

Curriculum Vitae: Dr. Michael Watson

Present Position & Level: Associate Professor.

Faculty / Department: School of Medicine, St. George University, Grenada.

Academic Qualifications: PhD (Monash Uni. Faculty of Medicine: 1995);
BSc (1st Class Honours; 1989)

Association Memberships: Australian Physiological & Pharmacological Society (1997-2003)
Australian Physiological Society (2003-present)
British Society for Cardiovascular Research (2007-present)

Relevant Research Area's: Ion channel function in health and disease; Cardiac ion channel function in Duchenne Muscular Dystrophy; Sensory neuron ion channel function and novel drugs for treatment of chronic pain.

Employment History:

Associate Professor: Dept. Physiology and Neuroscience, St. Georges University, St. George, Grenada (2009)

Visiting Research Fellow: University of Oxford, Department of Cardiovascular Medicine, John Radcliffe Hospital. (2008)

Lecturer in Human Physiology & Pharmacology (Level B) Dept. of Biological & Physical Sciences, University of Southern Queensland (2003 - 2008)

Associate Lecturer in Human Physiology & Pharmacology (Level A) Dept. of Biological & Physical Sciences, University of Southern Queensland (2002 -2003)

Associate Lecturer in Physiology & Pharmacology (Level A) Physiology and Pharmacology Dept. School of Biomedical Sci., University of Queensland (2001-2002)

Associate Lecturer in Anatomy, Physiology & Pharmacology (Level A) Australian College of Natural Medicine (2000-2001)

Post Doctoral Research Fellow Physiology and Pharmacology Dept. School of Biomedical Sciences, University of Queensland. (1997-1999)

Associate Lecturer (Level A) Faculty of Health & Behavioural Sciences, Deakin University (1994-1995)

Awards: University of Southern Queensland 'Excellence in Teaching Award' (2007)

Hobbies: Playing guitar and fishing

Teaching Experience / Expertise

Over the last 8 years I have given lectures and run laboratories for students studying Medicine, Nursing and Biomedical Science at the University of Queensland and University of Southern Queensland (USQ) and St. George University in the following subjects and areas:

<p>Neurophysiology</p> <p>University of Queensland MBBMS1000 Foundations of Medical Practice# BIOM2007B Human Physiology# BIOM2006 Principles of Biomedical Sciences*</p> <p>University of Southern Queensland BIO2203 Physiology I* BIO3303 Physiology II* BIO3323 Neuroendocrine Physiology* BIO4101 Advanced Neuroendocrine Physiology I* BIO8101 Advanced Neuroendocrine Physiology II*</p>	<p>Respiratory Physiology</p> <p>University of Queensland MBBMS1000 Foundations of Medical Practice# BIOM2007B Human Physiology# BIOL1105 Human Biology*</p> <p>University of Southern Queensland BIO2203 Physiology I* NSC1931 Anatomy & Physiology* BIO3303 Physiology II*</p>
<p>Cardiovascular Physiology</p> <p>University of Queensland MBBMS1000 Foundations of Medical Practice# BIOM2007B Human Physiology# BIOM2006 Principles of Biomedical Sciences* BIOM3005 Cardiovascular Science*</p> <p>University of Southern Queensland NSC1931 Anatomy and Physiology^ NSC2180 Physiology & Pharmacology^ BIO2203 Physiology I* BIO3303 Physiology II*</p>	<p>Renal Physiology</p> <p>University of Queensland BIOM2007B Human Physiology# BIOM3005 Cardiovascular Science*</p> <p>University of Southern Queensland NSC1931 Anatomy & Physiology^ BIO2203 Physiology I* BIO3303 Physiology II*</p>
<p>Pharmacology</p> <p>University of Queensland BIOM2041 Prin. of Pharmacology & Toxicology* BIOM3008 Biomedical Pharmacology*</p> <p>University of Southern Queensland NSC2180 Foundations of Physiology & Pharmacology* BIO2901 Current Topics in Biomedical Science* BIO3313 Pharmacology*</p>	<p>Muscle Physiology</p> <p>University of Queensland BIOM2007B Human Physiology# BIO1105 Human Biology* BIOM2006 Principles of Biomedical Sciences*</p> <p>University of Southern Queensland BIO2203 Physiology I* NSC1931 Anatomy & Physiology^</p>

Medicine

*Biomedical Science

^ Nursing

Funding:

Parent Project Muscular Dystrophy
“Nitric Oxide Signalling in DMD”
US\$100 000 per year (2006-2008) for 3 years.

Watson, M. Actions of synthetic conotoxins on sodium channels in sensory neurons. USQ Early Career Researcher Program. (2002-2004) \$ 8,650 US

Hoey A & Watson, M. Combined Antisense oligonucleotide and steroid treatments in DMD. Research Infrastructure Program (RIP) \$ 32,535 US

Hoey, A. Learmonth, R. & Watson, M. Electrophysiology and Enhanced Fluorescence Suite. (RIP) \$ 56,899 US

Watson, M. & Hoey, A. Advanced Electrophysiology Suite (RIP) \$ 65,790 US

Referees

Professor Andrew Hoey,
Head of Dept. of Biological & Physical Sciences,
University of Southern Queensland
Toowoomba. QLD, 4350.
email: hoey@usq.edu.au

Professor David Adams,
Chair of Physiology
Head of School of Biomedical Sciences
University of Queensland
Brisbane, QLD 4072
email: dadams@uq.edu.au

PUBLICATIONS:

Refereed journal publications -

Lyster DJ, Bywater R.A.R., Taylor G.S.T and **Watson M.J.** (1992) Effects of a nitric oxide synthase inhibitor on non-cholinergic junction potentials in the circular muscle of the guinea pig ileum. *J Auton Nerv Syst.* **41(3)**:187-96.

Watson MJ, Bywater R.A.R., Taylor G.S.T and Lang R.J (1996) Characterization of the membrane conductance changes underlying the apamin-resistant NANC inhibitory junction potential in the guinea-pig proximal and distal colon. *J Auton Nerv Syst.* **60(1-2)**:31-42.

Watson MJ, Bywater R.A.R., Taylor G.S.T and Lang R.J (1996) Effects of nitric oxide (NO) and NO donors on the membrane conductance of circular smooth muscle cells of the guinea-pig proximal colon. *Br J Pharmacol.* **118(7)**:1605-14.

Bywater R.A.R., Lyster D.J.K., **Watson M.J.**, Furukawa K. and Taylor G.S.T. (1996) Junction Potentials in the Intestines of Guinea Pigs and Mice. (481-493) In. *Smooth Muscle Excitation* Ed. Tadao Tomita. Academic Press.

Lang RJ, and **Watson M.J.** (1998) Effects of nitric oxide donors, S-nitroso-L-cysteine and sodium nitroprusside, on the whole-cell and single channel currents in single myocytes of the guinea-pig proximal colon. *Br J Pharmacol.* **123(3)**:505-17.

Nielsen K, **Watson M**, Adams D., Gage P, Hammarstrom A, Adams D, Thomas L, Hill J, Alewood P Craik D, Lewis R. (2002) Structure of μ -conotoxin PIIIA, a preferential inhibitor of persistent TTX-sensitive sodium channels. *Journal Biol. Chem.* **277(30)** 27247-55.

Woolf PJ, Lu S, Cornford-Nairn R, **Watson M**, Xiao XH, Holroyd SM, Brown L, Hoey AJ. (2006) Alterations in dihydropyridine receptors in dystrophin-deficient cardiac muscle. *Am J Physiol Heart Circ Physiol.* **290(6)**:H2439-45.

Submitted

Marrett G, **Watson M**, Woolf P, Laws N and Hoey A. (2008) The effect of aging and fibrosis on cardiac contractility and lusitropy in mdx hearts and isolated cardiac myocytes. *Am J Physiol Heart Circ Physiol.*

M. Watson, E. Lee & A. Hoey. (2008) Contribution of Nitric Oxide to vagal nerve function in the dystrophin deficient heart. *Muscle & Nerve.*

Laws N, Cornford-Nairn R, Irwin N, **Watson M** and Hoey A (2008) The effects of long-term perindopril treatment on *mdx* mice. *Muscle & Nerve*

Conference proceedings

Watson. M, Taylor GS and Bywater RAR (1990) Myogenic properties and intrinsic innervation of the circular smooth muscle in the mouse cecum *Proc. Aust. Physiol. Pharm. Soc.* **77P**

Watson. M, Taylor GS and Bywater RAR (1991) Effect of μ -conotoxin GVIA on excitatory and inhibitory junction potentials recorded from the circular muscle cells of the mouse distal colon. Proc. Aust. Physiol. Pharm. Soc. **172P**

Watson. M, Taylor GS and Bywater RAR (1992) Nitric oxide mediates the slow apamin insensitive inhibitory junction potential in the mouse distal colon. Proc. Aust. Physiol. Pharm. Soc. **7P**

Watson. M, Taylor GS and Bywater RAR (1992) The *in-vitro* effects of mucosally applied chemicals on intestinal smooth muscle in the guinea-pig. Proc. Aust. Physiol. Pharm. Soc. **57P**

Watson. M, Taylor GS and Bywater RAR (1993) Mechanisms of hyperpolarisation induced by a nitric oxide donor and nerve stimulation in the circular muscle of the guinea-pig proximal colon. Proc. Aust. Physiol. Pharm. Soc. **168P**

Lang RJ, Vogalis F, **Watson M**, Bywater, RAR, and Taylor GS (1993) β -adrenoceptor activation decreases a Ca^{2+} insensitive transient K^+ current in smooth muscle cells of the guinea-pig colon. Symposium on Neuroeffector mechanisms. Pharmacology Dept. Oxford University

Watson. M, Taylor GS and Bywater RAR (1994) Hyperpolarisations induced by sodium nitroprusside and 8-bromo-cGMP in circular muscle cells from the guinea-pig proximal colon. Proc. Aust. Physiol. Pharm. Soc. **155P**

Watson M, Lang R, and Taylor GS. (1994) Effects of nitric oxide donors on the single channel activity in single circular muscle cells of the guinea-pig proximal colon. Proc. Aust. Physiol. Pharm. Soc. **215P**

Watson M, Lewis R and Adams D. (1998) Effects of synthetic conotoxins on whole cell Na^+ currents recorded from the dorsal root and nodose ganglion. Proc. Aust. Physiol. Pharm. Soc. **64P**

Watson, M. Nature of the rhythmic oscillations recorded at negative potentials in gastrointestinal smooth muscle (2002) Proc. Aust. Physiol. Soc. **2426P**

Xiao Hui Xiao, Peter Woolf, **M Watson**, Sai Lu, Andrew Hoey (2004). Alterations in cardiac dihydropyridine receptors and calcium channel function in *mdx* mice. Proceedings for Int. Soc. Heart Research **A40**

Watson M, Holmes G, Byrne T and Cornford S. (2005) Simulation of visual processing in retinal ganglion cells. Proc. Aust. Physiol. Soc. **83P**

G. Marrett, N. Laws, **M. Watson** and A. Hoey (2006) Altered contractile, electrophysiological and Ca^{2+} release from left atria and isolated ventricular myocytes from *mdx* mice Proc. Aust. Physiol. Soc. **68P**

M. Watson, E. Lee & A. Hoey. (2008) Contribution of Nitric Oxide to vagal nerve function in the dystrophin deficient heart. Australian Physiological Society. **110P**

