

October 2014



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www.ans.org.au

Australasian Neuroscience Society Newsletter



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Message from the President

Dear Colleagues,

I have had some very good feedback on the potential increased role of advocacy by the ANS. There remains the fundamental issue of the purpose and form of such advocacy activity. Neuroscience societies around the world vary in their approach to this. Many of us would be aware of the substantial program of advocacy by the US Society for Neuroscience (SFN). SFN is a very large organisation and supports a professional secretariat that is largely responsible for developing, coordinating and implementing advocacy activities. In the United States, this involves SFN representing the 'voice' of professional neuroscience investigators, with multiple programs targeted at various levels of government.

which acts on behalf of ANS and a number of other scientific societies to government and industry. There may be scope to increase our efforts here through more formal linkages to organisations, societies and foundations that are seeking to increase funding for particular diseases and conditions that affect the nervous system. We also clearly need to be vigilant on how neuroscience research is supported through the major public funding agencies.

It has been a while since ANS developed positions of policy, and our responses to issues raised in the public policy space by government and other organisations could possibly be more frequent; perhaps this is another sphere for greater levels of engagement. Please visit the Issues page of the ANS website to see where ANS has represented Members' interests across a spectrum of current concerns.

There has been some discussion nationally about developing standard curricula for the biomedical disciplines (see <http://www.cubenet.org.au>). I have also been approached by an ANS member about assisting in establishing a national curriculum for neuroscience. Hence, it may be timely to call on the substantial expertise in neuroscience education that exists amongst Society members to help establish a national neuroscience curriculum that could assist universities in this area.

Much of this is centred on maintaining adequate funding for neuroscience research, but also includes the provision of clear advice from US neuroscientists on legislative and regulatory issues, such as the use of animals in research. SFN also engages in global advocacy efforts, mainly in association with the Federation of European Neuroscience Societies (FENS) and the International Brain Research Organization (IBRO). IBRO has a strong record of global advocacy through programs to train young neuroscientists and promote brain science. The IBRO Global Advocacy Initiative, supported strongly by SFN and FENS, seeks to access and influence policymakers for increased support for neuroscience education and research. John Rostas, as President and Past-President of ANS, has been very involved both with the IBRO Global Advocacy Initiative as well as building new links with FENS.

In 2013, I had the pleasure of attending the British Neuroscience Association annual meeting in London, mainly to see how their associated 'Festival of Neuroscience' worked as an advocacy program. The Festival involved several days of events, from activities with school groups through to very well attended public lectures by neuroscientists, as well as public figures with an interest in the application of neuroscience research.

Although I sense the appetite for increased advocacy by ANS, we need to consider carefully how we expand in this area. On one hand, there is the prospect of influencing politicians and policymakers for increased funding of neuroscience research. However, advocacy for biomedical research, and in specific medical areas, is a very crowded field, and usually requires substantial resources. ANS is represented in this area by Science and Technology Australia (STA) (<http://scienceandtechnologyaustralia.org.au>),



James Vickers

*President, Australasian
Neuroscience Society*

October 2014

(Message from the President continued)

Is it also timely to look at having neuroscience education-based symposia at the Annual Meeting, potentially expanding our network and membership to educators?

As noted in a previous newsletter, there is tremendous public interest in neuroscience, but I am not sure that the ANS has the public profile to take advantage of this interest to help support the case for quality neuroscience research. Are there some (low-cost!) ways of lifting the public profile of Australasian neuroscience activity, or is this better achieved through critical partnerships?

Many of these areas would require ANS to act as a 'peak' body for neuroscience research. In order to do that effectively, it may be useful for ANS to work towards some more formal association with the range of neuroscience interest groups that have emerged in recent years, many of which run regular meetings around Australasia. In some cases, some of these meetings have arisen as these groups may potentially not feel that the ANS is responsive to their requirements, and/or represents their interests and strategic direction. I look forward to touching base with as many of these neuroscience-related groups as possible to see where ANS may better work with them to reach their goals.

Likewise, ANS will need to develop better relationships with the 'sustaining members' who provide sponsorship to the Society, and we need to grow our sustaining members to ensure that we have the sufficient support base to pursue some potential avenues of advocacy

As noted above, we would very much like to obtain Members' views on advocacy for ANS. With the assistance of the great new functionality of the ANS web site, you can make online contributions to this area by logging in as a Member and then navigating to the My Community section of the Member Centre. I look forward to your contributions and discussion!

Message from the Secretary

As you know, our 2015 annual meeting has been delayed from its usual January-February time until mid-August. This disruption to our timetable will affect a range of our activities. The major things affected are as follows:

2015 Annual General Meeting

We have received permission from the ACT Office of Regulatory Affairs to delay our 2015 AGM until the ISN/APSN/ANS Conference in Cairns, 23-27 August, 2015.

2015 Council Elections

Our Constitution stipulates that Council elections must be held in the month preceding the AGM. Hence, the next round of Council elections will be held in July 2015. All current Council members will serve in their current positions until then.

2015 ANS Awards

This refers to the A.W. Campbell, Mark Rowe, Nina Kondelos and Paxinos-Watson awards. These awards will be judged at the usual time (deadline 24 Nov 2014 - see separate call for applications in this newsletter). However, the awards for next year will be judged early to enable both the 2015 and 2016 awards to be announced and presented at the 2015 AGM in Cairns.

Nominations for Honorary Membership and Distinguished Achievement Awards

In the interest of raising membership awareness of these awards, Council has formalised the procedure for nominating members for both awards.

Honorary Membership. Distinguished neuroscientists who have rendered notable service to the Society shall be eligible for Honorary Membership of the Society.

Joe Lynch

*Secretary, Australasian
Neuroscience Society*

(Message from the Secretary continued)

Candidates for Honorary Membership must be nominated by Council and then elected by a majority of Members voting at an Annual General Meeting of the Society. Any member can propose a candidate for nomination by the Council as an Honorary Member. This proposal should be forwarded to the ANS Secretary (Joe Lynch j.lynch@uq.edu.au) and should include the following:

1. An abbreviated CV of the candidate (10 pages max)
2. A letter outlining the candidate's major contributions to neuroscience and to ANS (2 pages max)

There is no deadline for nominations, although those received by the end of May will arrive in time to be considered at the mid-year Council meeting held in June.

Distinguished achievement award. This is an occasional award for an outstanding contribution by an individual to neuroscience in Australia, and to the Australian Neuroscience Society. It is the highest honour conferred by the Society. Candidates for this Award would typically satisfy most of the following criteria:

- A distinguished neuroscientist who has rendered notable service to the society,
- recipient of a major international scientific award,

- made major discoveries that have advanced the understanding of the nervous system.
- made an exemplary contribution to mentoring young scientists

Candidates for Distinguished Achievement Awards are elected directly by Council. Any ANS member can formally propose a candidate for nomination by the Council for a Distinguished Achievement Award. This proposal should be forwarded to the ANS Secretary and should include the following:

1. An abbreviated CV of the candidate (10 pages max)
2. A letter outlining the candidate's main contributions in each of the 5 criteria listed above. (5 pages maximum)

Again, there is no deadline for nominations, although those received by the end of May will arrive in time to be considered at the mid-year Council meeting held in June.

Further information, together with lists of past recipients of these and other ANS awards, can be found on our website:
<http://www.ans.org.au/awards/awards>

Message from the Treasurer

Separate payments for ANS membership and conference registration.

Following from the separation of Secretariat and Conference Organization duties with the organizational structure of ANS, we have now separated payment of Society membership dues from registration to attend the Annual scientific meeting of the Society. This is a common situation in many Societies which brings many benefits. Membership renewal notices, for the 2015 calendar year, will soon be sent via the email address registered in the website. We urge members to ensure their contact details on the website are current and to renew their subscriptions. The member subscription for 2015 will be \$138 (GST incl.) for regular members and \$66.50 (GST incl.) for student members. Membership of the Society will bring a reduction in the registration cost for attending the meeting, as well as bringing benefits such as involvement in programming and eligibility for awards.

Members need to be aware also that the next couple of years represent a transition for the Society in terms of timing of the Annual scientific meeting. This largely arose opportunistically out of the joint meeting with the International Society for Neurochemistry (ISN) and the ability to then respond to member's requests to hold the meeting away from the traditional January/February period, when school commitments and grant applications are significant considerations. In 2015 the ANS meeting will be held in conjunction with ISN and the Asia-Pacific Society for Neurochemistry between the 24th and 28th of August in Cairns. This is a fantastic opportunity for ANS to hold a large International meeting with a broad range of topics of interest to all members. Those who remember the IBRO/ANS meeting in Melbourne in 2007 will remember the benefits arising from such a meeting. The timing of this meeting then provided the opportunity to not hold the 2016 meeting in January/February but to trial holding the meeting in another timeslot. The 2016 meeting is being held in Hobart in December (4th - 7th) and planning is underway for that.

Andrew Allen

*Treasurer, Australasian
Neuroscience Society*

(Message from the Treasurer continued)

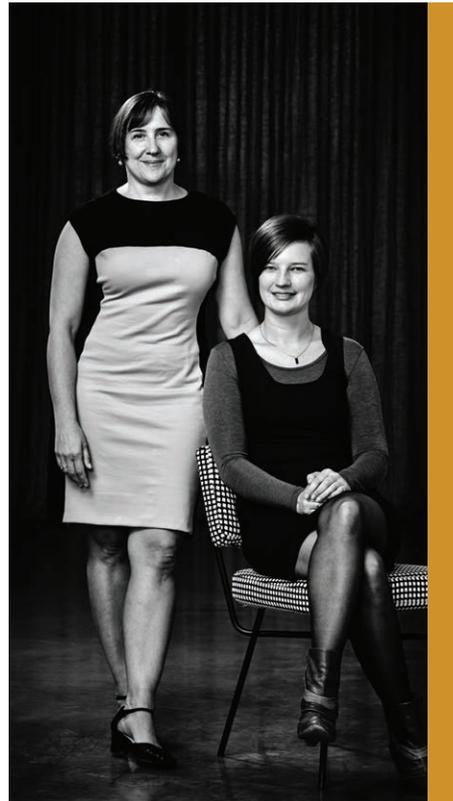
We thank you for your support of the Society throughout this transition. We hope the changes are of benefit and urge you to take advantage of these. In particular, please peruse the website and consider using this facility - for example for developing interest-based discussion groups or holding local meetings that can use the website's automatic payment facilities. The website represents a powerful resource and you are encouraged to discuss any aspect of this with members of the Executive. We are also considering how the website could be used as a more functional interaction with companies that support ANS and if you have ties with an interested company you are invited to discuss these opportunities further with the Executive of ANS.

Caption

Julie Bernhardt and Emma Burrows, co-chairs of Committee for Equality in Science of the Florey Institute of Neuroscience and Mental Health

Women in science leadership positions

While the number of women and men undertaking PhDs in medical science has been gender balanced for the past decade, the numbers of women successfully climbing through the ranks to the top of the academic tree are small. So why does this matter? Diversity leads to great discoveries and there is a wealth of evidence in support of interdisciplinary teams. These teams come up with the best ideas and solutions because of their diversity in the range of approaches and thinking styles.



Why are we failing to retain so many talented women? The reasons are complex and multifaceted. Unconscious bias, normalised discriminatory behaviours, absence of role models and mentoring, and pressures of balancing job insecurity with primary carer responsibilities impact on the success of women in science. In recent years there has been increasing awareness of the very real obstacles facing women in our profession. Many of Australia's science leaders are aware of the problems in our system and are committed to tackling them. Momentum to support women in science in Australia is growing and there are many exciting conversations to follow and action groups to learn from.

Women in STEM Australia aims to connect women and men in science across every professional sector – education, research, industry, academia and government. This online network and blog with over 1700 followers aims to highlight issues for women in science, but then extend the discussion to solutions.

Veski Inspiring women is an action focussed program funded by the State Government of Victoria to support, inspire and inform Victorian women through partnerships with government, industry, community and academia. Initiatives include; fellowships to support women scientists to return to research following a career interruption, inspiring women industry internships for female honours and masters students in STEM disciplines, and a dedicated inspiring women web portal assisting researchers to identify resources, information and opportunities that support their career progression

Women in science leadership positions

(Women in science leadership positions continued)

Women in Science Parkville Precinct (WISPP)

collaboration includes four of the largest medical research institutes in Australia, the Walter and Eliza Hall Institute (WEHI), Peter MacCallum Cancer Institute, Murdoch Children's Research Institute and The Florey Institute of Neuroscience and Mental Health who have recently joined forces to create big change in the area of women in science. While efforts of individuals within these institutes have resulted in a shift in policies and practices that are helping women stay in science, by joining together, the WISPP collaborative aims to tackle the broader and bigger issues that limit the progression of women in science. The WISPP group have engaged a social change group, REOS partners to assist them in developing actions to be adopted by the four institutes. Financial backing from Perpetual has set this project in motion and the group are looking to engage a business partner who has experience in the area, and is likely to similarly benefit from the outcomes of this project in the longer term.

SAGE forum aims to explore how an Athena Swan charter initiative might work in Australia. The Athena SWAN Charter was established in the UK in 2005. This program requires participant research organisations and departments to reflect on the reasons for the attrition of women and to develop an action plan tailored to the specific circumstances of their organisation or department. Participation in the Athena SWAN Charter has been mandated by some UK research funders, resulting in its widespread adoption attracting 114 universities and

institutes members.

The Australian Academy of Science will host a sector-wide workshop on the 25-26 November 2014, where representatives from the UK Equality Challenge Unit (responsible for managing the Athena SWAN Charter) will outline their experience, and workshop participants can discuss how a similar initiative might work in Australia.

Women in Astronomy - we are all stars. Now in its fourth year, this meeting brings together approximately 80-100 astronomers from around Australia to take part in facilitated discussions, professional coaching and networking.

Women in the Scientific Research Workforce Report funded by the ARC and industry partners, the Bio21 cluster, RACI and Science and Technology Australia, seeks to understand more about the careers of women and men in the Australian scientific research workforce, to inform both workforce planning and policy making in this area.

Who's responsibility?

All of us. Both women & men can contribute a unique perspective, develop ideas & champion change in this area.

What can you do?

Individual level

Be aware of your biases. Studies have shown that on the basis of identical job applications, women are judged as less competent and deserving of

a lower starting salary. Both men and women were susceptible to this unconscious judgment. The University of Melbourne is moving towards adopting compulsory gender bias training for those serving on promotion, grant and fellowship panels. Take the Harvard Implicit bias test and gauge your own bias towards men and science.

Call out discrimination. Champion change by calling out those who actively discriminate against women.

Nominate women. Women are often underrepresented on leadership and decision committees, as conference speakers and as applicants for awards and fellowship. This is not due to a lack of female scientists but a reflection of women being overlooked due to subtle bias and their lack of presence in organiser's social and professional networks. Actively nominating women for these roles and holding conference organizers accountable for gender balance at the podium can make a difference.

Mentoring. Young researchers greatly benefit when a more experienced colleague takes them under their wing. Successful mentor-mentee relationships often involve bidirectional growth, where the mentor also learns from their mentee.

Institution level

Gender Equity Committee. Establish a committee to champion change in the area.

Scrutinize metrics. Are women being promoted within your ranks and are your committees and governance bodies gender balanced? If not, why not?

Transparent promotion and recruitment policies.

Clearly defining leadership positions avoids tap on the shoulder promotion and recruitment.

Support families. Career disruption for both women and men often occurs during a time when they are seeking to establish an independent research program. Reflecting a generational shift in the way men and women wish to raise their families and care for elderly parents, many Australian institutes and universities are adopting family friendly meeting times, providing financial support during maternity leave, access to childcare facilities, and encouraging part-time working options for men.

Equity is everyone's issue and in order to find cures we must have the biggest ideas, we must think differently and we must certainly engage all our best brains.

Emma Louise
Burrows

Ashley Bush wins the 2014 Victoria Prize for Science & Innovation

Geoffrey A
Donnan

I was delighted when I was informed that Ashley Bush was to be the recipient of the 2014 Victoria Prize for Science and Innovation for his outstanding body of work on translational neuroscience. Previously, he has been the recipient of numerous awards including the Potamkin Prize for Alzheimer's research from the American Academy of Neurology, but this one has particular resonance as the most important prize in science for the State of Victoria.

Of course most of us are aware of the nature of his work in the area of Alzheimer's disease and the importance of metal ion biology in degenerative brain diseases. What is less well known is that with an H index of 76 he is the most highly cited neuroscientist in Australia over the last 10 years and rated in the top 1% of neuroscience researchers worldwide in the same period in the category of neuroscience and behavior. As NHMRC Australia Fellow and the head of the Oxidation Biology Unit at the Florey he has made fundamental discoveries which have altered the way we view Alzheimer's and other degenerative diseases.

While often swimming against the tide of conventional scientific thinking about the pathogenesis of Alzheimer's disease, the evidence he has produced to suggest that restoring the uptake of trapped physiological metals such as zinc, copper or iron may protect against degenerative and behavioral changes in animal models is overwhelming. He showed that the compound PBT2 could restore metal uptake and this has led to its subsequent testing in clinical trials of Alzheimer's

disease. Although signals were not achieved in phase 2 surrogate outcome studies using PET PIB as an amyloid marker, positive results were shown in Huntington's disease after demonstrating similar mechanisms were operative in animal models. The likelihood that this approach may be ultimately successful in these conditions seems high. Another interesting and novel approach he has been using is to target iron metabolism using ceruloplasmin to prevent its accumulation in Parkinson's disease; another lateral thought. The potential benefits don't need to be spelt out knowing the significant burden these degenerative diseases place on our rapidly ageing society.

He was also one of the key founders of the well-known AIBL study in which a cohort of individuals are being followed to determine imaging and blood based biomarkers which may provide a framework to predict the onset of Alzheimer's disease years before its onset. This information will allow trials of therapeutically conducted much earlier in the disease process with a consequent higher probability of success.



One of the most impressive aspects of Ashley's work overall has been his ability to go from proof-of-concept studies in animal models through to clinical translation. This is also supported by an entrepreneurial spirit which has led him to found a number of Australian and two US biotechnology companies. Hence he is an ideal person to have as Chief Scientific Officer for the Cooperative Research Centre in Mental Health. Many of you will have also heard him on radio or even television where his communication skills come across so strongly. All of this while also continuing occasional practice as a psychiatrist! An Australian polymath of the first order.

Caption

Ashley Bush, recipient of the 2014 Victoria Prize for Science and Innovation with Frank Caruso, recipient of the Victoria Prize for Science and Innovation - Physical Sciences. Images courtesy of veski

The preliminary scientific program for the 2015 meeting of ANS is now available on the web (www.neurochemistry.org/biennial-meeting/isn-2015-biennial-meeting). This conference will be held in conjunction with the International Society for Neurochemistry (ISN) and the Asian Pacific Society for Neurochemistry (APSN) at the Cairns Convention Centre from August 23-28, 2015. An exciting and varied selection of satellite meetings will bracket the rich scientific program of the main conference. These satellite meetings will range in length from one to four days and will be located both in the vicinity of Cairns and in more distant places. If you are interested in attending any of these satellite meetings you should contact the organisers for further details.



Satellite Meetings for Cairns 2015

Pre Conference Satellites:

18th International Symposium on Chromaffin Cell Biology (18th ISCCB)

Organisers: Fred Meunier, Damien Keating
Date & Place: 18-21 August 2015 Cairns, Qld

Understanding the Function of Glia in the Healthy and Diseased CNS

Organisers: Bernardo Castellano, Iain Campbell
Date & Place: 19-21 August 2015 Sydney, NSW

Nutraceuticals in Neurodegenerative Diseases and Aging

Organisers: Wei-Yi Ong
Date & Place: 19-21 August 2015 NUS, Singapore

Brain Transporters: From Genes and Genetic Disorders to Function and Drug Discovery

Organisers: Robert Vandenberg Renae Ryan
Date & Place: Robert Vandenberg Renae Ryan
20-22 August 2015 Palm Cove, Qld

Neuroinformatics 2015 World Congress of the International Neuroinformatics Coordinating Facility

Organisers: Gary Egan
Date & Place: 20-22 August 2015 Cairns, Qld

Frontiers in Neurodevelopmental Disorders (FiND)

Organisers: Elisa Hill-Yardin, Anthony Hannan
Date & Place: 21 August 2015, Sydney, NSW

From Synapses to Circuits and Behaviour

Organisers: Roger Nicoll, Pankaj Sah
Date & Place: 21-23 August 2015 Cairns, Qld

Making Neurons in the Developing Nervous System: from Bedside to Bench and Down Under

Organisers: Julian Heng, Orly Reiner
Date & Place: 22 August 2015 Cairns, Qld

DANDIS: Intracellular Protein Aggregates in Aging - why haven't we cracked the problem?

Organisers: Ian Musgrave, Gerald Muench
Date & Place: 22 August 2015, Cairns, Qld

Post Conference Satellites:

Metals in Neurodegeneration

Organisers: Jeffrey Liddell, Scott Ayton
Date & Place: 28 August 2015 Cairns, Qld

Myelin Biology

Organisers: Ben Emery, Kaylene Young
Date & Place: 28-31 August 2015 Fitzroy Island, Qld

ANS and ISN will fund Travel Awards to support young investigators to attend the meeting. The application deadline for these travel awards is February 15, 2015 with the results announced on March 12, 2015. The abstract submission deadline will be March 2, 2015 and the early bird registration deadline will be May 12, 2015.

John Rostas

Chair, LOC for Cairns 2015

Call for ANS Award Nominations for 2015

See the ANS website (ans.org.au/awards/awards) for full details of all awards. Nominations for all 2014 Awards are due by the 24th November, 2014, and should be submitted to the ANS Secretary, Joe Lynch (j.lynch@uq.edu.au). Applicants must be Members in good standing on the 30th June in the year of nomination. The 2015 Awards will be presented at the ISN/APSN/ANS Conference in Cairns August, 2015.



Caption

Perry Bartlett receiving the Distinguished Achievement Award from John Rostas.

A.W. Campbell Award

For the best contribution by a member of the society in their first five postdoctoral years.

Nina Kondelos Prize

Awarded to a female neuroscientist for outstanding contribution to basic or clinical neuroscience research.

Mark Rowe Award

This is a new annual award for the best publication by an early career researcher member of the Society. Paxinos-Watson Award: for the most significant neuroscience paper published by an ordinary (full) member of the society.

Honorary Memberships

Distinguished neuroscientists who have rendered notable service to the Society shall be eligible for Honorary Membership of the Society. Nominations can be forwarded any time to the ANS Secretary (Joe Lynch j.lynch@uq.edu.au).

Distinguished Achievement Awards

These are awarded occasionally to recognise an outstanding contribution by an individual to neuroscience in Australia, and to the Australian Neuroscience Society. Nominations are most welcome and can be forwarded any time to the ANS Secretary (Joe Lynch j.lynch@uq.edu.au).



Caption

Top: Simon Gandevia presenting Xin Du with the inaugural Mark Rowe Award. **Bottom:** John Rostas presenting Jillian Kril with the 2014 Nina Kondelos Award.

Australian Brain Bee Challenge Update

Teresa Tang, 2011 Australian Brain Bee Challenge (ABBC) champion and International Brain Bee (IBB) Champion, was awarded an SfN internship as part of her prize for winning the IBB in 2012. Since competing in the ABBC Teresa has continued to pursue her interest in neuroscience.



Teresa spent 1 week volunteering at QBI and observing the work of QBI scientists across a number of different laboratories and also shadowed a neurosurgeon for 1 week in 2011 to gain further knowledge and insight into neuroscience and neurosurgery. In 2012, Teresa undertook her own summer research project in the area of cognitive neuroscience for 10 weeks at QBI, under the guidance of Professor Jason Mattingley. Teresa is now studying at Princeton and completed an internship at the Shanghai Institute of Neuroscience from July 9 – August 1, 2014. Below is a report about Teresa's experiences at ION.

My internship at the Shanghai ION was spent in the Poo lab which mainly focuses on the area of brain plasticity. Since I did not have enough experience to conduct my own experiments, I divided my time between a number of researchers to gain an idea of the breadth of their investigations.

The majority of my time was spent with Deng Zhang, a PhD student working on electrophysiology. The purpose of his experiment was to see whether

stimulating groups of neurons in the visual cortex individually, together, then individually again would result in changes in the response of these groups to each other. To investigate this, he needed to first inject mouse brains in vivo with AAV carrying the gene for channelrhodopsin, and during my third week I was allowed to conduct some hands-on work to help with this process. I learnt to anaesthetize a mouse in the correct location and with the correct dosage, and then to cut hair off the scalp to allow easier surgery. Further practical work included securing mice with ear bars and positioning them inside stereotaxic frames, cutting scalps open above the visual cortex, drilling holes in craniums, using stereotaxic injectors to infuse fast green and AAV, and sewing scalps back up. In a few weeks' time after the virus is hopefully expressed, the mouse will have its visual cortex exposed again and stimulated with light for recording via electrodes.

Another PhD student, Meng-Jun Sheng, taught me how to perform perfusion on a mouse. At first I was not very accurate at estimating the length of the needle and instead perfused the esophagus and therefore the digestive system, but the operation was successful in the end. The extracted brain was then sliced using a vibratome. Sheng's research involves mapping the connections between the motor cortex and the striatum, and he hopes to eventually create a detailed striatal map, much like the motor homunculus. His main research method at the moment is using electrodes to stimulate the motor cortex and recording the associated physical movement. I also encountered various forms of imaging and microscopy, including

calcium imaging, fluorescence microscopy and two-photon microscopy. These techniques were performed both in vivo and on Nissl-stained brain slices which I learnt to mount and stain.

Other areas of research included testing the efficacy of different promoters in labeling cells in the direct pathway of the striatum, conditioning mice to fear sound at a particular frequency via electric shock, and training mice to push a 3D-printed contraption at different speeds to observe how the actions are encoded by the motor cortex.

It was amazing to see all the techniques I had read about in textbooks come to life. More importantly, the lab consisted of individuals with varying expertise, from molecular biology to programming and from surgery to electrical engineering, all coming together to make experiments work smoothly. I learnt many new things during my weeks here and I am extremely glad to have had this opportunity; although I may not necessarily pursue neuroscience as a career, my experience here has given me an insight into what research is like in whichever area of molecular biology I choose to study in the future.

Teresa Tang

Australian Course in Advanced Neuroscience (ACAN) 2015



Caption

Top: Unwinding. **(L-R):** Das Alwis (Monash), Phill Bokiniac (Macquarie), Rebecca Lim (faculty), Karina Needham (faculty), Rebecca Playne (Auckland), Pankaj Sah (faculty), Tania Fowke (Auckland), Victoria Tung (Sydney), Emmet Power (Otago), Max Camo (Macquarie).

Bottom: In the lab. **(L-R):** Bert Sakmann (faculty, MPI Martinsried), Emmet Power (student, Otago), John Yang (student, UNSW).

“I have just spent 2 weeks at the course, lecturing, sitting in on advanced talks from the worlds leading neuroscientists and, mostly, marveling at the pace with which the twelve students have developed their abilities in advanced neurophysiological methods. Having participated in similar courses held in Europe and the US, it was immediately apparent that the quality of the curriculum, invited speakers, students, demonstrators and the overall organization was second to none.”

Bert Sakmann (Nobel Prize 1991), ACAN faculty member, 2014

Planning is under way for ACAN 2015, which will run over three weeks from Sunday 12 April to Saturday 2 May 2015 at the Moreton Bay Research Station on North Stradbroke Island, Queensland.

ACAN is designed to give young neuroscientists an introduction to the fascinating – but often daunting – world of cellular and molecular neurophysiology. This is achieved by providing a full program of lectures, labs and tutorials, all delivered by a stellar faculty of national and international experts. By the end of the course, students are proficient in slice preparation, microscopy, patch clamping, single-cell calcium imaging, protocol design and data analysis, and will have received intensive exposure to many of the latest ideas in cellular neuroscience.

A special feature of ACAN is the informal and supportive atmosphere. Students live close to the lab (which is across the road from a beach), enjoy great food, and are on first-name terms with a host of famous neuroscientists who fly in from around the world to teach them. Many close friendships and collaborations have formed as a result of ACAN.

The call for applications for ACAN 2015 will go out in October/November, with an application deadline in mid-December 2014 (details to follow). Keep an eye out for emails or posters advertising ACAN, or check the course website (<http://www.ans.org.au/acan>). The program is still being finalised but it will be similar to that for ACAN 2014, which is available on the website. Twelve students will be selected and will be notified in late January 2015.

To apply, you need to be a PhD student, postdoctoral fellow or junior faculty (ideally less than 5 years post-PhD) and preferably a full-time resident of Australia or NZ. You do not need to be a citizen of Australia or NZ. Successful applicants based in NZ and who are NZ citizens or permanent residents can also apply for a scholarship from the Neurological Foundation of New Zealand.

ACAN has been a life-changing experience for many of our past students. If you would like to see why, and are passionate about learning cellular neuroscience from the experts, I strongly encourage you to apply.

John Bekkers

ACAN Director

Tasmanian News

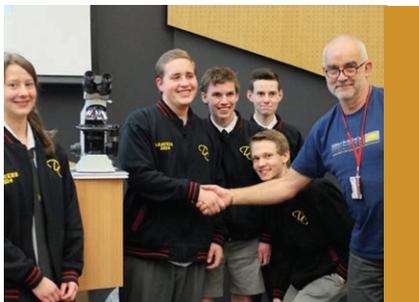
Australian Brain Bee Challenge 2014 Round 2 Tasmanian Final – Medical Sciences Precinct, Friday 5th September

The Tasmanian state final of the Australian Brain Bee Challenge was held on Friday 5th September as part of UTAS Research Week. Teams and individuals from schools across Tasmania competed to answer the punishing rounds of questions, in between neuroscience activities and talks from researchers in the Menzies Research Institute, Wicking Dementia Research and Education Centre and the School of Medicine. Highlights of the day included lab neuroscience and a tour of the research facilities in the Medical Sciences Precinct, during which students talked to postgrad students and staff working in neuroscience.

The questions generated some fierce competition. In the teams challenge, Dominic College (coached by Alexandra Olejniczak) narrowly defeated Burnie High School (Simone Summers), with The Hutchins School (Keith Martin-Smith) in third. The Dominic team won an Olympus microscope for the school, co-sponsored by Technolab. The individual challenge had to go through two tiebreak rounds before Jake Newland (Dominic College) was declared the winner over Niam Askey-Doran (Dominic). Ben Denholm of Devonport High School grabbed third place. All of the winning students received iTunes vouchers sponsored by the School of Medicine, the Menzies Research Institute and the Wicking Dementia Research and Education Centre – our thanks to these sponsors and the many staff and students who helped run the day's activities. Jake will also receive coaching and sponsorship to fly to the national finals in WA in April 2015 – best of luck!

Caption

Top: Rachel Atkinson (Wicking Centre) teaches the team from Hutchins the finer points of cockroach neurophysiology.
Bottom: Rob Gasperini (Menzies Research Institute) congratulates the winning team from Dominic College.



Caption

Above: Matthew Kirkcaldie (Wicking Centre) congratulates Jake Newland on his win.

Victorian News

Not much to report this October. ANS Victoria will again sponsor a travel award at this year's SOBR symposium which is to be held at The Florey Institute of Neurosciences and Mental Health in Parkville. Last year saw more than 200 students converge at the Monash Institute of Pharmaceutical Sciences from across Victoria. Students were from a variety of backgrounds including basic and clinical neuroscience, neural engineering and psychology.

Chris Reid

NEUROSCIENCE DOWNUNDER

The Australian Ambassador,
to the United States
The Honourable Kim Beazley AC
invites you to a reception for the
Australian Chapters of the
Society for Neuroscience.

Monday, 17 November 2014
6.30pm to 8.30pm
Embassy of Australia
1601 Massachusetts Ave, NW

<https://www.eventbrite.com.au/e/neuroscience-downunder-tickets-13605702021>
RSVP essential by 11 November 2014:
or +1 202 797 3441

Photo ID needed for entry.
No parking at Embassy.
Public parking locally or metro
to Dupont Circle (red line).



Upcoming Conferences

XXXII Annual Conference of Indian Academy of Neurosciences (IAN), National Institute of Mental Health and Neurosciences (NIMHANS)

Bengaluru, November 1-3, 2014

It is our pleasure to invite you to National Institute of Mental Health and Neuro Sciences (NIMHANS), Bengaluru, India for the XXXII Annual Conference of Indian Academy of Neurosciences (IAN). During the conference, we aim to discuss the advances in translational research leading to novel treatment strategies to treat neurological and psychiatric disorders. Scientific programme includes plenary lectures, symposia, orations and young scientist colloquium. The scientific programme is planned to provide an opportunity for neuroscientists to keep themselves abreast with the rapid progress being made in the exciting fields of neuroscience. In this regard, it is heartening that several leading scientists have consented to participate and deliver lectures during the conference. Bengaluru is an enchanting city in which old world charm of its cultural heritage blends with the excitement of technological boom. The city is considered to be the National center of scientific information with technological, industrial and educational activities. The announcement of the conference is posted on the IAN website.

Website: www.neuroscienceacademy.org.in

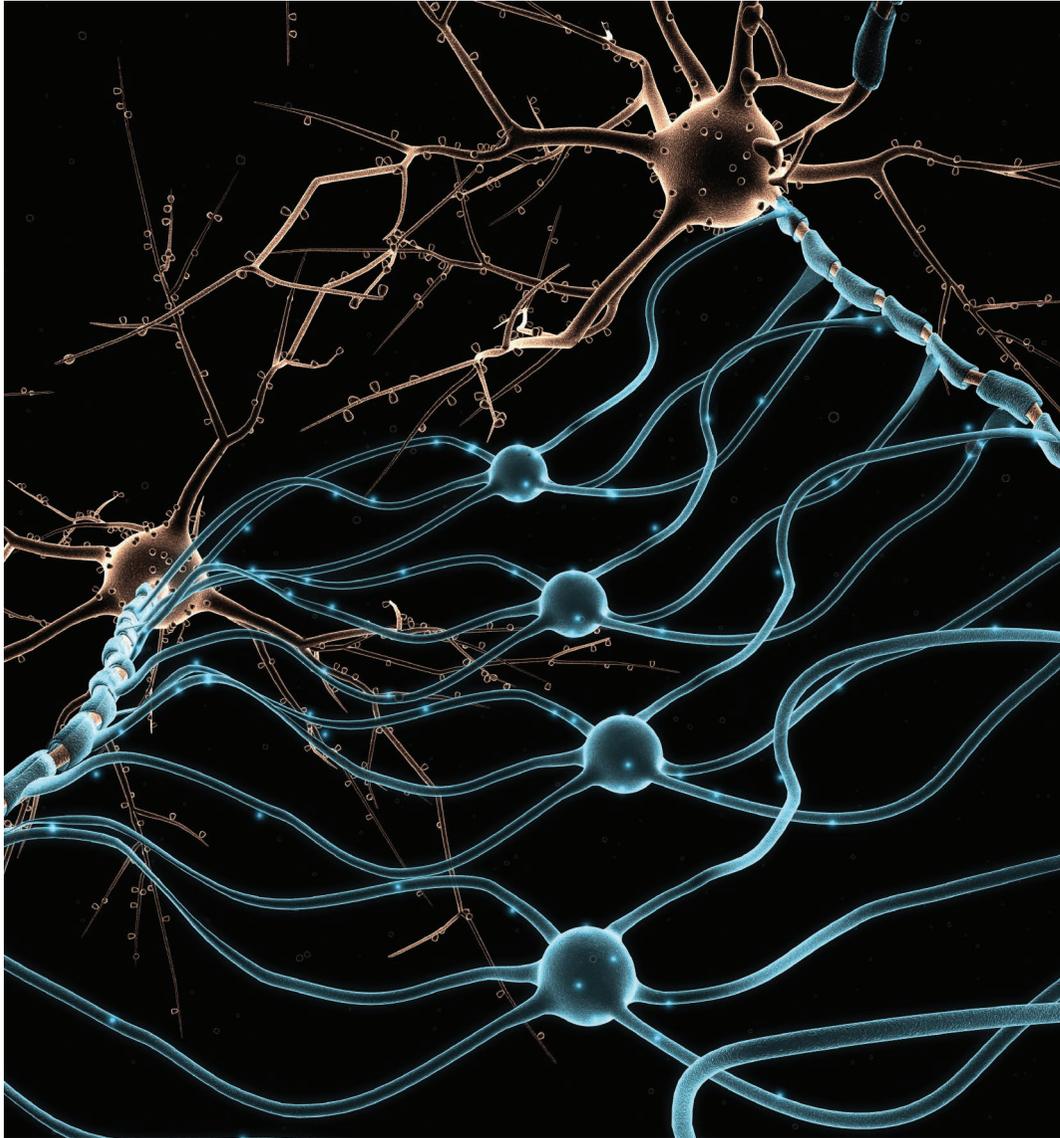
The Gordon Research Seminar on Calcium Signalling, June 6-7, 2015,

Sunday River Resort, Newry, ME, USA, June 6-7, 2015

This is a unique forum for graduate students, post-docs, and other scientists with comparable levels of experience and education to present and exchange new data and cutting edge ideas. The focus of the 2015 meeting is to highlight the latest developments in Calcium Signalling and to stimulate participants to identify the most relevant questions that need to be answered in the near future. Topics of discussion in scientific sessions include structure and function of calcium signaling molecules and components, and advances in understanding calcium signaling and the associated changes in physiology and disease. The meeting will feature a keynote presentation by Professor Diane Lipscombe, PhD (Department of Neuroscience, Brown University), as well as a manuscript writing/ career development session, presented by Dr. Elizabeth Adler (Executive Editor, Journal of General Physiology) and Lorna MacEachern (Director of Postdoctoral Career Services, Yale University). For more information visit our website

Website: <http://www.grc.org/programs.aspx?id=14633>

ANS Newsletter



We are always interested in receiving articles or information from ANS members for the newsletter. Such material could include topics for discussion, meeting announcements, meeting reports, news about prizes and awards received by ANS members, obituaries, and any other items of potential interest to members of our Society. The copy deadline for the next newsletter is 5 December 2014.

ANS Policy on Requests for Publicity via Email Circulation

The policy of ANS is to minimise email traffic to members. Advertisements for meetings and other significant announcements such as job vacancies can be added to the website and included in the newsletter if appropriate. Such requests should be directed to the ANS Secretary.

Editor

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