Full time 4 year PhD

The Animal Health Trust is a leading veterinary research institute and registered Charity with the prime purpose of promoting the cause of animal welfare through veterinary research, together with advanced clinical and educational commitment. It is internationally recognised as a centre of scientific excellence for veterinary research. Located on a beautiful green site location just four miles from Newmarket, our state of the art laboratories offer a challenging and rewarding environment in which to work.

We are currently seeking a PhD student for a BBSRC-doctoral training partnership funded project run in collaboration with the University of Cambridge. The project “Understanding the genetic basis of fracture risk in horses” will be carried out in the Stem Cell Research group under the supervision of Dr Debbie Guest (AHT) and Dr Fran Henson (University of Cambridge, Department of Veterinary Medicine).

In racehorses, fracture due to bone overloading is the most common cause of euthanasia on the racecourse. Previous work at the AHT demonstrated that there is a genetic association with fracture risk. We have established robust protocols to derive induced pluripotent stem cells (iPSCs) from horses at high and low genetic risk of fracture and to differentiate them into bone forming osteoblasts.

In this PhD the student will use the iPSC disease model along with techniques such as RNA sequencing and genome editing to determine the biological mechanisms which affect fracture risk.

This studentship provides a breadth of professional development and training opportunities and involves the completion of two rotation projects in different departments and a 3 month professional internship.

UK and EEA students* who have, or are expecting to attain, at least an upper second class honours degree (or equivalent) in relevant biological subjects, are invited to apply.

For further information about the project please contact Dr. Debbie Guest, email: debbie.guest@aht.org.uk or telephone: +44 1638 751000 ex.1283.

To apply for this position please visit https://bbsrcdtp.lifesci.cam.ac.uk/available-studentships

Closing date: 7th December 2018
Interviews to be held: January 2019
Start date: 1st October 2019

*UK nationals/home students will receive a fully funded studentship covering fees and maintenance, European students will receive a fees only studentship but can also apply to be considered in the University of Cambridge funding competitions.