

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of Science
Supervisors	Principal supervisor: Associate Professor/Dr Linxi Yuan (XJTLU) Co-supervisor: Professor/Dr Stephen Paterson (UoL) Co-supervisor: Assistant Professor/Dr Xingzhao Tong (XJTLU)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	How to respond to future elevated atmospheric [CO ₂] on selenium in plants: A comparative study among a selenium hyperaccumulator and staple crops?
Contact	Please email Linxi.Yuan@xjtlu.edu.cn with a subject line of the PhD project title. The principal supervisor's profile is linked here: https://www.xjtlu.edu.cn/en/departments/academic-departments/health-and-environmental-sciences/staff/linxi-yuan

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in Environmental Microbiology or Plant Nutrition.

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 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:

Selenium (Se) is essential trace element for human health, especially for anti-inflammatory, anti-oxidant and immune effects. Till now, it is worldwide for Se deficiency in soils (40%) and populations (14%). However, there is little information on Se changes in crops under future elevated atmosphere [CO₂] although significant decreases were verified in Zn, Fe and vitamins levels in crops. In the present study, a Se hyperaccumulating plant, rice (flood cultivation) and wheat (dry cultivation) will be employed to study the responses on Se translocation and transformation and their relationships with rhizosphere microbiota to elevated [CO₂] scenario. Especially, the roles of rhizosphere microbiota on Se responses will be validated via sterilized-soil cultivation experiment. The present findings will provide new knowledges on Se responses to global warming in plants, and spot a light on microbial fortification to increase Se levels in plants to alleviate Se deficiency in the future.

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 Linxi.Yuan@xjtlu.edu.cn 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