

# MASTER OF RESEARCH MOLECULAR BIOSCIENCE

## 分子生物学硕士 (研究型)

XJTLU | MASTER OF RESEARCH  
MOLECULAR BIOSCIENCE

### CAREERS

Graduates from this programme are well prepared for advanced research careers in both international and Chinese university settings, as well as in the bio-industrial sector in areas such as biotechnology and pharmaceuticals. The programme also provides a solid foundation for pursuing a PhD.



**START DATE**  
September 2023



**ATTENDANCE**  
Full time/Part time



**SCHOOL**  
School of Science



**LOCATION**  
Suzhou



**DURATION**  
18 months/36 months  
( programme adjustment stage and is expected to start 24 months for full time study from 2023/2024 )

Xi'an Jiaotong-Liverpool University  
西交利物浦大学

## MRES MOLECULAR BIOSCIENCE

The MRes Molecular Bioscience programme provides a thorough understanding of principles and approaches of key advanced technologies for studying biological processes at the molecular level.

### KNOWLEDGE AND SKILLS

By the time you graduate from the MRes Molecular Bioscience programme, you will have:

- Key transferable skills relevant to a range of careers and industries, such as data analysis, report writing, team building and networking, and project management
- Specialised knowledge in an area of molecular biology that suits your interests and career ambitions
- A range of critical interdisciplinary research skills and a strong understanding of the theoretical background and practical implementation of an intensive research project

### MODULES

#### COMPULSORY MODULES

- RESEARCH METHODS IN BIOTECHNOLOGY
- RESEARCH METHODS IN POST-GENOMIC
- BIOLOGY
- RESEARCH METHODS IN BIOINFORMATICS
- TECHNOLOGICAL PROJECT MANAGEMENT

#### XJTLU-JITRI JOINT-SUPERVISION PATHWAY

This programme also offers XJTLU-JITRI joint-supervision pathway, which provides students with opportunity to conduct industry research projects at JITRI research institutes or leading enterprises in Yangtze River Delta region. Students will benefit from:

- Joint supervision by both XJTLU academic supervisor and recognised industry supervisor
- Cutting-edge research topics which are generated from real industry problems
- Generous research allowance and/or living stipend provided by collaborative industry partner
- Job opportunities within the JITRI research institutes and enterprises

### WHY SHOULD I STUDY MOLECULAR BIOSCIENCE AT XJTLU?

- Learn from international academic staff with opportunities to work with them to carry out world-class research in a dynamic, transnational environment
- Gain a solid foundation to pursue PhD programmes in high-quality international and Chinese universities
- Benefit from XJTLU's strategic location near many biotechnology companies in BioBay, a national biotechnology hub with more than 500 companies with the opportunity for internships
- Enjoy prestigious scientific symposia, conferences and summer schools at the nearby Cold Spring Harbor Asia, giving you the chance to interact with world-famous researchers
- Earn a University of Liverpool degree that is recognised by the Chinese Ministry of Education



# 分子生物学硕士 (研究型)

本研究型硕士研究生项目培养学生对研究分子层面生物过程重要方法的全面理解。西交利物浦大学拥有先进的英语优势、独树一帜的国际化特点和最先进的研究设施。

## 毕业生所获知识与技能

本专业毕业生将具备以下能力：

- 具备可适用于不同职业和行业的关键技能，如数据分析、研究报告撰写、团队建设和项目管理等
- 具备分子生物学领域的专业知识，这些知识将支持个人的长期职业发展
- 具备重要的跨学科研究技能，对于研究项目的理论背景和实施有着深刻的理解

## 专业优势

- 西浦生物科学系拥有该领域具有国际声望的研究者以及卓越的教学和实验设施，学生有机会在充满活力的国际合作环境中开展研究活动
- 为在国内外一流大学攻读博士学位打下坚实基础
- 位于生物技术企业林立的苏州生物医药产业园附近，这里有500多家企业可提供实习机会
- 靠近著名的冷泉港亚洲中心，学生有机会参与一系列学术会议和暑期科研项目，与世界知名学者交流
- 获得中国教育部认可的英国利物浦大学学位

## 就业

本专业为毕业生在国内外大学继续开展研究，或在生物行业（如生物技术和制药企业）就业作好准备。本专业也为毕业生继续攻读博士学位打下了坚实的基础。

## 课程

### 必修课程

- 研究方法一：生物技术
- 研究方法二：后基因组生物学
- 研究方法三：生物信息学
- 项目管理
- 研究项目

### 西浦-集萃产业联合培养项目

除校内培养项目外，本专业还开设产业联合培养项目，为学生提供在长三角国家技术创新中心（江苏省产业技术研究院）研究院所、龙头企业开展产业课题的机会：

- 联合导师机制：西浦校内导师与认证的校外产业导师联合指导
- 产业前沿科研课题：参与由来自产业技术需求的研究生培养课题
- 科研与生活补贴：产业科研课题提供科研与生活补贴
- 高就业竞争力：优先进入集萃研究院所和企业就业的机会

### MASTER OF RESEARCH MOLECULAR BIOSCIENCE 分子生物学硕士（研究型）

The MRes Molecular Bioscience programme provides a thorough understanding of the key approaches for studying biological processes at the molecular level.

The programme combines biotechnology-related topics such as molecular biology, protein biochemistry and drug discovery, with modules on post-genomic biology and bioinformatics.

With a major focus on project management and advanced research skills, the programme offers you the chance to undertake an in-depth research project and specialised dissertation. Your studies will be guided by a customised learning plan, taking into account your background, interests and career aspirations.

The Department of Biological Sciences has internationally respected investigators and excellent teaching and laboratory infrastructure.

本研究型硕士研究生项目致力于培养学生对研究分子水平生物过程重要方法的全面理解。

课程涵盖了生物科技的相关课题，如分子生物、蛋白质生物化学、新药研发、后基因组生物（基因组学、转录组学、蛋白质组学、生物成像）、生物信息学（如大规模生物数据获取和统计分析）。

本专业重视培养学生的项目管理和高级研究技能，为学生提供承担深度研究项目和专业论文的机会。本专业还为学生设计个性化的学习计划，并将学生的个人背景及职业规划考虑在内。