

July 2014



## Contents

Message from the President

Bert Sakmann attends ACAN 2014

Australian Course in Advanced Neuroscience (ACAN) 2014

ANS Adelaide Meeting Report

Confirmed Plenary Speakers for Cairns 2015

Round 1 of the Australian-New Zealand Brain Bee Challenge

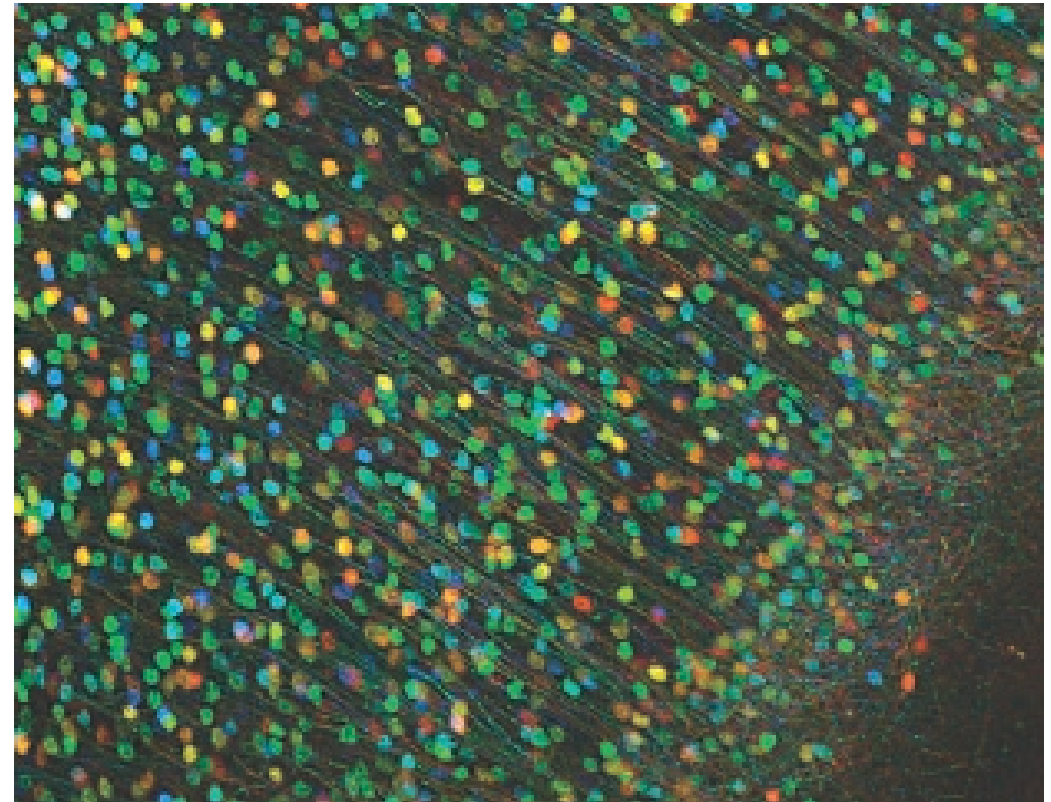
Victoria News

NZ News

Upcoming Conferences

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# Australasian Neuroscience Society Newsletter



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# Message from the President

Dear Colleagues,

As we move through the annual NHMRC Project Grant assessments and rebuttals season, I would like to take this opportunity to update ANS members on one of the largest potential developments related to neuroscience funding in Australia. As members would be aware, the EU and many individual countries are developing new strategic initiatives in the neurosciences. In alignment with the increased attention to the value of basic and translational neurosciences, there has been growing public and governmental interest in the application of neuroscience to a broad spectrum of mental health and neurodegenerative conditions, most of which are currently untreatable.

One of the neuroscience research areas that has received significant attention in recent years has been dementia. The G8 summit on dementia in December, 2013, brought substantial focus to the need to identify new therapeutic approaches and preventative measures in the face of escalating numbers of people with dementia. A few months and world events later, the now G7 established the World Dementia Council in April, 2014, with the aim to “stimulate innovation, development and commercialisation of life enhancing drugs, treatments and care for people with dementia, or at risk of dementia, within a generation.” Just this last week, the UK Prime Minister, David Cameron, has escalated attention, noting that “Immediate action is needed to accelerate the development of drugs for dementia”.

The current Federal Coalition Government went to the last election with a very specific election pledge to boost dementia research. It is our understanding that Alzheimer’s Australia had a pivotal role in advocating for this substantial research initiative. Following the last election, the pledge has now been followed up with an allocation of \$200 million over 5 years in the recent Federal budget, starting from the 2014-2015 financial year, with approximately \$40 million allocated per year. This funding is separate from the Medical Research Future Fund, noted below, whose fate largely relies on consideration of the linked \$7 Medicare co-payment by the Australian Parliament.

On Friday the 20th of June, I was able to attend a NHMRC Dementia Key Stakeholder Forum in Canberra, along with a number of other dementia

researchers, consumers and institute directors. The CEO of the NHMRC, Professor Warwick Anderson, and the CEO of the ARC, Professor Aidan Byrne, outlined the programs of funding that will be delivered by these two agencies. It was noted that, consistent with election pledges, \$9 million of the \$200 million will be allocated to the Queensland Brain Institute to establish the Clem Jones Centre for Ageing Dementia Research, and we would like to pass on our congratulations to Professors Jürgen Götz and Perry Bartlett for their leadership in this area.

The other main elements of the “Boosting Dementia Research Initiative” will be:

- \$50 million for the establishment of a NHMRC National Institute for Dementia Research. From the Stakeholder Forum, this is likely to be a ‘virtual’ and nation-wide initiative to link up active researchers in this area across the country, with a particular focus on synthesizing research activity and related outcomes to assist in the translation of research into new therapeutics, preventative measures and effective care.
- \$95 million for large-scale projects in identified areas of priority.
- \$46 million for expanding capacity in dementia research, including building the future research workforce. This last program will be a joint NHMRC/ARC initiative.



**James Vickers**

*President, Australasian  
Neuroscience Society*

July 2014

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*(Message from the President continued)*

Professor Anderson indicated that the \$200 million Boosting Dementia Research Initiative is external to the NHMRC Medical Research Endowment Account (MREA), so there will be no adverse impact on funding of dementia or neuroscience research that would normally be supported through regular NHMRC schemes. It was also indicated that an interim Director of the NHMRC National Institute for Dementia Research will be appointed soon into the next financial year, and that the Institute and its related committees may have a substantial role in determining priorities for the large-scale projects and capacity building.

While there are clearly great opportunities for ANS members working on conditions related to dementia, it will also likely provide avenues to support and link up a range of current Australian neuroscience groups towards the goals of the initiative. Clearly, in the absence of effective therapeutic approaches, basic neuroscience research will have a tremendous role to play in informing new targets for pharmaceutical intervention. Dementing illnesses also affect a range of brain systems and functions, and this may also provide opportunities for current ANS researchers working in a broader range of areas to contribute to this initiative. Participants at the Stakeholder Forum noted that an area of strategic focus could well be in preventing or delaying dementia, as this would have potential to significantly reduce both the personal and health burden of these conditions.

Pursuit of targets in this area, based on fundamental research in appropriate models, could well be of interest to ANS members.

The proposed \$20 billion Medical Research Future Fund may provide further opportunities to support and grow Australian neuroscience research. Around \$1 billion is to be transferred into this fund in the short term, mainly from winding up the Health and Hospitals Fund and some other Federal initiatives. The Commonwealth Government has indicated that it would hope to grow this fund to the \$20 billion capital target by 2020. However, it is also proposed that net interest from the fund will begin to flow to the NHMRC from 2015-2016, which will augment the current allocations to the MREA. By 2022-2023, this will mean, approximately, an additional \$1 billion a year in annual medical research funding. This is a highly welcome development, although linking the growth of this Fund to a portion of the Medicare payment is contentious, and will no doubt be a focus of attention with the change in the composition of the Senate from July.

## Bert Sakmann attends ACAN 2014

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ACAN has just had its tenth birthday. Due to the vision of Alan Finkel and the unrelenting dedication of John Bekkers and his team of international and local tutors, ACAN goes from strength to strength. This year the highlight was participation of Professor Bert Sakmann, Nobel Laureate, as a special member of the course faculty. He provided hands-on tutelage, including of the technique he discovered, to the twelve enthusiastic students. Bert is based at the Max Planck Institute of Neurobiology in Martinsried, near Munich, Germany.

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During his visit, Bert spent time interacting with the students both inside and outside the laboratory. He also delivered a 'Hot Topic' lecture entitled "Touch representation in the somatosensory cortex of rodents", in which he presented some of his unpublished data from in vivo juxtacellular recordings from a variety of classes of neurons in the barrel cortex.

Prof Sakmann was mightily impressed and wrote a very gracious letter to the Committee after his return home thanking us for his invitation to the course. Here is part of what he had to say.

"As you know I have just spent 2 weeks at the course, to lecture, and sitting in on advanced talks from the world's leading neuroscientists and, mostly, marveling at the pace with which the twelve students have developed their abilities in advanced neurophysiological methods."

## Bert Sakmann attends ACAN 2014

Sam Berkovic

AC FAA FRS

Director, Chair, ACAN

Management Committee

*(Bert Sakmann attends ACAN 2014 continued)*

"Having participated in similar courses held in Europe and the US (some years ago) it was immediately apparent that the quality of the curriculum, invited speakers, students, demonstrators and the overall organization was second to none. Students were exposed to the latest views, methodological approaches and equipped with state of the art experimental work stations providing them with experiences they could only otherwise achieve through lab visits or post-doctoral fellowships. By the end of the second week students were making paired and dendritic recordings from layer 5 pyramidal neurons developing the necessary confidence and awareness to take leading roles in the well-known global initiatives in brain structural and functional mapping and modelling."

In Prof Sakmann's words, "Programs such as ACAN are crucial for the continued success and development of neuroscience of the host nations. Neurophysiological approaches taught at ACAN are cornerstones for understanding brain function in health and disease. With Australia's rich history in neurophysiology it would be of great national benefit if measures are put in place to ensure the sustainability of ACAN. I look forward to watching the success of ACAN and its alumni over the coming years."

ACAN is a great asset of the ANS and the ringing endorsement of a giant in the field is very reassuring that we are on the right track!

### Caption

Bert Sakmann in the lab with Rebecca Playne (left) and Tania Fowke.



# Australian Course in Advanced Neuroscience (ACAN) 2014

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Offering a dozen young people the opportunity to spend three weeks on a sub-tropical island, only to sequester them in lectures and labs for 14 hours a day, doesn't seem like an idea that will fly. Yet this is the concept that has sustained ACAN for 10 years now.

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The first ACAN (then called AANRI – don't ask why) got off to a shaky start in April 2005. Even the most optimistic of our early supporters couldn't have dreamed that, 10 years and 120 students later, the course would still be going strong. Indeed, I find it deeply satisfying that the kind of rigorous research training offered by ACAN is in such demand by young Australian and New Zealand scientists. It demonstrates that the future of neuroscience in our part of the world is in very good hands.

This year, ACAN ran from Sunday 23 March to Saturday 12 July 2014. There were 39 applications for the course, with 32 of those based in Australia, 6 in New Zealand, and 1 in Singapore. Of the 12 students selected, 9 were from Australia and 3 from New Zealand. All but one were PhD students.

See below for essays written by two of our students about their impressions of the course.

Helping to run ACAN were 28 lecturers, lab demonstrators and assistants from all over the world (UK, Germany, USA, Canada, Singapore), as well as from Australia and NZ. A special member of faculty this year was Professor Bert Sakmann, who, together with Erwin Neher, was awarded the

Nobel Prize in Physiology or Medicine in 1991 for inventing the patch clamp technique. Bert spent 2 weeks at ACAN 2014 – lecturing, helping out in the lab and interacting informally with the students. See the companion article about Bert's feedback on the course.

I would like to express my gratitude to the following companies and institutions that have generously supported ACAN 2014.

Equipment: Zeiss (microscope), Nikon (microscope), Scientifica/SciTech (microscope), Sutter Instruments (manipulators, shutters), Axon/Molecular Devices (amplifiers, digitizers, software), Diagnostic Instruments (cameras).

Financial support: ANU College of Medicine, Biology & Environment, Neurological Foundation of New Zealand, Otago Division of Sciences, Otago School of Medical Sciences, Queensland Brain Institute, RMIT University, University of Auckland Centre for Brain Research, University of Newcastle, University of Queensland (DVCR), University of Queensland (Faculty of Science), University of Western Australia.

I would also like to express my warm thanks to all our course faculty and assistants for their expertise and enthusiasm, and to the Manager and staff of the Moreton Bay Research Station for their friendly and efficient support.

Next year's ACAN will run from Sunday 12 April to Saturday 2 May 2015, with the call for applications going out in October/November 2014. If you are a PhD student, postdoc or junior faculty with a desire to learn cellular neurophysiology from the experts, I strongly encourage you to apply.

**John Bekkers**

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*Director, ACAN*

# Australian Course in Advanced Neuroscience (ACAN) 2014

Every year in the small town of Dunwich, a group of intrepid neuroscientists from far and wide gathers to take part in a sacred ritual dating back ten years. Here, a band of hopeful initiates are inducted into the world of electrophysiology, trained under the close supervision of master electrophysiologists from across the known world. This year I was fortunate to be selected as one of these twelve Australasian recruits. I made my way from the cold and misty realm of Auckland to the (mostly) sunny shores of North Stradbroke Island, Queensland, to take up this opportunity.

## Caption

ACAN Class of 2014.

**Front (L-R):** Adrian Agahari, (in basket) Yajie Sun, Victoria Tung, Mariana Brizuela, Tania Fowke.

**Back (L-R):** John Yang, Dasuni Alwis, Emmet Power, Max Camo, Phill Bokiniec, Lauren Poppi, Rebecca Playne.



giga-ohm seals and cable theory. In the evenings we paused for a banquet dinner and then promptly returned to the laboratory for more study. Other evenings saw us being lectured on cutting-edge technology by brilliant minds, such as the Nobel laureate Bert Sakmann.

In our first week we were trained under the counsel of one master per two initiates. Having never touched an electrophysiology rig prior to this training, I was inundated with new knowledge. Within several days I had acquired rudimentary skills and was able to progress onto more independent experimentation in the following weeks. We studied a range of neuronal properties in cultured cells and brain slices using whole cell recordings, field recordings and calcium imaging. In the last week our proficiency in the dark art of electrophysiology was put to the test with the undertaking of our own projects. Finally, we celebrated our graduation from ACAN with a feast and festivities that lasted until the wee hours of the morning.

I arrived at Moreton Bay Research Station on a hot Saturday afternoon and found myself in a laboratory bedecked with a dazzling array of electrophysiology equipment and six rigs, glistening in their shiny Faraday cages. Over the next 24 hours, 11 other electrophysiology disciples staggered their way up the hill from the ferry terminal to the research centre, ready to undergo these revered rites of passage.

Over the course of three weeks we were transformed from novices into competent patch-clampers. Each morning we were awoken at dawn by a cacophony of native birdlife. With a fresh dose of caffeine in our veins we tumbled into the library for rigorous lectures. There, we were revealed the secrets of ion channels, synaptic transmission and plasticity. After a sumptuous lunch we found ourselves in the laboratory, immersed in the mysteries of patch pipettes,

Rebecca  
Playne

*PhD Student,  
University of Auckland*

# Australian Course in Advanced Neuroscience (ACAN) 2014

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There's something special about the ferry ride to the island for ACAN. It's a rare opportunity. You get to leave everything behind, and enter this isolated space where you can completely focus on one task. How else are you supposed to learn electrophysiology in just three weeks? ACAN's remote location is indeed idyllic - and as the course director John Bekkers will admit, completely intentional. ACAN definitely earns its reputation as the most unique and valuable training course in the country for young neuroscientists. This year - on ACAN's 10th anniversary - the Nobel laureate Bert Sakmann spent two whole weeks on the island. If you're going to learn electrophysiology, you may as well learn from the pioneers, right?

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## Lauren Poppi

*PHD Student,  
University of Newcastle*

There's something special about the ferry ride to the island for ACAN. It's a rare opportunity. You get to leave everything behind, and enter this isolated space where you can completely focus on one task. How else are you supposed to learn electrophysiology in just three weeks? ACAN's remote location is indeed idyllic - and as the course director John Bekkers will admit, completely intentional. ACAN definitely earns its reputation as the most unique and valuable training course in the country for young neuroscientists. This year - on ACAN's 10th anniversary - the Nobel laureate Bert Sakmann spent two whole weeks on the island. If you're going to learn electrophysiology, you may as well learn from the pioneers, right?

The course schedule was fast-paced and demanding. There was no need to set an alarm for the morning, as the island's lorikeets kindly provided an early wake up call. A typical day involved three hours of lectures, and a lab session that often stretched late into the evening. The stories that previous students had told me - "we were in the lab until 2AM!" - were true after all! Early mornings and late nights included, ACAN was the most challenging, fun and rewarding experience of my early academic career.

The founder of ACAN, Alan Finkel, aptly delivered the opening lecture on biophysics. Each subsequent lecture was given by one of the national or international faculty members, who had travelled to the island and donated their time to teach us. We covered a huge amount of material from basic membrane biology, ion channel modulation, and

neuronal microcircuitry, to single channel recordings, calcium imaging, and optogenetics.

Once we felt our brains were about to explode, it was time to start work in the lab. Admittedly, the first few sessions were filled with broken pipettes and questions like "is that a cell?" - but with the skillful guidance of our tutors, we rapidly progressed. Soon we were writing protocols, manipulating multiple electrodes, applying drugs, and analysing data. It was an amazing and surreal privilege to have Bert Sakmann - the inventor of the patch clamp - watching our first ever attempts at paired dendrite and soma recordings.

To be honest, we didn't see a whole lot of surf and sand. So on our days off, we jumped at the chance to go for a swim or to look for stereotypical Australian wildlife. In case you are wondering, we spotted several kangaroos, a koala, a family of green sea turtles, and a luminescent mushroom expressing GFP. The latter was taken back to the lab for further inspection.

Attending ACAN has an ongoing positive impact on a student that far outweighs any immediate educational gain. In just three weeks, I practiced cutting-edge techniques, interacted with world experts in neurobiology, and worked beside eleven talented young neuroscientists. I left the island not only with five kilograms of notes, but also with an overwhelming sense of enthusiasm for my future endeavours and challenges in electrophysiology.

## ANS Meeting Report

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Final accounting has now been done for the 34th Annual Meeting of the Australasian Neuroscience Society that was held in Adelaide in late January this year. There were 813 delegates including over 310 students. That is certainly a healthy number for a meeting held away from Australia's east coast and demonstrates, once again, how important are young scientists to the ANS.

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Fortunately the meeting wound up "in the black" with a profit of nearly \$30,000. That may sound like a considerable sum of money but it is less than 5% of the total meeting income. This happy result is largely due to the efforts of our professional conference organiser (the team from All Occasions Management led by Kimberley Taylor) and the huge effort put in by Robyn Flook of Flinders University who relentlessly chased up difficult-to-find sponsors and exhibitors. The Social Subcommittee of the Local Organising Committee also deserve credit for providing great social events at a very reasonable cost.

Working with a new professional conference organiser for the 2014 conference meant developing a new conference website and various documents/procedures including customising the organiser's online registration and abstract submission systems to better suit our needs. More work is needed there but should be easier in future years now that groundwork has been laid.

Thank you to all those who took the time to give us feedback on the meeting. The main critical comments we received were on the cost of registration and on the arrangement of the poster boards during the first full day. As you can see from the financial result above, our large ANS meetings are expensive to organise. In 2014 we did not raise registration or exhibition costs and so, after inflation, these were actually lower in real terms than in 2013. If we wish to reduce substantially registration costs in future then we will need to find cheaper venues than those used

in recent years. Also, while we would have liked to provide lunch on the final day, that would have pushed us close to a monetary loss. On the positive side, the cheap accommodation options provided this year proved popular and similar options will hopefully be available at future meetings. Regarding the issue of the poster boards - these were indeed too closely spaced during the first full day making it difficult for presenters and viewers to interact. This showed the learning curve that our new professional conference organiser was on and it was gratifying to see how fast they reacted to the problem - additional money was committed on the same day to bringing in contractors after hours to rearrange the boards. There were numerous other valuable comments from your feedback and all will be passed on to future Local Organising Committees to assist them in giving you an even more enjoyable conference.

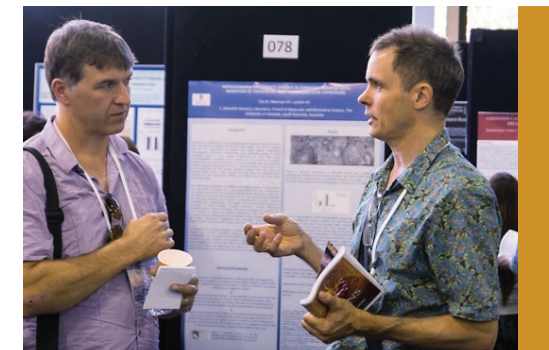
Our registration survey results showed that word-of-mouth is by far the most common way that new delegates are attracted to our conference. Therefore, we can all contribute to the success of future conferences by encouraging our colleagues (and especially postgraduate students) to attend.

I hope that those who attended the 2014 meeting in Adelaide took away great memories of fascinating research and made some enjoyable new scientific contacts. See you in 2015 in Cairns!

Michael  
Lardelli

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*Chair, Local Organising  
Committee for ANS 2014*





## Confirmed Plenary Speakers for Cairns 2015



Almost all the details of the Scientific Program have now been confirmed for the August 2015 Cairns meeting of ANS in conjunction with the International Society for Neurochemistry (ISN) and the Asian Pacific Society for Neurochemistry (APNS) and the details will soon be available on the web.

At this time I would like to preview the exciting line up of confirmed Plenary Speakers for this meeting (in alphabetical order).

### **Professor Ashley Bush**

*(Mental Health Research Institute, University of Melbourne, Australia)*

will also be the 2015 Lawrie Austin Lecturer. Professor Bush and his Oxidation Biology Unit are investigating at how key proteins interact inappropriately with metals in the brain to cause oxidative stress in diseases including Alzheimer's and Parkinson's. They are working to develop disease-modifying drugs for Alzheimer's and Parkinson's diseases, as well as blood tests for the disorders.

### **Prof Dr. Ellen Closs**

*(Department of Pharmacology, University Medical Center of the Johannes Gutenberg-University, Mainz, Germany)*

Professor Closs's research focuses on the molecular and cellular mechanisms involved in nitric oxide synthase (NOS) signaling and the mechanism of action of pharmaceutical agents that target this intracellular signaling pathway.

### **Prof Dr. Franz-Ulrich Hartl**

*(Max-Planck-Institute for Biochemistry, Munich, Germany)*

Professor Hartl's research activities are focused on deciphering the mechanisms and pathways of chaperone-assisted protein folding in the cytosol, and how aberrant protein folding is linked with neurodegenerative diseases.

### **Prof Dr. Yoshinori Ohsumi**

*(Integrated Research Institute, Tokyo Institute of Technology, Japan)*

Professor Ohsumi is one of the pioneers of the field of autophagy, a process by which a cell degrades its own proteins in order to adapt to nutritional deficiency and other influences. Autophagy is now regarded as a vital cell-recycling system and may aid in future developments to treat neurodegenerative maladies such as Alzheimer's disease, cancer and other age-related ailments.

### **Prof Dr. Leslie Vosshall**

*(Robin Chemers Neustein Professor and HHMI Investigator, The Rockefeller University, New York, USA)*

Professor Vosshall's research focuses on the mechanism of smell, a critical sense that underlies an organism's ability to detect food, find mates and avoid predators. She has investigated how flies, mosquitoes and humans are able to perceive and process odor stimuli and how they can discriminate between thousands of different odors in the environment.

I will highlight other aspects of the program for this meeting in future issues of the ANS Newsletter.

### **John Rostas**

*Chair, LOC for Cairns 2014*

# Round 1 of the Australian-New Zealand Brain Bee Challenge

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## Caption

Raining squishy  
brains over children.

Round 1 of the ABBC was held in March 2014, during Brain awareness Week. 5600 students from 315 schools in each state and territory of Australia, and the North and South Island of New Zealand completed the online quiz. The first ABBC was initiated by The University of Queensland's Queensland Brain Institute (QBI) in 2006. In the first year, 240 students participated in Round 1 with the number of Round 1 participants now growing each year.

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The ABBC is open to Year 10 Australian and Year 11 New Zealand students and tests students' knowledge of facts they have learnt from the book *Neuroscience, science of the brain* by BNA about topics such as intelligence, memory, emotions, sensations, movement, stress, ageing, sleep, Alzheimer's disease, stroke and other neurological disorders. The ABBC aims to inspire students to pursue careers in neuroscience research and is the only neuroscience competition in the country for high school students.

Students who do well in Round 1 are invited to attend the Regional finals, which are currently being held across Australia and New Zealand. Students who attend these finals experience a day at a neuroscience research facility or institute and have the opportunity to explore neuroscience laboratories, hear from research scientists about their work and compete to become their Regional ABBC Champion. Each Regional Champion then goes on to represent their Region in the Australian and New Zealand National Final in Perth, Western Australia in April 2014. We wish all of the students participating in Round 2 the best of luck and hope they enjoy their experience at the Round 2 Regional Finals.

Linda  
Richards

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*Australian Brain Bee Challenge  
National Co-ordinator*

# Victoria News

A busy few months for Victorian Neuroscience! We saw another successful Victorian Brain Bee held at the Florey run by Dr Kim and her team. The event attracted over 250 students from across the state and was enjoyed by all (see attached article). Students of Brain Research (SOBR) also held an informative professional development dinner which was attended by ANS member Dr Roulston (see attached article). And finally, Jo Britto headed a team that visited a large number of schools across Victoria promoting neuroscience during Brain Awareness Week (see attached article). A reminder that the MELBOURNE BRAIN SYMPOSIUM 2014 will be held on Thursday 16 October 2014. For those interested in attending you can register at : [www.eventbrite.com.au/e/melbourne-brain-symposium-tickets-11248720225](http://www.eventbrite.com.au/e/melbourne-brain-symposium-tickets-11248720225)

## Christopher Reid

## Caption

Quizmaster Dr Thomas Keeble (Florey) and front row (L-R) Dr Carli Roulston, Dr Jee Hyun Kim, and Prof Sandra Reese.



## The Florey abuzz with the Victorian final of Brain Bee

On 4th June, 250 year 10 students and accompanying teachers from 39 secondary schools across Victoria, as far as Ouyen, participated in the Australian-New Zealand Brain Bee Challenge State Final. It was hosted and sponsored by the Florey Institute of Neuroscience and Mental Health. Other major sponsors include Melbourne Neuroscience Institute (the University of Melbourne), Monash University, and Deakin University.

The event was officially opened by the Parliamentary Secretary of Education Mr Clement Newton-Brown representing the Minister Hon Martin Dixon, and Prof Geoffrey Donnan, director of the Florey. During the day, the students participated in a quiz about the brain given by the quizmaster Dr Thomas Keeble from the Florey. They also listened to globe-trotting and cross-disciplinary experiences from a lifetime of science by Prof Sandra Rees. Students also exclaimed that the definite highlight of the day was the tours of the Anatomy museum, the DAX gallery and neuroscience laboratories.

Compared to previous years, 2014 winners were dominated by boys. The individual champion was Rajan Venkatraman from John Monash Science School, and Melbourne Grammar School became the team champion. The prizes included a giant 14-pieces model of the brain, trophies, and Elsevier books presented by Prof Trevor Kilpatrick, director of the Melbourne Neuroscience Institute and Dr Christopher Reid, Victorian representative of ANS.

I would like to thank all the volunteers for the day, which included over 30 scientists from the Florey and Melbourne University. I am especially grateful to Prof Heather Young, the previous Victorian Coordinator. Prof Heather Young not only coordinated the State Final day for the last three years, but also almost single-handedly increased the state-wide participation to its highest level in history of the challenge in Victoria. She formed the structure for what is now a very successful State Final day that includes an overnight accommodation for rural schools. I would also like to acknowledge the super helpful new Victorian committee, namely Dr Thomas Keeble (Florey), Dr Carli Roulston (St Vincent's Hospital/University of Melbourne), and Dr Andrew Metha (University of Melbourne).

## Dr Jee Hyun Kim

*Victorian Coordinator of Australian-New Zealand Brain Bee Challenge*

## Caption

**Top:** Team Challenge Finals with the teams from MacRobertson Girls' High School and Melbourne Grammar School.  
**Bottom:** Students in the anatomy museum.



## Dr Joanne Britto

*The Florey Institute of Neuroscience and Mental Health*

### **Inspiring the next generation: Victoria School Outreach Program**

The “THINK ABOUT IT” School Outreach Program came to light with the simple objective of bringing brain awareness to Victorian secondary school students. A packed school curriculum means little time for neuroscience-related learning and our Outreach Program fills this gap. What started in 2009 with a handful of schools has now advanced to over 30 schools on our database and around 2000 students each year receiving the message.

The Outreach Program allows neuroscientists to share their experiences with Year 9-12 students and convey why brain research is vital for our community. This opportunity allows us to showcase how neuroscience research is multidisciplinary in nature and we encourage students to see the wider application of their science subjects. The schools incur no cost as speaker travel expenses and resources are kindly supported by Dana Foundation, ANS-Victoria and The Florey Institute of Neuroscience and Mental Health.

We are fortunate to have many passionate researchers willing to share their discoveries. Speakers visit the school in pairs and a special thanks goes to the enthusiastic neuroscientists who offered their time, often going to multiple schools and classes to keep up with demand.

Ayaka Ando, Anna Antinori, Lindsea Booth, Joanne Britto, Toby Cumming, Theresa Dang, Charlotte Ermine, Noel Faux, Alex Fornito, Matilda Haas,

Mel Hughes, Rachel Hill, Jason Howitt, Katherine Jackman, Janine James, Jaikishan Jayakumar, Tatiana Kameneva, Tom Keeble, Charlotte Krenus, Izelle Labuschagne, Virginia Liu, Stuart McDougal, Rachel Mcquade, Clement Menuet, Bernd Merkel, Christina Mo, Megan Munsie, Mike Notaras, Susan Palmer, Udani Ratnayake, Samantha Richardson, Nigel Rogasch, Carli Roulston, Karlene Scheller, Matteo Senesei, Bec Sheean, Jody Stanley, Michele Veldsman, Candace Wu, Sasha Zaman, Ariel Zeleznikow-Johnston.

Over the years we have built a rapport with teachers and now receive requests for speakers to feature at school assemblies and National Science Week. The Program has, and will continue to, educate and inspire brain awareness for the next generation. The organization has gone beyond what I can personally manage, and this year saw the creation of the School Outreach Team with Tom Keeble (Neuroscience Communicator, The Florey) and Ms Anna Marcon (Events Manager, The Florey).

The vision is to expand, as it is a rewarding experience for both the visiting neuroscientist and schools. If you are interested and would like to participate, please email [schooloutreach@florey.edu.au](mailto:schooloutreach@florey.edu.au).

Thank you to everyone involved.

### Caption

Mac. Rob student Tracy Doan and science coordinator, Joey Micallef with Dr Joanne Britto.



### SOBR Event

On July 1st 2014 I had the honour of attending a “Science meets Politics” dinner organised by our students of Brain Research, SOBR. Not having attended previous events hosted by this society I was impressed by the professionalism in which these student were co-ordinating such gatherings. The dinner was held in the beautiful rooms of the Reagent Intercontinental, an official welcome committee greeted each guest on arrival, and a plethora of highly intelligent and interesting speakers had been arranged. Most importantly the event was not without wine and therefore did not reflect the acronym by which it was described.

Senator Adam Bandt and Senator Penny Wright proceeded to deliver highly informative speeches regarding the state of our Country’s past and present political approach to science. Of course there were some very green overtones in their delivery but without doubt they are to be commended for their relentless campaign to increase funding for science and mental health.

Of particular interest was their call for more scientists to become involved in developing science policy. One of the students then asked “why is it that more scientists don’t become politicians”? In response Senator Bandt identified scientists as objectionable thinkers who draw upon available evidence to make decisions. Politics however is more subjective and likely to be swayed by public opinion (who would have thought?). As such it doesn’t present as a palatable career option to our budding young neuroscientists.

So if not politics, how can we make a difference beyond the laboratory? Perhaps one of the strongest take home messages to all who attended the event was delivered by the Master of Ceremonies, Dr Andi Horvath. For those unfamiliar with Dr Horvath, she is currently the Science communicator at Museum Victoria and Science Media Liaison Officer at the University of Melbourne. Her message was simple. We need to become better communicators. Not amongst ourselves, but to those outside of the field of science in the broader community. She challenged us all to think about how we should answer this simple question: What does your research mean to me?

I’d like to thank the organising committee for inviting me to attend this special event on behalf of the Victorian ANS division. These students are truly impressive in their vision for a united student society with a mandate towards professional development.

### Carli Roulston

*University of Melbourne*



### Caption

Winning Team from Christ’s College, Christchurch, including, (left) the individual winner from the South Island, Matthew Moore.

### Brain Bee New Zealand

Brain Bee South Island took place on 1st July when about 90 year 11 pupils from 19 schools across the South Island competed at the University of Otago. Christ’s College in Christchurch won the team prize and Christ’s College pupil Matthew Moore was named the South Island’s winner; he will represent the region in the Australasian Brain Bee Challenge final in Perth, in April next year.

### U3A Activities in Waitaki

In June and July in Oamaru, a small town in rural Waitaki, best known for its limestone Victorian architecture, members of the University of Otago BHRC (Brain Health Repair Centre) provided a Course on Neuroscience to the U3A membership. This was ably organised by Ken Bridge. The course was very well received by the membership and everyone learnt something new! A/Professor John Reynolds taught “Basic Human Neuroanatomy”; Dr Ruth Empson explained “Movers and Shakers: Cerebellar Function”, Dr Louise Parr-Brownlie discussed “Parkinson’s disease”, Dr Ruth Napper talked about “Foetal Alcohol Syndrome” and Professor Cliff Abraham tried “Cracking the Code” with his explanations of Brain Mechanisms of Memory.

All the speakers thank the U3A at Oamaru for their warm, southern hospitality.

### Caption

Carli Roulston with SOBR members.

### Ruth Empson

## 20% Discount Offer

### Visual Ecology

Thomas W. Cronin, Sönke Johnsen,  
N. Justin Marshall & Eric J. Warrant

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- Includes a glossary and a wealth of real-world examples

**Thomas W. Cronin** is professor of biological sciences at the University of Maryland, Baltimore County. **Sönke Johnsen** is professor of biology at Duke University. **N. Justin Marshall** is professor of biomedical sciences at the University of Queensland in Australia. **Eric J. Warrant** is professor of zoology at Lund University in Sweden.

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## Upcoming Conferences

### 12th Meeting of the Asian-Pacific Society for Neurochemistry (APSN)

*Kaohsiung (Ta-Kao), Taiwan, 23-26 August 2014*

The scientific program will include plenary lectures, symposia, young investigator colloquia, oral and poster presentations, and a workshop on professional development. The deadline for abstract submission is 15th March.

Conference website: [www.apsn2014.org](http://www.apsn2014.org)

### The Australian Neurogenetics Conference, Queensland Brain Institute (QBI)

*The University of Queensland, 11-12 September 2014*

This will bring together researchers working to better understand the genetic basis of psychiatric and neuropsychiatric diseases, including schizophrenia, motor neuron disease and epilepsy, and will showcase recent discoveries in the field. The meeting will also feature the official opening of a new Centre of Neurogenetics and Statistical Genomics (CNSG) based at QBI.

Conference website: [www.apsn2014.org](http://www.apsn2014.org)

Organisers: Professor Peter Visscher, [peter.visscher@uq.edu.au](mailto:peter.visscher@uq.edu.au) and Professor Naomi Wray, [naomi.wray@uq.edu.au](mailto:naomi.wray@uq.edu.au).

### 6th Special Conference of the International Society for Neurochemistry

*Tokyo, Japan, 20-22 September 2014*

We have the great pleasure to inform you that our 2014 Special Conference will be held in the wonderful city of Tokyo, 20-22 September 2014.

The conference theme is 'Dynamic change of nanostructure in the brain in health and disease - cutting edge of the technical innovation'.

Conference website: [www.neurochemistry.org/conferences-courses/isn-special-neurochemistry-conference.html](http://www.neurochemistry.org/conferences-courses/isn-special-neurochemistry-conference.html)

### Brain Sciences UNSW Symposium 2014, "Brain Health Complexity: Molecules to Systems"

*UNSW Kensington Campus, Sydney, 17 October 2014*

The annual Brain Sciences UNSW Symposium will be held on 17 October 2014 in Leighton Hall, The John Niland Scientia Building at The University of New South Wales. The theme for the 9th annual Symposium is Brain Health Complexity: Molecules to Systems and will include presentations from invited speakers from Scotland and from other institutions in Sydney and Melbourne together with leading researchers from Brain Sciences UNSW.

### Melbourne Brain Symposium Kenneth Myer Building, University of Melbourne, Melbourne 16 October 2014

*Kenneth Myer Building, University of Melbourne, 16 October 2014*

The Melbourne Neuroscience Institute, University of Melbourne and the Florey Institute of Neuroscience and Mental Health share a proud history of hosting the annual Melbourne Brain Symposium. The Directors of the Melbourne Brain Centre are pleased to invite you to this year's program.

Conference website: [www.neuroscience.unimelb.edu.au/content/melbourne-brain-symposium](http://www.neuroscience.unimelb.edu.au/content/melbourne-brain-symposium)

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 10 October 2014.

## Neuroanatomy Workshop



**The Organisation of the Forebrain:  
New concepts based on gene expression  
during development**

This workshop will introduce participants to the modern view of the structure of the mammalian forebrain with references to the relevant features of the human brain.

### Date:

3rd July 2014, 10am-5pm (registration opens 9:30am)

### Cost:

\$100 - Students and CIBF affiliates  
\$200 - Non-CIBF affiliates

### Venue:

Auditorium, Monash Biomedical Imaging  
770 Blackburn Rd, Monash University, Victoria 2800

### Enquiries:

Email: [enquiries@cibf.edu.au](mailto:enquiries@cibf.edu.au) or phone: 03 9902 9777

To Register go to <http://www.cibf.edu.au/events>

### Presenter: Professor Charles Watson

Charles Watson is Australia's foremost teacher of brain anatomy. He is an author of over 20 brain anatomy atlases and texts, and his rat brain atlas has been cited over 60,000 times. Watson was selected as the lead brain anatomy lecturer for the 2011, 2013 and 2014 Allen Brain Institute International Workshops on Molecular Neuroanatomy. Since 2008, he has led annual neuroanatomy workshops at the Queensland Brain Institute and at the Tokyo Metropolitan Institute for Medical Research.

### Who should attend?

The workshop will be of value to neuroscience and neuropsychology postgraduate students and researchers.

### Program

- Identifying major forebrain landmarks; an introduction to forebrain ontology
- The pallium (isocortex, hippocampus and olfactory areas)
- The subpallium (striatum, pallidum, septum, bed nucleus of stria terminalis, amygdala, diagonal domain and preoptic area)
- A modern view of subdivisions of the hypothalamus and diencephalon

Each of the four main topics will begin with a lecture, followed by work in small groups with a detailed photographic workbook, which will be provided.



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### 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.

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