Phytogen September 2016

ASPS call for nominations

30 September 2016

Your membership is paid to [wpmlfield name="paidtodate"] (year, month, day).

Dear ASPS members,

It seems that we have not received nominations for all the positions that fall vacant this year. In particular, we need to have nominations for Honorary Treasurer, Discipline rep for Plant Microbe Interactions and student representatives. You may recall we had the good fortune of needing to hold an election last year for one of the Discipline areas.

I would like to thank Brent Kaiser for his efforts as ASPS Honorary Treasurer and urge you to consider helping the society by nominating for this position which is generally held for a 3 year term. The nomination form is attached and it needs to reach the Secretary by October 3.

Thanks
John

Professor John R Evans FAA
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Research School of Biology
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President, Australian Society of Plant Scientists

Home

ARC Centre of Excellence for Translational Photosynthesis

RN Robertson Travelling Fellowship – Report by Millicent Smith

27 September 2016

RN Robertson Travelling Fellowship



Millicent Smith riding around Jülich

Using *P. vulgaris* (common bean) as a model system my PhD research has focused on the impact of abiotic stress, particularly drought and phosphorus deficiency, on photosynthetic capacity and the translation of resources into a developing seed.

Initial discussions with my PhD supervisor, Dr. Andrew Merchant, kept coming back to the same problem of our inability to fully understand source-sink dynamics if we couldn't measure sink strength. This eventually led us to a portable NMR sensor, developed by Dr. Carel Windt and others at the Institute of Bio- and Geosciences (IBG-2) at Forschungszentrum Jülich (FZJ). FZJ is a large interdisciplinary science research centre set in a beautiful forest close to a town called Jülich, in the west of Germany.

The mobile nuclear magnetic resonance sensor (NMR) allows for the non-invasive, real-time measurement of water status and dry matter accumulation over seed development. Due to the portable and compact nature of the sensor it may be used to analyse components of a whole fixed plant, for instance a developing fruit (see Windt *et al.* 2011).



Portable NMR sensor developed at FZJ that non-invasively measures water and dry matter in real-time

During the first year of my PhD, I worked closely with Dr. Carel Windt to assess the suitability and application of the NMR sensor in common bean. This initial visit to Jülich was the first time the NMR sensor was applied to a biological question. It was an important first step as we were able to complete a calibration and an experiment during this time.

I have learned a lot since that initial visit and thanks to the support from the Australian Society of Plant Scientists R.N Robertson Travelling Fellowship I was able to return to Jülich this year. Having previously visited for a short time in 2014 made it a little easier this time around. Not only did I have the knowhow for navigating the huge "*SeeCasino"* cafeteria, so lunchtime wasn't as confusing, I also had a better understanding of the NMR methodology that we were able to apply to our experiments and answer some new questions.

We planned two separate experiments both aiming to manipulate source strength and observe whether we are able to detect a change in pod loading rates. One experiment was completed in a small climate chamber where we altered lengths of light-dark periods in an attempt to assess whether changes in starch cycling would impact on the developing grain, in particular the timing and magnitude of such an effect. The other experiment completed in the glasshouse using a multiplexed NMR system (6 NMR sensors all attached to the 1 spectrometer so we can measure lots of plants at once and keep measurements consistent) altered source strength of plants by pruning to investigate whether we could detect changes in loading rates within the sink tissue compared to plants that weren't pruned.

While the glasshouse experiment didn't go exactly as planned towards the end when a European "heat wave" stopped measurement time, what we found from both experiments was exciting and unexpected. Our results showed that under a range of conditions where source strength was manipulated, for instance a week in the dark and/or significant pruning (80% leaf area removed), loading of dry matter into the pod stayed the same as prior to the treatment or relative to the control. This result has sparked my interest and made me consider whether pods are more independent of leaves than we had previously thought.

Overall my time in Jülich was amazing. It was nice to have a taste of European life; I enjoyed riding my bicycle to the institute (on the days when it wasn't raining) through the fields and forest, I loved trying different unpronounceable German bakery treats and sitting in the town square having a beer from the pub. It was great to be in Jülich for the biannual open day *Tag der Neguier* where I could join thousands of others when FZJ stopped their strict security checks for 1 day for citizens to come and discover the interesting research that they do and share in the excitement and passion that everyday Germans have for science.

I have come away from my visits to Jülich with lots of exciting data for my thesis (and some papers) but most of all I left knowing that I had made connections with leaders in my field, been exposed to interesting and novel ideas and technologies that I might have considered impossible before and confidence in my ability to collaborate, communicate and initiate my ideas.

I am incredibly grateful to the ASPS for awarding me an R.N Robertson Travelling Fellowship, to Carel Windt for inviting me to FZJ and the many others in the Emerging Technologies group for the lunchtime conversations and help, and finally to my supervisors Andrew Merchant and Tom Buckley who have encouraged me to collaborate and pursue interesting scientific questions.

Phytogen Blog: RN Robertson Travelling Fellowship – Report by Millicent Smith

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Women's Leadership Development Scholarships

24 September 2016

Your membership is paid to[wpmlfield name="paidtodate"] (year, month, day).

Dear ASPS member,

Women & Leadership Australia has just launched a third program in our portfolio of women's leadership development programs.

With this third program we now have an unprecedented line up of leadership programs specifically designed for women:

· **Advanced Leadership Program** – Aimed at senior managers, directors and executive level women

· **Executive Ready** – Aimed at mid-level managers and leaders looking to take the next step into an executive role

· **Accelerated Leadership Performance Program** – Aimed at aspiring talent and women starting their journeys in managerial roles.

We have secured scholarship funding for the All Industry sector across all three programs. To ensure as many women in the All Industry sector are aware of this funding opportunity, we are inviting respected associations such as Australian Society of Plant Scientists to share this information with your members.

To assist you in disseminating the information to your members, I have attached a short message and a scholarship Expression of Interest form. If you need the message in a different format please let me know.

Association Partner Program
Further to our request that you kindly make your members aware of this opportunity, we are also introducing an Association Partner Program, meaning that your members would be exclusively eligible to apply for scholarship funding throughout the year, along with having your logo's, web-links and information about how you are supporting the initiative (and gender equality in general) on the WLA website.

To help us track when information is distributed and to respond to enquiries promptly, it would be greatly appreciated if you could let me know if and when you are able to send out the information.

If you have any questions or would like to discuss this opportunity and or the partner program in more detail, I would be delighted to arrange a time to talk. Please feel free to contact me directly on (03) 9270 9016, or contact me via return email.

Many thanks and best regards

Ian Johnson

National Program Liaison Manager

Women and Leadership Australia

P 03 9270 9016
W www.wla.edu.au| **E** ijohnson@wla.edu.au

A Level 9, 607 Bourke Street, Melbourne VIC 3000

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ASPS annual dinner

14 September 2016

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Hello ASPS members,

Our annual dinner is being held during ComBio in Brisbane on Wednesday October 5 at 7pm. I would like to encourage all our ASPS members attending ComBio to come along and for those of you near Brisbane that may not be attending ComBio, you are invited as well. My Linh Hoang has arranged this year's event and it will be slightly different because it comes with sponsorship! The dinner will cost $50 for members and students will be subsidised, so the cost for them is just $20, but there is a catch – the venue has only enough space for 10 tables with 8 people at each so you need to let My Linh lt.hoang@qut.edu.au know if you are interested by 25 September. Payment and ticket issue will happen at the ComBio registration desk from Tuesday lunchtime onwards (4 Oct). The dinner will be two courses with wine/soft drink/tea/coffee and be held in the panoramic Gibson room on the 10th floor of QUT, just across the river from the convention centre. For those of you who have come in previous years, you will know that it is a great event that brings our society together and catch up or get to know new members. Normally it is organised by our student representatives, but the sponsorship offer from QUT-IFE https://www.qut.edu.au/institute-for-future-environments this year seemed a great opportunity.

I hope to see you there.

John

Professor John R Evans FAA President, Australian Society of Plant Scientists

E: john.evans@anu.edu.au

http://www.asps.org.au/

Science and Technology Australia-Aug newsletter, new Phytogen post and another employment opportunity

07 September 2016

Your membership is paid to [wpmlfield name="paidtodate"] (Year, month, day)

Read the latest Phytogen blog : A moment of great bravery

View a new postdoctoral employment opportunity in plant physiology here.

Science & Technology Australia – August Newsletter

View this email in your browser

Dear colleagues, It's been a busy month for Science & Technology Australia as we work towards our second Science meets Business and welcome the 45th Parliament of Australia. I've had the privilege over the last month to meet and speak with a number of the leaders of our member organisations. It's clear there is much passion among our membership for the extraordinary work being done by Australia in science and technology, and a desire to better leverage our networks and connections to ensure issues of importance to the sector are heard, understood and acted on at the highest levels. To that end, I've begun a program of meetings with federal parliamentarians and the business sector as well as leaders in science and technology. As co-Chair of the National Research and Innovation Alliance along with Professor Les Field of the Australian Academy of Science, I was pleased recently to welcome the Minister for Industry, Innovation and Science, the Hon. Greg Hunt MP. At the Alliance meeting in Canberra last month, Minister Hunt made his first speech in the portfolio about science, announcing a

boost to climate science capacity for CSIRO and a new program to foster international collaboration. The Minister invited STA to work with him and his team to help shape the future for science and technology in Australia. We also welcomed the Shadow Minister for Science, Senator the Hon. Kim Carr, who gave generously of his time and also indicated his desire and willingness to work with the sector towards long-term strategic support for Australian science and technology. I'm also meeting in the early days of Parliament with the former co-convenors of the Parliamentary Friends of Science, who have indicated their keenness to continue to support STEM and build relationships across the sector and politics. And – along with a number of our member organisations – I participated in the Chief Scientist's stakeholder consultation on the National Research Infrastructure Roadmap. Consultations and submissions close this Friday 9 September. The Eureka Prizes in Sydney last week highlighted an astonishing range of outstanding work being done across science and technology research, application and public engagement – including by a number of people who are members of STA member organisations. It was an inspiring event and a great reminder of how important it is to tell our stories and celebrate the excellent and life-changing work being done by Australian scientists and technologists every day: warmest congratulations to all finalists and winners. The Eurekas were a fitting epilogue to a very successful National Science Week. Please do read on for some opportunities to celebrate and further your work, and to build your network: I encourage you to also forward this newsletter to your colleagues and members and encourage them to subscribe for news and opportunities that are relevant to them. I hope to see you soon, and if I haven't yet had chance to chat with you – please, call or email any time. Cheers, Kylie

Science meets Business 2016 The second annual *Science meets Business* will take place on October 24 in Melbourne, with a range of outstanding speakers representing politics, industry and research. The Minister for Industry, Innovation and Science, Greg Hunt, Shadow Minister for Innovation, Industry, Science and Research, Senator Kim Carr, Vice-President and Lab Director for IBM Research, Dr Joanna Batstone, and CEO of ANSTO, Dr Adi Paterson are just a few of the speakers who will join us for this forward-looking and engaging day of information, brainstorming and networking. Member societies are eligible to send two delegates each, so if you are focused on building ties with the private sector, contact your society president to inquire about attending. We're grateful to the generous organisations whose support enables us to stage this event at no cost to delegates, including our Major Supporter the Department of Industry, Innovation and Science, and Gold Sponsor, Defence Science and Technology. Sponsorship and partnership opportunities are still available: to inquire, please contact Gia Metherell on 02 6257 2891 or gia.metherell@sta.org.au.

National Science Week August really is becoming Science Month – more than 1,000 events were held across the nation during this year's successful National Science Week. Citizen scientists helped to spot endangered animals by trawling through thousands and thousands of wilderness photos, helping to preserve our precious wildlife. Meanwhile, the SCINEMA International Film Festival was held in over 200 community venues: see the winning entries here. National Science Week 2017 will take place is from 12-20 August 2017 – the theme next year is Future Earth.

Life & Death As production partner for the Australian Academy of Science's 'Science of Life and Death' national public event series, we are proud to help bring adult science events to five different Australian cities over the next six months. The series kicked off with 'DEATH in Hobart' in June and 'SEX in Melbourne' in July, both of which were subsequently featured on RN's Big Ideas. Tickets are now available for the next event in the series: Brisbane – MURDER – 16 September.

MARS the live experience STA has partnered with the National Geographic Channel and Live on Stage Australia to bring to the stage 'MARS the live experience', featuring legendary astronaut, and research leaders from NASA and the European Space Agency. Tickets are now on sale.

Member News Women in Science AUSTRALIA is holding its first National Symposium on Connecting Women in STEMM on 13-14 September 2016 at RMIT University in Melbourne The Australian Psychological Society is holding their first ever conference with the theme of "United for the Future". The

conference will be held on 13-16 September at the Melbourne Convention and Exhibition Centre. The Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists is holding its annual scientific meeting in conjunction the Molecular Pharmacology of G Protein-Coupled Receptors meeting in Melbourne 27-30 November. Registrations for MathsFest Australia 2016 are now open. MathsFest takes place between 28 November and 13 December with nearly 40 international speakers confirmed. The 23rd Australian Statistical Conference 2016 is on in Canberra from 5-9 December 2016. It will be held in conjunction with the 14th Australasian Data Mining Conference and the 9th Australian Conference on Teaching Statistics. The RACI National Centenary Conference 2017 is being held in Melbourne on 23-28 July 2017.

Opportunities Grant applications are now open for the 2017 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry Apply to take part in the 2016 Theo Murphy Australian Frontiers of Science – The Microbiome: Exploring the role of microorganism in ecosystem processes and health Applications to attend the 9th JSPS HOPE Meeting in Tokyo, Japan with Nobel Laureates, are now open The Women in STEM and Entrepreneurship (WISE) programme is open for applications for funding to support projects for women Nominations are open for the 2017 Clunies Ross Awards for contributions to the application of technology to benefit Australia Applications are open for early career researchers to attend the 67th Lindau Nobel Laureates Meeting dedicated to Chemistry The Australian Academy of Science is now taking applications for the new Max Day Environmental Science Fellowship Award.

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ComBio 2106 program available, scholarship opportunity and GPC Aug e-bulletin

05 September 2016

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New scholarship opportunity available here.

ComBio2016: 3 – 7 October 2016, Brisbane Convention & Exhibition Centre

ComBio2016 is a combined conference with the ASBMB, ASPS and ANZSCDB

We are pleased to advise that the final program is now available for perusal.

You can view the program at: http://www.asbmb.org.au/combio2016/program.html

There are four separate files which consist of:

The one page program timetable.

The full program timetable (9 pages).

The full program (including plenary, symposium and colloquium presentations).

The poster program.

All abstracts can also now be viewed at: http://www.asbmb.org.au/combio2016/abstracts.html

There are five separate files which consist of:

Plenary Abstracts

Symposium Abstracts

Colloquium Abstracts

Poster Abstracts

Author Index

The conference app will be available a few days prior to the conference. The app will include the full program including posters, all abstracts, all companies exhibiting and a list of registrants (less those that have requested privacy). We will send you a further email when the app is accessible.

Please note that registrations are still welcome and also "on site" poster abstract submissions are still welcome up until, and including, Monday 26 September. On site presentations will not be included in the hard copy of the program, on the website or on the conference app, but will be included on the conference program revisions board. On site poster abstracts can be submitted at: https://www.asbmb.org.au/Register/combio2016-abstract-form.cgi

and registrations can be made at: https://www.asbmb.org.au/Register/combio2016-registration-form.cgi

If you have difficulty accessing these pages, you should refresh your browser.

Kind regards

Sally

Sally Jay

ComBio2016 Secretariat

Email: combio@asbmb.org.au