



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

Veterinary Medicine and Science
Anatomy - Teaching and Research

www.nottingham.ac.uk/vet/

School of Veterinary Medicine and Science

Nottingham Vet School is the first brand new, purpose-built veterinary school in the UK for 50 years. It is our intention to make significant and leading contributions to both veterinary research and teaching within the context of potential future application of important outcomes to the wider veterinary profession. Research is central to the activities of the School, both in terms of maintaining ourselves at the forefront of national and international efforts in veterinary science but also as an integral part of the training and education for undergraduate and postgraduate students. We have 45 clinical academic staff, 35 non-clinical academic staff members, and a very large team of administrative staff involved in areas such as teaching, learning and assessment, placements, finance and business, research and teaching technicians, admissions and secretarial assistance. We also have a number of staff who are involved in teaching facilitation, guest lecturers and professors, visiting academics and ten clinical associate practices to support our 566 undergraduate students.



Anatomy Teaching

Curriculum

Our undergraduate veterinary course brings students into contact with animals and clinical case scenarios from the first day of the course. Our curriculum is organised into systems-based modules, which means that anatomy and histology is integrated into nearly every module.

Furthermore, the students study large (livestock), small (companion) and exotic animals within each module. Many modules equally allow the students an opportunity to study comparative human anatomy.

Topographical anatomy and **integrated clinical anatomy** are integrated into our curriculum. Practical sessions include animal examination techniques and palpation, histology, diagnostic techniques and lab analysis and pathology. For example, when learning about the hind limb, students will investigate gross anatomy in practical sessions, view histological sections using either real or virtual microscopes, understand how to take and read radiographs/CT scans, use topographical anatomical skills to understand how and where to inject a needle for a joint aspiration procedure, and learn how to palpate the hind limb. In addition, we use a number of other teaching and learning techniques to facilitate and reinforce their practically-acquired knowledge such as signposting lectures, small group teaching, self-directed study, facilitated clinical case studies alongside traditional extra mural placements and clinical rotations. This enables us to teach anatomy in a clinically relevant manner.



Blood vessel corrosion cast of a fetal sheep kidney at d65 gestation



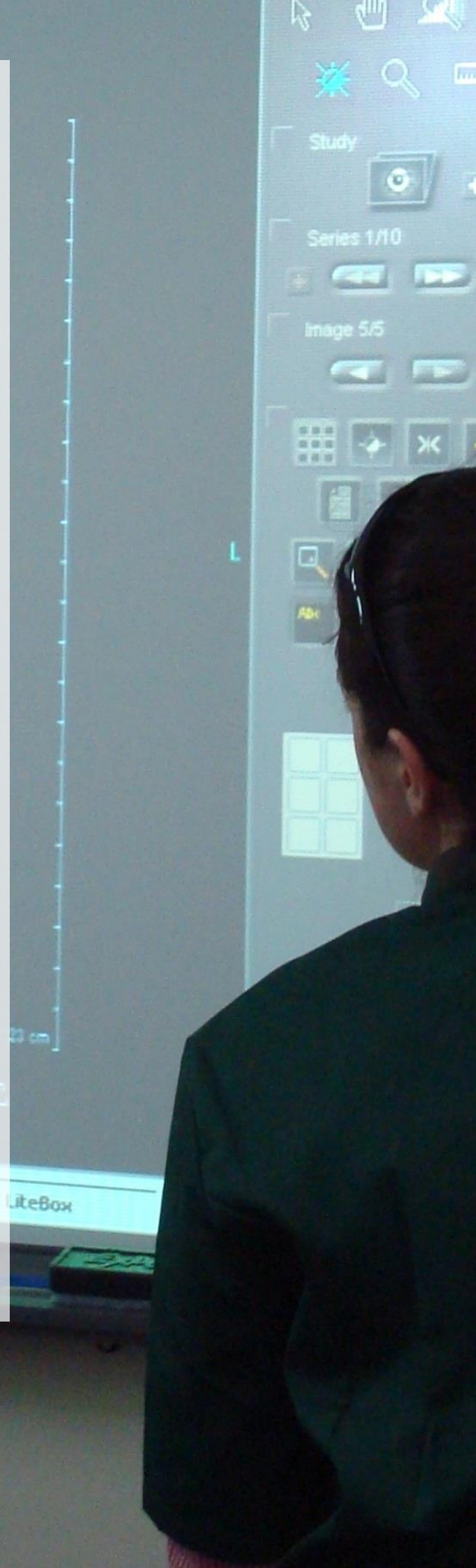
Anatomy Teaching

Facilities and teaching methods

Our anatomy teaching technical team manage the purpose built dissection lab, cadaver surgery, post mortem facilities and plastination suite within the school. We benefit from having visualisers which enable us to demonstrate skills, record procedures and live link to our associate practices. The team are also responsible for the veterinary museum, which offers 24 hour access to skeletal and plastinated specimens, pots, models, poster and a catalogue of radiographic images accompanied by case histories. The anatomy team are responsible for the production and maintenance of prosected, plastinated, osteological and potted specimens, and for the set up and support of anatomy, histology and pathology sessions. For topographical and histological/pathology sessions, we have a large clinical skills laboratory, a clinical practical suite, teaching laboratories including microscope facilities for every student, and an x-ray room.

Students studying in years 1 – 4 all have at least 7 hours a week allocated to practical teaching, which ensures a very busy anatomical teaching schedule. Both preserved and fresh material is used in a variety of applications, including traditional dissection, the demonstration of prosections and practising clinical techniques. Each student has a laptop for the duration of their degree, which enables us to use technology, with the assurance that all students can access the data. Therefore we have developed an online virtual museum, a large variety of videos, online teaching tools, lpads in the teaching rooms and virtual microscope slides. Each student also has access to small group teaching rooms which hold a variety of books and aids for learning, for personal and group learning and revision.

In addition to lecturers/professors who specialise in anatomy, a large number of other academics are involved in teaching anatomy including clinicians, pathologists and scientists. This ensures a fully integrated approach to teaching and learning anatomy. The Vet School also run Continued Professional Development courses, out-reach and widening participation sessions and open days. Our facilities also enable us to hold a number of national and international teaching and research conferences throughout the year.





Anatomy Research

Nottingham is a research-led University, and prides itself on the research reputation and culture of its component Schools. Research is central to the activities of the School, both in terms of maintaining itself at the forefront of national and international efforts in the field of veterinary medicine and science, but also as an integral part of the training and education for undergraduates and postgraduates. In the last Research Assessment Exercise (2008), the School of Veterinary Medicine and Science joint submission with the School of Biosciences was ranked first in the country for the power of its research with 95% of its activities classified at an international standard.

The School of Veterinary Medicine and Science provides a diverse, vibrant and stimulating environment for research and sees its research activity as an important component of its success. The School undertakes research on many key aspects of companion animals and livestock health and production. This research utilizes a diverse range of scientific disciplines including pathology, anatomy, histology, molecular biology, biochemistry, immunology, microbiology, physiology and bioinformatics. In addition to the veterinary and scientific research, the school also values research into pedagogy, which includes anatomical teaching and learning.

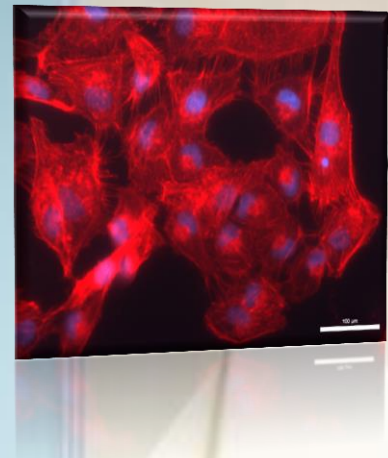
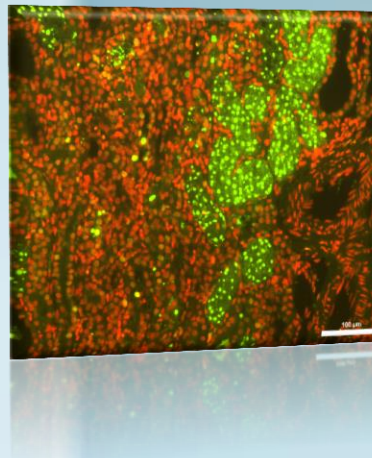
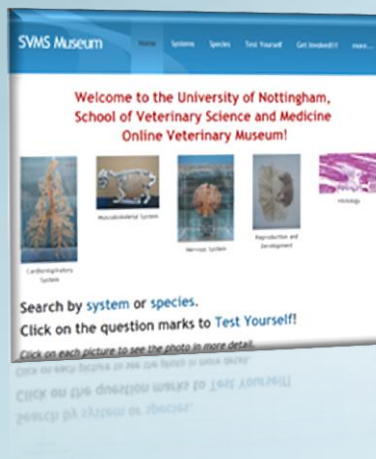
Research Themes

The academic staff within the School work within 6 strategic research areas: Infection and Immunity; Population Health and Welfare; Comparative Medicine; Reproductive Biology, Clinical Research and Veterinary Educational Research. The involvement of our clinical associates and other organisations within our research programs enables the identification of clinical problems in the field and the rapid application of investigational science to these problems in both production and companion animal species.

Anatomical and histological research tends to centre around the 'Comparative Medicine' and 'Reproductive Biology' themes. Frequently the techniques employed combine anatomical and histological based techniques, with proteomics, genetics, bioinformatics and epigenetics. The research technical team manage and run the research laboratory suites within the Vet School, where most of the anatomical and histological research takes place. The undergraduate students carry out research projects in their third year to achieve their Bachelor of Veterinary Medical Sciences (BVMedSci) degree, before completing their Bachelor of Veterinary Medicine (BVM) and Bachelor of Veterinary Surgery (BVS) degrees in the fifth year. Many students enjoy undertaking anatomy/histology based research under the guidance of the academic supervisors and technicians. In addition, the research technical team support pathologists and prepare specimens for teaching.

PhD Students and Post-doctoral Researchers

Presently we have 119 post graduate students and clinical interns and a large number of post-doctoral and research associate staff, MPhil/MSc students, visiting fellows and summer students. These numbers are expanding and our post graduate admissions team and tutors work alongside supervisors to provide a comprehensive training programme. The Vet School has several PhD 'demonstratorship' funded students who are released from research for 200 hours per year to gain teaching experience, whilst also ensuring that the post-graduate student receives extra time to carry out their research. We encourage all of our PhD students and post-doctoral researchers to take up anatomy demonstrating, especially in areas linked to their own research.



Further information

For more information about Nottingham Vet School teaching and research, please visit:

<http://www.nottingham.ac.uk/vet/index.aspx>

For general enquiries, please contact the school as follows:

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e: veterinary-enquiries@nottingham.ac.uk

For undergraduate admissions enquiries including prospectus requests:

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e: veterinary-enquiries@nottingham.ac.uk

For postgraduate enquiries, please contact the school as follows:

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e: postgrad-vet@nottingham.ac.uk

If you have any questions regarding anatomy teaching or research:

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