

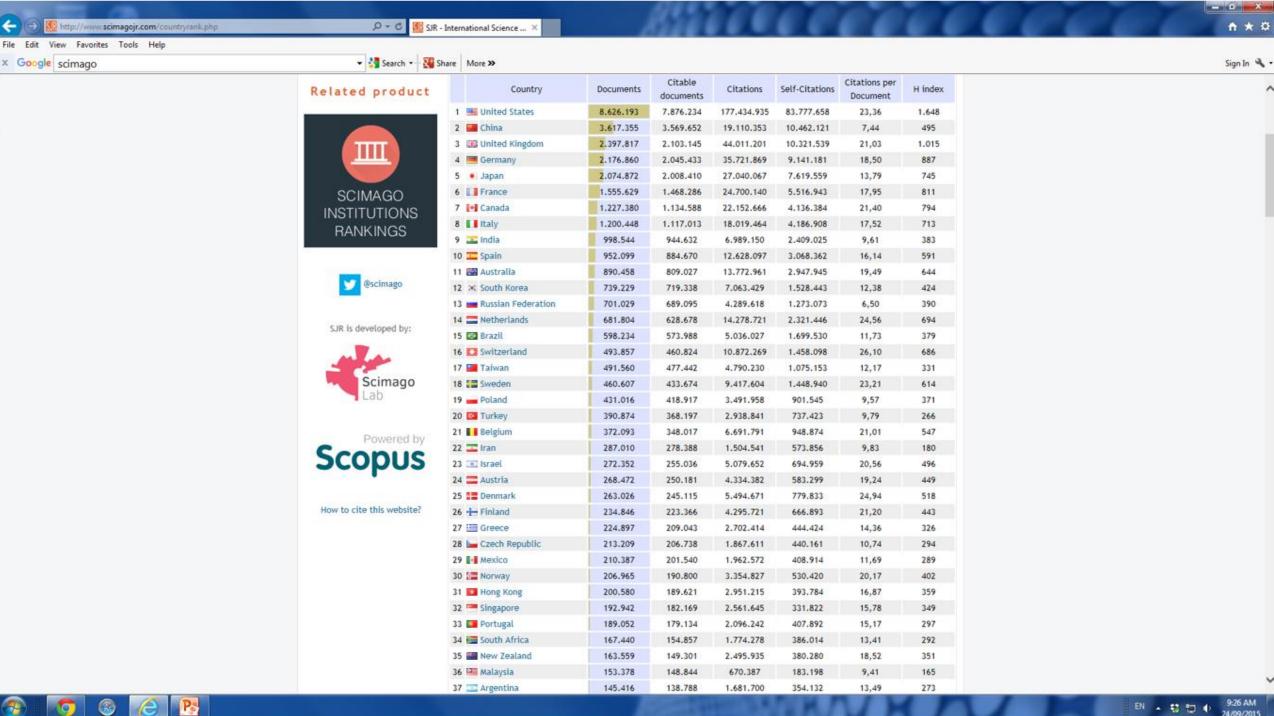
# International Research Collaboration Management and Internationalisation of Research

### Dr Ren Yi Executive Director

Research Training & International Research Training Partnerships

TUMS, April 2017



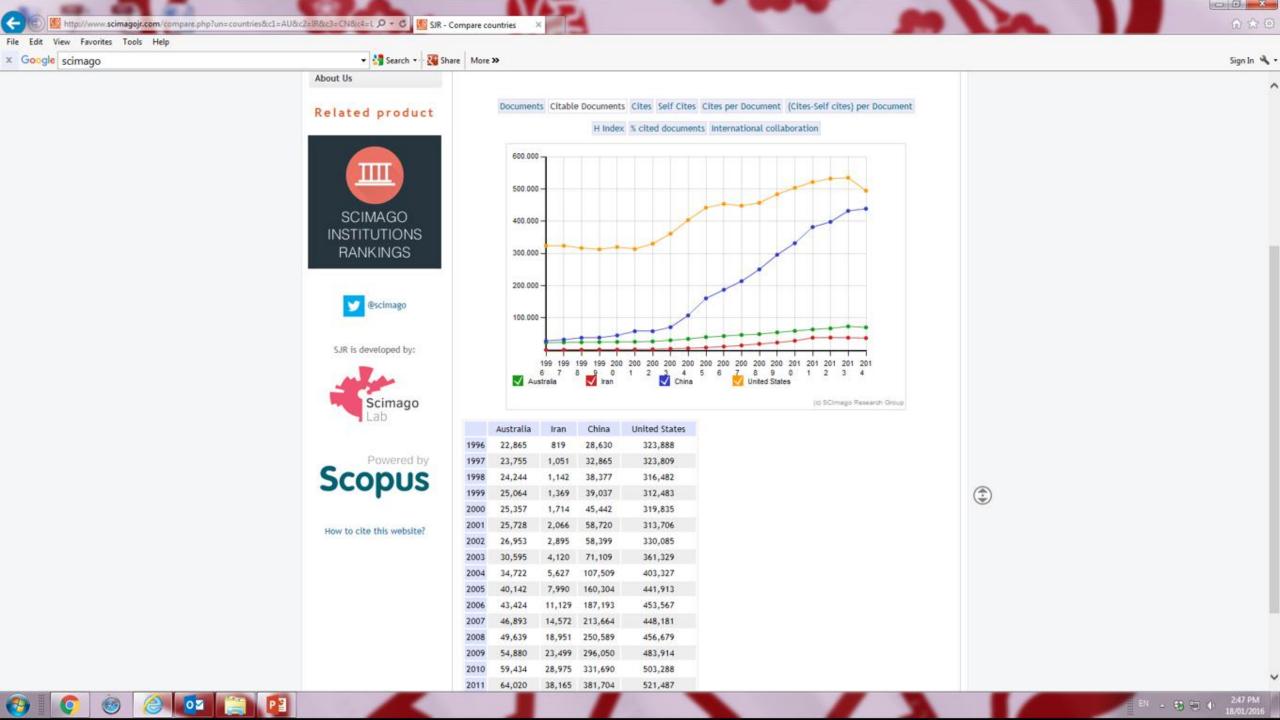


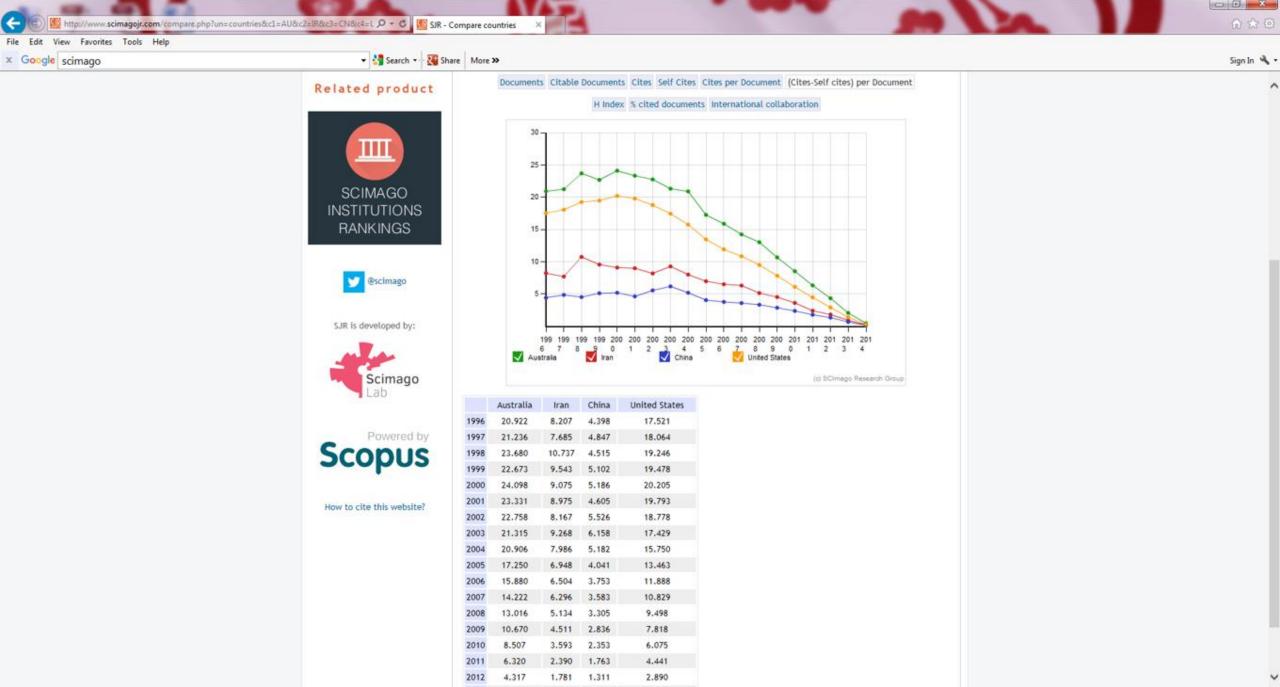




















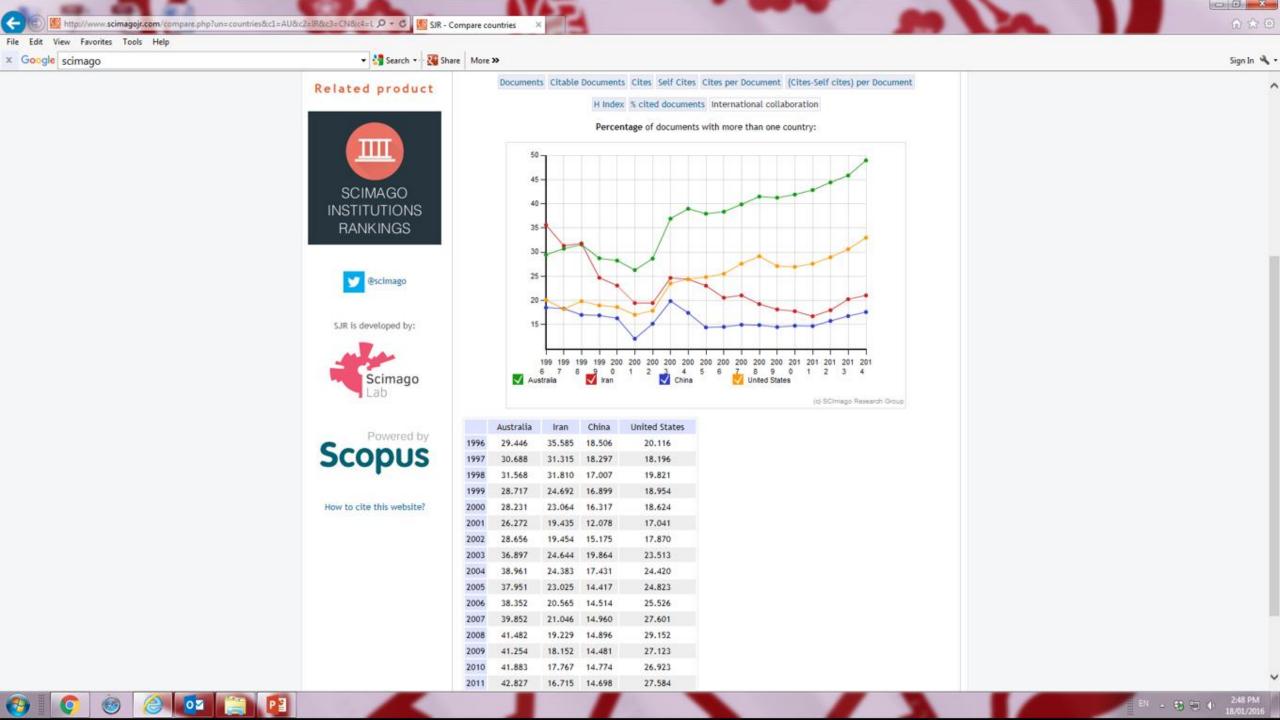










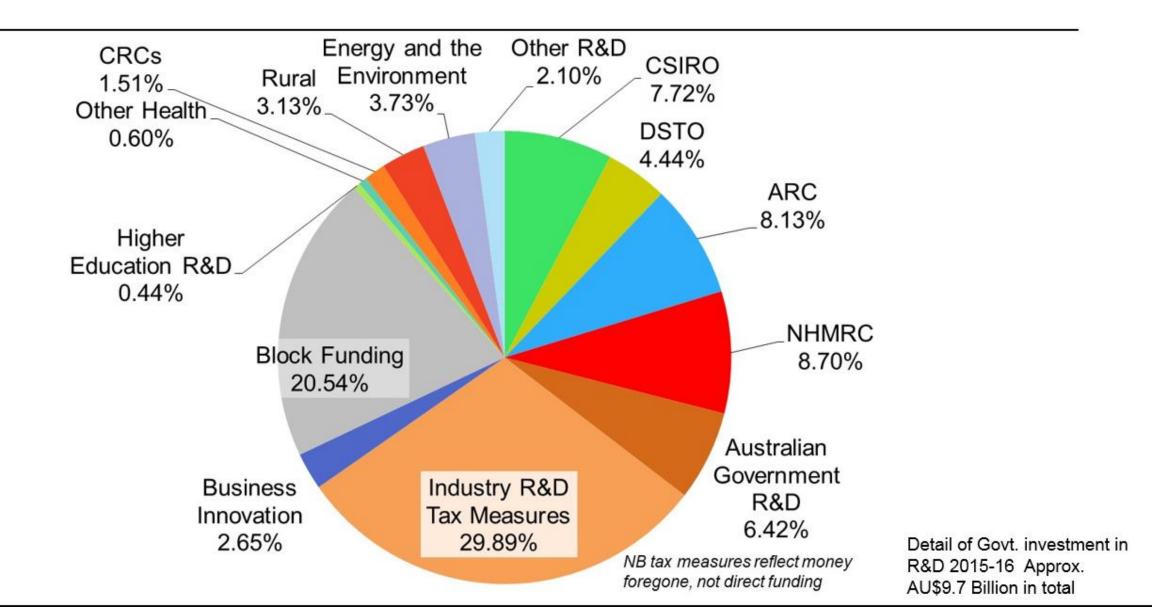




Australia Research and Research Training System

### Australian R & RT System in 2015-16

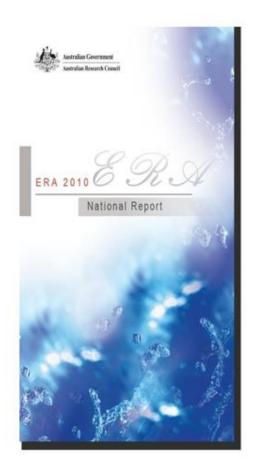








# ERA 2010, 2012







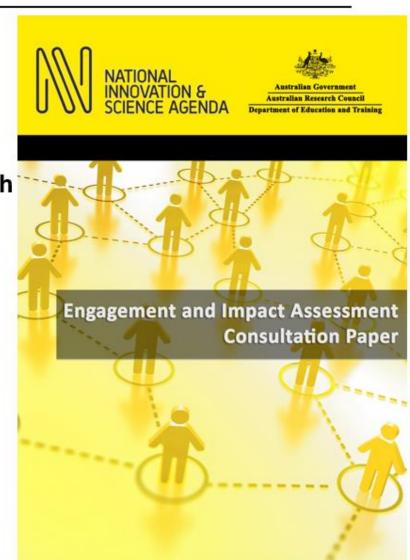


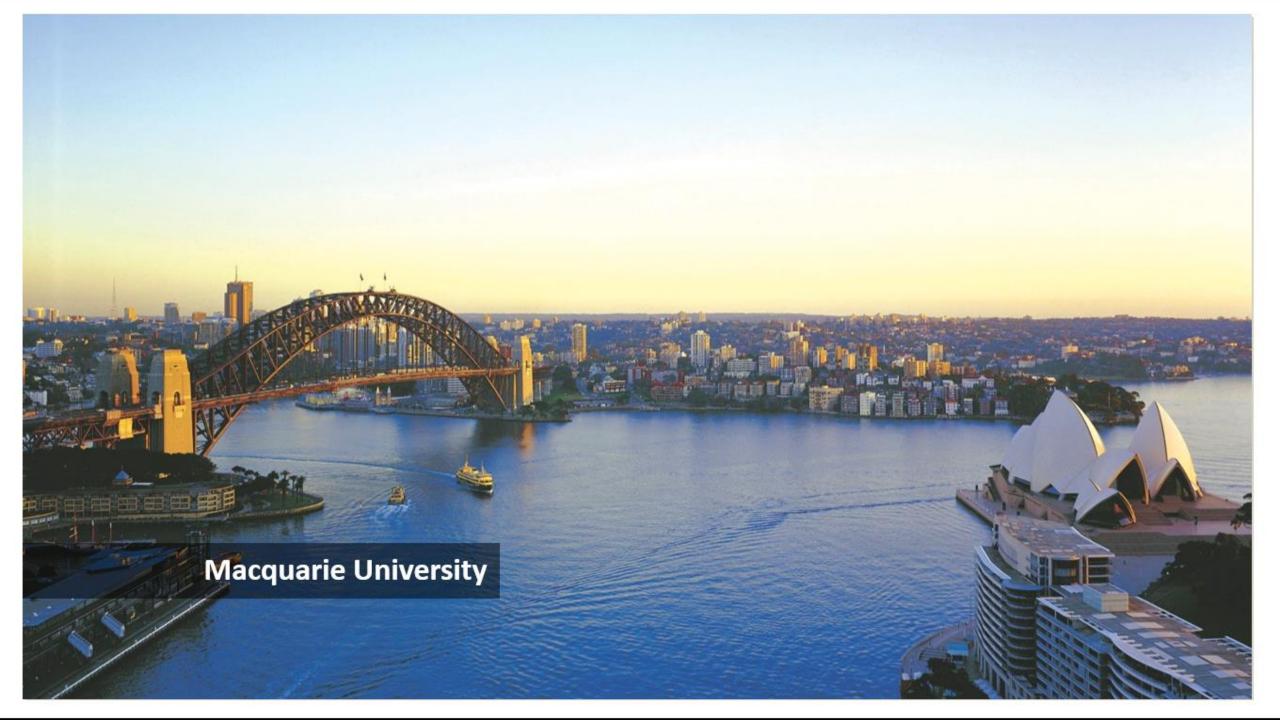
### **Engagement and Impact Assessment**



### Ten Principles

- Robust and objective
- Internationally recognised
- Comparability across disciplines
- Not disincentivise interdisciplinary and multidisciplinary research
- Research relevant
- Repeatable and verifiable
- Time-bound
- Transparent
- Behavioural
- Adaptable





- Australia's first and only private, not-for-profit hospital on a university campus
- a campus in one of the largest business and technology precincts in the southern hemisphere, creating a hub of innovation and excellence
- a 126-hectare park-like campus protected by our award-winning sustainability practices
- awarded five stars in the prestigious QS Stars rating system for high performance in areas such as teaching, research, graduate employability and facilities

	Total students - 40,209		
Total - 9281	Domestic students - 31,568 International students - 8,641	Total - 3199	
Undergraduate Total - 5118 Postgraduate Total - 4163	Full-time students - 27,795 Part-time students - 12,414	Academic staff - 1525 Professional staff - 1674	Total - 164,000
Degrees awarded	Student enrolments	Staff	Alumni

### Research rankings and publications

- 100 per cent of our research activity is regarded by the Australian Government as being of world standard or higher
- a world leader in environmental sciences, physical sciences, and agricultural and veterinary sciences (rating 5 out of 5 in the
   2015 Federal Government's Excellence in Research for Australia initiative)
- 135 Macquarie researchers are ranked in the top one per cent of researchers in the world
- · sixth in Australia for international research publication collaborations

# 126 hectares of green parkland





### **World Class Facilities**







Hospital Train station



## AUSTRALIAN HEARING HUB



Serving Australia and the world

## Macquarie's structures



Faculty of Science and Engineering

Faculty of Arts

Faculty of Human Sciences



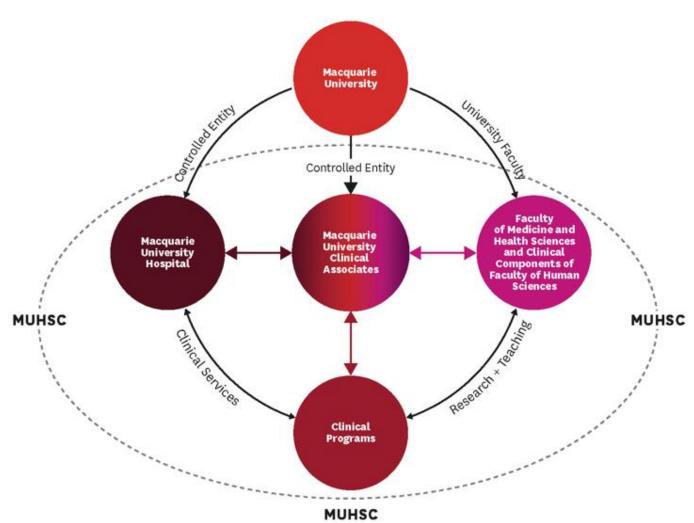
Faculty of Business and Economics

Faculty of Medicine & Health Sciences

Macquarie
Graduate
School of
Management

# **MQ** Health structure





MUCA - FMHS

# Clinical program structure



Clinical Program	Clinical Disciplines	
Neurosciences	Neurosurgery Neurology ENT and Head & neck surgery	Ophthalmology Neurophysiology
Cardiovascular and respiratory	Cardiothoracic surgery Cardiology	Respiratory medicine Vascular medicine & surgery
Cancer	Medical oncology Radiation oncology	Cancer surgery
Surgery and gastrointestinal	Colorectal surgery Upper GIT surgery Gastroenterology	General surgery Urology and gynaecology Plastic and reconstructive surgery
Bone and joint	Orthopaedics and sports medicine	Rheumatology Hand surgery and therapy
Primary care, wellbeing and diagnostics	General practice Allied health E-health	Imaging Pathology Rehabilitation
Critical care and anaesthetics	Intensive care Anaesthetic	Theatre



# International Research Training Partnerships Framework







# World-Leading Research World-Changing Impact

STRATEGIC RESEARCH FRAMEWORK: 2015-2024





### Macquarie's Strategic Context



#### AN ACCELERATING AND IMPACTFUL PERFORMANCE IN DISCOVERY

- Accelerate world-leading research performance
   Top-performing staff: Increase the
- Top-performing staff: Increase the number and proportion of researchproductive staff
- World-leading research concentrations: Build on disciplinary areas of current and emerging research strength and enhance cross disciplinary capability
- Growing research investment:
   Accelerate growth of external research income to facilitate world-leading research
- Pervasive best practice:
   Continuously improve policies,
   processes and systems that support the pursuit of excellence and integrity in research and scholarship
- Leading-edge infrastructure: Secure world-leading research infrastructure, facilities and equipment

- Prepare world-ready
   Higher Degree Research candidates
- Attracting quality candidates:
  Attract high-potential higher degree research candidates
- Inspirational supervision: Provide outstanding supervisory expertise and mentoring
- Transformative research
   environment: Embed higher degree
   research candidates in areas of
   current and emerging strength
- Real-world engagement: Provide opportunities for career enhancing exposure to industry and the community
- Global champions: Provide internationally-aligned degrees with global relevance
- World-class support: Provide personally-enriching experiences and enabling facilities, policies and processes

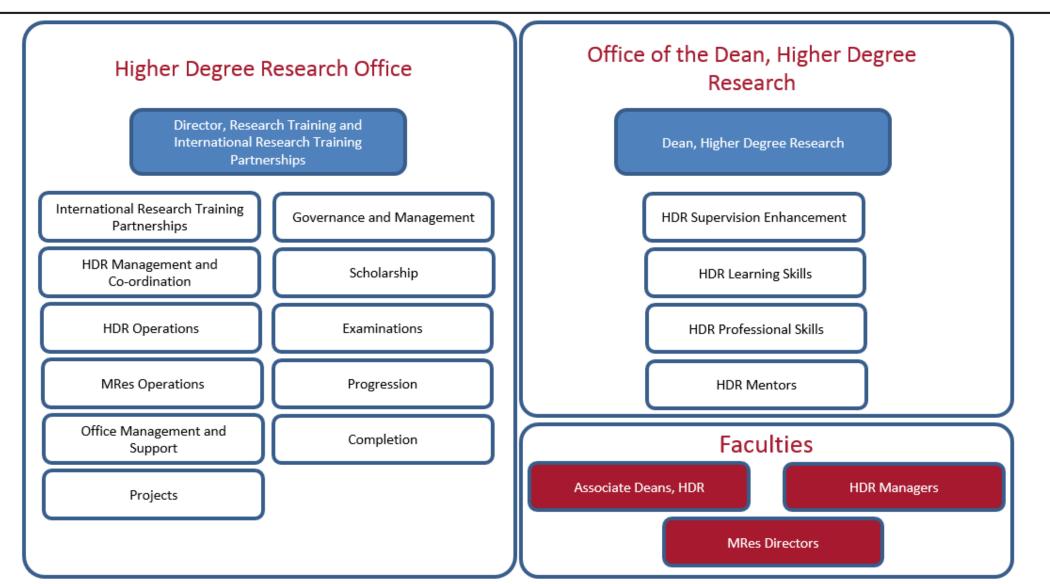
- 3. Engage as a world-recognised research collaborator of choice
- Strategic engagement: Pursue local, national and international partnerships to complement and enhance areas of current and emerging research strength
- Deep and authentic collaborations:
   Build mutually beneficial, long-term engagement with institutional, national and international colleagues
- Synergistic end user partnerships:
   Pursue shared goals with end users to maximise delivery of solutions and return on investment
- Streamlined support: Practice efficient and effective facilitation of research collaborations

- 4. Deliver research with world-changing impact
- Discovery for innovation: Strengthen basic research capability to drive discovery and underpin innovation
- Cross-disciplinary inquiry: Optimise the opportunities for inquiry across disciplines and structures
- Diversity of impact: Foster an environment that facilitates and values diverse forms of knowledge creation, application, and creative practice to benefit society
- Challenge-focused research: Conduct research that addresses national and global challenges and delivers significant benefits

### **Key roles**



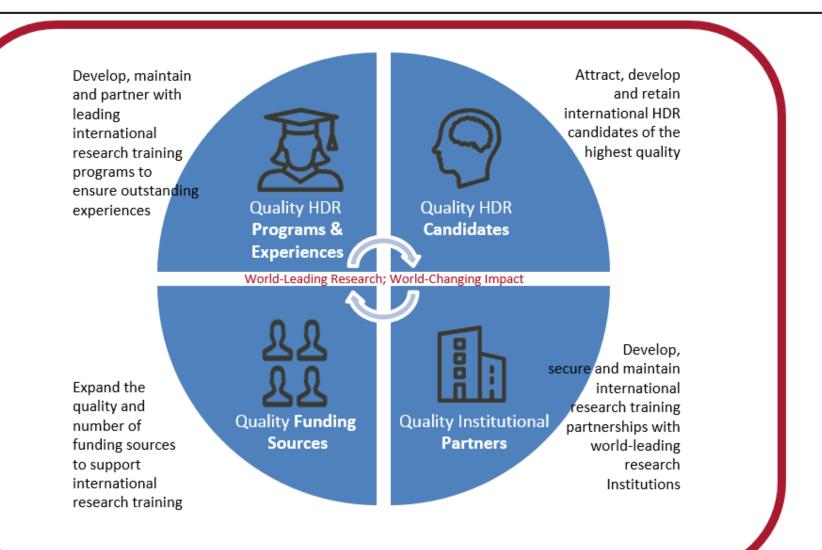
#### **FUNCTIONAL RESPONSIBILITIES**



### The key priorities

**FOLLOW THE LEADER** 

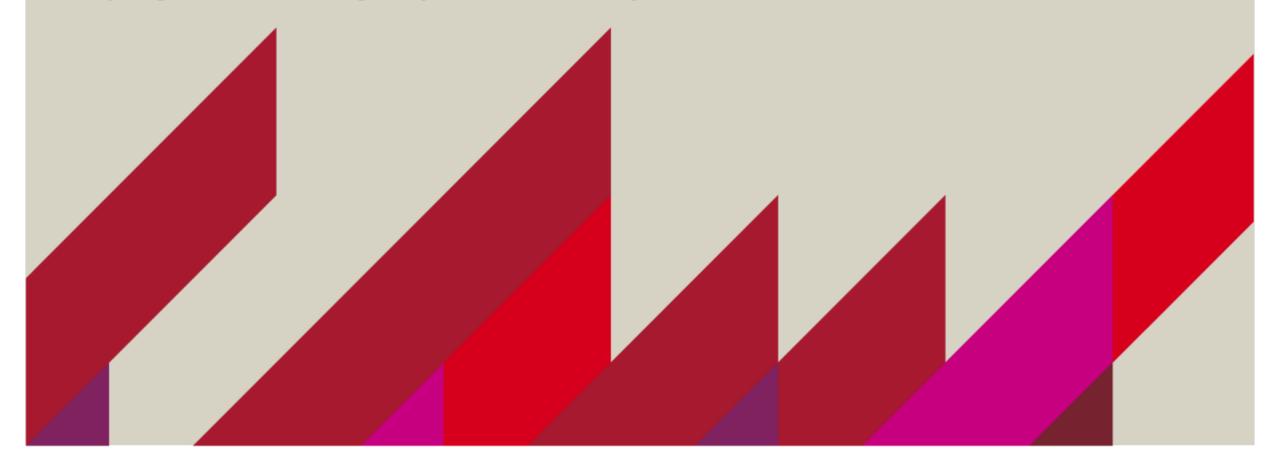






# Cotutelle & Joint PhD

A program delivering Key Research Objectives



## Background, context and key foundations



INTERNATIONAL RESEARCH TRAINING PARTNERSHIPS - BASELINE (2016)

<b>290</b> Cotutelle and joint PhD candidates*	<b>113</b> Cotutelle and joint PhD collaborating partners*	<b>30</b> Countries involved in cotutelle and joint PhD arrangements*	<b>164</b> Cotutelle candidate completions*
<b>75</b> Priority partners in 21 countries (and 68 preferred partners)	<b>3</b> Regional partnership tiers – strategic, developing and emerging	<b>25</b> Disciplines involved in current programs	<b>41</b> Universities with Academic Senate approval for joint PhDs
<b>112</b> Current cotutelle and joint PhD candidate enrolments	<b>69</b> Percent of current candidates with  European universities	<b>20</b> Percent of current candidates with Chinese universities	<b>10</b> MRes exchange partners established (a path to cotutelle/joint PhD)
<b>2</b> Strategic tri-lateral partnership: MQ-FU-HAM JLU-MQ-JLU	<b>1</b> Australian university participating in IDEALAB joint PhD	<b>15</b> Joint funding agreements with key international funding agencies	35 IDEALAB PhD candidates (including 30 current enrolments)

\* Since 1999

# International research training partnerships MACQUARIE

290 CANDIDATES AT 110 UNIVERSITIES IN 30 COUNTRIES\*





### **Cotutelle & Joint PhD**

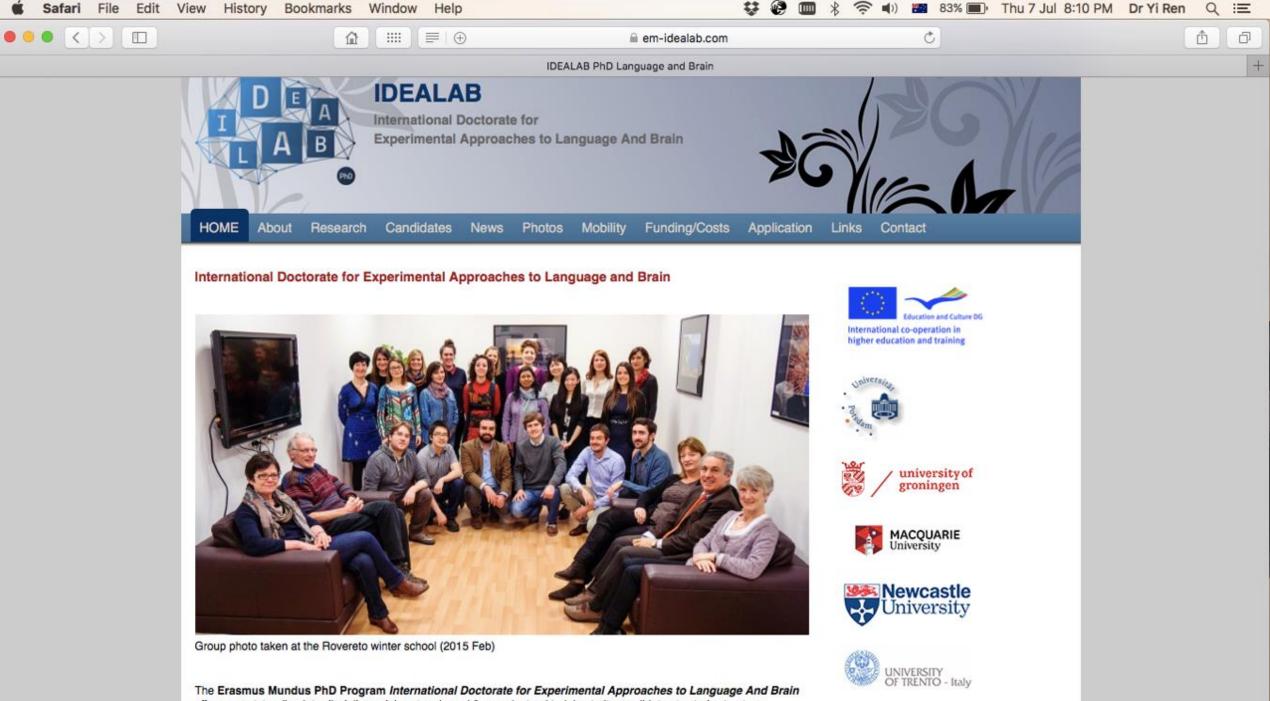
Cotutelle	Joint PhD
Joint enrolment at MQ and an overseas university	Joint enrolment at MQ and an overseas university
Priority institutional partners – but open to all universities subject to approval	Institutional partners require Academic Senate Approval
Institutional memorandum of understanding (MOU) not compulsory	Institutional MOU/agreement required
Separate progress assessments	One university is designated as the lead
Single thesis submitted to both universities	Single thesis submitted to the lead university
Separate Examination	Joint examination
Two testamurs	One joint testamur
Two graduation ceremonies	One graduation ceremony

### Why do we do it?

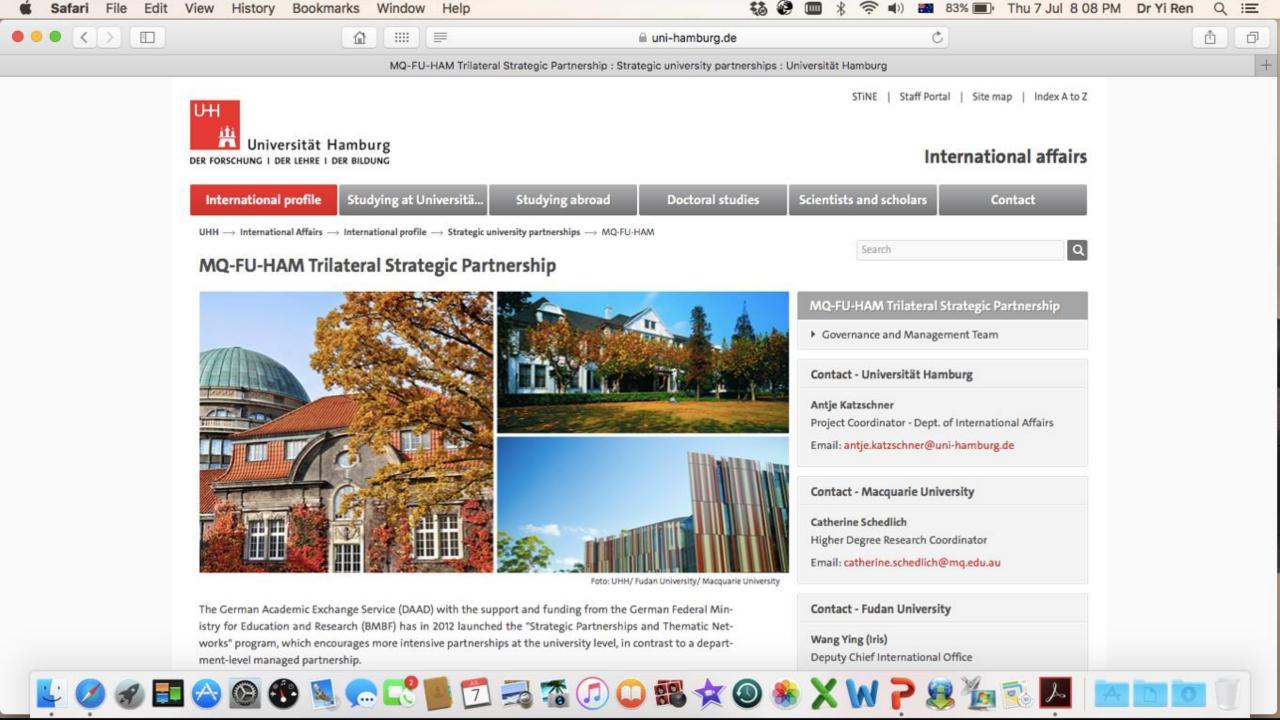


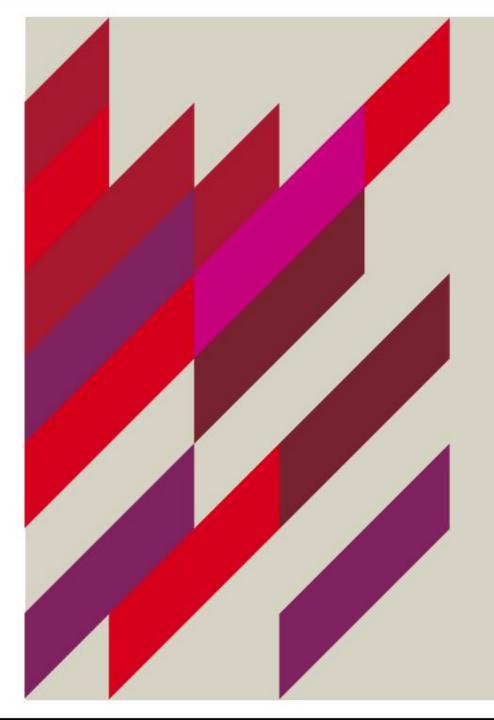
Establishing deep and continuing relationships

Institutions	Candidate
Deepens and strengthens research collaborations and networks at an institutional level	Exposure to different academic environments through joint enrolment and supervision
Fosters a higher level of cooperation between researchers in their respective fields through cosupervision	Training experiences and access to the latest research equipment and technologies at two institutions
Provides access to new funding schemes as well as new international enrolments	International networking opportunities that will expand future employment opportunities through exposure to new academic institutions and new industries
Provides an opportunity to increase joint publications, citation rate and rankings	Access to new funding schemes
Make the institution more attractive to potential candidates	Experience a new culture and environment and develop soft skills



offers an outstanding interdisciplinary, laboratory-based 3-year doctoral training to its candidates to study structure,









#### MACQUARIE UNIVERSITY

SYDNEY, AUSTRALIA

By matherity of the Council

#### **EVA ELIZABETH**

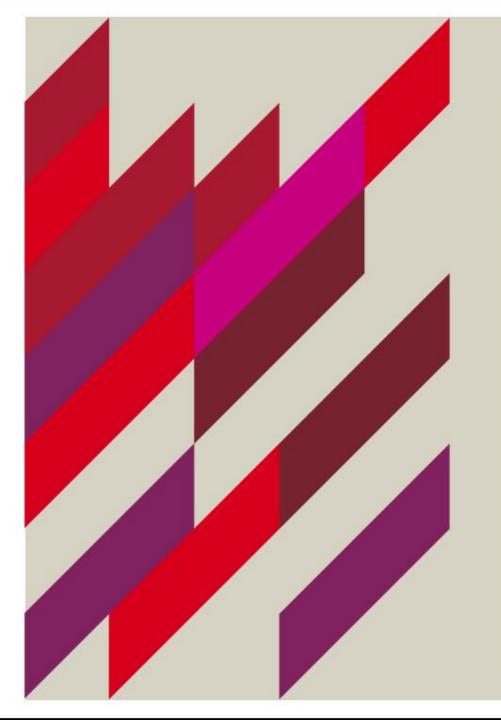
was admitted to the degree of

#### DOCTOR OF PHILOSOPHY

on the twenty-fourth day of May 2014

This degree was jointly supervised with Université Paris-Sud II in France under a cotsuelle joint PhD Agreement

Example of Cotutelle Testamur









By authority of the Governing Bodies of Maquarie University and the University of Edinburgh\*

#### JANE CITIZEN

was admitted to the degree of

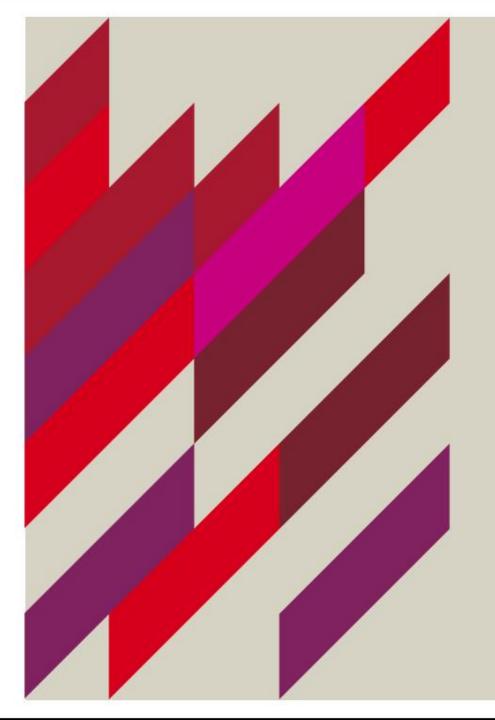
#### DOCTOR OF PHILOSOPHY

on the eighteenth day of January 2011

This degree was supervised under a Joint PhD agreement between Macquarte University and the University of Edvaburgh\*

VICE-CHANCELLOR

REGISTRAR





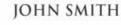


#### MACQUARIE UNIVERSITY

SYDNEY, AUSTRALIA

By authority of the Countil







LINIVERSITY OF TRENTO - Italy

was admitted to the degree of





#### DOCTOR OF PHILOSOPHY

on the fifteenth day of September 2015

This degree was negeroused under a joint PhD agreement for the Enumus Mundus International Doctorate in Experimental Approaches to Language and Brain (IDEALAB) and signed on behalf of the legal representatives of the participating universities: Universität Possdam (DE), Rijksuniversiteit Greedingen (NL), Universitä di Teento (II), University of Newcorde upon Tyne (UK), and Macquarie University (AU)

VIOLOHANDELINE

Skile Sulin

Official names of the national degree corresponding to the Jaint Destard Degree United Kingdom, University of Newsestle upon Byre: Dector of Philosophy; The Netherlands, Rijksuntersitest Graningen: Dector; Germany, Universität Feedam: Dektor der Philosophie; Italy, Universitä degis Studi di Frente: Destarato di Ricerca in Cognitive and Brain Silence, Ministerial Decree v.270/2004

Example of EU Joint PhD Testamur

University of Newcastle upon Tyne

### **Cotutelle Partners**

### Priority 1



China

Beijing University of Posts and Telecommunications

Chinese Academy of Sciences

Chinese Academy of Social Sciences

China University of Geosciences, Beijing

China University of Geosciences, Wuhan

East China Normal University

Fudan University

Jilin University

Nanjing University

Peking University

Renmin University of China

Shandong University

Shanghai Jiaotong University

Sichuan University

Tsinghua University

Wuhan University

Zhejiang University

Denmark

Aarhus University

University of Copenhagen

Croatia

University of Zagreb

France

University of Jean Monnet

University of Lyon (including Lyon 1, 2, 3 and St.

Etienne)

University of Montpellier 2

University of Paris-Sud 11

University of Strasbourg

University of Toulouse

Pierre and Marie Curie University

University Paris Descartes (V)

Germany

Goethe-Universitat Frankfurt

Heidelberg University

Justus Liebig University Giessen

LMU Munich

University of Goettingen

University of Hamburg

University of Leipzig

University of Potsdam

Italy

University of Trento

Norway

Norwegian University of Science and Technology

Sweden

Lund University

Stockholm University

Uppsala University

United Kingdom

Heriot-Watt University

University of Edinburgh

University of Glasgow

University of St Andrews

University of Strathclyde

### Cotutelle Partners

#### Priority 2



#### Argentina

University of Buenos Aires

#### Austria

University of Vienna

#### Brazil

Federal University of Santa Catarina Universidade de Sao Paulo

#### Chile

Universidad de Santiago de Chile

#### China

Beijing Language and Culture University Beijing Foreign Studies University Central South University Central University of Finance and Economics China University of Petroleum China Agricultural University Communication University of China Nankai University Shanghai University Sun Yat Sen (Zhongshan) University

University of Science and Technology of China

#### Finland

University of Lapland

Xidian University

#### France

University of Nantes

#### Germany

Friedrich-Alexander-University, Erlangen-Nuremberg RWTH Aachen University Ruhr University Bochum Technische Universitat Braunschweig University of Erfurt University of Ulm

#### Iran

Tehran University of Medical Sciences Rovan Institute Agriculture Biotechnology of Research Institute of Iran Chiang Mai University Sharif University of Technology

#### Italy

La Sapienza University of Rome University of Bologna University of Florence University of Milan

#### Malaysia

University of Malaya Universiti Sains Malaysia

#### Mexico

National Autonomous University of Mexico

#### Netherlands

University of Amsterdam VU University Amsterdam

#### Russia

Russian Academy of Sciences Moscow State University St Petersburg State University Tomsk State University

#### Spain

Complutense University of Madrid University of Barcelona

#### Thailand

Chulalongkorn University Kasetsart University King Mongkut's University of Technology Thonburi Mahidol University Thammasat University

#### United Kingdom

Bristol University University of Dundee University of Durham University of Sheffield

#### United States of America

University of Minnesota - Twin Cities (Biology) University of Missouri - St Louis (Biology)

### Joint PhD Partners



#### Denmark

Aarhus University

#### Finland

University of Helsinki

#### France

École Normale Supérieure de Lyon Université de Lyon (including St Étienne) Université de Toulouse Université Montpellier Université de Strasbourg

#### Germany

Goethe University Frankfurt Heidelberg University Hamburg University(\*) Leipzig University Goettingen University LMU Munich University Ruhr-University Bochum University of Potsdam(\*^)

#### Italy

University of Trento(\*^)

#### Netherlands

University of Amsterdam
Free University of Amsterdam
University of Utrecht
Erasmus University Rotterdam
University of Groningen(\*^)
Radboud University Nijmegen

#### Norway

University of Bergen

#### Spain

Universidad Autónoma de Madrid

#### Sweden

Lund University

#### Canada

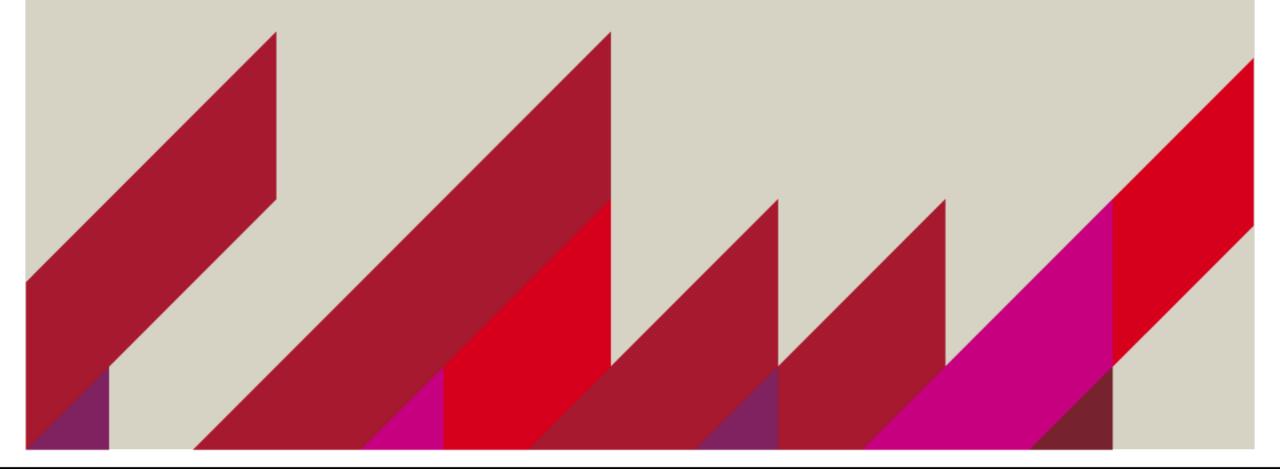
University of Toronto

#### **United Kingdom**

Cardiff University Lancaster University Heriot-Watt University(\*) Imperial College London University of Bristol University Dundee(\*) University of Durham University of Edinburgh(\*) University of Exeter University of Glasgow(\*) University of Manchester University of Newcastle(\*^) University of Nottingham University of Sheffield University of St Andrews(\*) University of Strathclyde(\*) University of York



# **Scholarships**



### Cotutelle & Joint PhD



### Scholarships

### Cotutelle Macquarie University Research Excellence Scholarship (iMQRTP)

- Return airfare from Australia-Iran
- Tuition fees at MQ for up to 36 months
- Stipend on MQ campus at the RTP rate

### Cotutelle & Joint PhD



#### EXTERNAL FUNDING AGENCIES

- Australia Award
- Australian Research Council
- National Health and Medical Research Council
- China Scholarship Council
- Sciences Without Borders Brazil
- EU Horizon 2020
- DAAD
- Germany DFG

- National Sciences Foundation
- National Institute of Health
- Research Council Canada
- VIED Vietnam
- Thai Government Scholarship (C9)
   Uruguay ANII
- Malaysia Government Scholarship Program
- Indonesian Government Scholarship
   Russian Government Program

- PRONABEC Peru
- COLSCIENCES Columbia
- Chilean CONACIT
- MEXICO CONACYT
- Pakistan HEC
- Kazakhstan Bolashak



# **Thank You!**

Questions?

