

## PhD studentship (Full-time)



Institution	Xi'an Jiaotong-Liverpool University, China
School	School of science
Supervisors	Principal supervisor: Professor Chris Gwenin (XJTLU) Co-supervisor: Professor Jeong Park (XJTLU) Co-supervisor: Professor Neil Berry (UoL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	The Development of an Acidosis biosensor
Contact	Please email <a href="mailto:Christopher.gwenin@xjtlu.edu.cn">Christopher.gwenin@xjtlu.edu.cn</a> (XJTLU principal supervisor's email address) with a subject line of the PhD project title.  The principal supervisor's profile is linked here: <a href="https://gwenin.com/">https://gwenin.com/</a>

### **Requirements:**

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in chemistry or biology  
Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 7 or above, if the first language is not English. This position is open to all qualified candidates irrespective of nationality.

### **Degree:**

The student will be awarded a PhD degree from the University of Liverpool (UK) upon successful completion of the program.

### **Funding:**

The PhD studentship is available for three years subject to satisfactory progress by the student. The award covers tuition fees for three years (currently equivalent to RMB 80,000 per annum). It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. The scholarship holder is expected to carry out the major part of his or her research at XJTLU in Suzhou, China. However, he or she is eligible for a research study visit to the University of Liverpool up to six months, if this is required by the project.

### **Project Description:**

Hingut Acidosis is a common and ever-present danger to the equine population, with the potential to develop into debilitating and potentially life-threatening diseases. The detection of lactate producing bacteria (LAB), which are the sole contributors to Hingut Acidosis, is essential for an early diagnosis and possible prevention of such diseases. This project will develop a highly sensitive yet simple method for LAB detection utilising capture probe hybridisation in conjunction with Electrochemical Impedance Spectroscopy. Capture probes designed specifically to compliment a chosen DNA sequence will be able to bind specifically to the target DNA, the ensemble will produce a rapid low-cost test for Hingut Acidosis which offers immense potential in this veterinary market.

Currently, no clinical tests are available for the diagnosis of hindgut acidosis. In essence this project proposes a method of detection which aims to diagnose acute acidosis before lactate levels increase and induce symptoms associated.

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU), please visit

<https://www.xjtlu.edu.cn/en/admissions/global/entry-requirements/>

<https://www.xjtlu.edu.cn/en/admissions/global/fees-and-scholarship>

### **How to Apply:**

Interested applicants are advised to email Christopher.gwenin@xjtlu.edu.cn (XJTLU principal supervisor's email address) the following documents for initial review and assessment (please put the project title in the subject line).

- CV
- Two formal reference letters
- Personal statement outlining your interest in the position
- Certificates of English language qualifications (IELTS or equivalent)
- Full academic transcripts in both Chinese and English (for international students, only the English version is required)
- Verified certificates of education qualifications in both Chinese and English (for international students, only the English version is required)
- PDF copy of Master Degree dissertation (or an equivalent writing sample) and examiners reports available