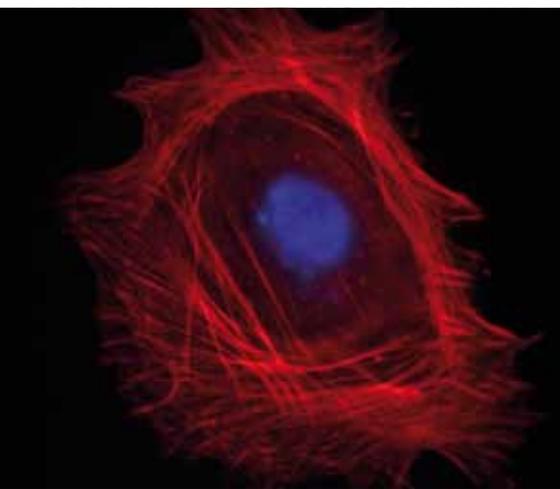


Postgraduate Opportunities Animal Biosciences



THE UNIVERSITY
of EDINBURGH

MSc



Masters in Animal Biosciences

This year-long programme aims to provide students with a sound knowledge of the theory and practice of animal biosciences, as well as practical experience in the techniques required to perform studies on small and large animals, making it an ideal preparation for careers in the biomedical, pharmaceutical, livestock and animal health industries requiring in vivo animal experimentation or for a postgraduate research degree in any area of animal bioscience.

The key learning outcomes from the programme are:

- A sound knowledge of mammalian anatomy, physiology and pathology, including basic histology/histopathology methods and molecular and visualisation techniques
- Hands-on training in skills required for working with small and large animals
- A basic knowledge of relevant non-mammalian species of economic importance, including birds, fish and model organisms
- A knowledge of mammalian genetics, genomics and informatics and their applications in biomedical research and livestock improvement
- An understanding of the principles governing scientific experimentation and the ability to design and carry out a research project
- An appreciation of the Health and Safety aspects of handling animals and animal carcasses, molecular techniques and genetic modification and a thorough understanding of the relevant law
- An understanding of the ethics of using animals for research studies and a commitment to the principles of 3R (Replacement, Refinement, Reduction) in animal research
- An appreciation of the various techniques in the animal sciences and the range of research projects they can be applied to
- An ability to work independently on an animal science research project

The Roslin Institute

The Roslin Institute is a world-leading animal sciences research institute and occupies a new research building on the beautiful Easter Bush campus near the Pentland Hills south of Edinburgh. The University of Edinburgh and the Roslin Institute have a long tradition of partnership in the animal sciences, and the Institute has been a part of the University, incorporated with the Royal (Dick) School of Veterinary Studies, since 2008. The Institute has five research divisions: Genetics and Genomics, Developmental Biology, Infection and Immunity, Neuropathogenesis and Clinical Veterinary Medicine.

Edinburgh – A Tradition of Excellence

The University of Edinburgh is one of the largest universities in the UK, and one of the most cosmopolitan, welcoming over 8,500 postgraduate taught and research students, from more than 130 countries across the globe. The scale and international diversity of our postgraduate community enriches each student's experience.

The College of Medicine and Veterinary Medicine

The Roslin Institute is part of the University's College of Medicine and Veterinary Medicine - one of the oldest centres for medical and veterinary medical research in the United Kingdom, yet one of the most dynamic and progressive. The College has a long-held international reputation for excellence in medical and veterinary medical research and teaching, ranking top in the UK's 2008 Research Assessment Exercise for both clinical medicine and clinical veterinary medicine.

Programme Design

There are two main strands to the programme:

- in-depth study of the knowledge and techniques required for studies in animal sciences;
- design and execution of a research project in a field of animal science.

On the basis that a sound knowledge of gross mammalian anatomy and histology is essential for studies involving live animals, a core component of the course is the dissection of the animal bodies; the quality of the dissections and understanding of the structures will be assessed.

You will also receive extensive practical experience in molecular and visualisation technologies.

Lecture and seminar based courses complement the practical components to give an understanding of the background to the techniques, the ethical issues involved in using animals and some experience of non-mammalian systems. Students are also required to complete a research project. This will be a practical/laboratory based project under the direction of a member of the academic staff of the Roslin Institute.

How you will be taught

Teaching is focussed on practical experience, complemented by lectures, seminars and tutorials. The practical component of the course is self-directed under the guidance of the teaching team, with regular lectures to supplement the practical work. Progress is regularly monitored by members of the teaching team and laboratory note books are assessed. The analytical course is computer based with regular assessment items submitted on-line.

There are guest lectures by experts in their specific field included in the lecture component.

Topics for the research project will be based on current research projects at the Roslin Institute and will be chosen to ensure that students experience a diverse range of techniques in a real research environment. Students will liaise with research staff at the Institute to develop their research proposal and final research project.

Entry requirements

This programme is suitable for graduates with a 2.1 degree or equivalent in a relevant subject area such as biological and biomedical science, pharmacology, medicine or veterinary science. Good-quality graduates from other disciplines will be considered if they can demonstrate interest and ability to study in the field. For further details on international equivalents to UK entry requirements, please visit www.ed.ac.uk/studying/international/country

Funding

Further information on funding can be found at www.ed.ac.uk. Full or partial scholarships may be available (on a competitive basis). For further details contact roslin.mscstudies@roslin.ed.ac.uk

How to apply

You can apply online at www.ed.ac.uk. Informal approaches are welcome at any time. If you wish to discuss the programme or would like further information please email roslin.mscstudies@roslin.ed.ac.uk.