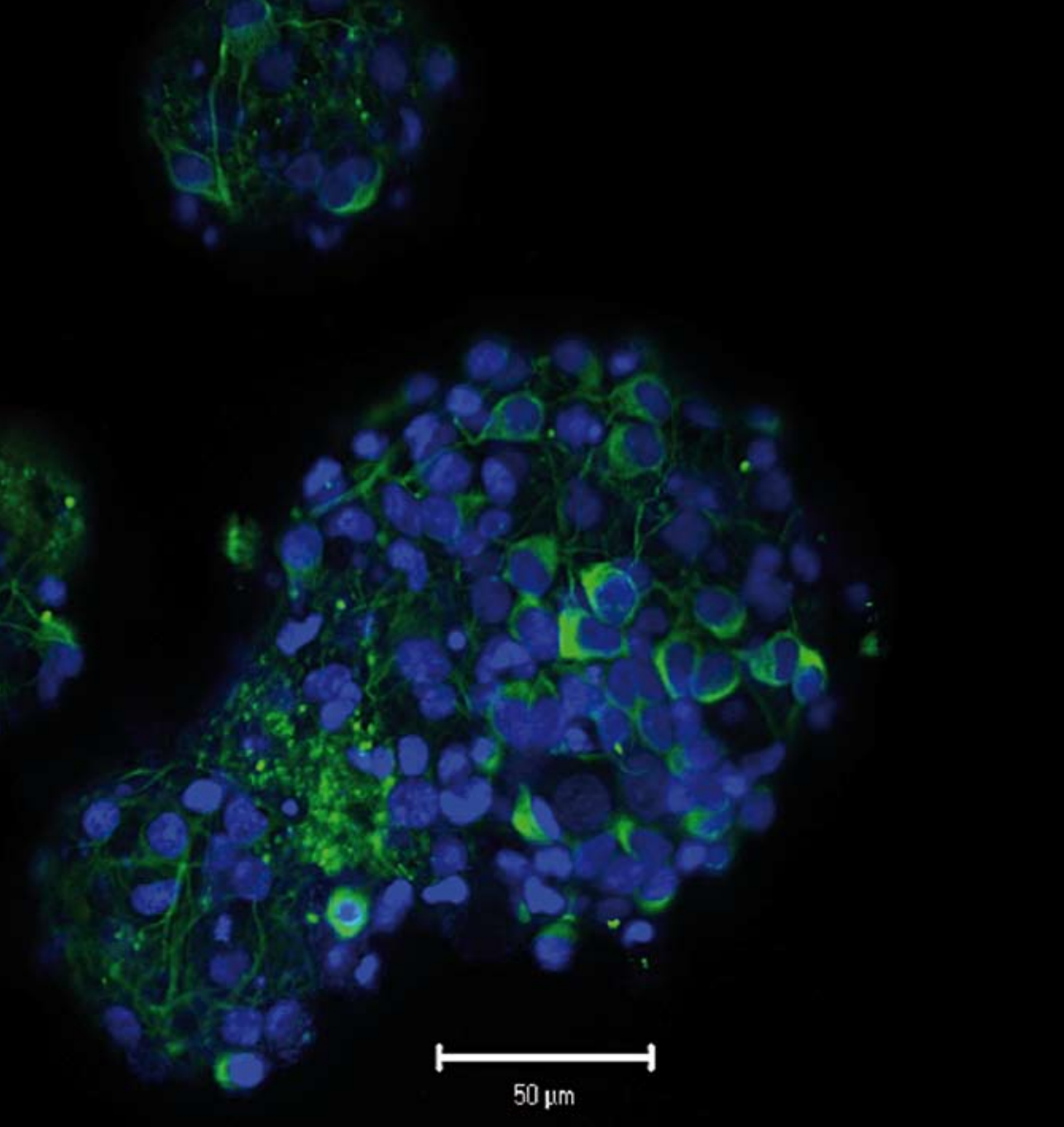
Julia Berry

Tel: +44 (0)23 8024 1061

Email: [j.berry@soton.ac.uk](mailto:j.berry@soton.ac.uk)

[www.som.soton.ac.uk/research/cbcs](http://www.som.soton.ac.uk/research/cbcs)

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▲ Stem cells from the adult brain growing as neurospheres  
Stem cells (blue nuclei) differentiating into neurons (green)  
Professor WP Gray and Dr O Howell

# Clinical Neurosciences

Our research focuses on understanding the way the nervous system responds to physiological and pathological stimuli. Our diverse group of researchers bridges the gap between clinical and fundamental neuroscience, applying basic research techniques to address important clinical questions.

We are part of the Southampton Neuroscience Group (SoNG), which provides a framework for basic scientists and clinicians from across the University to work together and deliver solutions to real clinical problems.

This integrated neuroscience initiative allows an interdisciplinary approach to understanding areas of neurodegeneration, neuroinflammation, synaptic signalling and plasticity, psychoneuroimmunology and neuropsychology; with a view to developing novel therapies.

The Clinical Neuroscience Division incorporates the MRC Institute for Hearing Research, where new diagnostic tests to measure deafness in children are being developed; and the Vision Research Group, who are developing better understanding and treatments for disease-related blindness.

Current research includes:

- cognitive-behavioural therapy in schizophrenia;
- neurogenesis in the hippocampus;
- neuroinflammation in Alzheimer's disease;
- genetics of macular degeneration;
- models of brain injury.

## **Research groups**

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CNS injury and neurodegeneration

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Mental health

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Cognitive neuroscience

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Paediatric neuroscience

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Vision research

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Epilepsy, stem cells and brain repair

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Hearing research

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## **Cross divisional research themes**

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Southampton Neuroscience Group

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Early human development and stem cells

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## **Contact us**

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[www.som.soton.ac.uk/research/neuro](http://www.som.soton.ac.uk/research/neuro)

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▲ Across the generations

The Developmental Origins of Health and Disease Division (DOHaD) explores how risk of disease is transmitted between generations



# Developmental Origins of Health and Disease (DOHaD)

Our research investigates how our experiences in early life affect our chances of disease later on. Interactions between the genome and the environment, in utero and during infancy, can have a huge influence on our adult health.

We are all familiar with the idea that coronary heart disease is the result of our actions in adult life, including diet and smoking. Yet such influences go only a small way towards explaining why one person develops these diseases and another does not.

We use a combination of clinical, genetic, physiological and epidemiological research to look at the biological mechanisms that ‘programme’ us in early life. Our researchers have expertise over a range of disciplines, from the gene to the whole organism. Research in this area assists the training of basic and clinical scientists, investigators who can undertake the integrative, cross-disciplinary research which is now needed in the post human genome era.

Current research includes:

- developmental contributors to coronary heart disease, stroke, type 2 diabetes, and osteoporosis in adult life;
- skeletal stem cells and biomimetic scaffolds;
- origins and mechanisms underlying the metabolic syndrome;
- nutrient requirements for normal growth and development;
- epigenetic regulators of adult onset diseases.

## **Research groups**

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Epidemiology

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Bone and joint

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Endocrine and metabolism

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Human nutrition

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Maternal, fetal and neonatal physiology

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## **Cross divisional research themes**

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Epidemiology

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Early human development and stem cells

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Cardiovascular science

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## **Contact us**

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[www.som.soton.ac.uk/research/dohad](http://www.som.soton.ac.uk/research/dohad)

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Showcase

MATERNAL VITAMIN D STATUS  
AND SKELETAL DEVELOPMENT  
IN THE OFFSPRING



## Innovate

Osteoporosis is the main cause of bone fractures in people over 50. Defined as a reduction in bone density, it constitutes a major public health problem through its association with age-related fractures. Chronic disorders such as osteoporosis are thought to result from an interaction between the inherited genome and environmental influences throughout the life course.

Research from the MRC Epidemiology Resource Centre over the last 20 years has led to a fundamental shift in our understanding of osteoporosis: the recognition that environmental influences very early in life, even in utero, have persisting effects on skeletal health in old age. We studied elderly men and women in Hertfordshire for whom detailed birth records exist and found positive relationships between birth weight and bone mass in old age. Our subsequent research confirmed that improved bone growth in childhood is likely to reduce the risk of osteoporosis and fractures among the elderly.

## Initiate

Following our initial findings we set up several mother-offspring cohorts, including the unique Southampton Women's Survey, with the aim of understanding influences in early life, such as maternal nutrition, which might underlie the relationships we had observed. We found that several factors appear to influence intrauterine bone mineral accrual in the offspring, including maternal diet, lifestyle and body build, and of these factors maternal vitamin D status during pregnancy was particularly important.

We were able to demonstrate that mothers with low levels of vitamin D in pregnancy have children at birth and nine years old with reduced bone mass. Additionally levels of placental calcium transporter proteins were positively correlated with bone mass at birth, further suggesting a role for vitamin D.

## Translate

We are now translating these observational findings into a potential public health intervention, testing, in a randomised placebo-controlled trial, the hypothesis that supplementation of pregnant women with vitamin D will improve intrauterine bone mineral accrual in the offspring. The MAVIDOS Maternal Vitamin D Osteoporosis Study commenced in the summer of 2008, and will recruit around 1,000 women in Southampton, Oxford and Sheffield over the next three years.

The offspring will have bone density measurements at birth and four years, and bone metabolism will be characterised in detail in both mothers and children. We hope this work, which represents the first interventional study of the early life origins hypothesis, will result in the potential to improve bone health in children and thus reduce osteoporotic fractures in future generations.

## Key current academic staff

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Dr Nick Harvey

Lecturer in Rheumatology

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Dr Zoe Cole

Clinical Research Fellow

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Dr Kassim Javaid

Lecturer in Rheumatology

---

Dr Elaine Dennison

Reader in Rheumatology

---

Professor Nigel Arden

Professor of Rheumatic Diseases

---

Professor Keith Godfrey

Professor of Developmental  
Epidemiology

---

Professor Hazel Inskip

Professor of Statistical Epidemiology

---

Professor Cyrus Cooper

Professor of Rheumatology and  
Director, MRC ERC

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## Postgraduate students who have worked on this topic

---

MK Javaid

---

N Harvey

---

PA Mahon

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ZA Cole

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## For further information please see

[www.mrc.soton.ac.uk](http://www.mrc.soton.ac.uk)

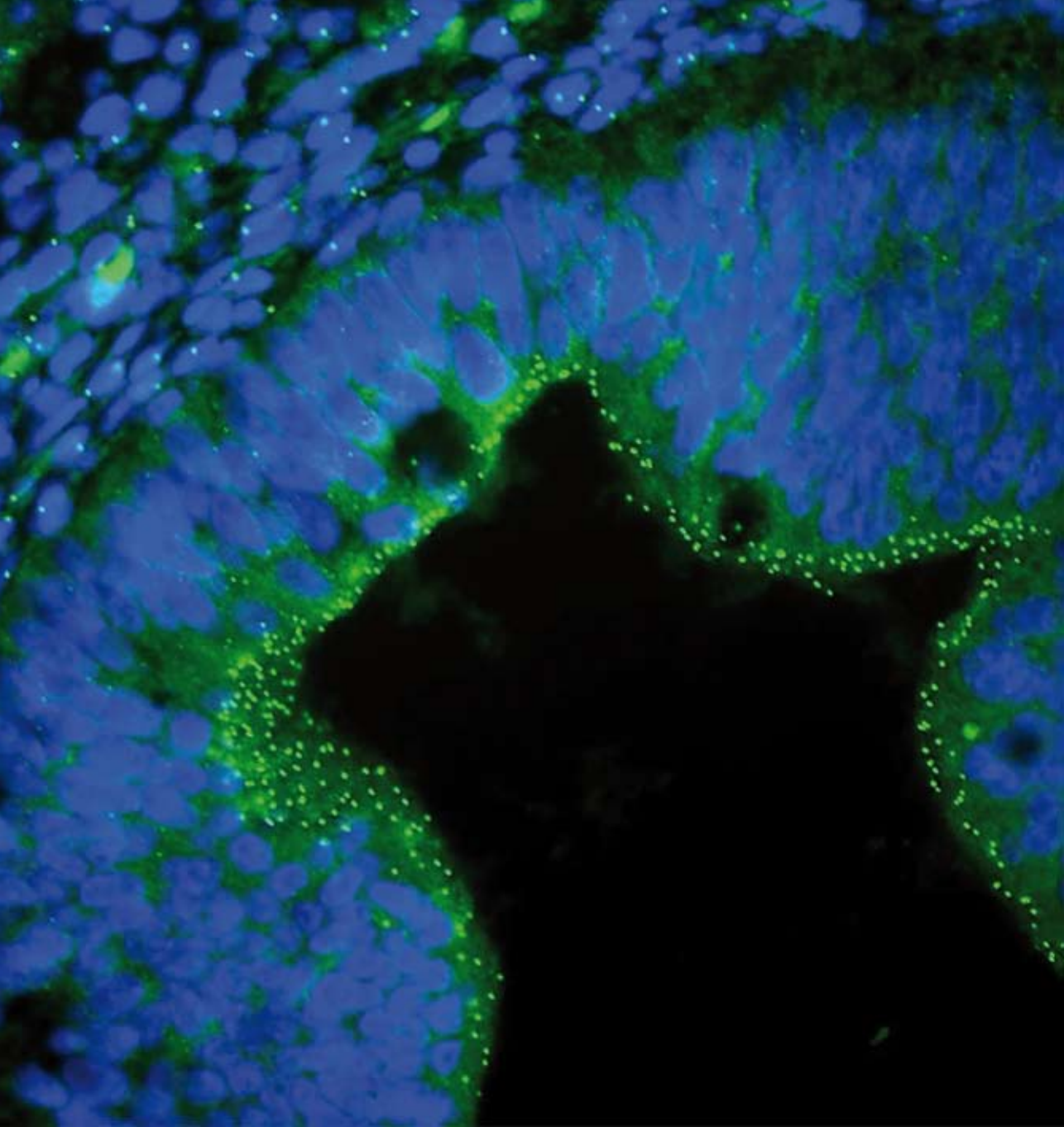
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MRC Epidemiology Resource Centre  
Division of Developmental Origins of  
Health and Disease

### ◀ Children's follow up in Southampton Women's Survey: Bone density measurement at six years

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A six-year-old child, born into the Southampton Women's Survey, undergoing peripheral quantitative computed tomography (pQCT) assessment of bone mineral density in the distal tibia



▲ Sub-cellular localisation of ALMS1 to centrosomes and basal bodies within developing human neuroepithelium

ALMS1: FITC-green. Nuclei DAPI-blue

Tom Hearn and David Wilson, Division of Human Genetics

# Human Genetics

This division has a strong broad research base with integrated themes from genetic epidemiology and mechanisms of genetic disease to gene function, regulation and models of disease. The division is based between the biomedical campus at Southampton General Hospital and the regional genetics laboratories in Salisbury, which have very close links with the Wessex Regional Genetics Service.

The groups in Southampton co-locate in the well equipped laboratories of the Centre for Human Development, Stem Cells and Regeneration and the Academic Unit of Genetic Medicine (Wessex Regional Genetics Service). The groups in Salisbury are based in Salisbury District Hospital; this houses one of the largest regional genetics laboratories and includes a national genetics reference laboratory and academic groups of the division.

The research strategy within the division exploits the close links that exist between the integrated NHS and University groups in addition to close collaborations with other divisions.

Current research includes:

- developmental genetics of cardiac disease;
- biochemistry and genetics of human embryonic stem cells and the pre-implantation embryo;
- genetic epidemiology of complex diseases such as asthma and macular degeneration;
- molecular biology of cell stress in ischaemic/reperfusion injury;
- molecular pathogenesis of atypical myeloproliferative disorders.

## **Research groups**

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Human development stem cells and regeneration

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Phenotypic description, gene identification, genetic epidemiology and bioinformatics

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Clinical

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Monogenic and chromosome disorders

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Complex trait analysis, high throughput technology and bioinformatics

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Gene function and mechanisms of disease

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## **Cross divisional research themes**

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Epidemiology

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Early human development and stem cells

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Chemical biology and interface science

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## **Contact us**

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Elaine Lovelock

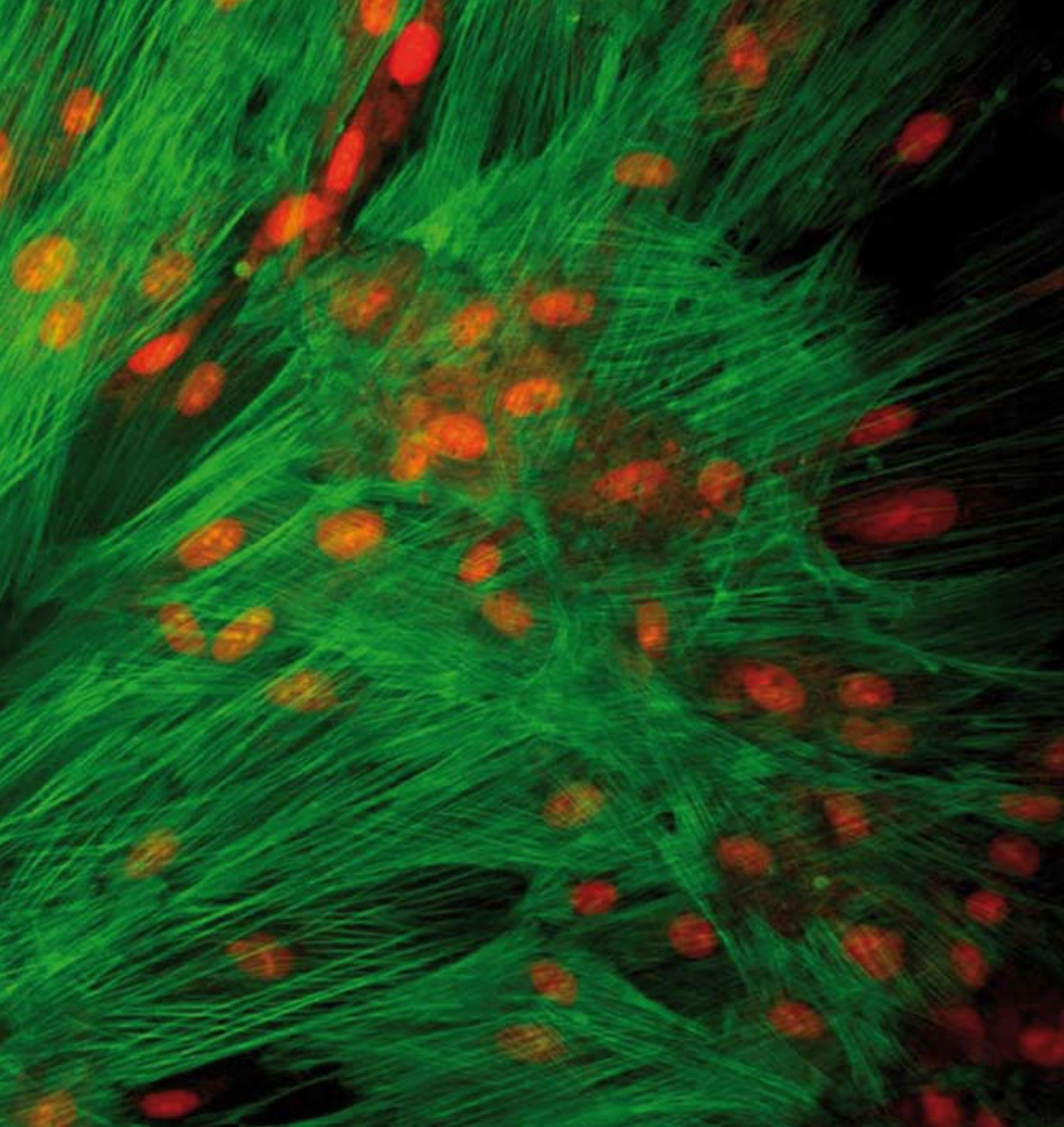
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Email: [hgenq@soton.ac.uk](mailto:hgenq@soton.ac.uk)

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[www.som.soton.ac.uk/research/geneticsdiv](http://www.som.soton.ac.uk/research/geneticsdiv)

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▲ Immunofluorescent staining of alpha smooth muscle actin filaments in bronchial myofibroblasts  
Dr Nveed Chaudhary and Professor Donna Davies

# Infection, Inflammation and Repair (IIR)

This grouping of clinical and basic scientists focuses on mechanisms of inflammation and tissue repair in a range of diseases caused by environmental agents including allergens and microbes.

We investigate environmental and infectious causes of immune and allergic processes, mechanisms of inflammation, tissue damage (fibrosis), repair and remodelling in the respiratory system, liver, skin and gut. We aim to prevent, ameliorate and cure infections, chronic inflammatory and scarring disorders by developing improved methods of diagnosis and interventions.

Our strength is in our ability to investigate basic mechanisms underlying infection, inflammation, allergy, tissue damage and its repair both in the laboratory setting and by virtue of the presence of the Wellcome Trust Clinical Research Facility which forms a central focus for clinical research in humans.

Current research includes:

- tissue/immune responses in asthma;
- innate immunity;
- drug allergies;
- inflammatory skin disease;
- meningococcal disease.

## **Research groups**

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Respiratory

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Dermatology

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Immunology

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Inflammation and liver

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Infection

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## **Cross divisional research themes**

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Immunology

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Genetics

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## **Contact us**

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Kirsteen Coombes

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Email: [k.e.coombes@soton.ac.uk](mailto:k.e.coombes@soton.ac.uk)

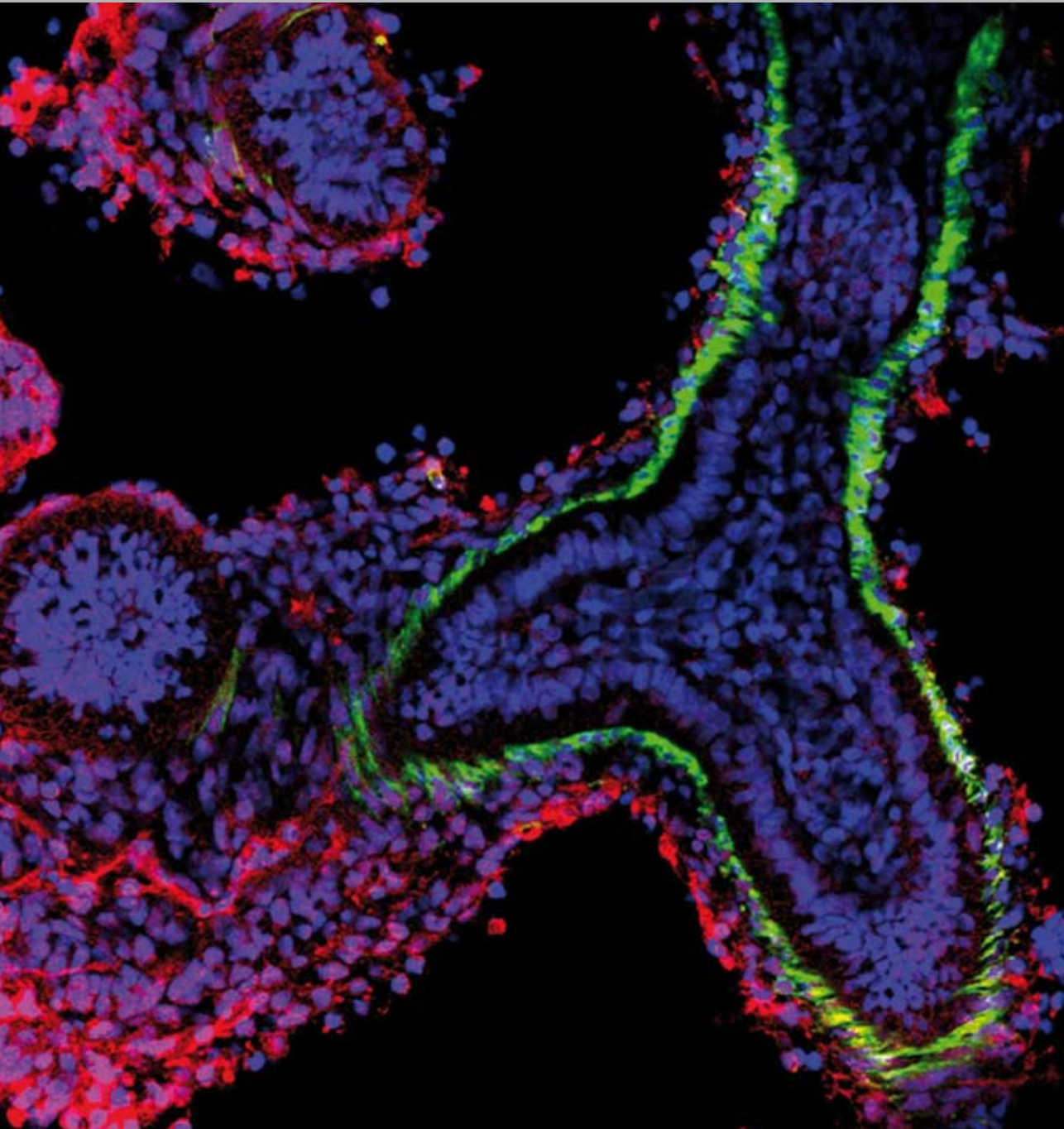
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[www.som.soton.ac.uk/research/iir](http://www.som.soton.ac.uk/research/iir)

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Showcase

ADAM33 – FROM ASTHMA  
SUSCEPTIBILITY GENE TO  
FUNCTION





## Innovate

Asthma is the commonest chronic lung disease, affecting all ages and with the highest prevalence worldwide in the UK, where it affects one in five children and one in 12 adults. It is a condition of variable airways obstruction that can persist throughout life and is influenced by strong genetic and environmental factors leading to allergic-type airway inflammation. Another feature of asthma is airways hyperresponsiveness which predisposes to bronchospasm.

Using families enriched with asthma, we discovered the first novel asthma gene on chromosome 20p13 that encoded A Disintegrin and Metalloprotease 33 (ADAM33). Association of ADAM33 with asthma has been replicated in many populations worldwide and tracks most closely with airways hyperresponsiveness.

## Initiate

ADAM33 belongs to a large class of zinc containing metalloproteases expressed at the cell surface that, in addition to enzyme activity, display fusogenic, adhesion and intracellular signalling activities. This discovery stimulated a search for its function.

The preferential expression of ADAM33 mRNA and protein in airways smooth muscle and related mesenchymal cells explained its association with hyperresponsiveness. In addition to encoding mRNA that translated into a protein of 120kDa, ADAM33 also exists in at least six truncated forms in which the catalytic domain has been spliced out. ADAM33 is also expressed in the primitive mesenchymal stem cells of the human foetal lung where it is thought to contribute to branching morphogenesis.

## Translate

Genetic case-control analyses in different populations have shown that polymorphic variation of ADAM33 contributes to impaired lung function in young children and accelerated decline in lung function over time in adult asthma. These studies reinforce the concept that ADAM33 is involved both in modelling of the airways in the developing foetus and in their remodelling in chronic and severe asthma.

The sheer complexity of ADAM33 has provided a challenge in determining its precise function(s). We have shown that its restricted expression in mesenchymal cells is epigenetically regulated involving promoter CpG DNA methylation and chromatin modifications. We have also identified a 55kDa enzymatically active soluble fragment of ADAM33 generated by cell surface cleavage of the full length molecule with airway levels being closely related to asthma severity.

Most recently, this soluble form of the enzyme has been shown to stimulate the growth of new blood vessels providing for the first time a link to airway modelling and remodelling. ADAM33 now represents a novel therapeutic target for preventing and reversing airway hyperresponsiveness and remodelling.

## Key current academic staff

Stephen Holgate: MRC Clinical Professor of Immunopharmacology

Donna Davies: Professor in Respiratory, Cell and Molecular Biology

John Holloway: Reader in Pharmacology

Hans Michael Haitchi: Clinical Research Fellow

Susan Wilson: Senior Lecturer and Head of Histochemistry Research Unit

Ben Nicholas: Research Fellow

Geraldine Clough: Professor in Vascular Physiology

Rob Powell: Visiting CEO of Primer Design

Youwen Yang: Visiting Research Fellow

Peter Howarth: Reader in Medicine

Fabio Bucchieri: Overseas Visiting Fellow

Ilaria Puxeddu: Overseas Visiting Fellow

Domenico Ribatti: Collaborator, University of Bari, Italy

John Warner: Professor of Child Health in Southampton, now at Imperial College London

Hajime Yoshisue: Overseas Visiting Fellow

## Postgraduate students who have worked on this topic

Anna Harvey

James Wicks

Yun Yun Pang

David Sammut

James Wicks

Julie Cakebread

## For further information please see

[www.som.soton.ac.uk/research/iir/groups/respiratory/growth\\_factors/more.htm#adam33\\_and\\_asthma](http://www.som.soton.ac.uk/research/iir/groups/respiratory/growth_factors/more.htm#adam33_and_asthma)

## ◀ Localisation of ADAM33

**Confocal microscopy image of human embryonic lung showing ADAM33 protein expression (red) in mesenchymal progenitor cells surrounding the primitive alpha smooth muscle containing (green) airways and the nuclei (blue).**

Adapted from HM Haitchi et al, *Am J Respir Crit Care Med* Vol 171. pp 958–965, 2005



# Awards in the School of Medicine

At the School of Medicine, you can choose from postgraduate programmes in a wide range of disciplines.

Research opportunities include doctoral programmes working towards a Doctor of Philosophy (PhD), whilst clinically trained students have the option of a Doctor of Medicine (DM) programme (additional entry criteria apply). In addition we offer a four-year integrated PhD in Biomedical Science.

We also offer opportunities for postgraduate masters level (HE7) study. There are a range of programmes to provide you with qualifications including: Postgraduate Certificate, Diploma or Master of Science. Programmes are available in Allergy and Public Health Nutrition.



## MPhil/PhD programme

As a postgraduate student you will undertake laboratory-based or community-based research. Laboratory-based studies are conducted in modern well-equipped laboratories at Southampton General Hospital. Community-based projects take place in a variety of settings, which may include general practice, hospitals, community and outpatient clinics and patients' homes.

## DM/PhD programme

During your study, you will undertake a part-time research project while employed in local hospitals and other institutions. You will receive the same provision as MPhil/PhD students with regard to supervision, training and progress monitoring. By registering for a DM/PhD, you will have the opportunity to upgrade to PhD, subject to satisfactory progress.

## Four-Year Integrated PhD in Biomedical Science

Our integrated programme reflects some of the major research strengths of the University. By providing broader training in the intellectual basis of the scientific research endeavour, in the practical skills required for a career in research and through student choice of rotations and three-year project, we hope to enhance your student experience and better prepare you for a career in scientific research.

You will follow a series of rotations and will select a topic of interest for a three-year research project. The Integrated PhD is currently available in two pathways: Cell Biology and Immunology of Cancer, and Respiratory Physiology and Pathology. A third pathway in Stem Cells, Human Development and Regenerative Medicine will be offered (subject to validation). You will receive an intermediate award of MRes after successful completion of the first year. For more information please visit us online at: [www.som.soton.ac.uk/postgraduates](http://www.som.soton.ac.uk/postgraduates)

## Career prospects

Career destinations of our postgraduate alumni include major pharmaceutical companies, industrial and commercial organisations, government departments and research institutes, UK NHS research and development, new entrepreneurial companies, scientific funding agencies and postdoctoral/academic positions worldwide.

## Application procedure

You are advised to contact a prospective supervisor to discuss your application before completing the form. You can apply online at: [www.southampton.ac.uk/postgraduate/pgstudy/howdoiapplypg.html](http://www.southampton.ac.uk/postgraduate/pgstudy/howdoiapplypg.html). You will also need to provide us with transcripts, references and research proposal.

## For more information

If you have any questions regarding our programmes or application process, please email: [medpostgrad@southampton.ac.uk](mailto:medpostgrad@southampton.ac.uk)

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## Key facts: MPhil/PhD

**Applications:** Throughout the year

**Intake:** 30-40 per year

**Start date:** Throughout the year

**Duration: MPhil:** Full-time 1-4 years, part-time 2-7 years **PhD:** Full-time 2-4 years, part-time 3-7 years

**Entry requirements:** An upper second-class Honours degree (or equivalent), although other qualifications may be accepted. IELTS 7.0 or equivalent is required for EU and overseas students

**Assessment:** Reports, thesis, viva voce

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## Key facts: DM/PhD

**Applications:** Throughout the year

**Intake:** 10-20 per year

**Start date:** Throughout the year

**Duration:** Part-time 2-4 years

**Entry requirements:** A clinical background and a medical qualification recognised by the UK General Medical Council (GMC); and be employed in appropriate scientific or clinical work in a hospital or institution associated with the School of Medicine. IELTS 7.0 or equivalent is required for EU and overseas students

**Assessment:** Reports, thesis, viva voce

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## Key facts: Four-Year Integrated PhD in Biomedical Science

**Application deadline:** Applications are welcome in January/February. Applications for advertised studentships available at certain times of the year

**Intake:** Up to 12 per year

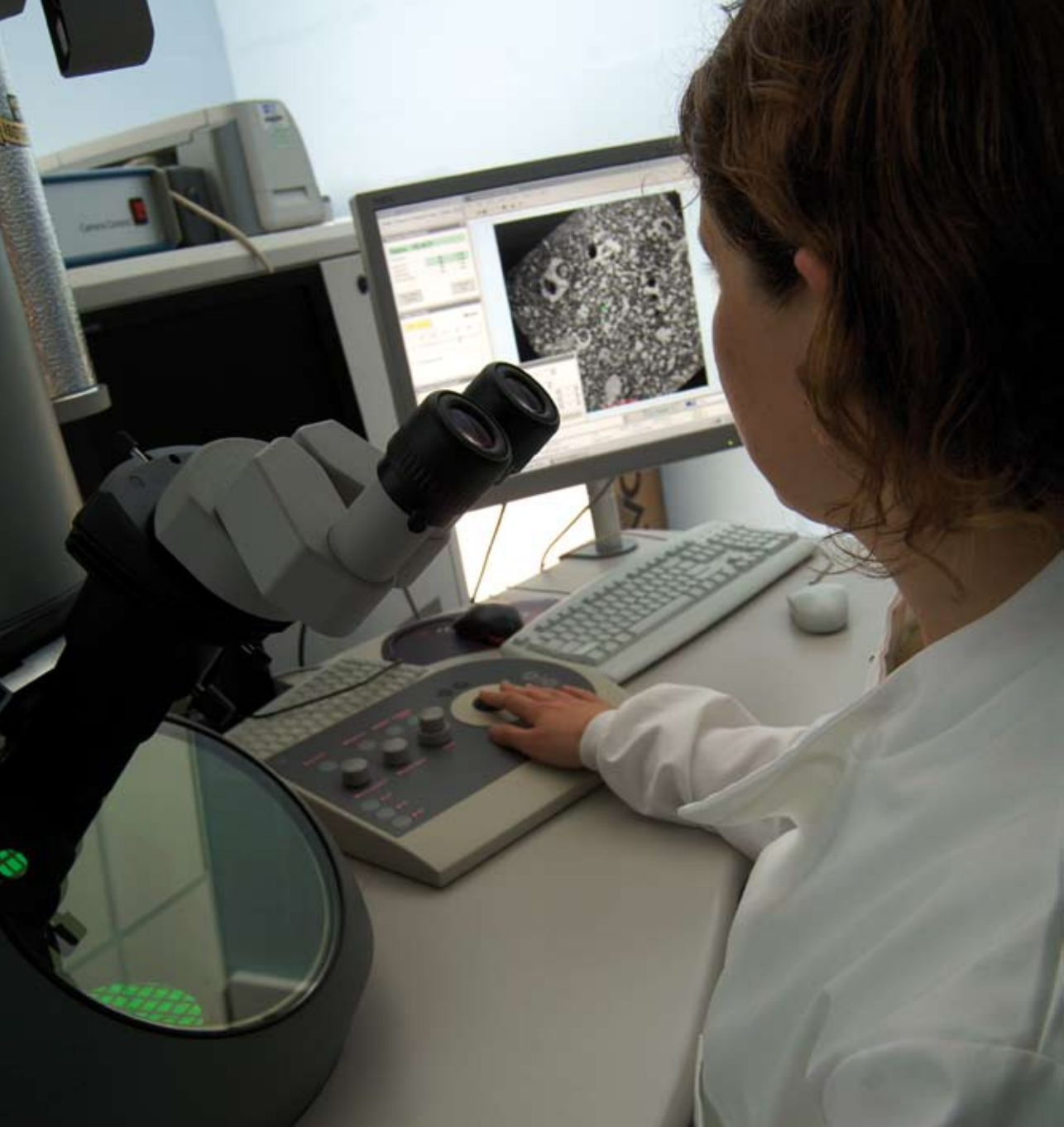
**Start date:** October

**Duration:** Full-time only. MPhil 2-7 years; PhD 3-7 years. An intermediate award of MRes is made after successful completion of the first year.

**Entry requirements:** An upper second-class Honours degree (or equivalent), although other qualifications may be accepted. IELTS 7.0 or equivalent is required for EU and overseas students

**Assessment:** Reports, assignments, presentation (year 1); reports, thesis, viva voce (years 2-4)

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▲ High resolution microscopy  
Being carried out in the Biomedical Imaging Unit

# Support in the School of Medicine

As a postgraduate at the School of Medicine, you will have access to a wide range of information and specialist support services. We offer a variety of support mechanisms including a team consisting of two supervisors to provide expert advice on research projects; student and staff divisional representatives; a team of pastoral advisers; and a student-run society, the Life Sciences Postgraduate Society.

## **Training and career development**

The School of Medicine provides a wide range of research and transferable skills training opportunities for postgraduate students. A two-week orientation programme given by senior faculty members introduces research activities, specialist techniques and generic skills including developing research hypotheses, literature searching and ethical issues in research. Training in statistics is also available.

We also provide a comprehensive transferable skills and career development programme which covers a broad range of topics providing training in a number of key skills including: communication, presentation and scientific writing; teaching and supervision, project and time management; personal development; management and team building; and entrepreneurship. The programme, which is supported by government funding, offers postgraduate research students and postdoctoral researchers the benefit of networking with their peers and with a wide variety of researchers.

The School of Medicine Postdoctoral Association runs a seminar programme which provides an insight into the practical experience of experts in the topics covered by the workshop programme and offers information regarding a range of potential career opportunities.

The transferable skills and the seminar programmes are affiliated to the School of Medicine's Postdoctoral Society to facilitate a seamless career development and support and opportunities for integration of students and post-doctoral fellows.

Further details of training provided by the School of Medicine can be found at:

- Introductory programme:  
[www.som.soton.ac.uk/gradschool/students/current/shared/training/timetable/default.htm](http://www.som.soton.ac.uk/gradschool/students/current/shared/training/timetable/default.htm)
- Transferable skills programme:  
[www.som.soton.ac.uk/postdoc/Transferable/diary.htm](http://www.som.soton.ac.uk/postdoc/Transferable/diary.htm)
- Postdoctoral Association seminar programme:  
[www.som.soton.ac.uk/postdoc/Seminar\\_Programme/default.htm](http://www.som.soton.ac.uk/postdoc/Seminar_Programme/default.htm)

## **Attending conferences**

To aid our communication skills objectives for our students, we provide a conference attendance fund to encourage attendance at important and relevant national and international conferences.

## **Core facilities**

Our success in attracting research income together with our wide range of research activity means that we provide our research students with excellent core facilities and equipment, including proteomics, microarray, imaging and a dedicated clinical research facility.

We are home to a specialist Health Services Library, which offers a range of services for students. Resources include computing facilities, language resource facility books, journals, online facilities, and an Assistive Technology Suite.



▲ Allergy is a modern epidemic

One in five of the UK population suffers from hay fever, 1 in 10 has asthma and 20 people in the UK die every year from anaphylaxis

Source of figures: [www.bsaci.org/](http://www.bsaci.org/) and [www.resus.org.uk/pages/reaction.pdf](http://www.resus.org.uk/pages/reaction.pdf)



The School of Medicine is internationally renowned in the field of allergy. Since 2000, our MSc Allergy programme has been providing detailed study in allergic disease for clinical practitioners. Our course presents allergy within the broader context of science and medicine, advancing your understanding of underlying biological/behavioural mechanisms and clinical consequences of allergic disease.

A central aim is to encourage and develop your interest in and knowledge and understanding of the mechanisms and management of allergic disease including the immunological basis, diagnostic testing, pharmaceutical preparations, management programmes and research techniques. Our part-time course will offer the opportunity of distance learning. It harnesses the clinical, research and educational strengths of experts, both at Southampton and externally.

Our course is open to anyone who requires a more comprehensive understanding of allergic disease. This includes general practitioners, nurses, dieticians, specialist registrars, scientists and other healthcare professionals.

This is a modular course, allowing you to tailor the course to provide content that best fulfils your career aspirations. Our interdisciplinary approach allows you to learn more about the management and development of healthcare provision for allergic disease as well as enhancing your own knowledge base.

There is a compulsory module that teaches the mechanisms and management of allergic disease. In addition, our integrated approach will allow you to better understand the complex interactions between all the elements. You will therefore benefit from learning about related areas of allergic disease in children and adults including: upper and lower airways disease, food allergy, skin diseases and anaphylaxis.

## Level

Masters HE7

## Programme of awards

Postgraduate Certificate in Allergy  
1 year

Postgraduate Diploma in Allergy  
2 years

Master of Science in Allergy  
3 years

## Intake

30 per year

## Start date

October, however you may start year round

## Entry requirements

Second class honours degree (or equivalent) or relevant professional experience

## English language requirement

IELTS 7.0 or equivalent

## Assessment

Written and oral communication of case histories, MCQ examinations, assignments and practical examination of clinical skills. Interdisciplinary group work. Dissertation for MSc only.

## Fees

MSc students are charged on a per module basis. Current students can apply for bursaries for each module.

In addition there are further modules that are compulsory if you are intending to study for the full masters degree. Comprehensive academic training in Research Skills and Statistics will provide you with the extensive expertise needed to produce first-class research for your chosen dissertation. The final compulsory component of the MSc programme is the dissertation project.

## Why choose Southampton?

Our established course is internationally respected and draws on our clinical, research and educational strengths. Our balanced clinical and scientific curriculum is supported by internationally renowned specialists and our Scientific Advisory Board is chaired by Professor Stephen Holgate, a world leader in the field of allergy.

Our part-time course provides the flexibility to cater for your needs and enables you to study alongside your other commitments. As the course includes distance learning methods, we have a very strong international dimension amongst our students.

Our core module gives a comprehensive overview of the mechanisms and management of allergic diseases and we offer a range of optional modules, allowing you to tailor the programme to suit your learning needs.

The course is multidisciplinary and the module assignments are therefore structured in a way that can be answered from any discipline or background. Our interprofessional approaches allow students from different disciplines and professions to interact and learn from each other, an extremely important facet of successful allergy management teams.

We offer a high level of support, both for your hospital-based learning and distance learning. We also have an excellent distance learning library, giving you access to your course documentation and many online journals.

**Benefits of this programme**

Many students who have successfully completed the course have achieved recognition of their specialist allergy training from their employers. Previous students have achieved promotions including to partner in a GP practice, clinical lecturer, specialist nurse and nurse consultant. In addition, the interdisciplinary nature of the course allows you to understand the complex nature of allergic diseases and how to set up an allergy team.

You will receive an advanced training in allergy and allergy research processes and techniques. These are widely applicable in the medical and academic context as well as in industrial research. The course provides a good grounding to become an allergy specialist healthcare professional worker or group leader. In addition, many of our overseas students have gone on to successful careers in positions of leadership in their home countries.

The MSc course provides excellent training in research skills and statistical analysis, leading to completion of highly successful dissertation projects. You can go on to use your MSc training for subsequent PhD studies and some of our graduates have had great success in pursuing careers in research.

**Further information**

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Programme Director:  
Dr Judith Holloway

---

Course information:

Phone: +44 (0)23 8079 6685

Email: [allergy@southampton.ac.uk](mailto:allergy@southampton.ac.uk)

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[www.som.soton.ac.uk/postgraduates/  
msc-allergy](http://www.som.soton.ac.uk/postgraduates/msc-allergy)

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▲ Working in the community

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Our programme develops your knowledge and skills to help you design, manage and evaluate policies and programmes to improve the nutrition-related health of the population

# MSc Public Health Nutrition

Our MSc is designed to prepare you for professional practice as a registered public health nutritionist. Accredited by The Nutrition Society, our three programmes build on a sound theoretical framework and apply this to enable you to solve nutrition-related health problems in whatever setting you work.

By fostering initial and continuing professional development (CPD) through the provision of specialist postgraduate education tailored to professional needs in public health nutrition, we prepare you for a professional career in public health nutrition, in the context of the practice of nutrition in public health in the EU or internationally. Our programme will also develop your professional values and competencies that will enable you to work ethically in professional practice.

We aim to give you the skills to develop your approach to solving problems, building on a logical and hierarchical approach that starts with understanding the underlying causes of problems to the best way to develop, implement and evaluate programmes of work aimed at solving those problems.

As a result of successfully completing this masters programme you will be able to show leadership in nutrition and nutrition-related issues as well as the determinants of dietary and food aspects of health and wellbeing. You will be able to register as an Associate Public Health Nutritionist on the professional register of The Nutrition Society.

You can choose the level of award you want to study toward, and can apply to upgrade at any time. The masters programme comprises six modules, which allows you to gain competencies that will enable you to fulfil your career aspirations as a public health nutrition practitioner, researcher or epidemiologist. In addition to training in public health nutrition you receive comprehensive academic training in postgraduate research skills and statistical analyses. The latter provide you with extensive expertise needed to produce first class research for your chosen research project.

# MSc Public Health Nutrition

## Level

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Masters HE7

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## Programme of awards

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Postgraduate Certificate  
Up to 1 year for part-time students

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Postgraduate Diploma  
Up to 2 years for part-time students

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Master of Science  
1 year for full-time students  
Up to 3 years for part-time students

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## Intake

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15-20 per year

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## Start date

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October

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## Entry requirements

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Second-class honours degree in nutrition, dietetics or other biomedical or health science, or equivalent; prior work experience is desirable

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## English language requirement

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IELTS 7.0 or equivalent

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## Assessment

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Assignments, presentations, reflection, dissertation

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## Fees

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MSc part-time students are charged on a per module basis

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## Why choose Southampton?

Southampton University is host to the only Biomedical Research Unit in Nutrition in the country, with a focus on translational research. Our vision for the future is that nutrition can be used as a focus through which a range of major health problems can be addressed directly. By improving people's health and establishing a focus of excellence on the south coast, we can establish a model that will help to define national policy and to which others in the world can aspire.

Our established masters programme is internationally respected and draws on the clinical, research and educational strengths at Southampton. Our balanced scientific curriculum is also supported by internationally renowned specialists and taught by highly experienced public health and public health nutrition specialists from all over the UK.

Our Programme attracts applicants from a range of destinations around the globe, and is applicable to all cultural backgrounds and situations. Some students come with experience of working in public health nutrition in their home countries, enabling you to learn from your colleagues and to share with each other major and sometimes unique public health nutrition issues from different settings. Since its inception, the masters programme has attracted students from 18 countries.

We offer you a high level of support, covering different backgrounds and different needs, and can be contacted at any time for learning support. We provide excellent access to many online journals and the masters programme documentation is available online through our website to ensure you are well supported in your academic activities.

### **Benefits of this programme**

Our programme is one of only four MSc programmes in Public Health Nutrition in the UK accredited by the Nutrition Society. It has been designed to provide you with the skills and competencies essential for registration and professional practice. The individual components of the programme have been planned to ensure that by the end of your studies, you will have an integrated understanding of all aspects of public health nutrition. After three years of relevant work experience, you would then be eligible to become a Registered Public Health Nutritionist.

We provide excellent training in basic research skills and statistical analysis, leading to highly successful dissertation research projects. Our students can go on to use their MSc training for subsequent PhD studies, and some of our graduates have pursued careers in research while others have gone on to become successful public health nutrition practitioners.

### **Programme structure**

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Normal University attendance is for two 3-day teaching blocks per module: three modules in the first semester and three in the second semester. You would normally be expected to successfully complete the first three modules before progressing to the modules in the second semester. Once you have completed all the taught modules, you will register for a 14-week research project. You may apply for credits for prior learning in relevant topics

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### **Further information**

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Award Leader: Dr Penelope Nestel

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Coordinator: Mrs Julie Hickman

Phone: +44 (0)23 8079 6539

Email: [somphn@soton.ac.uk](mailto:somphn@soton.ac.uk)

[www.som.soton.ac.uk/postgraduates/  
msc-public-health](http://www.som.soton.ac.uk/postgraduates/msc-public-health)

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# Funding your studies

As a postgraduate student you will need to pay annual tuition fees to the University for the taught course or research programme that you are studying. Tuition fees vary according to the type of programme you choose and include the full cost of tuition, examinations, Students' Union membership and research support expenses (where applicable). In addition to tuition fees, you will also need to consider other expenses such as living costs, accommodation fees and study materials.

Our postgraduate research students are funded by a wide range of sources, mostly external to the University. Major funding bodies include UK-based charities, research councils and UK government departments. Collaborative studentships have also been obtained by individual members of academic staff through their relationships with industry.

For some courses or research programmes you may be able to apply for funding from the University or from external sources to cover your tuition fees and/or your living expenses.

## Scholarships

The School of Medicine offers a limited number of scholarships to assist high-quality international students to fund their PhD degree.

For more information please visit:  
[www.som.soton.ac.uk/postgraduates](http://www.som.soton.ac.uk/postgraduates)

## Fees

Please visit [www.southampton.ac.uk/postgraduate/feesandfunding/pgfees\\_home.html](http://www.southampton.ac.uk/postgraduate/feesandfunding/pgfees_home.html) for current fees.

## For funding opportunities, consult:

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Research Councils UK ([www.rcuk.ac.uk](http://www.rcuk.ac.uk)), Medical Research Council ([www.mrc.ac.uk](http://www.mrc.ac.uk)); UK-based charities; UK government departments; overseas governments and institutions.

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The Association of Commonwealth Universities offers a range of scholarships to students from Commonwealth countries who wish to pursue postgraduate studies in the UK:  
[www.acu.ac.uk/scholarships](http://www.acu.ac.uk/scholarships)

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Chevening Scholarships are open to talented international students who wish to study in the UK, usually for a postgraduate diploma or masters degree. Information is available from the British Council in your country:  
[www.chevening.com](http://www.chevening.com)

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Knowledge Transfer Partnerships can provide the opportunity to study for a higher degree (master's or doctorate) while working in a company:  
[www.southampton.ac.uk/business/knowledgetransfer](http://www.southampton.ac.uk/business/knowledgetransfer)

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You can find details of fees and funding opportunities from the University website at:  
[www.soton.ac.uk/postgraduate/feesandfunding](http://www.soton.ac.uk/postgraduate/feesandfunding)

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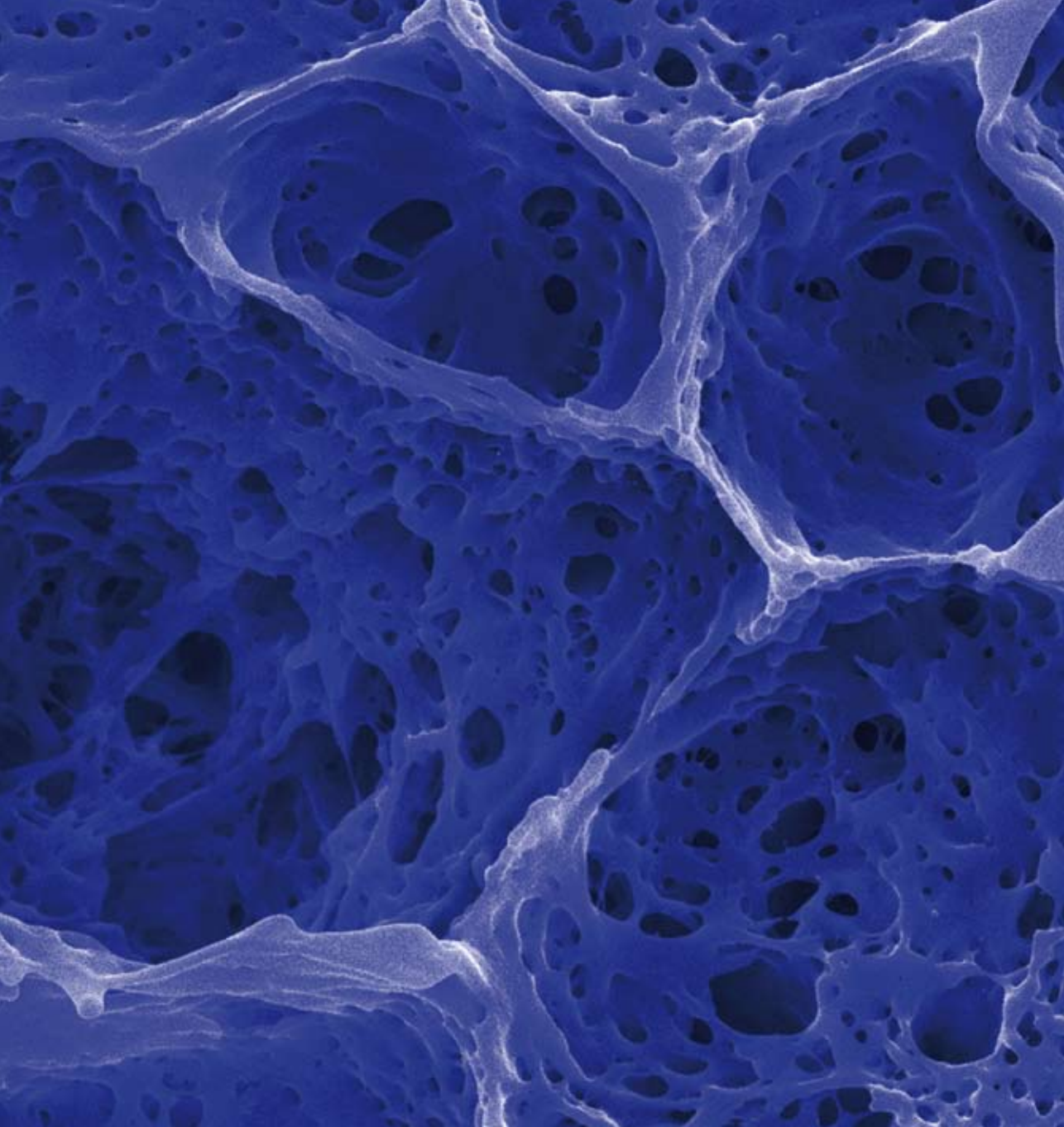
Details of current PhD studentships are advertised on the University's job opportunities page:  
[www.jobs.soton.ac.uk/soton/jobboard](http://www.jobs.soton.ac.uk/soton/jobboard)

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We receive a high level of funding from external bodies for postgraduate researchers. Applicants are advised to contact their prospective supervisor to see if any funding is available.

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▲ Biodegradable polymer scaffold for ocular cell attachment

Andrew Treharne, Dr Martin Gossel and Professor Andrew Lotery



# Our University



▲ The Institute for Life Sciences (IfLS)

Opening soon on the main Highfield campus, IfLS will be home to an academy of scientists representing all research activity at the interface between the life sciences and other disciplines within the University, including medicine, physical sciences/engineering, health sciences, mathematics and environmental/earth sciences. The institute will add to the excellent facilities for cutting edge research in biomedical science.

# Research at the University

At Southampton you will be supported by world-leading experts, in a vibrant learning environment, bustling with new ideas – ideas that often originate directly from the work of our postgraduate students. Together with our world-class facilities, impressive range of entrepreneurial activities and diverse external partnerships, you can be assured of a unique learning experience at Southampton.

[www.southampton.ac.uk/  
research](http://www.southampton.ac.uk/research)

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Our reputation is founded on the outstanding achievements of our academic staff. The University of Southampton is ranked in the top 80 universities in the world – one of only 19 UK universities to make the top 100 in the latest (2007) World University Rankings, published in *The Times Higher Education Supplement*. Sustained investment in development across the University ensures that all our students continue to enjoy the world-class facilities and learning resources which make Southampton one of the best learning environments in the UK.

## **Pioneering research**

Real-world applications are at the core of our research ethos, so our people are working at the cutting edge, devising innovative solutions to the world's problems. Our researchers have the freedom to explore new directions in their own way, working in partnership with industry, government and other universities. Our academics are constantly pioneering new approaches and techniques, from advances in the biomechanics of bone, drug discovery and preclinical modelling with human tissue to the challenges of genetic disease, cancer, and fetal and infant health. As a postgraduate at Southampton, you will be working with world leaders in their fields, in a dynamic learning environment.

The University of Southampton is a member of the influential Russell Group – an association of 20 major UK research universities, including Oxford, Cambridge, Imperial College London and the London School of Economics. The University of Southampton currently receives more than £70 million in research grants and contracts each year. *The Times Good University Guide 2009* judged “the proportion of income derived from research at Southampton [to be] among the highest in Britain”.

We are also a founder member of the Worldwide Universities Network (WUN) – an international partnership of 16 research-intensive universities supporting innovation in research and education on a global scale, through interdisciplinary collaboration, faculty and student exchange, and e-learning. WUN partners include leading institutions in the UK, USA, China and Europe. A range of Erasmus links with universities across Europe are open to our postgraduate students, providing the opportunity to spend a minimum of three months studying abroad. We also offer several courses in collaboration with other European institutions.

### **Research excellence**

Research is the lifeblood of the University and powers everything we do, from our innovative teaching methods to our impressive portfolio of spin-out companies. Our reputation for breaking new ground has enabled us to maintain our prestigious status as a top 10 UK research university year after year, as *The Sunday Times University Guide 2008* confirmed “just seven universities in the UK have a stronger profile for research than Southampton”.

### **Research Assessment Exercise ratings**

The Research Assessment Exercise (RAE) measures the quality of research in UK universities and colleges, and the ratings are used to inform the selective distribution of public funds for research.

The University of Southampton is one of the UK’s top research universities. In the UK Research Assessment Exercise 2008, the first major assessment of UK research since 2001, Southampton remains one of the strongest universities for a wide range of subjects in engineering, medicine, humanities and social sciences. Over 70% of the School of Medicine’s activity was rated as World Leading or Internationally Excellent.

### **Teaching excellence**

In the latest assessment by the Quality Assurance Agency, which monitors standards of teaching in the UK, the University was awarded the highest level of achievement for the standard of our teaching and education. Blending innovative approaches with established techniques, we offer a variety of specialist teaching and learning methods, all of which are supported by virtual learning environments.

# The Faculty Graduate School

The University has more than 20 Academic Schools, organised within three Faculties. Each Faculty has its own Graduate School, and these work together to provide a range of services and support.

The Faculty Graduate School embraces the postgraduate activities of its four member schools (Medicine, Biological Sciences, Health Sciences and Psychology). Our aim is to enhance the research-centred learning experience and personal development of postgraduate students, through promotion of shared opportunities for learning and generic skills training, to meet current needs and prepare for future careers. The Faculty Graduate School has a remit to help maximise your potential and career opportunities.

We promote and facilitate inter-school and inter-faculty opportunities to share learning and experience, particularly in the areas of transferable skills and personal development. Annual conferences are an opportunity for you to present your work and meet fellow researchers in other fields. You will have the opportunity to compete for prizes at the annual conference, including best oral presentation and best poster. There is also an annual competition for the best piece of published research, which is a prestigious award and highlights our students' best research achievements.

Our postgraduate students are a highly valued part of our community, and are integral to the continued success of the University as a whole. We recognise the diverse needs of our postgraduates, and provide a focused approach to meeting those needs at every level.

For more details of the Faculty Graduate School visit:  
[www.gradschool.mhls.soton.ac.uk](http://www.gradschool.mhls.soton.ac.uk)

## **The Graduate School offers**

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Skills training programmes to enhance postgraduate research and personal development

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Induction programmes and short training courses and seminars are organised throughout the academic year

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Faculty-wide annual postgraduate student conferences

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Postgraduate funding opportunities

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A forum for dissemination, debate and engagement in local, national and international developments in postgraduate taught and research programmes, including best practice

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Inter-school and inter-faculty opportunities for students and staff to share their learning experiences

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Support and encouragement from student-led research groups

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Multidisciplinary social gatherings, bringing together students and researchers from different backgrounds and cultures

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**For more information, visit us at**  
**[www.gradschool.mhls.soton.ac.uk](http://www.gradschool.mhls.soton.ac.uk)**

# The Life Sciences Postgraduate Society (LSPS)

## **Contacting us**

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[lsp@oton.ac.uk](mailto:lsp@oton.ac.uk)

[www.soton.ac.uk/~lsp](http://www.soton.ac.uk/~lsp)

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The Life Sciences Postgraduate Society (LSPS) was formed to provide postgraduate students studying within the Faculty of Medicine, Health and Life Sciences at the University of Southampton with extracurricular academic and social opportunities. The Society is comprised of postgraduates from the following Schools:

- Medicine
- Biological Sciences
- Health Sciences
- Psychology

All postgraduate students within these schools, full- and part-time, are members. The Society exists on funds received from each School and is run by a team of students from all the Schools who make up the committee. The main aims of the society are to:

- encourage integration of schools and departments;
- provide opportunities for postgraduates to discuss their work and also to forget about work;
- meet people in a relaxed atmosphere;
- broaden scientific knowledge by organising high-profile speakers;
- offer chances of transferable and technical skill development;
- provide a postgraduate student representative body and increase the awareness of life science postgraduates to others.



# Students' Union

Southampton University Students' Union (SUSU) is one of the largest in the UK. It has many roles, in University life and beyond, and has an active postgraduate community. You will automatically become a member when you join the University.

An important part of SUSU's role is to represent the student population – to the University, to the local community and at a national level. This representation is led by the Union's executive, comprising full-time and part-time officers elected by the student body. There is a dedicated Postgraduate Officer, who is a full-time student and a part-time executive officer, representing the voice of our 4,000-strong postgraduate community. This elected representative chairs the Postgraduate Committee, providing a forum for postgraduate students to raise any problems they might be facing. The Postgraduate Officer also organises a varied programme of social events throughout the year, beginning with a welcome event for new postgraduates.

The main complex, on the Highfield Campus, has recently benefited from a £6 million refurbishment and extension. Facilities include bars, cinema, nightclub, cafés, shops and a varied events programme ranging from jazz, comedy evenings, karaoke and live bands to more than 200 sporting and social clubs and societies within the University community.

## Staff Club

As a postgraduate student you will automatically become a full member of the Staff Club, based at our main campus. A wide range of activities and events are held all year round, including local theatre shows, weekend trips abroad, activity days, quiz nights and music events. We also have a large number of clubs and societies, independent of the Students' Union. The Staff Club provides a forum for communication and social interaction throughout the University postgraduate and staff community.

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## Students' Union

+44 (0)23 8059 5200

Alternatively, if you know who you want to call, or are phoning from an internal phone, or from abroad look at the staff phone numbers list.

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[susu@soton.ac.uk](mailto:susu@soton.ac.uk)

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[www.susu.org](http://www.susu.org)

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## Staff Club

+44 (0)23 8059 3883

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[staffclub@soton.ac.uk](mailto:staffclub@soton.ac.uk)

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[www.staffclub.soton.ac.uk](http://www.staffclub.soton.ac.uk)

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Southampton is a thriving, modern city, steeped in history and culture, and is one of southern England's top leisure and cultural destinations



# Southampton life: city

## **City life**

The University is situated close to the city centre, and makes a major contribution to the economic, social and cultural life of the area, forming an integral part of this dynamic, multicultural city. Our location offers the University community a vibrant mix of recreation, culture and entertainment – from restaurants, cafés, bars and nightclubs, to cinemas, sports facilities, internationally acclaimed arts venues and one of the UK's top shopping centres. The University also enjoys the advantage of being located next to Southampton Common, a protected Site of Special Scientific Interest, offering 130 hectares of public open space and managed woodland.

## **Culture and heritage**

Stroll around Southampton's 13 remaining medieval towers, learn about its seafaring past at the Maritime Museum and see the Titanic Voices exhibition. Or take a trip to Solent Sky and hear about the legendary Spitfire, designed in Southampton, or visit the Museum of Archaeology.

## **Countryside and coast**

Less than half an hour from Southampton is the New Forest National Park, which stretches for 375 square kilometres of open heath and beautiful forest. The stunning resorts of Bournemouth and Poole are just down the coast; while a short ferry ride takes you to the Isle of Wight, which hosts one of the UK's biggest sporting events – more than 1,000 yachts and 8,500 competitors take part annually in Skandia Cowes Week, the largest, longest running, most prestigious international sailing regatta in the world.

## **Transport links**

Just over an hour from central London and Heathrow Airport, Southampton has excellent transport links with the rest of the UK and internationally, by road, rail, sea and air. The city is serviced by two mainline train stations, and is on the rail link to London Waterloo, which services Gatwick Airport. Southampton International Airport offers regular flights to UK and major European destinations. The University's own award-winning Uni-link bus service connects all Southampton campuses and halls of residence, the city centre, the airport and both railway stations.

# Southampton life: culture

## **Elsewhere in Southampton**

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The Mayflower is the largest theatre in southern England and stages West End musicals, ballet, pantomimes, operatic productions, comedy acts and evenings with celebrities  
[www.mayflower.org.uk](http://www.mayflower.org.uk)

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Jongleurs Comedy Club hosts top comedians from all over the UK  
[www.jongleurs.com](http://www.jongleurs.com)

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The City Art Gallery was described by the *Independent* as 'one of the best places outside London to see British modern art and studio ceramics', and houses over 3,500 works of art spanning six centuries  
[www.southampton.gov.uk/leisure/arts/sotonartgallery](http://www.southampton.gov.uk/leisure/arts/sotonartgallery)

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## **Culture**

Southampton has a vibrant arts scene and a variety of cultural attractions, including theatres, galleries and museums. The University offers a rich and diverse mix of theatre, music and art activities and events, and we support three of the UK's most exciting arts venues right on campus.

The John Hansard Gallery is one of Britain's leading public galleries of contemporary visual art with a worldwide reputation for exciting and innovative shows by leading UK and international artists.

[www.hansardgallery.org.uk](http://www.hansardgallery.org.uk)

The Nuffield theatre is recognised as a major force in British theatre and creates award-winning productions which frequently tour internationally.

[www.nuffieldtheatre.co.uk](http://www.nuffieldtheatre.co.uk)

Turner Sims Concert Hall is one of the UK's leading music venues. You can expect anything from New York jazz to African gospel choirs, virtuoso classical artists and traditional folk music.

[www.turnersims.co.uk](http://www.turnersims.co.uk)

## **University life**

Southampton is a place for ambitious people keen to stretch their intellectual abilities and advance the frontiers of knowledge. Joining our friendly postgraduate community of 4,000 students means you will be working with internationally-respected academics and be part of world-leading research as it takes place.



▲ James and the Giant Peach

Nuffield Theatre, April 2008. Photo: Mike Eddowes

The Nuffield like to give you something different: top stand-up comedy, exhilarating physical theatre, brand new productions and classic plays all share the stage at the Nuffield Theatre, the award-winning theatre in the heart of the Southampton University campus



▲ Windsurfing in the Solent

The University of Southampton is a Royal Yachting Association (RYA) recognised watersports teaching centre

# Southampton life: sport

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## Elsewhere in Southampton

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Our coastal location provides countless opportunities for sport and leisure, with waterfront marinas and a major focus on water sports, sailing and ocean racing

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The Southampton Sports Centre includes a dry ski slope, all-weather pitches, cross-country routes and tennis courts

[www.southampton.gov.uk/leisure/leisure-centres/sportscentre](http://www.southampton.gov.uk/leisure/leisure-centres/sportscentre)

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The Quays Eddie Read Swimming and Diving Complex offers a wide range of sporting activities

[www.southampton.gov.uk/leisure/leisure-centres/thequays](http://www.southampton.gov.uk/leisure/leisure-centres/thequays)

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Perfect your swing on the city's municipal golf course

[www.southampton.gov.uk/leisure/leisure-centres/golfcourse](http://www.southampton.gov.uk/leisure/leisure-centres/golfcourse)

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The city hosts the largest on-water boat show in Europe – the annual Southampton Boat Show

[www.southamptonboatshow.com](http://www.southamptonboatshow.com)

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If spectating is your thing, the Rose Bowl is home to the Hampshire Cricket Club, and Southampton Football Club play in the superb Friends Provident St Mary's Stadium, near the city centre

[www.rosebowlplc.com](http://www.rosebowlplc.com)

[www.saintsfc.co.uk](http://www.saintsfc.co.uk)

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## Sport at the University

We have invested heavily in our Sport and Recreation Service (SportRec) to ensure that we can provide everything you need to develop your sporting abilities or just to have fun – whatever your level of interest, experience or skill, from beginners to elite athletes.

Our main campus is home to the Jubilee Sports Centre, a state-of-the-art £8.5 million complex with a 25 metre swimming pool, split-level gym, two sport halls for a variety of indoor sports, racket courts, indoor climbing wall and a multi-purpose studio and activity room. Our recently redeveloped outdoor sports complex includes floodlit synthetic and grass pitches for winter and summer sports and floodlit tennis courts.

We offer an unrivalled range of water sports and have fostered Olympic competitors and British University Sports Association (BUSA) champions in sailing and windsurfing. We run a number of courses from our boat hard on the River Itchen.

For more details please visit [www.sportrec.soton.ac.uk](http://www.sportrec.soton.ac.uk)

The Athletic Union (AU) is part of the Students' Union, and caters for around 70 sports clubs – both competitive and recreational, from beginners to national level. We provide excellent sporting activities for our 6,000 members and we have a strong track record in inter-university competition and are currently well within the top 20 in the BUSA rankings.

For more details please visit <http://sport.susu.org>

# Southampton life: accommodation

The University provides 5,200 places across 20 professionally managed halls of residence in Southampton and Winchester. We also advertise more than 2,000 rooms in the private rented sector and provide a free and confidential housing advisory service to support postgraduates and their families.

## **Our guarantee to you is simple**

We offer accommodation to all first-year postgraduate students without dependants who are new to the University and to all non-EU students without dependants for the full normal duration of your studies. The only criteria are that you normally live outside Southampton and that we receive your accommodation application by the advertised deadline in the year in which your studies begin.

We provide a wide range of different living arrangements, all offering excellent value for money. Our halls vary in size, character and facilities, but they all provide the same high-quality accommodation in a safe, diverse, inclusive environment.

We have a wide range of accommodation specifically for postgraduates, from standard packages to self-catering studio flats. We also have a limited number of flats and houses suitable for couples, single parents and families. If you are planning to bring your partner and/or any children to the University, please let us know when you apply for accommodation. We recommend that you arrive on your own initially, and ask your family to join you only when suitable accommodation has been organised. You are welcome to contact us for an informal chat about your requirements and the options available.

All University halls are within easy reach of campus sites, either on foot, or by bike or bus, with Southampton campus sites and halls connected via our Uni-link bus service.

If you receive a formal postgraduate offer to study at Southampton, you will be sent an accommodation handbook, with details of how to apply for University accommodation and useful information on living expenses.

## **For more information**

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Please contact our  
Accommodation Service  
Tel: +44 (0)23 8059 5959  
Email: [accommodation@soton.ac.uk](mailto:accommodation@soton.ac.uk)  
[www.southampton.ac.uk/  
accommodation](http://www.southampton.ac.uk/accommodation)

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## **Private rented accommodation**

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A guide to private rented accommodation, with essential advice, a regularly updated list of housing vacancies and a comprehensive database of letting agencies is available from the Accommodation Service. Weekly rent for a room in a shared house in the private rented sector in Southampton or Winchester costs from £60 per week, excluding bills.

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▲ Home away from home

The University residences provide a friendly, caring environment, where you live with others with different outlooks and experiences, pursue cultural and sporting interests, and generally relax and enjoy yourself



▲ Wellbeing team

As a postgraduate student you can call on our extensive network of services for whatever additional support you need

# Support at the University

## For your learning

### Study resources

Sustained investment across the University (£200 million over four years) ensures that all our students continue to benefit from the world-class facilities for which Southampton is recognised.

### Library services

The University has five libraries, housing a total of 2.6 million books, journals and reports. A recent £11 million refurbishment and extension programme of The Hartley Library, on the main Highfield Campus, has provided a state-of-the-art learning centre, with high-speed internet access, network points for laptops, café, language study area and lounge. The Assistive Technology Centre at the library provides specialist services for users with disabilities.

### IT and computing facilities

Our campuses and halls of residence boast around 1,700 computer workstations. Rooms dedicated for student use offer printers, scanners, CD/DVD writers and an extensive range of other hardware. General and course-specific software packages are available, including software for e-learning, and specialist software to support the Assistive Technology Service.

The School of Medicine's website provides a learning platform which allows you to access lecture and seminar notes, e-learning resources, research information and news from academic staff. Wired and wireless high-speed internet connections are provided in many campus locations, along with access to University central services off campus.

You can use a variety of multi-access computer servers to support postgraduate research, including Beowulf computational clusters and a Condor cycle-stealing Windows computational resource. We have benefited from funding by Microsoft to acquire the Spitfire supercomputer system, one of the few high-power systems in the UK running under the new Windows Compute Cluster Server system. We also host one of the UK's e-Science centres, as part of the e-Grid.

ISolutions provides and supports the University's ICT (information communications technology) and virtual learning infrastructure. Specialist staff support a full range of services, and computer-based training is available to all students.

[www.southampton.ac.uk/isolutions](http://www.southampton.ac.uk/isolutions)

### Centre for Language Study

Our Centre for Language Study, based at the Avenue Campus, offers resources and language courses for all University members, and is an official International English Language Testing Service (IELTS) centre. There are nearly 20 languages on offer (including English for international students) whether you want to study as part of your degree, on a part-time evening course or in a lunchtime taster session. Please refer to our international section (p76) or visit:

[www.southampton.ac.uk/cls](http://www.southampton.ac.uk/cls)

## For your career

Postgraduate study at Southampton will enable you to push the boundaries of knowledge in your chosen field and make a real contribution to your subject. Where you choose to study is of key significance for your future career options. At Southampton, you can expect to be working and learning in a dynamic, diverse and challenging intellectual environment, surrounded by world-leading experts and drawing on state-of-the-art facilities and resources.

### **Career management**

Careers advice forms part of our training programme. At Southampton, you will develop skills to help you in your future career. You will have access to the University of Southampton's Careers and Advisory Service who can provide you with specific advice to help you with future career choices as well as being able to participate in other activities such as the Enterprise at Southampton scheme and student ambassador and mentoring schemes.

### **Careers service**

We will provide you with an extensive support network, both during and after your time at Southampton. Whatever career path you decide to follow, you will be able to move on with a wealth of skills and a real competitive edge.

During the course of your studies, and for up to three years after graduation, you will benefit from the comprehensive resources and expert advice provided by our excellent Careers Service, located on our main Highfield Campus. The Careers Service offers postgraduates:

- advice on career planning and developing your employment skills;
- access to careers fairs, employer presentations and employer directories;
- excellent business connections to help you gain vital work experience;
- key skills workshops, covering CV writing, psychometric tests and interview techniques;
- access to a careers information centre and online vacancy database (where more than 2,000 employers advertise positions);
- Southampton Career Network, which provides the opportunity to get help and advice from hundreds of alumni;
- an interactive website providing information and advice online;
- advice on self-employment and entrepreneurship.

For more information, please visit:  
[www.southampton.ac.uk/careers](http://www.southampton.ac.uk/careers)

## For you

As a postgraduate student at Southampton, you will have ongoing support from your tutor or supervisor, and can call on our extensive network of services for whatever additional advice or support you may need at any time.

### **Life support**

From accommodation and fees to appeals and disciplinary hearings; nursery facilities to faith groups; and confidential counselling to emotional support; there is a support service to help you.

### **Learning support**

Whether you need support for a disability, learning difference or health condition, we have a wide range of services available.

### **Health support**

From doctors to dentists and most services in between, we can help you to look after yourself while at university.

Visit [www.southampton.ac.uk/postgraduate/servicesforstudents/healthandsupport.html](http://www.southampton.ac.uk/postgraduate/servicesforstudents/healthandsupport.html)

### **Childcare**

The nursery at Highfield has been established for nearly 30 years and provides a caring, stimulating environment for children aged between four months and five years. It is a safe, happy learning environment within a multicultural setting. The nursery is extremely popular, so we advise you to register as early as possible.

Tel: +44 (0)23 8059 3465

Email: [nursery@soton.ac.uk](mailto:nursery@soton.ac.uk)

[www.nursery.soton.ac.uk](http://www.nursery.soton.ac.uk)



# International students

The University of Southampton is a truly international institution with a global reputation for excellence in leading-edge research.



▲ Studying at the Hartley Library

We have a diverse, integrated student community, and offer a range of resources, activities and support for our international postgraduates



# International students

The University offers a cosmopolitan, friendly and dynamic environment and is committed to making all international students and their families feel at home in Southampton.

We have a thriving and diverse international community, welcoming thousands of EU and international students. We are part of the Worldwide Universities Network, a grouping of internationally excellent research institutions which attract top-notch researchers from across the world. Currently, we work with international institutions, businesses and industrial organisations in more than 80 countries.

Our students come from more than 100 different nations and our network of university partnerships stretches across the globe. Of our 20,000 students, nearly 10% are international. Our academic staff and research groups have extensive international connections and reputations.

## **Settling in at the University of Southampton**

As an international student, you will be warmly welcomed to the University.

We offer a comprehensive range of support services to help you settle into life in the UK and at the University. Our aim is to ensure that your experience throughout your time at Southampton is a positive and rewarding one. We encourage all new international postgraduates to register for our Welcome Programme, specifically designed for our international students.

Through our free 'Meet and Greet' service, we arrange to meet new international students from London Heathrow Airport on certain dates before the beginning of the academic year. Our representatives will be there to greet you and transport you directly to the University, in time for the Welcome Programme.

At the end of September we run a comprehensive International Students' Induction Programme. This introduces you to the University, providing a range of information and support on practical issues, from immigration to accommodation, and an opportunity to meet with fellow students.

Visit [www.southampton.ac.uk/welcome](http://www.southampton.ac.uk/welcome) for more information on our Welcome Programme.

# Support for international students

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## **Would you like to know more?**

For further information about life in the School of Medicine as an international student, please contact Dr Sylvia Pender for information. Sylvia works closely with the Student Union Advice and Information Centre (SUAIC)

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[S.Pender@soton.ac.uk](mailto:S.Pender@soton.ac.uk)

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## in the School of Medicine

As an international student, you can benefit from the advice of our International Student Adviser, Dr Sylvia Pender, who can provide help and guidance before you come to Southampton and during your stay. We hold regular social events to help you settle into life in Southampton, providing opportunities for you to mix with other international students and home students in a relaxed atmosphere.

### **English language support at the School of Medicine**

If English is not your first language, you are strongly encouraged to attend our English language course to discuss your language development needs with the language advisor. Our language resource facility gives you access to English language learning materials to help you develop your oral and written language skills. If you need further support in developing your English, you can apply to attend a course on language development, language support for registered students and English for academic purposes.

## in the University

The University offers a comprehensive range of support services to help international students settle into life in the UK, and at the University, as quickly as possible. Our support services include the Centre for Language Study and academic advisors with particular responsibility for international students.

We understand that you may have particular cultural and religious requirements and we provide facilities and services to help meet these needs. For example, we have a Muslim prayer room with washing facilities and our catering team provides a wide range of dietary options which take into account necessary food preparations.

The University offers a range of English courses, lasting 4, 8 and 14 weeks, plus intensive sessions throughout the year. We also offer a full programme of face-to-face and online language and study skills classes throughout the year.

The Students' Union runs a variety of international societies which enable students to meet each other and to continue with a current interest or to develop a new one. In addition, the Students' Union runs Freshers' Week, which features a full programme of social and sporting events for new students.

The Students' Union Advice and Information Centre offers specialist impartial advice on subjects including welfare, immigration, visa renewals and legal matters. They also provide cultural and personal support, and organise trips around the region.

**Further assistance for international students is available from the following websites**

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**International Office**

[www.southampton.ac.uk/international](http://www.southampton.ac.uk/international)

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**Student Services Centre**

[www.southampton.ac.uk/postgraduate/servicesforstudents/studentsservicescentre.html](http://www.southampton.ac.uk/postgraduate/servicesforstudents/studentsservicescentre.html)

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**Centre for Language Study**

[www.southampton.ac.uk/postgraduate/servicesforstudents/languagestudy.html](http://www.southampton.ac.uk/postgraduate/servicesforstudents/languagestudy.html)

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**Students Union**

[www.susu.org](http://www.susu.org)

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**Student Union Advice and Information Centre (SUAIC)**

<http://suaic.susu.org/>

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# Accommodation

## **For more information, please see**

P70: Accommodation

P75: Childcare

## **Or visit**

[www.southampton.ac.uk/  
postgraduate/accommodation](http://www.southampton.ac.uk/postgraduate/accommodation)

We have a wide range of accommodation specifically for postgraduates, from standard packages to self-catering studio flats. We also have a limited number of flats and houses suitable for couples, single parents and families. You have two options for your accommodation during your time at Southampton: University accommodation and private rented accommodation.

### **Guaranteed accommodation**

We guarantee accommodation to all new international postgraduates from outside the EU for the full normal duration of your studies and to EU students for your first year at the University. The only criteria are that you are unaccompanied, we receive your accommodation application by the advertised deadline in the year in which your studies begin and you make a prepayment of £350 when you accept the offer of accommodation (this will be deducted from your final instalment). Accommodation shared by single-sex groups is available on request.

### **Rented accommodation**

The Accommodation Service can help you find private rented accommodation in Southampton as well as lodgings or bed and breakfast accommodation. A guide to private rented accommodation, with essential advice, a regularly updated list of housing vacancies and a comprehensive database of letting agencies, is available from the Accommodation Service.

### **Your family**

If you are planning to bring your partner and/or any children to the University, please let us know when you apply for accommodation. We recommend that you arrive at the University on your own initially and send for your partner/family once suitable accommodation has been found.

You are welcome to contact the Accommodation Service for an informal chat about your requirements and the options available.

# International applications

You will need to ensure that your qualifications and English language skills meet our entry requirements. We recognise a wide range of qualification equivalents and the National Academic Recognition Information Centre for the UK (UK NARIC) can give you advice on qualification equivalents. You will also need to show evidence of your interest in the course or research programme, as well as an understanding of the demands of postgraduate study. You should apply early if you need to secure a UK visa, arrange sponsorship, apply for funding or find accommodation as deadlines for research funding are usually at least six months in advance of the start date.

## Language entry criteria

Please note that test scores should not normally be more than three years old. Nationals of certain countries are generally given exemption from having to take a formal English language test. Should you require further English language tuition before commencing your course at the University, we offer a number of pre-sessional English programmes.

## Fees and funding

Studying abroad is a life investment that needs careful planning and consideration. You should start organising your finances in advance and arrange enough funds to cover the tuition fees and living costs.

## Scholarships

The School of Medicine offers a limited number of scholarships to assist high quality international students to fund their PhD degree.

Please visit us online at [www.som.soton.ac.uk/postgraduates](http://www.som.soton.ac.uk/postgraduates) for more information.

## For further details on entry requirements

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National Academic Recognition Information Centre for the UK (UK NARIC)

[www.naric.org.uk](http://www.naric.org.uk)

Or check out our website

[www.southampton.ac.uk/international/entry\\_reqs](http://www.southampton.ac.uk/international/entry_reqs)

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## For further details on English language requirements

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[www.southampton.ac.uk/international/entry\\_reqs/english\\_language.shtml](http://www.southampton.ac.uk/international/entry_reqs/english_language.shtml)

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## For further details on fees and living costs, scholarships and other funding

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[www.southampton.ac.uk/international/fees\\_money](http://www.southampton.ac.uk/international/fees_money)

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# Contact details

## **Postgraduate research degrees**

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Postgraduate Studies Manager:  
Miss Kerri Gardiner

Tel: +44 (0)23 8079 6685

Email: medpostgrad@soton.ac.uk

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## **Postgraduate taught degrees**

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### **Public Health Nutrition**

Programme Director: Dr Penelope Nestel

Tel: +44 (0)23 8079 8923

Email: p.s.nestel@soton.ac.uk

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Programme Coordinator: Mrs Julie Hickman

Tel: +44 (0)23 8079 6539

Email: somphn@soton.ac.uk

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### **Allergy**

Programme Director: Dr Judith Holloway

Tel: 44 (0)23 8079 6941

Email: j.holloway@soton.ac.uk

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Course Information

Tel: +44 (0)23 8079 6685

Email: allergy@southampton.ac.uk

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General enquiries: allergy@soton.ac.uk

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## **School of Medicine**

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Southampton General Hospital

Tremona Road

Southampton

Hampshire

SO16 6YD

Tel: +44 (0)23 8079 6586

Fax: +44 (0)23 8079 4760

Email: som.sgh@soton.ac.uk

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## **How to find us**

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[www.som.soton.ac.uk/contact/sg-h-directions](http://www.som.soton.ac.uk/contact/sg-h-directions)

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