www.southampton.ac.uk/medicine UK and EU enquiries: PGRapply.FM@southampton.ac.uk +44 (0)23 8120 6685

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Southampton

Initiate, Innovate, Translate Postgraduate Research



Welcome to Medicine

At Southampton, Medicine leads the international research community in a range of major interdisciplinary research themes. We have trained thousands of doctors and scientists, and lead cutting edge research in areas as diverse as cancer, osteoporosis, asthma and nutrition. By bringing our innovative enterprise activities to fruition, and through our activities with schools and communities such as the LifeLab programme, we are able to translate our research into improved patient health and wellbeing from before birth to the end of life for people in the UK and abroad.

As a postgraduate student, you will be part of world-changing research as it happens. You can expect to be taught by researchers at the forefront of their disciplines, tackling some of today's biggest challenges. Main research programmes include respiratory medicine, developmental sciences, cancer sciences, bone and joint diseases, and general practice, with cross-cutting themes in translational immunology and stem cells and regenerative medicine.

As one of the top 73 universities in the world* and a founder member of the prestigious Russell Group of leading research universities in UK, we provide an outstanding postgraduate education. Southampton is one of the leading entrepreneurial universities in the world, with excellent relationships with business and industry. As a postgraduate student, you will benefit from these strong links and have many opportunities to develop your entrepreneurial skills. In Medicine we have embedded enterprise into everything we do. Through our internationally recognised Developmental Origins of Health and Disease Centre we incorporate the work of the Medical Research Council Life course Epidemiology Unit, the NIHR Southampton Biomedical Research Centre in nutrition and the University's Institute of Developmental Sciences. In recent years we have created five spin-out companies which are flourishing examples of our enviable business expertise. Two of these companies have a market worth of around £75 million.

You will have a warm welcome when you join our friendly postgraduate community. With access to our Student's Union, Staff Social Club and state-of-the-art sports centre, all based on an attractive green campus, you have all the ingredients for a fantastic student experience.

*2012 QS World University League Rankings











1. Research excellence

We are a founder member of the Russell Group of 24 major researchintensive universities in UK. Page 4

2. Research expertise

We have a reputation for academic excellence in all aspects of teaching and research. Page 6

3. Our academics

Our academics are some of the people who are changing the world through innovative projects. Page 14

4. Planning your career

We offer a range of services to give you a head start in finding your dream job. Page 26

5. Southampton and region

Southampton is a thriving and modern City. Page 30

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Confocal image of developing airways showing expression of the asthma susceptibility gene, ADAM33 in mesenchymal progenitor cells



"My PhD project is funded as part of the Medical Research Council (MRC) Industrial CASE scheme, aimed at developing and sustaining a close and productive relationship with industry in the UK. I aim to identify the

extent to which a specific protein plays a role in driving allergic responses in asthmatic individuals. Ultimately research like my own aims to identify novel biomarkers of disease or new targets for disease intervention."

New approaches to asthma treatment

Southampton's researchers have discovered how a gene for susceptibility to asthma contributes to the development of the disease. Their work sheds light on how the condition develops in young children and offers the potential for new treatments for asthma and other serious illnesses.

Around 5.4 million people in the UK are currently receiving treatment for asthma, a potentially life-threatening condition that can have a big impact on people's daily lives.

The asthma susceptibility gene ADAM33 was discovered in 2002 by Professor Stephen Holgate, in collaboration with two US companies (the Genome Therapeutics Corporation and the pharmaceutical company Schering-Plough).

Southampton researchers then discovered that the cells lining the inner surface of blood vessels become a target for ADAM33, causing the formation of new blood vessels in a process called 'angiogenesis'. These blood vessels can carry more inflammatory cells into the airways, causing swelling and changes in airway structure, which in turn results in breathing difficulties.

Treatments which specifically target the ADAM33 enzyme may be effective in modifying the natural history of the disease. However, the importance of angiogenesis in many physiological and pathological processes broadens the range of diseases in which the enzyme could be implicated, the most obvious being cancer and atherosclerosis, or thickening of the arteries.

For further information, visit **www.southampton.ac.uk/medicine**/ **research/themes/airways_disease.page**

Research expertise

We have a reputation for academic excellence in all aspects of teaching and research, with many of our supervisors leaders in their fields.





Our research is focused around research themes, which represent our principal strengths. These cover a very wide base, from basic cellular science, investigating disease mechanisms, to large population cohort studies and epidemiology. Our postgraduate programmes are organised across four multidisciplinary administrative academic units: Human Development and Health; Cancer Sciences; Clinical and Experimental Sciences; Primary Care and Population Sciences. Our research encompasses the full spectrum, from fundamental discovery science to clinical innovation, and we have a particularly strong reputation for translating new discoveries into a clinical setting.

Research themes

Airways disease

Our research on airways disease has a distinct life-course perspective of development and progression. Our work is recognised internationally for its translational approach, including epidemiology and genetics, cell and molecular biology, biochemistry, pathology, therapeutic target discovery, biomarker discovery and validation, lung imaging, early proof of pharmacological efficacy and phase I–III clinical trials.

Alcohol and other drugs

Alcohol and other drugs play an integral role in our society today by a complex interaction of biological, psychological, and social mechanisms.

Researchers in this area are working to define and explore the nature of the processes involved in the use and misuse of alcohol and other drugs and is essential in finding solutions to the harms that they have the potential to cause at the cellular, individual and societal level in the 21st century.

Allergic diseases

Researchers in this area investigate genetic and environmental factors and how epigenetic mechanisms play a role in modifying the risk of allergic disease in order to determine how the process may be reversed.

Biomarkers for stratified medicine

Stratified medicine is a major focus of activity in Southampton, engaging wet lab and insilico lab expertise and input from the Institute for Life Sciences (IfLS), Electronic and Computing Science (ECS) and Mathematics.

We have world-class proteomics and lipidomics laboratories, including facilities based in Southampton's Biomedical Research Units, which are applying the latest technologies to identify disease biomarkers.

Bone and joint diseases

The aims of the bone and joint theme are to increase understanding of the mechanisms that connect early development to later risk of osteoporosis and other musculoskeletal disorders and to develop intervention studies aimed at reducing the risk of these diseases of older age through interventions targeted at critical periods of development in early life.

Cardiovascular science

Cardiovascular sciences in Southampton has an international reputation for the use of innovative technologies to identify the processes contributing to cardiovascular (CV) disease and to manage the risk of CV disease development or deterioration across the life-course, from early development in fetal and infant life through adolescence into adulthood.

Regenerating bones to mend fractures

The 'orthopaedic stem cell concentrator' is an awardwinning device which may improve the success of surgery for hard to heal fractures.

The device, developed by scientists from Southampton and Smith & Nephew, in collaboration with clinicians at University Hospital Southampton NHS Foundation Trust, produces concentrated stem cells from a bone marrow sample taken during surgery, which are then reintroduced to the fracture to aid the healing process.

Richard Oreffo, Professor of Musculoskeletal Science and leader of the tissue engineering programme at Southampton, comments: "This invention was developed by a truly collaborative partnership between stem cell biologists, clinicians and engineers. Our work has shown successful development of unique tissue engineering approaches for new bone formation using human skeletal stem cells. Crucially, this work also offers a step change in clinical practice for bone augmentation with creation of 'living bone' composites for orthopaedic application."

The medical device that can isolate stem cells to mend fractures was recognised with a prestigious national prize at the Engineer Technology and Innovation Awards in December, 2010. It won the top Grand Prix and the Medical Technology awards, reflecting the device's impact on combining medical expertise and cutting edge engineering. In time, the device could lead to fewer operations and has the potential to make a significant difference to many people's lives.



"I wanted to join the research team in the Bone and Joint Research Group at Southampton to study the use of synthetic clay and additive manufacture (3D printing) to accelerate fracture healing and bone regeneration. I am collaborating with University College London, and Universities of Auckland

and Otago, New Zealand. I hope that my research will contribute to the introduction of new therapies to treat patients with fractured and broken bones that take a long time to heal, and patients who require bone grafts annually."

David Gibbs MPhil/PhD current student

Cell biology

Much of our biomedical research is underpinned by groups investigating basic mechanisms of cell biology: studying normal cell function allows an understanding of the cellular mechanisms that underlie disease or the cellular response to pathology. The embedded links between Medicine and the Southampton Clinical Research Institute and BioMedical Research Centre encourage collaborative exchange and the rapid translation of findings in basic research.

Epidemiology and cohort studies

The University has a strong tradition of epidemiological research, much of it conducted in the MRC Lifecourse Epidemiology Unit, which hosts a number of cohort studies. Work is structured in the following broad research areas: musculoskeletal ageing, nutrition, development and lifelong health, and work and health.

Epigenetics

Research in epigenetics extends from the basic biology of how these epigenetic processes regulate gene expression to their role in human disease. In particular, research is focused on understanding how aberrant DNA methylation can lead to congenital disorders, and the role of epigenetic processes in the developmental origins of adult diseases.

Ethics and law in medicine and society

This multidisciplinary bioethics research theme explores a range of ethical and legal aspects of developments in medicine and their integration into society. The theme combines research and researchled teaching and provides ethics support to students, health professionals and researchers.

Health inequalities

Inequality, including that driven by disparities in literacy and numeracy, is known to be associated with poorer health. Research in Southampton focuses on offender health, chronic disease in ethnic minorities, health literacy and early life inequalities.

Host tissue defence

Our research on host tissue defence is underpinned by the close proximity of the clinical research base, which facilitates access to samples from normal and diseased tissues. Ethically approved clinical research studies, involving direct interaction with patients or volunteers, are carried out in the Biomedical Research Facility embedded within the University and University Hospital Southampton NHS Foundation Trust.

Reducing the threat of antibiotic resistance

Medical researchers at Southampton have made a significant contribution towards reducing the global threat of antibiotic resistance. Their studies have provided an evidence base for more effective antibiotic prescribing practices in the UK and around the world.

One of the major drivers for rising levels of resistant bacteria is the unnecessary prescription of antibiotics by GPs. In the mid-1990s a research group at Southampton embarked on a series of trials to assess the effectiveness of different antibiotic prescribing strategies. The first trial involved 700 patients with sore throats – one of the most common respiratory illnesses for which people consult their GP.

The research found that prescribing antibiotics for sore throats did not reduce the extent and duration of symptoms. However, the strategies of offering no antibiotics or delayed prescribing significantly reduced patients' belief in the power of antibiotics and their intention to ask their GP for antibiotics in future.

Further trials looking at antibiotic prescription for other infections, such as sinusitis, ear infections, conjunctivitis and lower respiratory tract infections, resulted in similar findings and common key recommendations for GPs – to avoid or delay prescribing antibiotics as part of a national strategy to reduce the risk of antibiotic resistance.

The work has influenced a number of important national clinical guidelines and the implementation of new prescribing strategies. As a direct result of the research, delayed prescribing for all acute respiratory infections is a tool in the everyday practice of GPs in the UK. Southampton's work in this field has also informed guidelines around the world, including in the United States, Israel and throughout the European Union.

Transforming cancer treatment with DNA vaccines

Southampton researchers have developed a pioneering new DNA vaccine that could revolutionise the way cancer – particularly leukaemia – is treated in the future. Leukaemia is a malignant disease of the bone marrow and blood that causes around 220,000 deaths worldwide each year. The new vaccine aims to tackle this disease head on by strengthening a person's immune system against a gene (known as Wilm's Tumour gene 1) that is present in almost all forms of leukaemia.

The DNA vaccine is now being trialled, for the first time in the UK, and over the next two years, a selected group of volunteers with either chronic or acute myeloid leukaemia will receive the vaccine.

The volunteers will be treated in a ground-breaking new way. A technique called electroporation, which was

developed by the US pharmaceutical company Inovio, will be used that delivers controlled, rapid electrical pulses to make cell membranes more permeable or 'leaky' so that they can absorb and retain the vaccine injected into muscle or skin tissue more easily.

Professor Christian Ottensmeier, Director of Southampton's Experimental Cancer Medicine Centre, who co-led the study with researchers from Imperial College London, explains: "We have already demonstrated that this new type of DNA vaccine is safe and can successfully activate the immune systems in patients with cancer of the prostate, bowel and lung. We believe it will prove to be beneficial to patients with acute and chronic myeloid leukaemia."



Human genetics and genomic medicine

We have a strong track record in human genetics and medical genomics at Southampton. There are broad research programmes, including genetic medicine and the study of single gene disorders, the identification of genetic factors in monogenic disorders and common complex disease, the identification of somatically acquired mutations in cancer, and the clinical application of genomic technology for molecular diagnosis and treatment optimisation in cancer.

Immunology

Immunology research in Southampton covers the whole spectrum, from early discovery science, for example new protein structures of immune receptors, to clinical trials in humans, such as the testing of novel vaccine approaches for cancer. The main themes are barrier immunity, interface immunity, and immunotherapeutics.

Inflammation sciences

The central focus is to elucidate the mechanisms involved in the pathogenesis of these disorders, including genetic factors that confer individual susceptibility and environmental influences such as dietary habits.

Integrated physiology

Our integrated physiology approach operates at a number of stages in development, in adult life and ageing. The research takes a multidisciplinary approach, which includes molecular biology, biochemistry, histology, cell biology, ex vivo organ work, whole-animal and human physiology, engineering, imaging and mathematical modelling.

In vivo imaging

In vivo imaging has become a critical component of drug development and medical practice. We use a range of imaging techniques to analyse lungs, eyes and other organs in human volunteers.

Lipid biology

Our research studies the consequences of failure to acquire or maintain cell type-specific membrane lipid compositions, though suboptimal development, disease or inadequate nutrition, on postnatal development of preterm infants, immune cell functions, inflammatory processes and alcoholic and non-alcoholic fatty liver disease.

Medical education research

Our research has a particular focus on widening participation, the learning environment, workplace learning, medical school culture and the student experience, and assessment.

Molecular microbiology

Our research is focused on the study of host-parasite relationships and the interaction, at the molecular level, between infectious agents and their target cells. The research follows several complementary themes: molecular genetics, where the emphasis is on the development of molecular systems for the manipulation of viral and bacterial genomes; the pathogenesis of infectious diseases; and vaccine development/ disease prevention strategies.

Mother, pregnancy and child

Our research relating to this theme brings together researchers whose focus is on early development and its influences on health. It fosters cross-disciplinary work using animal models and human basic, clinical and population studies to increase our understanding of the environmental, behavioural and social factors that affect health before, during and after pregnancy.

Neurodegeneration and repair

Our focus is on the pathology, prevention and repair strategies for damaged neural tissue. Neurodegeneration can be initiated at all stages of life, including before and around the time of birth, in midlife and in old age.

Neurodevelopment and plasticity

This theme embraces the study of clinical and environmental factors that impair brain development and impact on long-term neurological and neurodevelopmental function in children who were born at high risk and/or have suffered adverse events in early childhood. Our multidisciplinary research includes collaborations with Psychology and Engineering and the Environment at the University of Southampton, as well as with other national and international research centres.

Nutrition and metabolism

Our research focuses on the area of diet, nutrition and lifestyle in the contexts of human growth, development, metabolism, function and disease risk, with the objective of identifying novel strategies for improving public health and clinical practice.

Primary care

We are one of only eight primary care research departments forming the NIHR-funded National School for Primary Care Research. A key area and our primary focus is the management of infections in primary care, in particular lower and upper respiratory tract infections, including influenza, and urinary tract infections. We have published extensively in the area and are involved in a number of multicentre UK- and EU-funded projects looking at both diagnosis and management.

Psychiatry and pharmacology

We undertake a broad range of research activity: exploring basic mechanisms in the origin and maintenance of common and disabling mental disorders; investigating the potential effectiveness and acceptability of innovative treatment approaches; and evaluating the effects of pharmacological and psychological treatments and variations in the delivery of mental health services on clinical outcomes.

Stem cells and embryonic development

Medicine is actively engaged in stem cell biology. Our spectrum of stem cell research is broad and ranges from the basic biology of pre-implantation embryos and embryonic stem cells through to tissue-specific fetal, adult and cancer stem cell types. We use an array of multidisciplinary approaches, which combine molecular, biochemical and cellular analyses with mathematical and computational modelling.

Tissue injury and remodelling

Our research on tissue injury and remodelling spans many chronic inflammatory diseases of the lungs, skin, liver, GI tract, kidney and joints. Tissue (wound) repair is an intricate process that occurs after injury but normally resolves, allowing complete restitution of the organ structure and function.

Tissue engineering

Our research encompasses stem cell biology, tissue engineering and mathematical modelling. Research in the group is based on a strong multidisciplinary approach that involves close collaborations with diverse disciplines (Engineering and the Environment, Electronics, Chemistry and Mathematics) in the University and with biomaterials and tissue engineering groups in the UK, as well as international collaborations.

Tumour biology

Our research has a focus on understanding the biology of tumours at the cellular level. Research interests include understanding the fundamental mechanisms of cell biology and how they become perturbed to promote the development of cancer and the translation of this knowledge for the benefit of cancer patients by, for example, bettering our understanding of the mechanisms of action of currently available and experimental anticancer drugs.

Underpinning methodologies

We host three underpinning disciplinary groups that are key to applied health research: Medical Statistics, Qualitative Methods, and Health Economics.

Vaccines and immunotherapy

Further information

Our research on vaccines and immunotherapy designs characterises and translates new therapies into improved clinical practice. The therapies seek to treat diseases spanning oncology, respiratory medicine and allergy, dermatology, gastroenterology, haematology, infectious disease, neurobiology and nutrition. Strong links to clinical immunology in these areas supports our translational goals, leading to improved clinical practice.



Linking the health of mothers with their babies

The Southampton Women's Survey is an internationally unique study that relates the diet, body composition and lifestyle of women before pregnancy to the health of their offspring. Developed and maintained by the University's Medical Research Council (MRC) Lifecourse Epidemiology Unit, it has demonstrated important ways in which we can optimise the well-being of children through interventions made during intrauterine life; for example the maternal supplementation of vitamin D to enhance the bone development of the baby.

The survey interviewed over 12,500 women aged between 20 and 34 to find out about their diet, physical activity, alcohol consumption and other lifestyle factors. More than 3,000 women who later became pregnant were monitored during the pregnancy; ongoing assessment of their children is tracking various indicators including growth, bone development, sleep patterns and lung function.

The researchers hope to gain a better understanding of the development of conditions such as osteoporosis, obesity and allergies. The study will also inform health promotion strategies by finding out more about the factors that affect young women's diet and lifestyle choices.

Early results have already revealed some interesting trends. Among other things the study has shown that the level of vitamin D in the mother's blood during pregnancy is associated with the strength of the baby's bones at birth and during childhood. This has led to a trial of vitamin D supplementation for pregnant women, called MAVIDOS (Maternal Vitamin D Osteoporosis Study). The results of this trial will hopefully be used to inform Government health policy, and to assist women who are planning to become pregnant.

"My research can help identify interventions to support mothers with the poorest quality diets to improve their dietary choices. My PhD research has involved a lot of collaborative work, enabling me to learn new skills by working with experts in this field in UK and Australia. I have also been able to present my research at numerous UK and international conferences."

Christina Black MPhil/PhD current studer

Our academics

As a postgraduate student at Southampton, you will be learning from and working with academics at the forefront of their disciplines. Here are just a few of our academics.

1. Tim Elliott

Professor of Experimental Oncology and Associate Dean (Research)

Professor Tim Elliott's research in molecular immunology is fundamental to our understanding of immunity to cancer and future immunology trials. At Southampton, it fuels research into antigen discovery, T-cell regulation and immunodominance.

Tim is Southampton's Associate Dean responsible for Research in Medicine. He developed our 4-year integrated PhD programme in Biomedical Science and played a key role in developing our Institute for Life Sciences, of which he is Deputy Director.

Tim joined the University of Southampton in 2000. He gained a first in Biochemistry from the University of Oxford in 1983, received a PhD from the University of Southampton in 1986, and completed his postdoctoral training at Massachusetts Institute of Technology. Prior to being appointed to Southampton's Chair of Experimental Oncology, he held a professorship in immunology at the University of Oxford.

2. Nuala McGrath

Reader in Infectious Disease Epidemiology; Wellcome Trust Career Development Fellow

Dr Nuala McGrath's research explores sexual behaviour and relationship dynamics in the era of HIV treatment. Her research also explores how couples' relationships quality influences the health behaviours and health status of couples, as an opportunity for developing couples-based health interventions worldwide.

As a Welcome Trust Career Development Fellow, Nuala was based in South Africa until 2013, before joining us in Southampton.

Nuala gained her PhD in Infectious Disease Epidemiology at Harvard School of Public Health in 2002. She went on to hold positions at the Africa Centre for Health and Population, South Africa; and for the London School of Hygiene and Tropical Medicine.

3. Mark Hanson

Professor of Cardiovascular Science

Professor Mark Hanson's research concerns several aspects of development and health, ranging from how the environment during our development (before and

after birth) can affect the risk of chronic diseases, to population studies aimed at the early identification of risk, so that timely preventative intervention can be made. His Unit works on these problems in both developed and developing countries in many parts of the world.

Mark is the founding Director of the Institute of Developmental Sciences at the University of Southampton, Director of the Academic Unit of Human Development and Health in the University's Faculty of Medicine and British Heart Foundation Professor of Cardiovascular Science. Mark has pioneered a hospital research lab based education programme for adolescents, LifeLab in Southampton. This aims to promote health and science literacy in students, giving them hands-on experience of current research tools and engaging them with biomedical science.

4. Richard Oreffo Professor of Muscoloskeletal Science

Professor Richard Oreffo holds the chair of Musculoskeletal Science and is co-founder of the Centre for Human Development, Stem Cells and Regeneration at Southampton. Richard is internationally recognized for his work on skeletal biology and mechanisms involved in skeletal stem cell differentiation.

His research focuses on understanding bone development, bone regeneration and the role of fetal programming as a consequence of maternal nutritional challenges on bone function with age. Richard manages a significant research grant portfolio, has published over 200 papers, including breakthrough publications on skeletal stem cells in *Nature Materials, ASC Nano, Stem Cells, Small* and holds 5 patents.

5. Donna Davies

Professor of Respiratory Cell and Molecular Biology

Professor Donna Davies' research is focused on chronic lung diseases such as asthma. She has pioneered the use of in vitro models allowing the use of methodologies that could not be used ethically in vivo. Donna is involved in a series of cross-disciplinary research activities that have the potential to bring new technologies into the healthcare environment. Donna was awarded a Personal Chair in Respiratory Cell and Molecular Biology in 2004. She gained a first class degree in Biochemistry from the University of Wales and completed her PhD in microbial biochemistry in 1979. Having undertaken her post-doctoral studies at the University of Oxford , she joined us at Southampton in 1985. She is co-founder of Southampton's spin-out company, Synairgen.

6. Avan Aihie Sayer

Professor of Geriatric Medicine

Professor Avan Aihie Sayer is a geriatrician and epidemiologist whose aim is to improve the health and healthcare of older people through high quality interdisciplinary research with translation into clinical practice, innovative service development and appropriate evidence for policy. She is the Principal Investigator of an MRC programme grant on sarcopenia, frailty and clinical practice in older people that focuses on the lifecourse epidemiology of skeletal muscle particularly as it relates to the major geriatric syndromes of sarcopenia, frailty and falls. The group includes a flourishing NIHR funded academic geriatric medicine training programme.







Further information

To find out more about our academics visit www.southampton.ac.uk/medicine/research/ staff.page





Research programmes

Covering a wide range of research topics in basic science and translational medicine our programmes combine physical and life sciences, giving you opportunities to cross the boundaries of traditional disciplines.

Led by internationally renowned figures in the field, our vibrant research community provides a dynamic environment with over 500 academic and clinical research staff and more than 250 postgraduate research students. We work on innovative research projects with an impressive track record in translating basic discovery science into clinical practice. Our research students are an integral and vital part of the research community in Medicine.

Programme structure

We offer three research degree programmes with a variety of full- and part-time options; MPhil/PhD, DM/PhD and an Integrated PhD programme.

All programmes commence with a period of induction and a training programme designed specifically for biomedical scientists. In your first year you will complete two progress reports, for which a literature review will be prepared as a background to your project. Through these reports you will also plan your investigation and discuss progress made so far. A transfer thesis is submitted at approximately 18 months into your project and a formal transfer viva voce examination held. The examiners will assess whether your project has sufficient scope and originality to contribute to the advancement of knowledge in your research field and whether you, as a research student, have the necessary skills, knowledge and commitment to achieve success at PhD level. A PhD culminates in the submission of a final thesis and formal viva voce examination during which you will defend your research to internal and external examiners.

Learn alongside world experts

Our research programmes are supervised by our expert team of highly experienced research staff, who are all at the forefront of their research disciplines and clinical practice. You will be supervised by a small team of academics who will be experts in your field of study. Your supervisory team will provide a supportive and instructive environment whilst challenging your thinking and learning to enable you to achieve success in your research. Alongside the guidance from your supervisory team, you will also complete a training programme designed

to provide you with the basic knowledge and practical skills necessary to commence higher degree research. Sessions include ethics, critical appraisal, time management and good laboratory practice. A comprehensive programme of research skills and statistical training using a range of software packages is also included.

Communicating your research

Presenting your research and engaging in academic discussion with other researchers is key to the continual development of new ideas. The Faculty provides many opportunities for postgraduate research students to join the debate. Each Academic Unit runs a seminar series in which students are encouraged to contribute their research discoveries. The Life Sciences Postgraduate Society organise Journal Clubs and presentations from external speakers. The Faculty organises an annual Research Conference in which students are invited to prepare poster presentations and the University participates in the Three Minute Thesis 3MT[®] competition. We also encourage our students to attend national and international conferences and are able to provide some funding to help with attendance.

Graduate School

The Graduate School supports postgraduate research students within the Faculty from pre-application enquiries to the final award of your degree and graduation. In partnership with your supervisory team, the Graduate School is responsible for monitoring your progress and providing administrative support and guidance at all points along the journey of your research degree. We recognise the diverse needs of our students and provide a focused approach to supporting you as an individual. We pride ourselves on our excellent completion rates and timely thesis submission. The Graduate School also provides you with a rich environment for study by organising the induction and training programme, skills workshops, the Faculty Research Conference and networking opportunities.

"I think that inter-disciplinary/inter-faculty collaboration is a major strength in Southampton, and the multi-disciplinary nature of my research means that being in Southampton has afforded me research opportunities which wouldn't be available elsewhere."

Matt Loxham IPhD Alumni 2014

MPhil/PhD

If you are enthusiastic about developing your career in scientific or clinical research, you should consider our MPhil/PhD programme. Full- and part-time study opportunities are available in a wide range of specialist areas, from biomedicine to research in clinical environments and population-based statistical studies.

You will undertake laboratory-based research at our modern facilities at Southampton General Hospital or community-based projects in a variety of settings. Settings may include general practice, hospitals, community and outpatient clinics, and patients' homes.

Assessment

Reports, thesis and viva voce examination.

Programme structure

You will be registered initially for an MPhil/PhD and will submit a transfer thesis and have a transfer viva voce examination around the mid-point of your project. Depending on your performance you will transfer to full PhD registration.

During your project, you will normally be supervised by a small team of academics who are experts in your field of study. Your academic work will be supplemented by comprehensive training in research skills, statistics, critical appraisal and laboratory techniques. In addition, you will receive training in transferable skills such as communication, presentation skills and academic writing.

Application procedure

University online application form and degree transcripts, references and research proposal; please contact prospective supervisor to discuss your application before completing the form; selected applicants will be interviewed.

Key information

Programme Director: Dr Ashley Pringle

Start date: usually October and February; however, students can start throughout the year

Closing date: none

Programme duration: MPhil: one to four years (full-time), two to seven years (part-time); PhD: two to four years (full-time), three to seven years (part-time)

Entry requirements: upper second-class degree or equivalent; other qualifications may be accepted

Language requirements: Equivalent to IELTS 7.0 overall with a minimum of 6.0 in each language component.

The University accepts a range of Secure English Language Tests. For further information see: www.southampton.ac.uk/studentadmin/admissions/ admissionspolicies/language

Fees: www.southampton.ac.uk/pgfeesandfunding

Funding: research councils, NIHR, UK-based charities, UK government departments, University studentships, industrial and commercial organisations, overseas governments and institutions

Career destinations: Postdoctoral/academic positions worldwide; major pharmaceutical companies; industrial and commercial organisations; government departments and research institutes; UK NHS research and development, new entrepreneurial companies; scientific funding agencies



Tim Hinks MPhil/PhD Alumni 2013 Southampton is one of the best places in the UK to research respiratory medicine. It has a global reputation for translational respiratory research and the unique NIHR Wellcome Trust Clinical Research Facility.

I studied preclinical medicine at Cambridge, and then moved to Oxford as a clinical student. Having spent three years as a junior doctor, I took some time out combining part-time work for a charity (Christian Medical Fellowship) with the chance to conduct research into the responses of white blood cells to tuberculosis. In my PhD research, I took my interest in T cells into asthma, using bronchoscopy to study these cells directly in the airways of people.

I have been able to study a group of people with asthma in more immunological detail than ever before, and through this to identify some new subtypes of asthma. My work points to what might be driving asthma symptoms in these people.

Following on from my PhD, I have been appointed as a Clinical Lecturer to work half my time in research whilst completing my clinical training in the other half. I am writing up papers and applying for the next grant, which I hope will put me on the path to becoming an independent clinical academic.

Integrated PhD Biomedical Science

Our four-year Integrated PhD programme has been designed to produce the next generation of leaders in biomedical research and reflects some of the major research strengths of the University. The programme provides broad training in the intellectual and practical basis of scientific research as well as a focused individual research experience.

The combination of a choice of laboratory rotations and a three-year project offers an enhanced student experience to prepare you for a career in scientific research.

There are three pathways within the degree:

- Cell Biology and Immunology of Cancer
- Immunity and Infection
- Stem Cell Science

Assessment

Year one: reports, assignments and presentations.

You will receive an intermediate award of MRes after successful completion of the first year.

Years two to four: reports, thesis and viva voce

Programme structure

In year one you will complete three taught modules in Research Skills for Biomedical Science, Cell Biology and a specialist module in your pathway discipline. In addition, you will choose three short laboratory rotation projects. You will spend 10 weeks working in a laboratory, with two more weeks to complete writing up your findings. Through the laboratory rotations you will learn diverse practical skills in a range of areas. The rotations will also provide you with an opportunity to work within our research groups at the cutting edge of research in your chosen specialism.

After successful completion of year one you will be awarded an MRes and will progress onto the MPhil/PhD programme.

Years two to four comprise an in-depth research project in the subject area of your choice, which will draw upon experience gained in year one. You will submit a transfer thesis and have a transfer viva voce examination around the mid-point of your project. Depending on your performance you will transfer to full PhD registration.

During your research project, you will normally be supervised by a small team of academics who are experts in your field of study. Your academic work will be supplemented by training in transferable skills such as communication, presentation skills and academic writing.

Pathway options

Cell Biology and Immunology of Cancer

Research themes include basic and translational immunology, immunotherapy and DNA vaccines, as well as the molecular and genetic study of cancer to understand mechanisms of disease proliferation, invasion and cell death.

Immunity and Infection

This pathway has been designed to unravel the fundamental mechanisms of disease, to develop better diagnostic markers and discover more effective therapies for human infectious disease and diseases affecting the lungs, joints, skin, liver, pancreas, gut and the urogenital tract.

Stem Cell Science

Research themes include stem cells, human development and regenerative medicine. On this pathway you will gain a deep understanding of translational stem cell biology, and critically, learn to communicate effectively with biologists, clinicians, bioengineers and physical scientists through exposure to the life sciences interface.

Application procedure

University online application form and degree transcripts, references and research proposal; please contact prospective supervisor to discuss your application before completing the form; selected applicants will be interviewed.

Key information

Programme Director: Professor Tim Elliott	
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Deputy Programme Director: Dr Jane Collins

Start date: October

Closing date for applications: Refer to Faculty of Medicine website

Programme duration: Four years. MRes: one year (full-time); MPhil/PhD: three years (full-time)

Entry requirements: upper second-class degree or equivalent; other qualifications may be accepted

Language requirements: Equivalent to IELTS 7.0 overall with a minimum of 6.0 in each language component.

The University accepts a range of Secure English Language Tests. For further information see: www.southampton.ac.uk/studentadmin/admissions/ admissionspolicies/language

Fees: www.southampton.ac.uk/pgfeesandfunding

Funding: research councils, NIHR, UK-based charities, UK government departments, University studentships, industrial and commercial organisations, overseas governments and institutions

Career destinations: Postdoctoral/academic positions worldwide; major pharmaceutical companies; industrial and commercial organisations; government departments and research institutes; UK NHS research and development, new entrepreneurial companies; scientific funding agencies



Matt Loxham IPhD Alumni 2014 I studied for my undergraduate degree in Pharmacology at the University of Sheffield.

My decision to apply to Southampton to undertake asthma and airways research was due to its excellent reputation in the field, and also to the great two-way communication I experienced with staff at Southampton when I was finding out about what it has to offer.

My research considers the effect of particulate matter (i.e. dust) in the air in underground railway systems, and the effects that this dust might have on the lining of peoples' airways. There is considerable evidence that particulate air pollution is damaging to health, and can cause increased death rates, mainly by affecting the respiratory and cardiovascular systems.

A research paper on which I was first author received international media attention for suggesting small dust particles in underground railways may be more toxic than previously suggested. I was interviewed for the programme 'Health Check' broadcast on BBC World Service and the story was printed by a number of news agencies.

I am planning to stay in Southampton for the time being, to further the work I did over the course of my PhD.

DM/PhD

If you have a clinical background and hold a medical qualification recognised by the UK General Medical Council (GMC), you may apply for a part-time DM/PhD degree.

You will undertake a research project while employed in appropriate scientific or clinical work in a hospital or institution associated with Medicine at Southampton. You will receive the same provision as MPhil/PhD students with regard to supervision, training and progress monitoring.

Assessment

Reports, thesis and viva voce examination

Programme structure

You will undertake a part-time research project whilst employed in local hospitals and other institutions associated with Medicine at Southampton and submit for the DM via a written thesis and viva voce examination.

By registering for a DM/PhD you will also have the opportunity to transfer to PhD subject to satisfactory progress following submission of a transfer thesis and undergoing a transfer viva voce examination.

During your project, you will normally be supervised by a small team of academics and clinicians who are experts in your field of study. Your academic work will be supplemented by comprehensive training in research skills, statistics, critical appraisal and laboratory techniques. In addition, you will receive training in transferable skills such as communication, presentation skills and academic writing.

Application procedure

University online application form and degree transcripts, references and research proposal; please contact prospective supervisor to discuss your application before completing the form; selected applicants will be interviewed.

Key information

Programme Director: Dr Ashley Pringle
Start date: throughout the year
Closing date: none
Programme duration: two to four years (part-time)

Entry requirements: upper second-class degree or equivalent; other qualifications may be accepted. Medical qualification recognised by the GMC; you must be employed in appropriate scientific or clinical work in a hospital or institution associated with Medicine at Southampton

Language requirements: Equivalent to IELTS 7.0 overall with a minimum of 6.0 in each language component.

The University accepts a range of Secure English Language Tests. For further information see: www.southampton.ac.uk/studentadmin/admissions/ admissionspolicies/language/

Fees: www.southampton.ac.uk/pgfeesandfunding

Funding: research councils, NIHR, UK-based charities, UK government departments, University studentships, industrial and commercial organisations, overseas governments and institutions

Career destinations: Clinical research and clinical academic positions in the UK and worldwide; major pharmaceutical companies; industrial and commercial organisations; government departments and research institutes; UK NHS research and development, new entrepreneurial companies; scientific funding agencies



James Smith DM Alumni 2013 My Doctoral (DM) research used in vitro, as well as small and large animal in vivo models to look at ways of addressing a major current clinical orthopaedic problem – the requirements to treat people who have lost sections of their bone, either through trauma, infection, following tumours or in the context of revision joint replacements. I studied several techniques to augment skeletal formation using patients' own bone marrow stem cells.

My project involved a lot of lab work and I spent a lot of time with patients in the wards and operating theatres at University Hospital Southampton, working with Consultant Orthopaedic surgeons to collect bone marrow samples to use in the projects. I collaborated on various aspects of my project with other Universities and with research units from Industry.

My work has contributed to the understanding of the interaction of stem cells with various materials used in orthopaedics, and has led to further refinements in strategies to accelerate bone healing and to replace bone in the context of skeletal tissue loss. My research has been published in over 10 papers and three book chapters.

Learning environment

We have a spirit of research that is firmly embedded in our culture, which helps to set us apart from other universities. It is this environment that makes studying here a unique and exciting experience.

Libraries

Our facilities are among the best in the country. The Hartley Library on the Highfield Campus is one of the leading research libraries in the UK. Facilities include a state-of-the-art learning centre, with consultation rooms, 'walk in' internet access, a language study area with computers linked to software for a range of languages, a café and a study lounge. The Health Sciences Library is based within Southampton General Hospital and serves the University and NHS communities. The library holds the main collection of clinical medicine material for the University. It supports teaching and research in the Faculties of Medicine and Health Sciences. The stock is complementary to that of the Hartley Library at the University's main Highfield Campus.

"It's fantastic as a clinician to be able to walk down the corridor from an asthma clinic straight into a dedicated research ward equipped with everything I could need as a scientist, including two purpose build research bronchoscopy rooms and just upstairs a state-of-the-art flow cytometry suite."

Tim Hinks MPhil/PhD, Alumni 2013

Research centres and facilities

With a reputation for linking fundamental research with real-world applications, Southampton is home to cutting-edge research centres that consistently break new ground.

Across the University our research centres have strong links with business, industry and government. For example, our National Oceanography Centre Southampton provides large-scale infrastructure and support for the entire UK marine research community while collaborating with the oil, gas and communications industries. Our Optoelectronics Research Centre focuses on photonics research and the centre has played a major role in developing the optical telecommunications technology that underpins the internet.

Within Medicine all of our research centres focus on tackling some of today's largest challenges facing medicine and public health on a global scale. In Cancer Sciences we are proud to be an Experimental Cancer Medicine Centre, bringing scientists, clinicians and patients together to develop new cancer therapies. Our Centre for Human Development, Stem Cells and Regeneration is at the forefront of developments in understanding stem cell behaviour and bioengineering and tissue regeneration. Our acclaimed researchers are also working with the World Health Organisation, the United Nations and other international government organisations to reduce the burden of non-communicable disease in both developed and developing countries.

Other facilities include the Biomedical Imaging Unit, which provides research facilities and diagnostic services in high quality and high resolution light and electron microscopy. We also have a Clinical Trials Unit, which provides expertise in the design, conduct and analysis of clinical trials and is invaluable to investigators running interventional and multicentre studies.

Researchers cannot be constrained by the boundaries that separate traditional subject areas. Therefore our innovative approach to research enables our postgraduate students to work effectively across disciplines, creating excellent opportunities for professional development. Southampton also has four Doctoral Training Centres (DTCs) that help our students develop the skills they need to address some of society's biggest problems. Wherever possible, we aim to bring researchers together across disciplines, allowing exciting new connections and developments to be made.

Cancer Research UK Centre

Brings together scientists, doctors and nurses using the latest research advances to improve treatment for cancer patients both regionally and nationally. The Centre is focused upon its research strengths in Immunotherapy, Cell Biology, Medical Oncology, Surgery and Cancer Genetics.

MRC Lifecourse Epidemiology Unit

Provides a centre of excellence which uses epidemiological methods to promote human health emphasising three broad research themes: musculoskeletal ageing, cardiovascular disease and the metabolic syndrome and work-related illnesses.

Southampton Centre for Biomedical Research (SCBR)

SCBR lies at the core of our clinical and biomedical research partnership with University Hospital Southampton NHS Foundation Trust. The Centre coordinates the people and resources of our major clinical research facilities, units and centres which are supported by funding from the National Institute for Health Research (NIHR). These include: the Respiratory Biomedical Research Unit; the Biomedical Research Centre in Nutrition and the Translational Immunology Laboratories.

Institute for Life Sciences

Represents a university-wide collaboration which acts as a catalyst for interdisciplinary research and training. Membership of the IfLS represents all eight of the University's faculties. The research pillars underpinning the IfLS are Bioengineering, Biomedicine and Bioscience.

Further information

To find out more about our research centres and facilities, visit: www.southampton.ac.uk/medicine/ research/facilities.page

Planning your career

"The DM degree is well recognized as a rigorous programme, and apart from the qualification itself, the process of doing the course and the contacts and collaborations made during the programme, lead to many more opportunities that will be useful in my career and make it more likely that I will get a good consultant job!"

James Smith DM, Alumni 2013 As well as pushing the boundaries of knowledge in your chosen field, at Southampton you will have the opportunities to develop the attributes that are vital for success in today's global employment market.

Record of success

We will provide you with an extensive support network, both during and after University. Whatever career path you decide to follow, you will gain a wealth of skills and experience from Southampton. Our postgraduates have a reputation for excellence and an impressive record of success in entering a wide range of global organisations such as Accenture, NASA and research and teaching posts at universities across the world.

Postgraduate study also makes good sense financially: Research conducted by the Higher Education Statistics Agency, for its Destinations of Leavers from Higher Education survey, showed that six months after graduating, average postgraduate salaries in the UK were \pounds 5,500 to \pounds 7,500 higher than for those with a first degree alone.

Enhancing your career

At Career Destinations, the University's dedicated careers service, we offer a range of services including web resources for career development, careers advice, skills workshops and mock interviews.

During your postgraduate degree we will also help you gain the transferable skills – such as independent thinking, problem solving and teamwork – that employers really value. You can also get involved in our student entrepreneurial society that had a winning team in the national Students in Free Enterprise (SIFE) competition in 2011. The Southampton team also represented the UK at the SIFE World Cup in Malaysia in October 2011.

In addition, Career Destinations offer a number of workshops to Faculty of Medicine postgraduate research students on topics such as employment outside academia, winning CVs and applications, succeeding at interview and networking skills.

Transferable Skills Programme

The Faculty organises a series of workshops and seminars throughout the academic year offering postgraduate research students the opportunity to join with postdoctoral research staff and clinical academic trainees to learn and develop a range of transferable skills and to increase awareness of potential career pathways inside and outside of academia. A broad range of subjects are covered including academic writing, project management, winning fellowships, maximising research relationships and interview skills. The programme is delivered by a number of external facilitators and provides a valuable opportunity for researchers to network across the Faculty.

Working with business

The Faculty work in partnership with a number of Pharma, Biotech and Healthcare companies to turn research into clinical excellence. Our recent "From Bench To Clinic" conference addressed some of the most pressing questions in translation biomedical science.

We are committed to ensuring employability for our postgraduates through engagement with prospective employers and we offer a number of CASE studentships every year. CASE studentships provide an opportunity for students to gain high-quality research training in collaboration with industry. The student is jointly supervised by the University and an industrial partner. Many companies use these partnerships as an effective and highly-focused recruitment tool. We have tremendous success with both MRC and BBSRC industrial CASE awards.

Details of current MPhil/PhD CASE Studentships are advertised on the Faculty of Medicine website. www.southampton.ac.uk/medicine/postgraduate/ research_degrees/studentships.page

Further information

To find out more about Career Destinations, visit **www.southampton.ac.uk/careers**

Student life

The University of Southampton's six campuses all offer a friendly, vibrant and diverse atmosphere for work and leisure.

Campuses

Our main Highfield Campus, in the north of Southampton, is home to the Students' Union, the Jubilee Sports Centre, the Hartley Library, a 330-seat Uniplex cinema and three leading arts venues: The Nuffield Theatre, the Turner Sims concert hall and the John Hansard Gallery.

A few minutes' walk from Highfield is Avenue Campus, which houses most disciplines within Humanities, and the Centre for Language Study. It has a library, lecture theatres, focused study spaces and catering amenities.

Three miles west of Highfield is Southampton General Hospital, one of the country's leading teaching hospitals and the base for Medicine. The campus offers modern laboratories, computer suites, refurbished lecture theatres, catering facilities and a specialist health services library.

Located on the city's waterfront, the National Oceanography Centre Southampton is one of the world's leading research centres for the study of ocean and Earth sciences. The campus has its own fitness suite, sports hall and catering facilities.

Winchester School of Art is located 12 miles north of Southampton, in Winchester city centre. The campus provides purpose designed studios and workshops, an extensive specialist library, Students' Union facilities, a café and a well-stocked art supplies shop.

Our branch campus for engineering is in EduCity, Iskandar in Malaysia and benefits from innovative world-class facilities for engineering and full access to the learning resources at our UK campuses. It offers postgraduate students the opportunity to study in a safe international environment.

Social life

The Faculty of Medicine has a thriving postgraduate community. The Life Sciences Postgraduate Society (LSPS) exists to provide opportunities for postgraduate students from Medicine, Biological Sciences, Health Sciences and Psychology to network at a variety of academic and social events throughout the year. Run entirely by students for students, LSPS organise regular Journal Clubs and presentations from external speakers, as well as numerous social occasions in and around Southampton.

As a postgraduate student you will automatically become a member of Southampton University's Students' Union (SUSU), one of the largest in the UK. Postgraduate students also enjoy full access to the Staff Social Centre facilities. The Students' Union provides a range of places to eat great food, hear top bands, see the latest films and get information and advice. The Jubilee Sports Centre houses a 25m swimming pool, badminton and squash courts and a fitness studio. Our outdoor facilities include eight tennis courts, two floodlit synthetic turf pitches and a number of grass pitches. We also offer a wide range of water sports to cater for everyone, from beginners to elite athletes.

You can also take part in a whole host of clubs and societies, from snowboarding and mountain biking to photography and philosophy. Whatever your interests, SUSU organises a diverse range of events and activities to keep you entertained. Our societies range from the cultural and course-related, to the international, sporting and political.

Accommodation

We have accommodation specifically for postgraduates, from standard packages to self-catered studio flats. We also have a limited number of properties suitable for couples and families. If you are a UK or EU student, we welcome your application for a place in halls, which we allocate subject to availability. If we are unable to offer you a place in halls, we can give you help and advice on securing private rented accommodation.

Southampton and Winchester have large private rented markets with a plentiful supply of flats and houses to share. Many of our postgraduate research students rent properties in the local area. The University of Southampton is a core partner in the Southampton Accreditation Scheme for Student Housing (SASSH), which only advertises properties where the landlord agrees their property complies with SASSH safety and quality standards.

The Residences Team organise Private Rented Open Days in late August/early September every year in Southampton and Winchester to help new students find private rented accommodation. Attending one of these events is a great way to meet other students who are also seeking accommodation, as well as receive expert advice on how to go about finding a house.

International Students

If you are a new, unaccompanied non-EU international postgraduate student paying international tuition fees, you are guaranteed a room in halls for two years in total: your first year of study plus one other year. Your second year in halls doesn't have to be your second year of study – you may choose to live in halls again in your third or subsequent year. For your first year in halls, you will need to apply by 1 August in the calendar year in which your studies begin.





Southampton and region

Southampton is a thriving modern city, steeped in history and culture. Just over an hour south of London, Southampton has excellent transport links with the rest of the UK.

A lively city

Close to the city centre, the University forms an integral part of this dynamic, multicultural city. Our location offers 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 south of England's top shopping centres. The University is next to Southampton Common, a protected Site of Special Scientific Interest with extensive areas of public open space and managed woodland.

Whether you fancy a lunch with friends or dancing into the small hours, Southampton has the right venue. From intimate lounge bars and roof terraces to Leisure World, which houses a casino, bowling alley, several restaurants and bars, a 13-screen cinema and two nightclubs, there is something for everyone. Historic Oxford Street is home to Southampton's finest restaurants, but wherever you are in the city you will be spoiled for choice, with restaurants offering a wide variety of cuisines from across the globe and catering for every budget. In the city centre you will also find West Quay, one of the south coast's top shopping centres. Whatever your musical tastes there are great venues in Southampton for live music. The Joiners, for example, is known for up-and-coming bands – Coldplay, Oasis and Radiohead all played there before they were famous. The Guildhall is a multipurpose venue that stages jazz and rock as well as a range of contemporary and classical music.

Southampton's thriving port handles in excess of 42 million tonnes of cargo annually. It is the cruise industry capital of northern Europe and is engaged in sustained and continued city centre development that continually strives to improve its already enviable facilities.

A connected city

Just over an hour from central London, 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, with direct trains to London Waterloo and within easy reach of the Eurostar at St Pancras International. Southampton Airport offers regular flights to UK and major European destinations. Our own award-winning uni-*link* bus service connects all Southampton campuses and halls of residence, the city centre, the airport and both railway stations.

Less than half an hour from Southampton is the New Forest National Park, with vast open heathland and beautiful forest. The resorts of Bournemouth and Poole are just down the coast, while a short ferry ride takes you to the Isle of Wight, which hosts Cowes Week, the largest and most prestigious international sailing regatta in the world.

A historic city

Southampton has a fascinating history. It was from here in 1415 that Henry V set sail for Agincourt. The Pilgrim Fathers first set sail from here in 1620 on their historic journey to the New World, and the ill-fated *Titanic* sailed from Southampton in 1912.

Southampton has a rich aviation heritage, with the Spitfire, the fighter aircraft that won the Battle of Britain, developed in the region in the 1930s. As well as an area of outstanding natural beauty, the New Forest has a fascinating history. Created in 1079 by William the Conqueror as an area for hunting deer, it became an important source of timber for the Royal Navy. Today the forest retains many historical rural practices, such as pasturing of ponies, cattle, pigs and donkeys in the open forest by local inhabitants, known historically as the 'commoners'.

A modern city

Today, Southampton has one of the biggest commercial ports in Europe, and the city is known across the world as the home of the giant cruise liners, *Queen Mary 2* and *Queen Victoria*. Its coastal location means that Southampton offers a vast range of opportunities for sport and leisure, with waterfront marinas and a major focus on water sports, sailing and ocean racing. The city hosts the largest on-water boat show in Europe – the annual Southampton Boat Show.

Winchester

The historic city of Winchester – England's ancient capital – is just 12 miles north of Southampton, and is home to the University's internationally renowned Winchester School of Art. Popular for its bustling shopping streets and spectacular architecture, Winchester is perhaps best known for its 11th century cathedral and the Great Hall, which houses the mysterious Round Table of King Arthur. The city's rich cultural heritage is complemented by a lively atmosphere and a wide variety of pubs and restaurants, museums, theatres and galleries.

Applying and funding

You will need funding confirmation before registering as a postgraduate student. Contact our admissions office for information about awards from research councils and other sponsors that may be currently available.

General entry requirements

To apply for postgraduate study you must satisfy our general entry requirements and any specific requirements of your chosen programme. As well as academic qualifications and practical experience, we look for evidence of your interest in the course and an understanding of the rigorous demands of postgraduate study.

How to apply

Applications for research and taught programmes are made using our online application form.

Most programmes also have additional application requirements and some have specific application deadlines related to teaching timetables and funding opportunities. These are set out online at www.southampton.ac.uk/pgapply

Admissions policy

1. The University of Southampton will:

- recruit students from a wide range of backgrounds, who we believe have the potential to complete their programmes successfully and make a valuable contribution to university life
- attract applicants who enjoy the challenge of forward thinking, the excitement of research findings in their programmes and the high standards of learning and teaching we set ourselves
- foster a diverse learning community in which our students will meet people from different cultures, thereby enhancing their skills of critical reasoning, teamwork and communication, and thus preparing them for successful participation in their chosen careers and roles
- 2. The University is committed to a system of admissions that ensures fairness, transparency and equal opportunities within the legal framework of the UK and best practice. All reasonable effort will be made to ensure that no prospective or existing student is unreasonably treated less favourably on the grounds of age, race, colour, nationality, ethnic origin, creed, disability, sexual orientation, gender, marital or parental/carer status, political belief or social or economic class, or any other type of discrimination.

Tuition fees and funding

The University offers help and advice on funding for prospective postgraduate students. You will need to pay annual tuition fees to the University for your programme of study. These vary according to the type of programme you choose. Fees charged for full-time, non-EU international students include the full cost of tuition, examinations, Students' Union membership and research support expenses, where applicable.

Course sponsorship is available for some masters and doctoral programmes and funding is also available from external funding bodies and scholarship programmes. Information on bursaries or scholarships to students from certain countries, or those studying certain subjects is available at www.southampton.ac.uk/intscholarships

We receive high levels of funding from external bodies specifically for postgraduate researchers. We also offer a wide variety of postgraduate scholarships and bursaries across the University for UK/EU and international students. Further information is available from our postgraduate admissions office.

Faculty of Medicine studentships and applications

The Faculty of Medicine offers many studentship opportunities throughout the year. The majority of these studentships are funded by Research Councils and charitable trusts. We also offer collaborative studentships obtained by our leading academics through their relationships with industry Details of current PhD, Integrated PhD and DM studentships are advertised on the Faculty of Medicine website,see www.southampton.ac.uk/medicine/postgraduate/ research_degrees/studentships.page

Studentships are also advertised on the University job opportunities web page, see www.southampton.ac.uk/jobopps

We also welcome applications from students who are self-funding or are sponsored by a third party eg. an employer or overseas government. The Faculty website has full details of the areas of our research interests and contact details of key academics in these fields. Our academics always welcome enquiries from prospective students, so please contact them to discuss your research ideas and identify a suitable supervisor before making an application.

All enquiries relating to admission to MPhil/PhD, Integrated PhD and DM/PhD Research Programmes at the Faculty of Medicine should be directed to the Graduate School.

Contact us

Graduate School Tel: +44 (0)23 8120 6685 Email: PGRapply.FM@soton.ac.uk www.southampton.ac.uk/medicine/postgraduate/ graduate_school.page

International postgraduates

The University has a thriving international community. Each year we welcome over 3,000 EU and international students from more than 130 countries.

International Office

Staff from our International Office attend educational exhibitions around the world as well as making numerous visits overseas and to colleges in the UK. Face-to-face contact is the best way of getting to know the University, so if you are unable to visit us in Southampton, make sure that you book an appointment to meet us at one of the exhibitions. For full details of locations and timings of our overseas visits, please contact the International Office. We provide advice and information to anyone who is considering applying to Southampton. Our aim is to make the process of joining the University as simple as possible. Visit our website, which has information available in many languages, for an introduction to the University.

Welcoming our international students

Before leaving home and arriving in the UK, there are a number of things you should do to prepare for university life. These include having the right documentation, filling in forms and registering for various services and programmes. Make sure you read our information for international students on our website, or contact the International Office for advice.

Welcome Programme

We encourage all new students to register for our free Welcome Programme. This is designed to help you settle into life at the University and in the UK (for international and EU students) before your studies begin. It takes place in September each year and includes talks such as "a guide to banking in the UK", "English language & study skills support", "British culture" and many more.

Meet and Greet Service

We organise a free Meet and Greet service for all new international and European students in September each year. Our representatives meet you at Heathrow or Gatwick Airport and transport you directly to your accommodation.



Sylvia Pender Reader in Mucosal Immunology, International Student Advisor and Associate Director International

Sylvia is our International Student Advisor and Associate Director

International. In these roles she provides pastoral support, induction and organises social gatherings for all Medical Postgraduate and Undergraduate students. She received a Vice Chancellor's award in 2010 for promoting internationalization in the University and a Global Partnership Award in 2013 to enhance international research collaborations. For more information, please visit www.southampton.ac.uk/international/welcome

Split-site PhD

It is possible to arrange split-site PhDs in some of our academic units. This involves spending a minimum of 12 months in the UK and the remaining time in your home country.

Visas

Before you come to study in the UK, it is essential that you find out about the UK's immigration procedures and how they will affect you. Our website provides information on student visas, police registration, working in the UK and links to other useful websites. www.southampton.ac.uk/visas

English language requirements

If English is not your first language, you will need to demonstrate that you have reached a satisfactory standard in a Secure English Language Test. The Faculty of Medicine require an IELTS level of 7.0 overall with a minimum of 6.0 in each language component. A Secure English Language Test is only valid for two years from the date of issue and any test used to gain admission to the University must be valid at the start of the programme being applied to. A list of all recognised tests, the required overall score and minimum component scores can be found at: www.southampton.ac.uk/studentadmin/ admissions/admissionspolicies/language

If you need to improve your English language skills, you can apply to attend a pre-sessional English Language course. At the end of this course you must achieve an English Language competency equivalent to IELTS 7.0 in order to gain admission to our degree programmes. Continuation onto a postgraduate research degree programme is not automatically guaranteed simply by attending a pre-sessional course. Further information about pre-sessional courses can be found at www.southampton.ac.uk/cls

Faculty Support

The Graduate School runs English Language classes for students for whom English is not a first language. Our tutor is provided by the University's Centre for Language Study and visits Southampton General Hospital every week. Tutorial sessions are tailored to the needs of the students in the group and are placed within the context of scientific research with activities including writing abstracts and reports and making presentations. The Students' Union Advice Centre also provides international postgraduate students with cultural and personal support.

Contact us

International Office Tel: +44 (0)23 8059 9699 Email: global@southampton.ac.uk www.southampton.ac.uk/international

How to get here

By road

Southampton M3 - exit M3 at junction 14, following signs for Southampton (A33). Follow the A33 into Bassett Avenue and follow map/signs to University campuses. Follow the A34 into Bassett Avenue and follow map/signs to University campuses.

M27 (west or east) – leave M27 at junction 5 (Southampton Airport) and follow map/signs to University campuses.

Winchester M3 – exit M3 at junction 9 or 10.

By rail

Fast trains from London and Bournemouth/Weymouth stop at Winchester, Southampton Central and Southampton Airport Parkway. Trains from Portsmouth and Bristol/ South Wales stop at Southampton Central. The uni-*link* U1 bus service runs between Southampton Central and Southampton Airport Parkway via the University.

By coach

Southampton coach station is at Western Esplanade, in the city centre. uni-*link* U1 buses connect the University's Southampton campuses and the city centre.

By air

Southampton Airport is about 20 minutes from the Southampton campuses by bus or taxi. There is a full UK domestic service, as well as flights to mainland Europe and the Channel Islands.



Relevant web links are shown throughout this brochure. Please also consult **www.southampton.ac.uk/medicine** online for further details and/or any changes which have appeared since first publication of *Initiate Innovate Translate Postgraduate Research* or phone +44 (0)23 8120 6685 for more information.

Disclaimer

The University of Southampton will use all reasonable efforts to deliver advertised programmes and other services and facilities in accordance with the descriptions set out in its prospectuses, student handbooks, welcome guides and website. It will provide students with the tuition, learning support, services and facilities so described with reasonable care and skill.

The University, therefore, reserves the right if it considers it to be necessary to alter the timetable, location, content or method of delivery of events provided such alterations are reasonable.

Financial or other losses

The University will not be held liable for any direct or indirect financial or other losses or damage arising from changes made to the event timetable, location, content or method of delivery of various services and facilities set out herein.

Force majeure

The University will not be held liable for any loss, damage or expense resulting from any delay, variation or failure in the provision of services and facilities set out herein, arising from circumstances beyond the University's reasonable control, including (but not limited to) war or threat of war, riot, civil strife, terrorist activity, industrial dispute, natural or nuclear disaster, adverse weather conditions, interruption in power supplies or other services for any reason, fire, boycott and telecommunications failure.

In the event that such circumstances beyond the reasonable control of the University arise, it will use all reasonable endeavours to minimise disruption as far as it is practical to do so.

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This information can be made available, on request, in alternative formats such as electronic, large print, Braille or audio tape, and in some cases, other languages. Please call +44 (0)23 8059 7726 to request an alternative format.