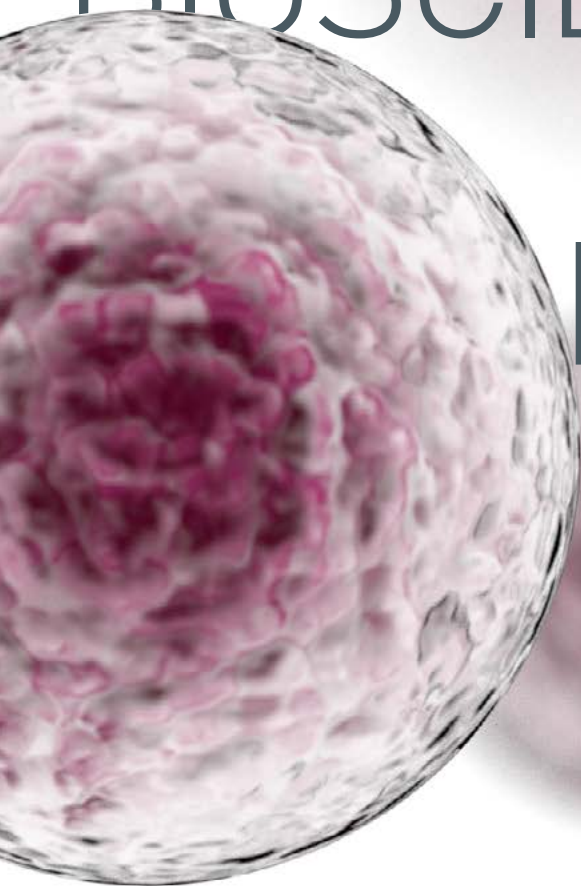


UNIVERSITY OF  
**Southampton**

# CREATING BIOSCIENTISTS OF THE FUTURE



**BIOLOGICAL SCIENCES**  
POSTGRADUATE COURSES 2020

FOUNDING  
MEMBER OF THE  
**RUSSELL  
GROUP**

# RESEARCH EXCELLENCE

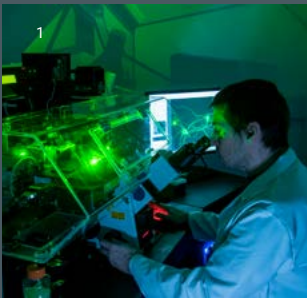
Our world-leading research focusses on addressing today's key challenges, from global warming to life-threatening infections.

Working in collaborations with different disciplines and with other universities, private industry and the public sector, we see science as a means to achieve real-life benefits.

Based in the purpose-built, multimillion pound Life Sciences Building, we offer a firm foundation of academic excellence enabling us to support and inspire the bioscientists of the future.

We have research expertise in:


- Computational and Systems Biology
- Developmental Biology
- Ecology and Evolution
- Microbiology
- Molecular and cellular biosciences
- Neuroscience
- Plant and food security



Helping develop new treatments for breast cancer



Understanding how embryo development, and the ability to sense and respond to the quality of maternal nutrition, has implications in later life



Pioneering new insights into tackling chronic bacterial infections in conditions such as cystic fibrosis



Designing more effective drugs to combat diseases such as malaria



- 1 World-class imaging and microscopy
- 2 Offering a unique hands-on experience
- 3 Interdisciplinary and stimulating research projects
- 4 Plant growth facility

# POSTGRADUATE OPPORTUNITIES

## Key facts

Unless otherwise stated

### Entry requirements:

a UK bachelors degree with upper-second-class honours or higher in biological sciences or closely related discipline. See international equivalent qualifications [www.southampton.ac.uk/pg/entry](http://www.southampton.ac.uk/pg/entry)

### English language:

band 1C, IELTS 6.5 overall, with a minimum of 5.5 in all components. For more information visit [www.southampton.ac.uk/pg/el](http://www.southampton.ac.uk/pg/el)

**Assessment:** Coursework, examinations and research projects. See course page for details.

**Start date:** September - MRes please refer to course webpages.

**Applying:** University online application form with transcripts and personal statement

**Closing date:** four weeks before programme starts

### Fees and funding:

scholarships and bursaries are available for some of our programmes. Visit [www.southampton.ac.uk/pg/fees](http://www.southampton.ac.uk/pg/fees) for programme-specific details

Our cutting-edge facilities and team of world-class academics offer a dynamic and supportive environment for students completing biological sciences PhDs and Masters courses.

Southampton biological sciences has a leading international reputation for its research across a broad range of biological disciplines. The search for answers to the fundamental problems of human health and environmental changes is especially important.

We offer a range of postgraduate opportunities which will allow you to expand your knowledge and develop skills that are key to a successful career. MRes students are based in our Life Sciences building or at Southampton General Hospital, one of the country's leading teaching hospitals. We are recognised for our world-class facilities including the Centre for Proteomic Research, plant growth facility, Macromolecular Crystallisation Facility and Interdisciplinary Centre for NMR.

## MSc Neuroscience

**Programme Director:**  
**Dr James Dillon**

Our course will allow you to advance your knowledge of brain function and dysfunction, and gain experience in various cutting-edge experimental neuroscience techniques.

You will undertake a research-based project within our internationally renowned research labs, and participate in interactive and experimental workshops. Also included in the fee is an opportunity to attend a national or international neuroscience conference.

This course is ideal for those wishing to pursue a career in neuroscience or work in the neuro-pharmaceutical industry.

## MRes in Advanced Biological Sciences

**Programme Director:**  
**Dr Lorraine Williams**

Our flexible one-year masters course is tailored to your particular interests, and a stepping stone to further study at PhD level or a gateway to many careers in industry.

Our programme offers you the opportunity to develop your scientific knowledge and enhance your skills in research, presentations and scientific communication. In addition to the wide range of modules to choose from, you will undertake an in-depth research project supervised by a leading academic in your specialism.

Focussed research areas include: Biodiversity, Ecology and Ecosystem Services; Biotechnology; Developmental Biology; Microbiology; Neuroscience; Molecular and Cellular Biosciences; Plant Biology and Zoology.



## Find out more:

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

Or to have specific questions answered:

**T:** +44 (0)23 8059 9699

**E:** [enquiry@southampton.ac.uk](mailto:enquiry@southampton.ac.uk)

# POSTGRADUATE OPPORTUNITIES

## **MRes Wildlife Conservation**

### **Programme Director:**

**Dr Judith Lock**

This course is run collaboratively with conservation organisation Marwell Wildlife. You will undertake an 8-month individual research project which is part of Marwell's wider ongoing research in the UK and abroad and has real-life conservation implications. Based at Marwell, the taught component of the programme is mainly composed of a large module delivered by conservation biologists working at the zoo. The programme also includes a field trip to Kenya. Our aim is to train individuals with the skills, experience and knowledge required of a 21st century biologist.

## **MRes Evolution: From Galapagos to the 21st Century**

### **Programme Director:**

**Dr Neil Gostling**

Our exciting and dynamic multidisciplinary programme demonstrates the importance of evolution across all areas of life in the 21st century. You will have the opportunity to study everything from palaeontology and global change, to the engineering and the emergence of disease, and more whilst working with academics and researchers from across the University to better understand evolutionary processes.



“I chose to study at Southampton because the course was perfectly tailored to me: I had studied biomedical sciences as my undergraduate, but I was looking to specify my studies. This masters degree was both all-encompassing on the course content, whilst also delving into advanced concepts that I had not come across before. There is also a much stronger emphasis on applying this knowledge into a research context, with all MSc students being fully integrated into established lab groups.”

**Jonathan Masters**

MSc Neuroscience, 2019

# PHD OPPORTUNITIES

## Key facts

Unless otherwise stated

**Entry requirements:** an upper-second-class honours or higher in biological sciences or closely related discipline and a Master of Science in a relevant subject. See international equivalent qualifications [www.southampton.ac.uk/pg/entry](http://www.southampton.ac.uk/pg/entry)

**English language:** band 1C; IELTS 6.5 overall, with a minimum of 5.5 in all components. For more information visit [www.southampton.ac.uk/pg/el](http://www.southampton.ac.uk/pg/el)

**Start date:** usually October, but possible throughout the year for PhD and DM

**Applying:** University online application form, degree transcripts, references and interview

**Closing date:** studentship deadlines may vary

**Fees and funding:** studentships may be available for some projects via UK Research and Innovation, University and industrial partner funding. Visit [www.southampton.ac.uk/pg/fees](http://www.southampton.ac.uk/pg/fees)  
We also welcome self-funded applicants

PhD opportunities exist in line with our seven research themes: Computational and Systems Biology, Developmental Biology Ecology and Evolution, Microbiology, Molecular and Cellular Bioscience, Neuroscience, Plants and Food Security.

Our vibrant graduate school offers an excellent and supportive environment for PhD study. We provide an integrated series of training modules to help you develop your professional and personal skills, as well as your scientific expertise. You will carry out a stimulating project in one of our major research themes and your research work will be closely supervised and supported to help you reach your full potential.

We are based in the Life Sciences Building, or at Southampton General Hospital, one of the country's leading teaching hospitals. Our mission is to educate tomorrow's biological scientists in an environment at the forefront of research and theory. We are proud of our strong track record of supporting postgraduate research students in this exciting, dynamic and rapidly developing subject area. You will gain a good grounding in vital subjects such as bioethics, lecture presentation, securing scientific funding and report writing, and can take advantage of networking opportunities at UK and overseas conferences and seminars.

## Research Themes

### Computational and Systems Biology

- combines large scale molecular approaches with bioinformatics and computational biology to address biological questions.

### Developmental Biology

- focuses on the basic processes in reproductive and developmental biology as well as the mechanisms underpinning the developmental origins of health and disease.

### Ecology and Evolution

- addresses current and future issues of global significance, investigating the adaptation to changing environments, the sustainable use of natural resources, food and water security, human health, and biodiversity conservation.

### Microbiology

- focuses on the impact on environmental, agri-food and clinical settings of physiology, antimicrobial resistance, development, evolution, genetics and molecular ecology of biofilms, microbiome communities and infectious prions.

### Molecular and Cellular Biosciences

- investigates the fundamental basic biological processes that underpin human health and disease.

### Neuroscience

- aims to understand how the brain works in health and disease by addressing fundamental issues relevant to national and global priorities of health and well-being, underpinning research in the area of basic neuroscience through to age-related neurodegenerative diseases.

### Plants and Food Security

- brings together staff in a range of disciplines to address the global challenge of providing sufficient, nutritious food to a world undergoing rapid population growth and climate change. The Plants and Food Security group focuses on the response of plants to the environment at the molecular, whole plant and ecological levels, including interactions with nematodes, insects and microbes.



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# GLOBAL IMPACT

Southampton's world-leading research makes it one of the best places in the UK to study Biological Sciences.

- 100 per cent of Biological Sciences research has been rated world leading or internationally excellent for its impact on society (REF 2014)
- We are a founding member of the Russell Group, an organisation of 24 major research-intensive universities in the UK, with a strong history of translating research into real-world impacts
- Our collaborations with major global companies such as Lilly, Vitacress and Bayer Animal Health will give you the edge in today's global careers market
- We attract leading academics from across the globe

Our researchers are at the cutting-edge of knowledge and working on solutions to some of today's toughest challenges. While much of our research begins with concepts at a fundamental level, we are passionate about using the findings to make a real impact on the world around us.

Our REF success demonstrates that our research has an impact on society and industry and is making a significant contribution to the global understanding of our planet.

## WE ARE:



Discovering structures and dynamic properties of proteins and nucleic acids with importance in health and disease

Aiming to protect against memory and behaviour changes in Alzheimer's by regulating inflammation in the brain



Influencing world policy by looking at how best to manage forest/agriculture interfaces across the world

Highlighting the importance of vertebrate pollinators in our eco-system to protect specific species from declining further

## HOW DO I APPLY?

Before applying for postgraduate taught study, you should:

- check you meet the entry requirements
- if applicable, ensure that you meet any special requirements for international students
- identify how you will fund your postgraduate study
- obtain supporting documentation to include as part of your application

## APPLY NOW

Apply to Southampton for postgraduate degrees and for more information on PhD opportunities

 **Find out more:**  
[www.southampton.ac.uk/pg](http://www.southampton.ac.uk/pg)

# CHOOSE SOUTHAMPTON



**Top 100**

global university\*



**Top 20**

UK university\*\*



**Top 10**

in the UK for  
research intensity\*\*\*



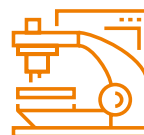
**100%**

of Biological Sciences  
research rated world  
leading or internationally  
excellent\*\*\*



Our students benefit  
from our purpose built

**Life Sciences Building**



Cutting-edge facilities  
including the Centre for  
Proteomic Research, the  
Imaging and Microscopy  
Centre, Invertebrate Facility,  
Plant Growth Facility and  
the Tissue Culture Facility

\*QS World University Rankings, 2019 \*\* Complete University Guide, 2020 \*\*\* Latest REF, 2014

“The research facilities in Biological Sciences are fantastic. The glasshouse and environmental control rooms (ECRs) are vital to my research within the plants and food security theme, where I am using gene editing techniques in crops to investigate micronutrient nutrition.”

**Kate Henbest**

Second year PhD student, MRes  
Advanced Biological Sciences graduate.





## Find out more:

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

UK enquiries:

[enquiry@southampton.ac.uk](mailto:enquiry@southampton.ac.uk)

+44 (0)23 8059 9699

International and EU enquiries:

[international@southampton.ac.uk](mailto:international@southampton.ac.uk)

+44 (0)23 8059 9699



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