

## LIVERPOOL MARSHALL SCHOLARSHIPS

### University of Liverpool

#### Summary information

This Scholarship is for Graduate Study in any subject at either Masters or Doctoral level at the University of Liverpool and will be for two years (with a possibility of a third year for doctoral studies). If awarded a Liverpool Marshall Scholarship candidates would be expected to study at the University of Liverpool.

The following information has been provided by the University of Liverpool:

The University of Liverpool was founded in 1881 and has been at the forefront of teaching and learning in the UK ever since. Almost 20,500 students are currently studying undergraduate, postgraduate masters and PhD programmes in the University's 3 Faculties: Humanities and Social Sciences, Science and Engineering, and Health and Life Sciences. The Liverpool School of Tropical Medicine (LSTM) is affiliated to the University. The campus also hosts part of the Natural Environment Research Council's National Oceanographic Centre (NOC). Over 3,300 international students from more than 110 countries currently make the University of Liverpool their home.

Liverpool is a member of the Russell Group of Britain's leading research universities and has an annual turnover of more than £400 million, including £110 million in research income. The excellence of education and research at the University of Liverpool is confirmed by independent UK Government assessment. 53% of the University's research activity, including environment and research outputs, was ranked in the highest categories of 4\* (world-leading) and 3\* (internationally excellent) in the 2008 national Research Assessment Exercise (RAE). The University Students' Guild, which possesses one of the largest student facilities in Europe, offers a variety of services from entertainment to advice, representation to skills training.

Liverpool is a vibrant, cosmopolitan and friendly city, and the campus with all its facilities is right in the city centre. Liverpool was awarded the accolade of European Capital of Culture for 2008, reflecting its excellence and activity in the arts, architecture, music, performance and science. Liverpool's historic waterfront is a World Heritage site, reflecting in great part the history of the city as the major port of embarkation for Europeans emigrating to the United States. Despite being a major European city, Liverpool is within a short travel distance of the mountains of North Wales and the English Lake District.

The University of Liverpool is well established as a globally-focused university and has a long and proud international history of collaboration across teaching and research activity. It is recognized as being internationally engaged and is ranked in the top 1% of universities across the globe.

Through its strong global connections, the University offers new opportunities and challenges to its students, staff and graduates. In 2006, it established the Xi'an Jiaotong-Liverpool University (XJTLU) in Suzhou, China. XJTLU is a joint initiative between the University of Liverpool and Xi'an Jiaotong University, a top Chinese institution. There are over 4000 students at XJTLU studying 19 programmes.

Strategic partnership links with the USA are being strengthened with a strong focus on the State of Georgia, where the city of Liverpool has strong historical and cultural connections. The University currently has active partnerships with the Center for Disease Control and Prevention (CDC), University of Georgia, Athens and Emory. Areas of collaboration include infectious diseases, engineering, advanced materials and slavery studies. Individual research groups have many other links with institutions in the USA.

For further information about the University of Liverpool please go to: <http://www.liv.ac.uk/study/postgraduate/>

#### Research expertise

In the latest Research Assessment Exercise, Liverpool demonstrated internationally excellent or world leading research in all of its 39 disciplines submitted. Each of the three Faculties within the University had highly ranked subjects (Infection and Immunology in the Faculty of Health and Life Sciences; Materials, Chemistry, Computer Science in the Faculty of Science and Engineering; History, Architecture, Archaeology in the Faculty of Humanities and Social Sciences)

The University has identified seven interdisciplinary research themes that span the Faculties and represent areas of real strength. These are active communities working at the forefront of their own disciplines and collaborating on projects addressing global challenges.

### **Global Health**

The University, with the affiliated LSTM has wide ranging expertise in addressing global health problems, including the following:

- Infection – World leading research in pathogenicity; HIV therapeutics; respiratory, meningococcal, brain and gastrointestinal infections; as well as the development of predictive disease models which incorporate the effects of climate change.
- Mental health- Innovative research into integrating mental health into primary care, worldwide, and identifying the effects of postnatal depression.
- Health inequalities/economics- Cutting edge research into ecological economics and access to water and housing; sociology and social policy including gender issues; global health economics; global health law, and human rights.
- Births- Ground-breaking research into the physiology of labour together with applied clinical research to make birth safer.

### **Personalised Health**

The University plays a national and international leading role in the area of stratified medicine, or personalised health, hosting an NHS Chair in Pharmacogenetics, the Wolfson Centre for Personalised Medicine and the MRC Centre for Drug Safety Science. The University of Liverpool with the Royal Liverpool Children's NHS Trust (Alder Hey) also leads a £20 million UK Department of Health programme to develop medicines specifically for safe use in children. Researchers across the institution are now combining expertise to address the scientific, technological, social and ethical challenges associated with stratified medicine approaches. There is also growing interest in the area of arts therapy used to treat conditions such as depression.

### **Living with Environmental Change**

Climate change research is well established and ranges from analysis of global scale physical processes, investigation of climate change in ancient sedimentary basins through geological history, the effects of soil erosion, biological affects such as the spread of infectious diseases and on aquatic and terrestrial ecology, through to studies of socio-political and geographical effects. Much of our work on climate change is performed in collaboration with the NOC, whose work on ocean and tidal changes provides major contributions to the work of the Intergovernmental Panel on Climate Change (IPCC).

### **Sustainable Energy**

The University has invested in Energy research, creating the Stephenson Institute for Renewable Energy. Energy research spans all three Faculties and covers areas from developing new technologies and energy solutions (including solar cells, semi-conductors, batteries and energy storage, photocatalysis, tidal energy and wind power, biofuels, carbon capture and storage); to research on sustainable materials for construction, energy-efficient building design and use, and the creation of low carbon communities; and research on political and legal dimensions of energy security.

### **Materials for the Future**

The University has significant research activity in materials discovery and functional materials utilising expertise in the Departments of Chemistry and Engineering, from theoretical to experimental and practical research. The Chemistry Department is a leading centre within the UK for novel materials discovery aiming to develop new complex materials for use in communications, medicine, energy storage and nanotechnology. The £8.2 M Centre for Materials Discovery (CMD) also in Chemistry is championing the use of novel High Throughput technologies across multiple industrial sectors to discover innovative materials for high-value applications in the Chemical, Electronics, Automotive, Food, Aerospace, Health and Personal Care industries. In Engineering there is leading research activity in impact response and structural integrity of materials and structures, novel metal foams for use in lightweight construction, smart materials and structures, blast and impact response of composite and metal structures, together with biocompatibility of

alloys for medical implants. The UK Centre for Tissue Engineering undertakes pioneering research into new uses for stem cell technology.

### **Security and Conflict**

The University has significant expertise in the area of food security, including sustainable terrestrial and marine food production (microbial, plant and livestock); international and national food and land-use policies; and the relationships between global markets, product supply chains and retail marketing management practices; together with food safety.

Further security and conflict research strengths focus on resource allocation, inequality, conflict resolution and responses to disasters and emergencies. The University also has a Centre for Critical and Major Incident Decision Making, leading research into the psychological processes associated with managing critical incidents.

Technological solutions also play an important part within this theme. Examples of current expertise include remote sensing, novel materials for the protection of personnel, assets and communities, mine-clearance and the detection of unexploded ordnance and nuclear decommissioning.

### **Changing Cultures**

The University has an excellent portfolio of research relating to both historical and contemporary representations of cultural change. Key strengths include:

- Cultural Impact and Regeneration: building on research evaluating the multiple impacts of culture-led regeneration following Liverpool's tenure as European Capital of Culture in 2008.
- Migration, Mobility and Diaspora: interdisciplinary research on diasporic communities (e.g. through the Centre for the Study of International Slavery), social policy and transnational working practices, intercultural mobility in a range of historical periods, and multicultural politics and social movements.
- Cultures and Health: research focuses on cultural understanding of health and illness understanding relationships between health and inequalities, with particular interests in mental health, substance misuse, obesity and other risk factors for chronic disease.