

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of Science
Supervisors	Principal supervisor: Assistant Professor/Dr. Xinzhao Tong (XJTLU) Co-supervisor: Professor/Prof. Jia Meng (XJTLU) Co-supervisor: Senior Lecturer/Dr. Neil Blake (UoL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Metagenomic investigations into the temporal dynamics, transmission potential, and antimicrobial resistance of pathogenic microorganisms in an ICU environment
Contact	Please email xinzhao.tong@xjtlu.edu.cn (XJTLU principal supervisor's email address) with a subject line of the PhD project title

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in **Biological Sciences, Bioinformatics, Microbiology, Molecular Biology, Environmental Sciences, or Biostatistics**.

Evidence of good spoken and written English is essential. The candidate should have an IELTS score of **6.5 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 99,000 per annum) and provides a monthly stipend of 5,000 RMB as a contribution to living expenses. It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. It is a condition of the award that holders of XJTLU PhD scholarships carry out 300-500 hours of teaching assistance work per year. 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 of up to six months, if this is required by the project.

Project Description:

Pathogens in clinical environments can lead to hospital-acquired infections (HAIs). This is particularly concerning in intensive care units (ICUs), where critically ill patients are particularly vulnerable to pathogens. The dissemination of antimicrobial resistance can exacerbate the threat of pathogens to human health. Although disinfection is essential for pathogen control, its residuals may contribute to developing and spreading antimicrobial resistance due to the reinforced disinfection during and after Covid-19. However, the prevalence of hospital pathogens and their antimicrobial resistance in the post-Covid-19 era remains largely unknown. In this study, we aim to investigate the airborne and surface microbiomes and resistomes in an ICU using shotgun metagenomic sequencing. Our findings will elucidate the mechanisms underlying the formation and dynamics of the hospital pathogens, which may contribute to reducing HAIs and safeguarding the health of patients and medical staff.

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 xinzhao.tong@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 reference letters with company/university letterhead
- Personal statement outlining your interest in the position
- Proof of English language proficiency (an IELTS score of 6.5 or above)
- Verified school 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

Informal enquiries may be addressed to **Dr. Xinzhao Tong** (xinzhao.tong@xjtlu.edu.cn), whose personal profile is linked below:

<https://www.xjtlu.edu.cn/en/study/departments/school-of-science/biological-sciences/department-staff/academic-staff/staff/xinzhao-tong>