



# AuPS News

September, 2006

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## Newsletter

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## Physiology in Australia

Physiology in Australia is at an interesting stage of its evolution. At present, there are at least seven Professor (Chair) of Physiology positions at national universities currently vacant and being advertised. I believe that this provides a wonderful opportunity for the career advancement of upcoming Australian physiologists and also the revitalisation of those Physiology departments.

Physiology in Australia has a long and distinguished tradition and the Society should take a more proactive role in promoting the achievements of physiology in Australia. The University of Queensland is to celebrate the 70th anniversary of the founding of the discipline of physiology at the Medical School in 1936 when Professor Doug Lee (1905-2005) was appointed as the Foundation Chair of Physiology. This occasion and others that I hope may occur at other institutions, provides an excellent opportunity to engage our alumni and learn more about the history of research and teaching in physiology in Australia. I look forward to hearing from Physiology departments when they recognise significant achievements or occasions. The



AuPS Council would also appreciate expressions of interest in the vacant Archivist position.

The upcoming AuPS/Com-Bio meeting at the Brisbane Convention Centre promises to be an outstanding meeting with numerous distinguished international speakers giving plenary lectures or participating in Symposia. The plenary lectures are as follows: '*NHE3 and its signalling complexes*' by Professor Mark Donowitz (Johns Hopkins University School of Medicine, Baltimore, USA), '*Mechanisms of peripheral pain sensitization*' by Professor Gerry S. Oxford (Indiana University School of Medicine, Indianapolis, USA), '*The transient receptor potential (TRP) ion channels: recent progress*' by Professor David Clapham (Harvard Medical School, Children's Hospital Boston, USA) and '*New insights in age-related impairments in muscle function*' by Professor John Faulkner (University of Michigan, Ann Arbor, USA). The AuPS Invited Lecture entitled '*The early origins of adult health*' is to be given by Professor Caroline McMillen, University of South Australia and the AuPS/NZPS Guest Lecture entitled '*Kiss and tell in the brain: kisspeptins and the neural control of fertility*' to

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be delivered by Professor Allan Herbison, University of Otago, Dunedin, NZ.

I would also draw members attention to the ComBio Education Workshop hosted by AuPS and the UQ School of Biomedical Sciences Education Research Unit 11 am to 4 pm Sunday, September 24th, 2006. This will complement the ComBio educational seminar series held later during the conference. The theme of the workshop is '*Research-led Learning and Teaching: Exploring what works*' which will focus on the role of research in learning and teaching in the biological and biomedical sciences. Sessions will include a keynote lecture on active learning, delivered by Dr Dee Silverthorn (USA) followed by a series of workshops. The AuPS Student Career Perspective Mixer will be held 7 pm to 9 pm Tuesday 26th September with Professor

David Clapham as the guest speaker. All student members are welcome to an exciting talk from one of the world's leading physiologists and an opportunity to talk to Professor Clapham.

The Conference Dinner will be held at Hillstone, St Lucia on Wednesday night, 27th September and provides an excellent chance to interact with other colleagues in ComBio.

Finally, I wish to thank the Local AuPS Organising Committee working together with the ComBio Organising and Programme Committee and Sally Jay Conferences for putting together such an excellent scientific and social programme. I wish to encourage all members, including student members, to attend the AuPS Annual General Meeting at 5 pm on Wednesday 27th September and become involved in the activities and future of **your** professional society.

**David Adams**  
President

## AuPS Announcements



### **Membership Database**

The AuPS membership database has undergone a major upgrade in the way it is managed. The database now resides on a MySQL server, which is part of the web hosting service used by the Society. This has a number of benefits. Changes made by the Treasurer or by a member are now immediately visible. Credit card payments recorded by the server are automatically entered into the member's record, and there is improved provision for special circumstances to be entered into the record.

Members can also now change their email address, something that used to require hand intervention. Problems with non-ASCII characters in addresses, something that affects a number of overseas members has also been addressed. But most importantly the web interface available to the Treasurer means he can manage the database in a way that was impractical under the system that was replaced.

The search engine has also been improved. For example, you can now search on email addresses, or parts thereof.

So please check that your own database entry

is up to date at:

<http://www.aups.org.au/Members>

It is especially important for email address changes to be recorded. Old email addresses often work for some time, but can cease working without notice. It can be remarkably difficult for the Society to learn of your new email address if this happens.

### **Handbook for Members**

In April a revised Handbook for Members was posted to all members. Copies have also been sent to members who have joined since that time. If you did not receive a copy, contact the Treasurer, Stefan Bröer.

### **Members Email List**

Members can send email to all AuPS members by using the address [members@aups.org.au](mailto:members@aups.org.au). Messages should be restricted to ones that are of general interest to members; they should be short and have a useful subject line. Messages should preferably not have any attachments - large documents, posters etc. should be made available on a web site where they may be downloaded at the discretion of the reader. Please ensure that you include your contact information in the message.

This members' mailing list is moderated. If you send an email to members address, you will

receive a reply advising that the message has been held for attention by the moderator. Provided the message meets the above criteria, it will normally be approved soon after.

### AuPS Editor

Recently, Dave Davey resigned from the position of AuPS Editor - a position he has held since 2002, overseeing the transfer of the Proceedings to an electronic publication. The AuPS Council is looking to appoint a new editor and would like to hear from any members who would be interested in taking on this important task for the Society.

**Trevor Lewis**  
t.lewis@unsw.edu.au



### Postcard from Spain

I did my Honours and PhD in muscle physiology at the ANU under the supervision of Prof. Angela Dulhunty. One thing I realised early on was that scientific writing (thesis, papers, etc) wasn't one of my strengths. This was hardly surprising given that, like most, I had no formal training in the area. To her credit Angela worked hard with me and my writing improved. Scientific writing is now my profession.

My first post-doc position was in 1993 at the University of Poitiers in France. Shortly after arriving there, researchers began trickling into my office to seek help with the English in their papers. This soon became a steady flow. I thought if writing papers is hard for me, how difficult must it be for non-English speakers? A couple of years later, in 1995, I had a position at Harvard. It's hard to believe but the internet was only just emerging at that time, and to my surprise manuscripts from my French colleagues started appearing in my e-mail. Though correcting these papers was inconvenient, it sparked an idea which led me to leave Harvard to set up a manuscript editing business. I also had the good fortune at that same time to be offered work by George and Gabriela Stephenson in their muscle physiology labs in Melbourne. That collaboration, or should I say friendship, continues to the present and we're still publishing papers.

I now run the editing business from Seville in Spain where I live with my wife (who I met in Poitiers!) and our three children. Next year I will begin teaching an online scientific writing course at ACU as well as present a writing workshop at Showa University in Tokyo. Angela will be pleased.

**Michael Patterson**  
editor@sciencedit.com  
www.sciencedit.com

### NEW APPOINTMENTS



**Dr Gavin Pinniger** recently returned to Australia after completing a post-doctoral appointment in Bristol (UK) investigating the molecular mechanisms of force production during muscle lengthening. He has been appointed an Associate Lecturer in Physiology at UWA and his current research activities include the assessment of therapeutic strategies to reduce the susceptibility of dystrophic muscle to exercise-induced muscle damage and investigating the effects of inflammatory mediators on skeletal muscle function.



**Dr Rebecca Haddock** has recently returned to Australia, to take up a post-doctoral position with Shaun Sandow at the University of New South Wales. Her research will include investigating the relative functional contribution of endothelial-derived vasodilatory and vasoconstrictor mechanisms in human and diet-induced obese and normal rat small arteries. Rebecca completed her PhD with Caryl Hill (ANU) and spent 1.5 years with Dr Tom Cunnane (Department of Pharmacology, Oxford University) where she was investigating sympathetic nerve transmission in smooth muscle.



**See you in Brisbane!**

**ComBio 2006 at the Brisbane Convention Centre, 24 to 28 September**

The ComBio 2006 meeting in Brisbane is shaping up to be an exciting and scientifically rewarding event with >1000 registrants representing the Australian Society for Biochemistry & Molecular Biology (ASBMB), the Australian Society of Plant Scientists (ASPS), the Australian Physiological Society (AuPS), the Australia and New Zealand Society for Cell and Developmental Biology (ANZSCDBI), the New Zealand Society for Biochemistry and Molecular Biology (NZSBMB) and the New Zealand Society of Plant Physiologists (NZSPP) in one fully integrated meeting. There are a total of 10 streams, with 23 plenary lectures and over 60 symposia covering a comprehensive range of the biological sciences (see web site for further details).

The Education workshop on Sunday (24 Sep) has 90 registrants listed and will feature a Keynote address from Dr Dee Silverthorn (American Physiological Society Council Member). AuPS will host a mixer at the Ship Inn (South Bank) at

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## Student Event at ComBio

There will be plenty of opportunities for student interaction at the AuPS meeting in Brisbane (September 24-28). The student activities begin on Tuesday at lunchtime, where ComBio are running a student lunch. This will be a fantastic opportunity to network with the whole cohort of students at ComBio and will provide students with an opportunity to meet the plenary speakers who will be in attendance.

The two major events for AuPS students are the AuPS student dinner and the conference dinner. These two events will be held on the Tuesday and Wednesday evenings, respectively. Our keynote speaker at this year's student dinner is Prof David Clapham. Prof Clapham is a Howard Hughes Medical Institute Investigator and a member of the National American Academy of Arts and Sciences. He is the recipient of numerous awards and prizes, including the Cole Award for Contributions to Membrane Biophysics of the Biophysical Society, the American Society for Clinical Investigation Award for Research and Contributions to the Biomedical Community, and the American Heart Association Basic Science Award. He has published numerous high impact articles in *Nature*, *Nature Genetics*, and *Nature Neuroscience*. We are privileged to have Prof Clapham as our guest at this year's event where he will talk about his personal experiences in science and offer some insights and advice to our students. This is a unique opportunity that should not be missed. There will also be drinks and food and plenty opportunities to meet AuPS students and to chat with Prof Clapham.

The conference dinner will be held on the Wednesday night and I encourage all students to attend. This event is heavily subsidized for AuPS student members.

This year's AuPS meeting promises to offer its students plenty of opportunities for interaction with each other and with senior scientists. I look forward to seeing and meeting many of you in Brisbane.

**Enzo Porrello**  
AuPS student rep

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the conclusion of the workshop (4:30-6:30 pm). In addition there will be two lunchtime Education Symposia featuring presentations from AuPS members. On Tuesday (26 Sep) the symposium will investigate 'Novel Methodologies for Teaching and Learning' and on Wednesday (27 Sep) 'Evolution of Undergraduate Science Courses'.

There will be a Career Development Forum at 4 pm on Sunday (24 Sep) that will provide students and early career researchers with useful career development advice and the opportunity to discuss their career aspirations with a panel of experts. In addition, there will be the AuPS student evening on Tuesday night at 7 pm at the Saville in South Bank that all students are encouraged to attend (see further details on page 4 of this Newsletter).

As always, the AuPS will be presenting awards for best oral and poster presentations by student members. These prizes will be awarded at a ceremony in conjunction with the closing address, from 5.20 pm on Thursday 28 Sep, before the farewell drinks.

There will be social events every night, with a mixer on Monday night at the conference centre and a cocktail reception on Tuesday night in the trade display area. The conference dinner will be held on Wednesday 27 Sep at Hillstone, St Lucia. This is a traditional-styled historic venue with open verandahs and outdoor terraces situated at the St Lucia golf course near The University of Queensland.

The meeting promises to provide an excellent opportunity to interact with colleagues from other disciplines and share ideas and information in a relaxed and stimulating forum. The completed timetable for the conference is now available on the web.

On behalf of the local organising committee, I look forward to welcoming you to Brisbane and ComBio 2006.

**Phil Poronnik**

Secretary, local organising committee  
p.poronnik@uq.edu.au

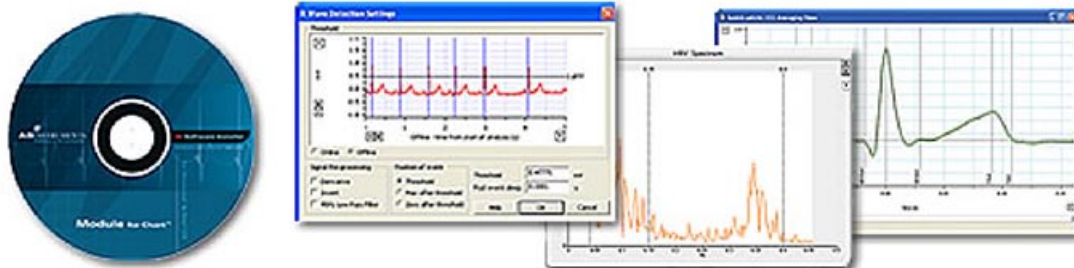
#### Notes:

The full program for ComBio 2006 can be found at:

<http://www.asbmb.org.au/combio2006/program.html>

Please contact Philip Poronnik, the Secretary of the Local Organising Committee if you have any queries.

## Blood Pressure, ECG and Heart Rate Variability Analysis with PowerLab



Cardiovascular data analysis just got easier with PowerLab and Chart's **Blood Pressure Analysis**, **ECG Analysis** and **Heart Rate Variability (HRV)** Modules. These modules can be used online or offline, and provide researchers with even more acquisition and analysis power when working with data from humans through to mice.

- **The Blood Pressure Module** automatically detects, analyses and reports a set of cardiovascular parameters from arterial (e.g. systolic, diastolic, dicrotic notch) or ventricular (e.g. dP/dt, Max-Min, EDP) pressure signals.
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## Profile: Prof Caroline McMillen

The AuPS Lecturer 2006 has been awarded to Professor Caroline McMillen (UniSA), who has made significant contributions to the discipline of physiology through her research, teaching and leadership. Prof.



McMillen completed her BA(Hons) and Doctor of Philosophy in physiological sciences at the University of Oxford, before being awarded a Foulkes Foundation Fellowship to study Clinical Medicine at the University of Cambridge. After completing her clinical training, Prof. McMillen took a lectureship at Monash University, where she spent ten years developing her research interest in fetal development. In 1992, she was appointed to the Chair of Physiology at The University of Adelaide and in December 2005 she was appointed Pro Vice Chancellor and Vice President: Research and Innovation at the University of South Australia.

Prof. McMillen's research has pursued the mechanisms that underlie the fetal neuroendocrine and cardiovascular adaptations to intrauterine growth restriction and the impact of the periconceptional environment on fetal development. This has led to important experimental evidence on how chronic restriction of the placenta may reprogram the fetal development of the endocrine and cardiovascular systems, and contribute to hypertension and obesity in adult life. The significance of this research has been recognized with the award of a NHMRC Program Grant to continue research in this area in her role as the Director of the Research Laboratory for the Early Origins of Adult Health.

Learning and teaching has also featured strongly in Prof. McMillen's academic career. While at Monash, Prof. McMillen played a major role in the development of a new medical curriculum. One particular innovation was the introduction of a Clinical and Communication Skills, which received commendation in the Australian Medical Council Accreditation of the Monash Medical Course. At Adelaide, Prof. McMillen initiated a learning and teaching centre in physiology, that resulted in the introduction of a variety of learning environments for medi-

cal and biomedical undergraduates as well as postgraduate students. These developments has been supported by several grants and resulted in a number of publications.

Prof. McMillen has also exhibited inspiring academic leadership, in encouraging the development of staff and students within the departmental environment and more broadly in the discipline. Prof. McMillen has supported the Tall Poppies Campaign and the Women's Executive Development Program of the Australian Technology Network. Nationally, Prof. McMillen has contributed to NHMRC grant panels, ARC grant committees, and Australian Medical Council accreditation committees. Internationally, she is currently Chair of the Endocrinology, Reproduction and Development Commission of the International Union of Physiological Societies.

This is just a brief outline of some of the achievements of Prof. McMillen, who is a worthy recipient of the AuPS Lecturer 2006. I look forward to hearing more of her research and life in science when she presents the lecture at ComBio 2006.

**Trevor Lewis**



## Symposium at AH&MRC

AuPS is sponsoring a symposium as part of the Australian Health and Medical Research Congress (AH&MRC) this November. The AH&MRC runs from November 26 until December 1 at the Melbourne Exhibition and Conference Centre. Early bird registration and abstract submissions close on August 11.

The AuPS-sponsored symposium '*Exercise, skeletal muscle and health*' (8.30 – 10.30 am, Tuesday, November 28) includes presentations by Prof. Erik Richter and Prof. Bente Kiens, Institute of Exercise and Sport Sciences, University of Copenhagen, Denmark and Assoc. Prof. Gordon Lynch and Prof. Mark Hargreaves, De-

partment of Physiology, The University of Melbourne.

The congress features over 60 international speakers amongst the more than 200 invited speakers. The program also includes free communication sessions for younger researchers to present their work. There will be an award for the best poster presentation in the area of stem cell research and two poster presenters will be nominated for the AH&MRC MSD Best of the Best Poster Award (\$8,000) and the CASS Foundation Best of the Best Student Poster Award (\$5,000). Abstracts selected for oral presentations have the opportunity to also present a poster in order to be eligible for these awards.

**Mark Hargreaves**  
email address

For further information on the full program, registration and abstract submission, please see:

<http://www.ahmrcongress.org.au>

## **Book review: Case-based Medical Physiology**

Christopher Bell, Cecil Kidd & Trefor Morgan  
Blackwell Publishing, 2005. 166pp  
ISBN: 13:978-1-4051-2061-6

Anne Sefton provides a review of this text in the Proceedings of the AuPS, which has recently been placed on the web site. In her review, Anne commends the way in which the 19 cases are presented, with relevant questions appropriately placed at different stages in the narrative. Most of the major systems are covered and it lends itself well to the problem-based mode of learning. Read the full review in the Proceedings: <http://www.aups.org.au/Proceedings/37/51/>

**Trevor Lewis**

This issue of AuPS News has been compiled by Trevor Lewis. The next issue of AuPS News will be distributed to members in December 2006. Any contributions for AuPS News should be sent to: [t.lewis@unsw.edu.au](mailto:t.lewis@unsw.edu.au)

### **IMPORTANT DATES**

#### **24 September 2006**

Biomedical education workshop (in conjunction with Combio).

#### **24 - 28 September, 2006**

2006 AuPS Scientific Meeting, joint meeting with Combio, Brisbane Convention Centre, Brisbane, Australia.

#### **15-18 October 2006**

The 6th Congress of the Federation of Asian and Oceanian Physiological Societies, Seoul, Korea.

#### **28 November 2006**

Symposium: *Exercise, skeletal muscle and health*, sponsored by AuPS, as part of the Australian Health and Medical Research Congress (26 Nov to 1 Dec 2006)

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