

A PhD Studentship is available at Royal Veterinary College (RVC), University of London

Project title: Comparative approaches to genomic and transcriptomic characterisation of Duchenne Muscular Dystrophy

Project description:

Duchenne muscular dystrophy (DMD) is a lethal, X-linked, neuromuscular disorder characterised by progressive degeneration of striated muscle, leading to loss of ambulation, respiratory and cardiac failure and death. There are various treatments in use or under development, but there is still no cure. The disease is caused by mutations in the DMD gene that result in a near complete absence of dystrophin (a protein required for normal muscle function) in skeletal and cardiac muscle. Although major progress in defining the pathogenesis has been made, research on understanding the genetic factors contributing to disease severity is at an early stage. In particular, differences in onset and disease progression in different muscles and among individuals suggest that genetic modifiers play a key role.

Taking advantage of the simpler genetic architecture of dogs, and with access to muscle tissues and DNA from affected and control animals, the successful candidate will perform integrated research on DMD, including genome-wide association studies, whole genome sequencing analysis and transcriptomic (RNAseq) profiling in conjunction with pre-existing, extensive and comprehensive longitudinal phenotypic data. The student will learn cutting-edge genetic and bioinformatic technologies and relevant wet lab techniques to identify the underlying genetic and molecular mechanisms that contribute to modifying the DMD phenotype in this novel model, and potentially, their correction via gene therapy or gene editing.

Our findings will facilitate the identification of phenotypic, genomic and molecular biomarkers for DMD providing the means for novel drug discovery.

The deadline for applications is **12th September** .

More details can be found, and online applications for this post can be submitted via:

<https://www.findaphd.com/search/ProjectDetails.aspx?PJID=87148&LID=2168>



[Genomic and transcriptomic characterisation of Duchenne ...](#)

www.findaphd.com

PhD Project - Genomic and transcriptomic characterisation of Duchenne Muscular Dystrophy in a canine model at University of London, listed on FindAPhD.com

<http://www.rvc.ac.uk/study/postgraduate/phd/studentships/genomic-and-transcriptomic-characterisation-of-duchenne-muscular-dystrophy-in-a-canine-model>

[Comparative approaches to genomic and transcriptomic characterisation of Duchenne Muscular Dystrophy - PhD - Postgraduate - Study - Royal Veterinary College, RVC](#)

www.rvc.ac.uk

RVC PhD supervised by Dr Androniki Psifidi
