



Australian Neuroscience Society Newsletter

No. 3

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www.ans.org.au

ANS/AuPS Annual Meeting Sydney 2010

We are delighted to invite you to participate in ANS/AuPS 2010, incorporating the Annual Meeting of the Australian Neuroscience Society and the 50th Anniversary Meeting of the Australian Physiological Society.

The meeting will be from 31 January to 3 February 2010 at the Darling Harbour Convention Centre, where the highly successful ANS 2006 meeting was held. It will include a celebration of the 50th anniversary of the first meeting, also held in Sydney, of the Australian Physiological and Pharmacological Society, from which both ANS and AuPS have grown. As co-chairs of the Organising Committee, we believe that this meeting will provide a wonderful opportunity for stimulating interactions between physiologists and neuroscientists.

The scientific program will include symposia and free communications, and plenary lectures to be presented by David J. Adams, David Attwell, Herbert Herzog and Gilles Laurent. The program will provide ample time and space for poster presentations. Once again there will be a trade display and an Exhibitor Passport Competition, and your chance to win one of the excellent prizes on offer.

The Committee will ensure that this meeting will also be socially enjoyable. In addition to our popular 'mixer' on the Sunday evening and the Conference Dinner on Tuesday night, there will be a special event on the Monday evening – a Seminar and Cocktail Party celebrating the 50th Anniversary of AuPS, to be held at the University of Sydney. Bus transport will be provided to transport you from the Sydney Convention Centre for this special celebration.

The conference venue is adjacent to several conference hotels and within walking distance of the city centre, China Town, the Maritime Museum, the Powerhouse Museum, the Sydney Aquarium, IMAX theatre and a



diverse mix of cafes, bars and restaurants. Ferries connect Darling Harbour to Circular Quay, from where you can take a leisurely stroll around The Rocks – the historic heart of Sydney – or sip champagne at the Sydney Opera House. From Circular Quay you can take a ferry to several other attractions, such as Taronga Park Zoo, Manly Beach or Watson's Bay.

For further details of registration and abstract submission please visit the website at:
<http://www.sallyjayconferences.com.au/sydney2010/>

We look forward to seeing you in Sydney.

Sam Solomon & Roger Dampney
Co-chairs, ANS/AuPS 2010

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ANS/AuPS 2010 PLENARY LECTURES AND SYMPOSIA

ANS/AuPS Overseas Lecture

Gilles Laurent, Director Max-Planck-Institute for Brain Research, Frankfurt/Main, Germany

The Physiological Society (UK) Exchange Lecture

David Attwell, Jodrell Professor of Physiology, University College London

ANS Plenary Lecture

Herbert Herzog, Professor and Director, Neuroscience Program, Garvan Institute of Medical Research, Sydney

AuPS Invited Lecture

David J. Adams, Professor and Director, Health Innovations Research Institute, RMIT University, Melbourne

The Presidential Symposium

Chairs: ANS President, David Vaney and AuPS President, David Adams

The Presidential Symposium will feature talks by four outstanding postdoctoral scientists who have recently received either the AW Campbell Award of ANS or the AK McIntyre Prize of AuPS

IBRO/ANS Symposium: Current neuroscience research across the Asia-Pacific region

Chair: Elspeth McLachlan, Prince of Wales Medical Research Institute, NSW, Australia

Auditory Neuroscience - neuronal signaling in development, repair and innovation in bionics

Sponsored by Garvan Institute of Medical Research

Organiser & Chair: Gary Housley, University of New South Wales, NSW

Breaking the code: the theory of spikes & axons

Organiser: Dario Protti, University of Sydney, NSW

Chairs: Dario Protti, University of Sydney, NSW and Klaus Stiefel, Okinawa Institute of Science and Technology, Japan

Energy expenditure and body weight - new views of an old vista

Organisers: Brian Oldfield & Iain Clarke, Monash University, VIC

Chair: Iain Clarke, Monash University, VIC

From molecular motors to neurodegeneration

Sponsored by Brain and Mind Research Institute

Organiser: Brett Garner, Prince of Wales Medical Research Institute, NSW

Chairs: Brett Garner, Prince of Wales Medical Research Institute, NSW & James Vickers, University of Tasmania, TAS

Gastrointestinal motility; neural or myogenic?

Organisers & Chairs: Marcello Costa, Flinders University, SA and Joel Bornstein, University of Melbourne, VIC

Get moving - cell migration during development

Sponsored by Florey Neuroscience Institutes

Organiser: Julian Heng, Florey Neuroscience Institutes

Chair: Seong-Seng Tan, Florey Institute, VIC

Innovative microscopy; new approaches to fluorescence microscopy

Sponsored by Carl Zeiss Pty Ltd

Organisers & Chairs: David Allen and Sam Solomon, University of Sydney, NSW

Ion channel dynamics

Sponsored by Victor Chang Cardiac Research Institute

Organiser & Chair: Jamie Vandenberg, Victor Chang Cardiac Research Institute, NSW

Mechanisms underlying exocytosis and endocytosis: potential relevance to health and disease

Organisers: Damien Keating, Flinders University, SA and Jens Coorssen, Uni. of Western Sydney, NSW

Chair: Phil Robinson, Children's Medical Research Institute, NSW

Molecular mechanisms of neuronal growth and plasticity

Organisers: Helen Cooper, Queensland Brain Institute, QLD and Jenny Gunnensen, Howard Florey Institute, VIC

Chair: Helen Cooper, Queensland Brain Institute, QLD

Neurohardware: Restoring Brain Function with Bionics

Organisers: Brendan O'Brien, Australian National University, ACT, and John Morley, University of Western Sydney, NSW

Chair: Brendan O'Brien, Australian National University, ACT

Pain, motoneurons and movement: unraveling the effects and mechanisms

Sponsored by University of Queensland

Organiser & Chair: Paul Hodges, University of Queensland

Structure and regulation of epithelial transporters

Organiser & Chair: Daniel Markovich, University of Queensland, QLD

TRP and store-operated Ca²⁺ channels in health and disease

Organiser & Chair: Grigori Rychkov, University of Adelaide, SA

2010 ANS Awards and Prizes - Call for Nominations

See ANS website (www.ANS.org.au) for full details. Nominations for all 2010 prizes and awards are due by November 20th, 2009 and should be submitted to the ANS Secretary, Ann Turnley (turnley@unimelb.edu.au). Applicants must be Members in good standing on the 30th June in the year of nomination. The 2010 ANS Awards and Prizes will be awarded at the 2010 ANS meeting in Sydney.

AW Campbell Award: for the best contribution by a member of the society in their first five postdoctoral years.

Nina Kondelos Prize: for outstanding contribution to basic or clinical neuroscience research by a female neuroscientist.

Paxinos-Watson Prize: for the most significant neuroscience paper published by a full member of the society. For 2010, the Paxinos-Watson Prize will be for papers published in 2008.

ANS Council Elections – Call for Nominations

ANS calls for nominations for ANS Council positions that fall vacant in 2008. Council positions that are falling vacant are:

a) Secretary, 2010-2011. The current Secretary, Ann Turnley has only served one term as ANS Secretary and is eligible to be renominated for a second consecutive term.

b) Treasurer, 2010-2011. The current Treasurer, Jacqueline Phillips, has only served one term as ANS Treasurer and is eligible to be renominated for a second consecutive term.

c) Editor, 2010 -2011. The current Editor, David Small is eligible to be renominated for an additional term.

d) Council Representatives for ACT, NZ, SA, Vic and WA, 2010-2011. The current representatives for each of these states, ACT (Clarke Raymond), NZ (Louise Nicholson), SA (Nick Spencer) and Vic (Joanne Britto) have only served one term as State Representative and all are eligible to be renominated for a second consecutive term. The WA representative (Don Robertson) will not be standing for re-election.

To nominate for a position, please fill out a nomination form and send to the ANS Secretariat, Sally Jay Conferences (ans@sallyjayconferences.com.au or fax 08 8362 0038) by November 20th, 2009. Nomination forms are available for download from the ANS website (<http://www.ans.org.au/ans-membership/nomination-form/>). In the event of more than one nomination for a position, a postal ballot must be held prior to the 2010 AGM and details will be provided in the December ANS newsletter. The Society strongly encourages multiple nominations for each Council position in order to ensure the best possible representation for ANS members.

News

Prizes and Awards to ANS members

Congratulations to Professor Jürgen Götz, Director of the Alzheimer's and Parkinson's Disease Laboratory at the Brain and Mind Research Institute in Sydney, who was presented with the award of NSW Scientist of the Year 2009 (Category Biomedical Sciences). The ceremony took place at the Powerhouse Museum with the award being presented by the Honourable Jodi McKay MP, Minister for Science and Medical Research.

Presentation on ANS Public Outreach

On behalf of ANS, Professor Glenda Halliday, Past President, spoke on 'Australian Neuroscience Society - Public Outreach through Community-based Activities' at a symposium entitled 'Neuroscience and Society: Global Perspectives' for the Japanese Neuroscience Society, Nagoya, Sept 16 2009.

The symposium brought together representatives of neuroscience societies and organisations from around the world to share how neuroscientists are working together to further dialogue with society. They discussed the critical role neuroscientists can play in translating to the public the excitement of neuroscience research discoveries and their

implications for public policy, societal benefit, and continued scientific progress.

Australian and New Zealand Students Stand Out in the International Brain Bee, Toronto

In an exciting finish, that saw the top five finalists of the International Brain Bee competition separated by only one or two points, Casey Linton (QLD) representing Australia; and Stephen Mackereth (AUK) representing New Zealand battled through to come second and fourth respectively, with Stephen winning a separate contest on "Brain Assembly".

This is a marvellous achievement in an international field of competitors which included Canada- Sean Amodeo; Grenada- Makalani Manwarring; India - Nidhi Ramaraj (third place); Romania - Smaranda Rosioru; Uganda- Wampaalu Peter; and the United States- Julia Chartrove (first place).



*Middle row right-end: Casey Linton of Somerset College Queensland, Australia
Top row left: Stephen Mackereth, Kings College, North Island, New Zealand*

Congratulations to all those involved in the 2008 Australian Brain Bee Challenge which culminated in this thrilling result. More information: Toronto Media/Video: http://www.torontosun.com/news/torontoandgt/2009/08/08/10403176.html#/news/columnists/michele_mandel/2009/08/09/pf-10405486.html

Registrations for Australian Brain Bee Challenge 2010 are now open on ABBC website: www.abbc.edu.au

Australian Course in Advanced Neuroscience (ACAN)

This year marked the fifth anniversary of ACAN, which has been offered annually since its establishment by Alan Finkel in 2005. The course is now a prominent fixture on the neuroscience calendar, offering 12 students the opportunity to learn advanced concepts and techniques in cellular neurophysiology from a faculty of more than 20 Australian and overseas experts. ACAN has evolved considerably since its inception. The lab program has been expanded to include cell culture and molecular biology, student-run tutorials have been introduced, and the course has become increasingly international, with the presence this year of two Chinese students who were funded by Fellowships from IBRO and the ANS. Below are the impressions of two of this year's students.

Planning for next year's course is already well advanced. ACAN 2010 will be held from Sunday 11 April to Saturday 1 May, 2010. The call for applications will go out within the next month, with an application deadline of 14 Dec 2009. For further details, please visit the course website (<http://www.ans.org.au/acan>). If you are a PhD student, post-doctoral fellow or junior faculty with a desire to learn neurophysiology from some of the world's foremost experts, I strongly encourage you to apply. You will be able to look forward to an exhilarating scientific experience, as well as the opportunity to form lifelong friendships.

*John Bekkers
Director, ACAN*

ANS ISSUES



Foreground: David Tsai (UNSW). Background (L-R): Jennie Cederholm (UNSW), Michael Williams (Univ Melbourne), Ian Gibbins (Flinders Univ), Andrew Garrett (ANU).

Earlier this year I was given the opportunity to attend the Australian Course in Advanced Neuroscience which was run over three weeks in April and May. While I approached the course hoping to learn how to patch clamp, my expectations were greatly surpassed. By the end of ACAN, I felt well prepared to tackle almost any problem associated with cellular neuroscience.

During the course, our day-to-day life was roughly split into two activities. In the mornings we were given instruction on the fundamental theories of neuroscience, usually delivered by an expert scientist in the field. In the afternoons we could be found huddled at our microscopes, attempting to perform that day's experiments. Although my colleagues were mostly postgraduate students of varying scientific backgrounds and nationalities (one was even from New Zealand), we were encouraged to work at our own pace and, more importantly, to ask questions. Unfortunately for the instructors, our pace generally involved working late into the night, night after night. We were, however, intent on developing a formidable experimental arsenal to take back with us to our labs.

I was constantly amazed at the seamless progression of ideas and techniques which were presented throughout the course. From humble beginnings on day one, when we learnt whole-cell somatic patches, we were skillfully nudged further into the forefront of neuroscience. By the end of the course, several of us even reached the lofty peaks of paired dendritic/somatic recordings with simultaneous Ca^{2+} imaging.

So, at the end of ACAN all I got was a t-shirt... and a first-rate understanding of the theoretical and experimental aspects of cellular neuroscience.

Andrew Garrett
Postdoctoral Fellow
Synapse and Hearing Group
John Curtin School of Medical Research, Canberra

At the beginning of this year, I was luckily chosen as a member of the Australian Course in Advanced Neuroscience 2009. As a Chinese PhD student, this is my first time to go abroad for study. It is truly exciting to have such a great opportunity and also challenging to seize it. Being both exhilarated and nervous, I headed for an unfamiliar continent far away from home.

The course was held on North Stradbroke Island, which is a perfect spot for ACAN. The life on this beautiful island every day is quite rich and wonderfully exhausting. This is my routine. Every morning, after a peaceful morning walk on the beach and simple but delicious breakfast, there are two lectures about certain subjects from fundamental to frontier. I enjoyed the lunch afterwards quite a lot because I can always benefit a lot from the conversation with lecturers during the meal. We started the experiments with a lab briefing. I luckily cooperated with

a perfect lab partner, Helen Gooch; and we were demonstrated to patiently by gorgeous Dr. Louise Faber. We analysed the data and summarized the whole day after supper which is accompanied by the noisy parrots. That was my favourite part of the day. All of us were gathering together, presenting what we have achieved, discussing the problems we met, and sharing the solutions.

For me, ACAN provided well-organized lectures given by charming lecturers, intensive experiments designed and guaranteed by careful maintenance, the active and harmonious atmosphere bringing great cooperation and brilliant ideas. It gave me not only the necessary knowledge and techniques in neuroscience, but also new thoughts and different aspects in scientific research and new friends who I hope to build lasting friendship with.

Thanks to Professor Sah, we two Chinese students got invited to visit QBI for another week after ACAN. This whole journey for me is priceless and will benefit my future career and life.

Yefei Li
PhD student
Synapse Development and Plasticity Laboratory
Institute of Neuroscience, Shanghai, China



Front (L-R): Students Wenqin Hu (Inst of Neuroscience, Shanghai) and Jaime Foong (Univ Melbourne). Back (L-R): Faculty Meyer Jackson (Univ Wisconsin, Madison), Nelson Spruston (Northwestern Univ, Chicago) and Joe Lynch (Univ Queensland).

STATE NEWS

Victoria

Upcoming Events

Brain Awareness Week (BAW) 2010

The BAW campaign is an international initiative that is gaining momentum in Australia. It will be held on the 15-21 March, 2010 and during this week our aim is to elevate public knowledge of the process and benefits of brain and neuroscience research.

We had a successful week in 2009 and would like to broaden the activities in 2010. Last year we organized radio broadcasts, public lectures, school visits and a Victorian Neuroscience Network evening attended by ANS members from multiple Universities/Institutes. We are encouraging ANS members to participate in BAW activities, and if your organization is interested, please contact Joanne Britto (joanne.britto@flore.y.edu.au) or your local ANS-Vic committee member (<http://www.ans.org.au/state-and-nz-members-pages/victoria>).

Australian Brain Bee Challenge (ABBC)

Have you heard of ABBC? This is the only neuroscience competition for high school students and is one of the more successful neuroscience outreach programs held throughout Australia and New Zealand. ABBC is a three-part competition: Round 1 is held during Brain Awareness week and is an online quiz for Year 10 students. The top

STATE NEWS *(contin.)*

schools/individuals from Round 2 are selected for the state finals. Winners of the state final progress to Round 3, the National Final held at our annual ANS meeting. The winner of the National final has the opportunity to represent their country in The International Brain Bee Competition.

We are in the process of recruiting secondary schools willing to partake in Victoria ABBC 2010. If you know any students/teachers who might be interested, please contact the coordinators:

Heather Young: h.young@unimelb.edu.au

Juliet Taylor: juliet.taylor@mcri.edu.au

For more information go to <http://www.abbc.edu.au>

Joanne Britto

ANS Vic Representative

NSW and ACT

ANS members in NSW and ACT now have the opportunity to also be members of the new Sydney Chapter of the Society for Neuroscience. Clarke Raymond and myself recently called for nominations for the founding Chapter Council and we are very pleased to announce that Alan Freeman, who was responsible for submitting the Chapter proposal to SFN, will be the new Chapter President. We also have four new Councilors - Kay Double, Thomas Fath, Cathy Leamy and Greg Stuart - one of whom will take on the role of Secretary/Treasurer. It has also been agreed the Council will co-opt the ANS representatives for the ACT and NSW, who are currently Clarke and myself. Both of us wish to congratulate the new Council members and thank them for nominating.

Peregrine Osborne

ANS NSW Representative

Clarke Raymond

ANS ACT Representative

UPCOMING CONFERENCES

see ANS website for further details

<http://www.ans.org.au/upcoming-conferences/>

- 3rd Protein Misfolding and Neurological Disorders Meeting, Port Douglas, Queensland, Australia, 3rd – 6th November 2009.
- 48th Annual National Scientific Conference of The Australian Society for Medical Research: “Neurogenetics on the Apple Isle”. The Grand Chancellor Hotel, Hobart, November 15-17 2009.
The 1st Congress of Asia-Pacific Society for Alcohol and Addiction Research (APSAAR 2009), Seoul, Korea, November 12-14, 2009.
- Australian and New Zealand Spinal Cord Society 2009 Conference 25 – 27 November 2009 Perth
- Molecular Pharmacology of Amino Acid Transmitters: From Cryptic to Contemporary Drug Targets November 28th & 29th, 2009 University of Sydney
- Australasian Association for Chemosensory Science 11th Annual meeting, Heron Island QLD, 2-6 December 2009.
- American Society for Neurochemistry Annual meeting, Santa Fe, New Mexico, USA, March 6-10, 2010.
- Eighth World Congress on Brain Injury, Washington, DC, March 10-14, 2010.
- 4th A+PD Symposium 2010 Sydney, April 22- 23, 2010.
- 7th FENS Forum of European Neuroscience, Amsterdam, The Netherlands, July 3-7, 2010.
- Measuring Behavior 2010 The 7th International Conference on Methods and Techniques in Behavioral research 24-27 August 2010, Eindhoven, The Netherlands.
- The 11th Biennial Australasian Schizophrenia Conference (ASC 2010), Sydney, Australia 22-24 September 2010.
- OzBio2010 The Molecules of Life - From Discovery to Biotechnology. Melbourne Australia Sept 26-Oct 1, 2010.
- 9th Biennial Meeting of the Asia-Pacific Society for Neurochemistry (APSN 2010), Phuket, Thailand October 18-20, 2010
- Federation of Asian-Oceanic Neuroscience Societies: 2010 Congress in India and Satellite Symposium in Sri Lanka. The 5th Congress will be hosted by the Indian Academy of Neuroscience and organised by Professor Prahlad Seth (pahladseth@gmail.com). Dates to be announced, tentatively November / December 2010. A satellite symposium in Sri Lanka is also proposed before or after the Congress and will be organised by Professor Ranil de Silva, President of the Neuroscience Society of Sri Lanka.

DONATIONS TO ANS RESEARCH (GIFT) FUND

Members are reminded that donations to the ANS Research (Gift) Fund are tax deductible. If you wish to make a donation, please email the ANS Treasurer, Prof Jackie Phillips at: jacqueline.phillips@asam.mq.edu.au all donations, regardless of amount, are most welcome.

ANS POLICY ON REQUESTS FOR PUBLICITY VIA EMAIL CIRCULATION

The standing policy of the ANS is to minimize email traffic to members. This is done by bundling brief announcements or news which needs to be disseminated between print newsletters into (at most) monthly plain text email circulars. Attachments are not sent with email to members, with very few exceptions (such as our core business of an annual Society meeting). This is to reduce both the risk of virus transmission via attachments received from outside sources, and the volume (ie. cost) of email traffic through University or Institute based servers. Meetings and other significant announcements (such as job vacancies) will also receive Society publicity, via links to appropriate web pages from the ANS web site, and by subsequent inclusion into the next print ANS newsletter when appropriate. Requests for these publicity services should be directed either to the Secretary, or to Sally Jay Conferences.

ANS WEBSITE AND NEWSLETTER

The ANS website is on-line at <http://www.ans.org.au/>. Members are encouraged to regularly check the website for updated information on positions vacant, travel awards and national and international neuroscience meetings. While announcements and news items cannot always be broadcasted as an email to ANS members, they are promptly loaded on the ANS website and so it is always worth a regular check of the news page. Current and recent newsletters are available to be downloaded in PDF format and information about ANS, including the current list of council members, historical facts and how to apply for ANS Awards and Prizes is readily available. For further information or requests to place announcements on the ANS website, please contact Ann Turnley (email turnley@unimelb.edu.au, phone 03 8344 3981). Similarly, we are very happy to include information or news items in the ANS newsletter. Anticipated copy deadlines are set out below. Material for inclusion can be topics for discussion, meeting announcements, meeting reports, prizes and awards received by ANS members, obituaries, and any other items of potential interest to members of our society.

DEADLINES FOR FUTURE NEWSLETTERS

December 2009

3rd December 2009

Alan & Elizabeth Finkel Awards For Neuroscience Research

Florey Neuroscience Institutes (FNI) is at the global cutting edge of neuroscience. Our programs are directed at a deeper understanding of brain structure and function in health and disease, and aimed at preventing, treating and curing brain diseases and disorders.

FNI was created by the amalgamation of the Howard Florey Institute with the Brain Research Institute and the National Stroke Research Institute. It is now the largest neuroscience institute in the southern hemisphere, and ranks in the top 10 in the world.

The Alan & Elizabeth Finkel Awards for Neuroscience are available for high-performing post-graduate students wishing to establish a career in neuroscience research. They are designed to top-up an existing scholarship, thus enabling the brightest research minds in Australia to complete their studies at FNI.

- The Award is valued at \$10,000 per annum, and is designed to top-up existing funding.
- The Award will be granted to a student with a background in neuroscience, biochemistry, medicine or a related discipline who is planning to undertake a higher degree by research (PhD) at the University of Melbourne.
- Scholarship work must be undertaken at FNI
- Awards will be of 3 years' duration with no extension.
- Deadline for applications is January 30, 2010.

www.fni.edu.au/scholarships.html



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