



AuPS News

March 2005

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AuPS Website

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

President's Message

My election as the President of the Australian Physiological Society (AuPS) at the 2004 AGM in Sydney is both a personal honour and a privileged opportunity to serve physiology in Australia. I joined the Society in 1976 as a postgraduate student in the laboratory of Professor Peter Gage at the University of NSW and I remained a member during my 18 years overseas (1978-1995). I returned to take up the Chair of Physiology at the University of Queensland in 1995 and have been Head of the Department of Physiology & Pharmacology and subsequently School of Biomedical Sciences since 1997. My commitment as President of AuPS is to reinvigorate the Society, involve the broader physiology community and encourage increased postgraduate student participation in the activities of the Society. I look forward to working together with the AuPS Council to increase the membership of the Society and attendance at our annual meetings. The Society is in a sound financial position and I propose that



the Society utilise both its financial and personnel resources to raise the profile of our meetings. The involvement and support of the Heads of the Discipline of Physiology in Australia and young physiologists in our Society is critical to its future. I am optimistic that an increased financial investment and the involvement of our Special Interest Groups in the annual meetings will reinvigorate and increase the membership of the Society.

Finally, congratulations to the past-President (2000-2004) Professor Peter Gage and Associate Professor Tony Luff who was Editor (1988-1991) and National Secretary (1995-1999) of the Society, on their election as Honorary Members of AuPS. I look forward to their continued counsel and involvement in the activities of the Society in future years. The Society relies on the commitment of the elected Councillors and Officers and I wish to acknowledge their support in moving AuPS forward.

David Adams

CALENDAR OF EVENTS 2005

8-9 March, 6th Science Meets Parliament, Parliament House, Canberra.

31 March – 5 April, 35th IUPS Congress in San Diego, CA.

<http://www.iups2005.org/>

27 - 30 September, Joint AuPS and ASB Meeting, Canberra.

The Australian Physiological Society is an Incorporated Association in the State of Victoria. Reg. No. A0021266A

AuPS 2005: Canberra

Canberra will be the venue for the joint Australian Physiological Society and Australian Society for Biophysics meeting in 2005. The meeting will be held at the Rydges Lakeside Hotel, Canberra, starting the evening of Tuesday 27th September and will run until Friday 30th September.

AuPS Local Secretary for the meeting is Dr Stefan Bröer (Stefan.Broeer@anu.edu.au) from the School of Biochemistry and Molecular Biology at the Australian National University. The organizing committee is comprised of Dr Louise Tierney (School of Biochemistry and Molecular Biology, ANU) and Dr Nikki Beard (Division of Molecular Bioscience, JCSMR). The Australian Society for Biophysics Local Secretary is Dr Paul Smith (Department of Chemistry, ANU) with assistance from Dr Shin-Ho Chung (Department of Theoretical Physics, ANU).

6th Science Meets Parliament March 8/9, 2005

Organised by the Federation of Australian Science and Technology Societies (FASTS) the 6th Science meets Parliament will be held on Tuesday 8 March and Wednesday 9 March 2005.



Dr Craig Neylon (University of Melbourne) and Dr. Dirk van Heldon (University of Newcastle) will be representing the AuPS at this event. A report on Science Meets Parliament will appear in the next issue of AuPS News.

Further details can be found at: <http://www.fast.org/>

Student representative on AuPS Council

Enzo Porrello, from the Department of Physiology, University of Melbourne, has been elected to be student representative on council. The student representative on council is elected by the student members of AuPS. Enzo can be contacted at:

e.porrello@ugrad.unimelb.edu.au

New name and logo for the Society



As a result of the enthusiastic response from the membership, the name of the Society has now been changed to the “Australian Physiological Society”, which is abbreviated to AuPS. The web site is now accessed at: <http://www.aups.org.au>

To accompany the new name, the Society has a new logo. It incorporates some of the elements of the old logo, to retain some continuity, but has been re-styled so that it will have more visual impact on web sites or other electronic media, as well as in print. Dave Davey has done a great job in integrating the new logo into the website and various society documents.

AuPS on the web

Handbook for Members

The website has now effectively replaced the paper versions of the Handbook for Members and email is now the default means of communication with and within the Society. For this reason, it is vital that members make sure that the AuPS has your correct email address. You can check and edit your details on the website (see: Member Resources). If any assistance is needed, contact the Editor (Dave Davey). In particular, if you move and change your email address, please let the editor know.

Membership online

It is now possible to apply for membership of AuPS on-line (see: About AuPS - Membership, on the web site). Students who will be attending the Canberra meeting would be well advised to apply now. Student members benefit from reduced registration, travel grants and the ability to be considered for the student prizes.

Advertise on the AuPS web site

Have you a post-doctoral position or other research position available in your laboratory? Perhaps you have a PhD scholarship available? Well, why not advertise these positions on the AuPS website? Members of AuPS can advertise for free on the AuPS website with any jobs, scholarships and fellowships that they have available. Please send any enquiries to the Editor.

Dave Davey: daved@physiol.usyd.edu.au

Material for the AuPS News

It is anticipated that there will be three issues of AuPS News a year (February, June and October). If you have any material such as achievements and awards to AuPS members, or events that will be of interest to members, we would like to hear from you! Please email either the National Secretary (David Saint) or the Communications Officer (Trevor Lewis) with any information for distribution and / or inclusion in AuPS News. Material for each issue needs to be received at least two weeks before the beginning of the month.

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2004 Student Presentation Prizes

At the AuPS meeting in Sydney (November 2004), prizes were awarded for the best oral and poster presentations by student members of AuPS. These prizes are generously sponsored by SDR Clinical Technology and by Blackwell Scientific Publications.



**Clinical and
Experimental
Pharmacology and
Physiology**



CEPP Poster Prize

Awarded to **Susana Park**, an Honours student from the John Curtin School of Medical Research, for the presentation: S.B. Park, G.J. Stuart, C.E. Hill & A.T. Gullledge. *Cholinergic modulation of pyramidal neuron excitability in the prefrontal cortex.* (100P).

Cholinergic modulation of pyramidal neuron excitability in the prefrontal cortex. (100P).



CEPP Oral Presentation Prize

Awarded to **Nicole Stupka**, a PhD student at the University of Melbourne, for the presentation: N. Stupka, B.J. Michell, D.R. Plant, R. Bassel-Duby, E.N. Olson, B.E. Kemp & G.S. Lynch. *Increased calcineurin phosphatase activity improves fatigue resistance whilst*

Increased calcineurin phosphatase activity improves fatigue resistance whilst

maintaining specific force in diaphragm muscles from dystrophic mdx mice. (46P).



SDR Clinical Technology Poster Prize



Awarded to **Enzo Porrello** (University of Melbourne) and presented by Peter Kenny from SDR Clinical Technology, for the presentation: E.R. Porrello, C.E. Huggins, C.L. Curl, S.B. Harrap, W.G. Thomas & L.M.D. Delbridge. *Increased angiotensin AT2 receptor expression is associated with neonatal cardiac growth restriction in a genetic model of adult cardiac hypertrophy.* (81P).

SDR Clinical Technology Oral Presentation Prize



Awarded to **Jonathan Schertzer** (University of Melbourne) and presented by Peter Kenny from SDR Clinical Technology, for the presentation: J.D. Schertzer & G.S. Lynch. *Optimizing methods for ectopic expression of protein in murine skeletal muscle* (42P).

A.K. McIntyre Prize 2004

In 1994, the Society established the A.K. McIntyre Prize in honour of the Society's first President. The prize is awarded for members of the Society who are judged to have made significant contributions to Australian Physiological Science over their pre-doctoral and early postdoctoral years.



The 2004 A.K. McIntyre Prize was awarded to **Dr. Matthew Watt** (Skeletal Muscle Research Laboratory, RMIT University). Dr. Watt completed his PhD in physiology at Deakin University (2001), and

then undertook a post-doctoral appointment at University of Guelph and McMaster University, Canada, before returning Australia in 2002 and being awarded a Peter Doherty Fellowship (NHMRC, 2004). His research interests include investigating the regulation of fat metabolism in skeletal muscle. In particular, he has examined hormone sensitive lipase activity and its regulatory factors in human and rat skeletal muscle. These were the first studies to be conducted in healthy human skeletal muscle. The aim of this research is to delineate the relationship between lipid accretion in skeletal muscle, obesity and insulin resistance.

Dr. Watt receives the A.K. McIntyre Prize medal and \$1000. The Prize is generously supported by SDR Clinical Technology. The judging panel for the prize was David Adams, Lea Delbridge, Craig Neylon, Peter Gage and David Saint.

Two new prizes

The AuPS Council has initiated two new prizes to recognize the achievements of students and post-doctoral scientists who are members of the Society. These prizes are the Best Student Publication and the Best Postdoctoral Publication in 2004. An award of \$500 was offered for each of these prizes, as a contribution towards travel to a scientific meeting. These winners of these prizes were announced at the AGM in Sydney.

Best Postdoctoral Publication 2004



The Best Postdoctoral Publication was awarded to **Dr. Robyn Murphy** (La Trobe University), for her paper: Murphy R.M., Stephenson D.G. & Lamb G.D. (2004). Effect of creatine on contractile force and sensitivity in mechanically skinned single fibers from rat skeletal muscle. *American Journal of Physiology, Cell Physiology* 287(6): C1589-95.

Best Student Publication 2004

In this instance, the judges could not decide on a single winner in this category. So two awards were made, sharing the prize with \$250 each. The winners were:

Nathan Absalom (Garvan Institute of Medical Research), for his publication:



Absalom, N.L., Lewis, T.M., Kaplan, W., Pierce, K.D. & Schofield, P.R. (2003). Role of charged residues in coupling ligand binding and channel activation in the extracellular domain of the glycine receptor. *Journal of Biological Chemistry* 278, 50151-50157.

Christopher van der Poel, for his publication: van der Poel C. & Stephenson D.G. (2002) Reversible changes in Ca(2+)-activation properties of rat skeletal muscle exposed to elevated physiological temperatures. *Journal of Physiology (London)* 544, 765-76.



Christopher van der Poel, being congratulated by National Secretary David Saint, on being awarded one of the prizes for Best Student Publication 2004.

AuPS Lecturer

At the AuPS meeting in November 2004 (part of the Australian Health and Medical Research Congress), Prof. David Cook presented the AuPS Lecture. His lecture was titled 'From Berlin to Sydney: 40 years of exocrine physiology'. Prof. Cook gave an historical overview of the development of ideas in exocrine physiology and in particular the contributions of Prof. John A. Young to the field. This was rounded off with examples of recent developments in Prof. Cook's laboratory where he has made significant contributions to understanding the regulation of the epithelial sodium channel and the effects of viral proteins on exocrine function.



The AuPS Lecture Medal was presented to Prof David Cook by Prof Elspeth McLachlan

AuPS at the IUPS Congress

The 35th International Union of Physiological Societies (IUPS) Congress will be held from 31 March to 5 April 2005 in San Diego, California. David Saint, David Cook and David Adams will represent the AuPS at the Annual General Assembly. Australian physiologists are represented on the IUPS Council by Prof. Anne Sefton, (University of Sydney), who is also Co-Chair of the Education Committee for the IUPS 2005 Teaching Workshop. The following AuPS members are also prominently involved in the IUPS; Prof. Simon Gandevia (Prince of Wales Medical Research Institute) is Chair of the Exercise and Work Section of IUPS Commission I on Locomotion; Prof. Caroline McMillen (Adelaide University) is Chair of the Development Section of IUPS Commission III on Endocrine, Reproduction and Development; Prof. David Cook (University of Sydney) is Chair of the Epithelial Section of IUPS Commission V on Secretion and Adsorption.

2004 AuPS – Physiological Society (UK) Exchange Lecturer



At the recent AuPS meeting in Sydney, Prof. David Beech delivered a lecture on "Emerging functions of 10 types of transient receptor potential (TRP) cationic channel in vascular smooth muscle" as the Physiological Society (UK) Exchange Lecturer. In his lecture, Prof. Beech reviewed the original identification of the *TRP* gene from studies of the photoreceptors in *Drosophila*. This led to the discovery of at least 25 mammalian homologs of the *TRP* gene and the identification that they encode cationic channels. At least 10 of these 25 TRP channels have a functional role in vascular smooth muscle. Prof. Beech summarised some of these functions (for example, a role in vasoconstriction and in hypo-osmotic sensation) and how dysfunction or altered expression of TRP channels can lead to disease (for example, polycystic kidney disease and idiopathic pulmonary arterial hypertension). Such a diversity of function provides a tremendous opportunity to investigate this interesting family of non-voltage-gated cationic channels. The lecture delivered by Prof. Beech is published in the Proceedings of the AuPS and can be found online at:

<http://www.aups.org.au/Proceedings/36/1-8/>

2005 AuPS – Physiological Society (UK) Exchange Lecturer

In 2005, the AuPS Council has nominated Prof. Simon Gandevia (Prince of Wales Medical Research Institute) as the Exchange Lecturer to attend a Physiological Society meeting in the UK. To date there have been three Physiological Society (UK) Exchange Lecturers that have visited Australia: Prof. Nick Standen (2001), Prof. Jonathan Ashmore (2003) and Prof. David Beech (2004). In 2002, Prof. David Cook (University of Sydney) was the APPS Exchange Lecturer to the UK.

This issue of AuPS has been compiled by Trevor Lewis, with assistance from David Saint, Dave Davey and David Adams.