Postgraduate Study in Biomedical Sciences: *Going Global*

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Welcome to UQ
Founded in 1911.

Top 1% World Universities

45,000 students,

>5,000 postgraduates.
UQ St Lucia campus

School of Biomedical Sciences

Discovering your future now!
Biomedical Sciences at UQ

SBMS – amalgamation of Anatomy and Developmental Biology, Physiology, Neuroscience, Pharmacology and Toxicology.
- a large school with > 50 academics, >200 postgraduates (100+ Honours; 100 PhDs).
- teach > 12,000 student per year across 14 undergraduate programs in health and science.
Post graduate Students in SBMS
Place of Origin

- Australia & New Zealand: 63%
- S-E Asia: 11%
- China: 6%
- Europe: 2%
- North America: 1%
- South America: 11%
- South East Asia: 6%
- Other: 11%
Structure of our Science degrees

- Three years BSc
- 1 yr BSc Research Honours
- 1-2 yrs Research MSc/MPhil
- 3-4 yrs research PhD
Application process - UQ

1. Find your supervisor and a PhD project.
   - Contact us for help

2. Complete the online application form
   - Contact us for help

3. Wait for a response from UQ graduate school
   - Contact us for help

Process can take 6 months!
Start early!!
Postgraduate studies:

Scholarships and Financial Support
What Scholarships are available?

**International Students:**

**China Scholarship Council-UQ Scholarships.** Similar in value to UQI. FOR UQ - Applications open October 1, 2015. Applications Close 29 January 2016. Specific CSC Application Questions – ychen@csc.edu.cn (CSC – Project Officer)

**International Postgraduate Research Scholarship (IPRS)**- **Value:** tuition fees and Overseas Student Health Cover.

**UQ International Scholarships (UQI):** living expenses and/or tuition fees)- **Value:** Tuition fees. Living Allowance component is AUD$25,849. This rate is indexed annually.

**UQ Centennial Scholarship (UQ Cent)**- AUD$25,849 per annum. This rate is indexed annually. **Value:** tuition fees and Overseas Student Health Cover.

**Endeavour Scholarships:** **Value:** Offered for the minimum period for PhD. Up to $272,500. *Only one application date per year (approx. June 2016)!*

Please note that strict conditions do apply to some of these scholarships. Please see the following link: [http://www.uq.edu.au/grad-school/scholarships-and-fees](http://www.uq.edu.au/grad-school/scholarships-and-fees)
UQ Graduate School Application and Scholarship
Scholarship Applications and Deadlines – for Chinese Students

Submission Dates for 2016

Last day to submit your online application to school/institute to UQ # (tick CSC, IPRS & UQI Scholarships )

Any missing requirements for UQ in to UQ

Last day to submit your online application to CSC CHINA with provisional letter of offer from UQ

Uni QLD

29-January, 2016

1st April, 2016

CSC

20 March - April 5, 2016
UQ Graduate School Application and Scholarship

How to apply: All the answers can be found here:

http://www.uq.edu.au/grad-school/how-to-apply

1) LOOK FOR A SUPERVISOR (Researcher data base, www.uq.edu.au/sbms/)

2) CONTACT POSTGRADUATE COORDINATOR IN THE SCHOOL that you will be applying to
   Faculty of Medicine and Biomedical Sciences.
   School of Biomedical Sciences A/Professor Peter Noakes (p.noakes@uq.edu.au).
   Medicine it is A/Professor Diann Eley (d.eley@uq.edu.au).
   School of Public Health A/Professor Deirdre McLaughlin (d.Mclaughlin@sph.uq.edu.au)

3) ONCE SUPERVISOR AND PROJECT AGREED UPON

4) APPLICANT (Student) TO COMPLETE THE ON LINE APPLICATION FORM* with documents*.
   1) Academic CV
   2) Academic transcripts and grading systems for all tertiary studies
   3) Evidence of graduation for all degrees/ diplomas
   4) Proof of UQ’s English proficiency requirements (if applicable)
   5) Two referee reports submitted directly to the school/institute that you will be going too.

Items 1 to 4 – are uploaded as PDFs attachments on the last page of the ON-LINE APPLICATION.

*All these forms are available from the RHD link above – CONTACT US FOR HELP
UQ Graduate School Application and Scholarship

• UQ will email you of possible admission to do a PhD – pending scholarship success.

• An offer of admission will be provided once scholarship funding is in place

• Exceptions: external scholarship applicants (e.g. China-Scholarship Council)
What does SBMS Provide?

Contribution to the Laboratory for project expenses $3,500 p.a.

Competitive Travel grants (run by Research Programs). $1,500 per student/PhD for conference travel (non-competitive)

SBMS Travel Fellowship for PhD students Four per year – competitive at $5,000/award.

Basic facilities: desk; computer and printer access.

SBMS does not automatically top up stipends
Milestones for PhD candidates

- **1st-Confirmation:**
  12 months after commencement

- **2nd-Mid-candidature review:**
  12 months after your confirmation

- **3rd-Thesis review:**
  3 months before thesis submission

Examination is usually by thesis only. Oral defence permitted. 2-3 international examiners - supervisor NOT involved.
Postdoctoral studies

- No national scheme for international applicants.
- Best option is to make individual enquiry from laboratory of interest.
At SBMS we value excellence and we provide opportunities to be excellent!

How?

1. Student achievement:
Student Profile: Jason Deng

Competed PhD in 3 years in Prof. Rod Minchin’s lab

Research Topic: Mechanism of interaction of nanoparticles with plasma proteins

Key Publications:


Now has postdoctoral position at MIT in researching nanotherapeutics in cancer treatment.
Student Profile: Matthew Fogarty

Competed PhD in 3 years in A/Prof. Peter Noakes’ lab

Research Topic: Activity modulation of neuromotor plasticity during development

Key Publications:


Now applying for post doctoral studies at Harvard University, U.S.A.
Student Profile: Cortina Chen
Stress & Oxidative Stress

Research Topic: The functional role of the nitrergic system in an acute stress response
3rd year PhD student (Lavidis Lab).

Research theme: Pathways involved in long-term effects of acute stress.

Recent Publications:


Young Investigator Award from the International Society for Psycho-neuroendocrinology 45th conference held in Scotland –Sept 2015
CSC Student Profile: Lili Huang

Previous PhD student (Chen Lab), just received PhD. Research Topic: The modulation of pulsatile growth hormone secretion during positive and negative energy balance. Currently Postdoc at Chen Lab.

Recent Key Publications:

Huang L, …, Chen C. Actions of NPY, and its Y1 and Y2 receptors on pulsatile growth hormone secretion during the fed and fasted state. Journal of Neuroscience, 2014. 34:16309-16319


Currently author on 8 publications in international journals.
2. Wide choice of projects.
Our Research Themes:

- Molecular Pathways in Human Disease
- Genes in Development and Behaviour
- Cell injury and repair
- Cell Membranes in health and disease
- Drug Design and Development
- Biomechanics and functional morphology
Autism – examining the genetic basis

Professor Brian Key
The Brain Growth and Regeneration Lab in the School is led by Professor Key. Using zebrafish as an animal model, Professor Key is interrogating the role of interactions between Autism susceptibility genes in the developing brain.

http://www.uq.edu.au/sbms/staff/professor-brian-key

Contact:
Brian.key@uq.edu.au
Dr Enzo Porrello

Dr Porrello’s research group is trying to understand the molecular mechanisms that regulate cardiac regenerative capacity in mammals. His group’s major research interest is in trying to decipher the mechanisms by which large gene regulatory networks are altered in the heart during the neonatal period and to understand how these changes contribute to cardiomyocyte maturation and regenerative arrest after birth.

Contact:
e.porrello@uq.edu.au
To understand how defects in antiviral immunity contribute to virus-induced asthma.

Key words
- Asthma
- Immunology
- Innate immunity
- Pneumovirus
- Mouse models
- Translational research
Dr Johan Rosengren’s research group focuses on understanding of how structural features of bioactive peptides guide their function and how to manipulate these to alter selectivity for various targets or increase stability, with the aim being the development of novel peptide based therapeutics. *Main techniques used in our laboratory are peptide synthesis, chromatography, mass spectrometry and NMR spectroscopy, for production, purification and structural characterization of peptides.*

Contact: j.rosengren@uq.edu.au
Professor Chen Chen's research group is working on the endocrine regulation of metabolic disorders, such as obesity, diabetes, heart diseases and endocrine-related cancers. His group established world first mouse pituitary hormone pulsatile analysis methods and studied secretion profiles of GH, LH, PRL, Insulin, Leptin, etc. in order to clarify pathological mechanism of metabolic disorders. His lab is also skilled in studying intracellular signaling molecules to identify cellular regulatory mechanisms of hormone synthesis, storage, endo- and exocytosis. Linking to the diseases is currently to diabetes, diabetic cardiomyopathy, ischemic cardiomyopathy, endometrial and colorectal cancers.

Contact: Chen.chen@uq.edu.au
3. World class Science Precinct.
2 schools
4 Institutes
~700 PhD
Interested in work in institute/Centre? We are big on collaboration......
Shanghai CAS-SBMS Symposium 2014
Opportunities to train in top overseas labs.

We have links with NZ (Otago), UK (Oxford), Germany (Ludwig Maximillian U, Munich), France (Paris), Netherlands (Utrecht), and China.
Our International links

China

Germany

France (UPMC)

University of Otago, New Zealand

United Kingdom

University of Oxford

The University of Queensland
5. Rich student experience.
Postgrad activities....

- Postgraduate Student Association - pastoral and social role
- SBMS weekly seminar
- Queensland Physiology Interest Group (QPiG) seminar
- SBMS Postgraduate Conference
- Conferences within and outside Australia
2015 INTERNATIONAL POSTGRADUATE SYMPOSIUM IN BIOMEDICAL SCIENCES

November 2 – 4

HOSTED BY THE UQ SCHOOL of BIOMEDICAL SCIENCES with participation by: SCMB, AIBN, QBI, TRI, QIMR, IMB, UQCCR, SOM, MMRI

INTERNATIONAL PARTICIPANTS:
Cambridge University (UK)
Oxford University (UK)
University of Otago (New Zealand)
Universite Pierre et Marie Curie (France)
Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Science, Guangzhou (China)
Institute of Nutritional Science, Chinese Academy of Science, Shanghai (China)
Capital Medical University (China)
Tsinghua University, (China)
SBMS International Postgraduate Symposium

Overseas students and staff
6. Very good lifestyle!

Good economy
Good weather
Good housing
130 + nationalities
No pollution
Natural beauty
Lifestyle! great weather, great beaches, lots of wildlife…and no financial crisis!
Want more Information? 
Check out our website http://www.uq.edu.au/sbms/.

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Conrad Sernia: c.sernia@uq.edu.au

Fiona Gilloway: f.gilloway@uq.edu.au
Heron Island Research Station

Questions?
Extra slides beyond this slide
Student Profile: Ying Wan

Reproduction: *Does growth hormone help us make babies?*

2nd year PhD student (Chen Lab).

Research Theme: *Investigating the Synergy between Growth Hormone and Kisspeptin during pubertal development*

Recent Key Publication:

*FJ Steyn & Y Wan (Co-first author), et al. (2013) Development of methodology for, and assessment of pulsatile luteinizing hormone secretion in juvenile and adult male mice. Endocrinology.*

(*This is first time showing true pulsatile luteinizing hormone profile in mice.*)
Dr Bradley Launikonis

Dr Launikonis’ research focus is to understand the mechanisms that (i) control calcium release during activity in muscle, and (ii) maintain calcium homeostasis in skeletal muscle fibres. Within this broad focus, the roles of ion channels, pumps and membrane lipid composition in skeletal muscle physiology are studied. Significant emphasis is given to how properties of the muscle change in disease and other stressed states. To unravel the physiological mechanisms that control skeletal muscle activity, imaging of muscle cell structures and calcium movements are performed.

Contact: b.launikonis@uq.edu.au
Visual Neuroethology laboratory

Dr. Ulrike Siebeck

Dr. Siebeck’s research group studies visual perception and processing as well as visual learning and cognition in fish. Main focal areas are colour vision, including sensitivity to ultraviolet light as well as pattern perception and object recognition. Her group’s work has contributed to driving the growing body of evidence which demonstrates surprisingly sophisticated cognitive abilities in animals lacking a neocortex. Dr. Siebeck’s group is particularly interested in the mechanisms underlying the various visual and cognitive abilities observed in fish and uses a unique combination of behavioural and computer vision techniques to analyse these abilities.
Dr Shyuan Ngo

Dr Ngo’s group aims to decipher how changes in cellular and whole body metabolism and physiology impact the degeneration of neurons and skeletal muscle pathology in motor neuron disease (MND).

Current research themes:
- assessment of whole body metabolism in patients living with MND
- assessment of whole body metabolism in animal mouse models of MND,
- investigating the neuroendocrine regulation of metabolic balance in MND
- use of MND patient derived neurons and skeletal muscle fibres to assess neurometabolic and muscle metabolic capacity