Phytogen December 2016

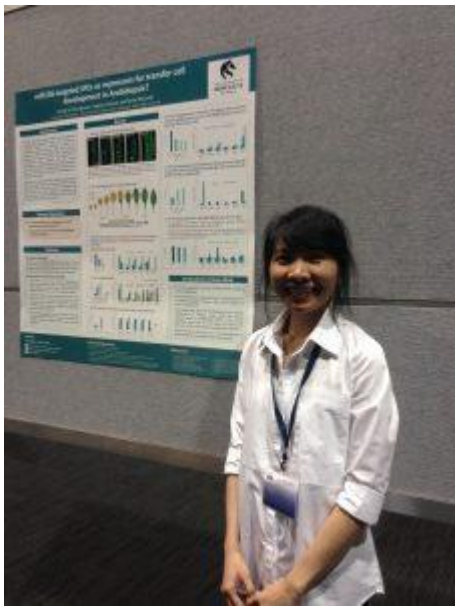
# miR156-targeted SPLs as repressors for transfer cell development in Arabidopsis?

*29 December 2016*

*by Suong Nguyen, The University of Newcastle, NSW, Australia*

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Although it has been two months since ComBio2016, my memory of all the events occurring at the



Suong's poster awarded at ComBio2016 … and on her birthday!

conference is still fresh as if they happened just yesterday. These were the feelings of admiration, fascination and enjoyment attending plenary lectures, symposia, colloquia and poster teasers, and the pleasurable meetings and conversations I had with colleagues and friends during lunchtime and break-times. Particularly, during the poster sections, I had great opportunities to talk to and discuss my research with many eminent plant biologists, from whom I received constructive comments on the work presented in my poster. One of the most memorable moments at ComBio2016 is when I was awarded the Poster Award on the last day of the conference (which was also my birthday J).

My PhD research at The University of Newcastle has focused on elucidating the genetic controls of the development of transfer cells – a specialised cell type functioning in enhancing nutrient transport in plants. My ComBio2016 poster summarised my recent findings that transfer cell development in Arabidopsis phloem parenchyma is a novel trait specific to vegetative phase change, and that this novel trait is regulated by microRNA miR156 and its *SPL* target genes. The poster attracted a lot of attention and comments from the conference attendees, which later contributed to improving the manuscript I was drafting to report these findings. A month after the conference I submitted this manuscript to *Plant Physiology* and then just in the last few days I received notification that the manuscript has been accepted (conditional with minor revisions). A welcome Christmas present!

I would like to take this opportunity to thank ASPS for providing me the Travel Grant to attend ComBio2016 and communicate my research there, and I am very honoured and grateful at receiving the ASPS Poster Award. Besides precious "academic moments" the conference brought me, and as an international student, in exploring the extraordinary beauty of Brisbane. I am very much looking forward to ComBio2017 and a great trip to Adelaide.

ComBio2017 announcement

*05 December 2016*

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

Dear Past and Present Members

We are pleased to advise that the photographs from ComBio2016 can now be viewed at: http://www.asbmb.org.au/combio2016/index.html

We are also pleased to advise that the ComBio2017 website is now live at: http://www.combio.org.au/combio2017/

ComBio2017 will be held from 2 – 5 October at the Adelaide Convention Centre.

The Keynote Speaker at ComBio2017 is Emmanuelle Charpentier from the Max Planck Institute for Infection Biology, Berlin. Professor Charpentier is the Co-inventor of CRISPR/Cas9 and is being sponsored by the Russell Grimwade School of Biochemistry and Molecular Biology at the University of Melbourne.

Professor Cathie Martin MBE from the John Innes Centre, Norwich, UK, is a confirmed plenary speaker. Professor Martin conducts research into the relationship between diet and health, and how crops can be fortified to improve diets and address the global challenge of escalating chronic disease. She is particularly interested in plants which contain natural chemicals that are seen as 'natural medicines', including the phenolic compounds in fruits and vegetables. Professor Martin is well known for her work on blood oranges and purple, high anthocyanin tomatoes and through her spin-out company, Norfolk Plant Sciences, is working to secure the impact of her research on phytonutrients through food products designed to be good for consumers.

The conference website including the themes of the conference can be found at: http://www.combio.org.au/combio2017/

The pages will be updated as further information becomes available.

Kind regards

Sally

Sally Jay

ComBio2016 and ComBio2017 Secretariat

ComBio2016 photos

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ComBio2016 and ComBio2017 Secretariat

An anniversary to remember by John Evans

*05 December 2016*

an-anniversary-to-remember

Employment opportunities and the GPC November E-bulletin

*05 December 2016*

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

We have several new employment opportunities based around Australia and in New Zealand.

Global Plant Council E-Bulletin November 2016

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**E-Bulletin /**
November 2016

Welcome to another issue of the Global Plant Council's monthly e-Bulletin!

We can hardly believe that it's almost the end of another year! In just a few short weeks we'll be welcoming in the new year, and looking forward to continuing our work to promote, strengthen, inform and equip the global plant science community. To do this, however, **we need some help**.

As a subscriber to our e-Bulletin, *would you consider making a donation to the GPC*? You can make a one-off payment or recurring monthly contribution – no matter how big or small – via the secure PayPal link here: http://globalplantcouncil.org/donate.

We're always keen to hear from potential new Member Organizations too! If you belong to a plant/crop science society that is not already a GPC member, or if you work for a plant science-focused research institution, please contact us (email lisa@globalplantcouncil.org) to find out how your organization can become a Member or Affiliate Member of the GPC!

Finally, in other news, we'd like to welcome Dr Owen Rowland from Canada's Carleton University to the Global Plant Council! Owen replaces our former Canadian Society of Plant Biologists' representative Professor Carl Douglas, who passed away earlier this year. Welcome aboard, Owen!

**Latest News /**
**View more...**

If you have news you would like us to share on our website, please contact lisa@globalplantcouncil.org

This month 60 new breaking news stories were posted on the GPC website including...

From *Journal of Experimental Botany*: sound the alarm! Roots and systemic plant defense
A new paper and associated Insight article in *J Ex Bot*highlights plant defenses in citrus plants.

In *Nature Plants*: controlling plant regeneration systems may drive the future of agriculture
Belgian scientists from VIB – Flanders Interuniversity Institute for Biotechnology and Ghent University have discovered a key protein complex that controls plant tissue repair.

In *New Phytologist*: with a little help from my fungus
An international team of researchers reveals that a fungus of the genus Trichoderma lives inside the tissue of tomato plants and helps its host to defend itself against infestations by parasitic nematodes.

Phenotype at the push of a button
Scientists at the Leibniz Institute of Plant Biochemistry in Halle, Germany, have developed a method that makes it possible to accumulate or break down chosen proteins in living organisms as needed.

Living fossil genome unveiled
The genome sequence of *Ginkgo biloba*, the oldest extant tree species, has been published by

scientists from the Beijing Genomics Institute, Zheijiang University and the Chinese Academy of Sciences.

**Events /**
**View more...**

If you have a conference, meeting, workshop, training course or other event coming up, we can include it in our Events calendar! Please email lisa@globalplantcouncil.org

GARNet NatVar 2016: Natural Variation as a Tool for Gene Discovery and Crop Improvement
12–13 December 2016. Cambridge, UK.

4th International Plant Phenotyping Symposium
13–15 December 2016. El Batán, Texcoco, México.

Gordon Research Conference on Chloroplast Biotechnology
08–13 January 2017. Venture, CA, USA.

**Policy /**

Lots of new reports, and an archive of useful documents from the last few years, are available on our website. Head to the Resources page and click 'Reports'.

The State of Food and Agriculture 2016
The pledge to eradicate hunger and poverty must go hand in hand with rapid transformations of farming and food systems to cope with a warmer world, FAO said in a new report.

Biotechnology in Developing Countries: Growth and Competitiveness
The first-of-its kind report, 'Biotechnology in Developing Countries: Growth and Competitiveness' was released on 15 November by the Beijing-based Chinese Academy of Sciences-The World Academy of Sciences (CAS-TWAS) Centre of Excellence in Biotechnology. The report provides an assessment of research and patents in the field across the global South.

Delivering on EU Food Safety and Nutrition in 2050 – Future challenges and policy preparedness
This foresight study assesses the future resilience of the current EU food safety and nutrition

policy and regulatory framework by examining potential scenarios up to 2050 and the challenges they may present, and suggests possible policy options.

**Funding Opportunities /**

Spotted a funding opportunity we've missed? Please tell us about it by emailing lisa@globalplantcouncil.org

Australian researchers, or researchers working in Australia: the deadline for applications/nominations for the 2017 Peter Goldacre Award is 9th December 2016.

Members of the Australian Society of Plant Scientists are also eligible to apply for the 2017 ASPS Teaching Award until 9th December 2016, and for the RN Robertson Travelling Fellowship until 20th January 2017.

**On the blog /**
View more...

Would you like to contribute an article to the GPC's blog? Please get in touch!
Email lisa@globalplantcouncil.org

Using plants to convert explosives to fertilizers: an interview with Neil Bruce
Sarah Jose spoke to University of York (UK) researcher Neil Bruce about his work into the detoxification of pollutants by plants and microorganisms.

Down under: the Global Plant Council's 2016 AGM
Lisa Martin gives the lowdown on what happened 'down under' at the Global Plant Council's 2016 Annual General Meeting.

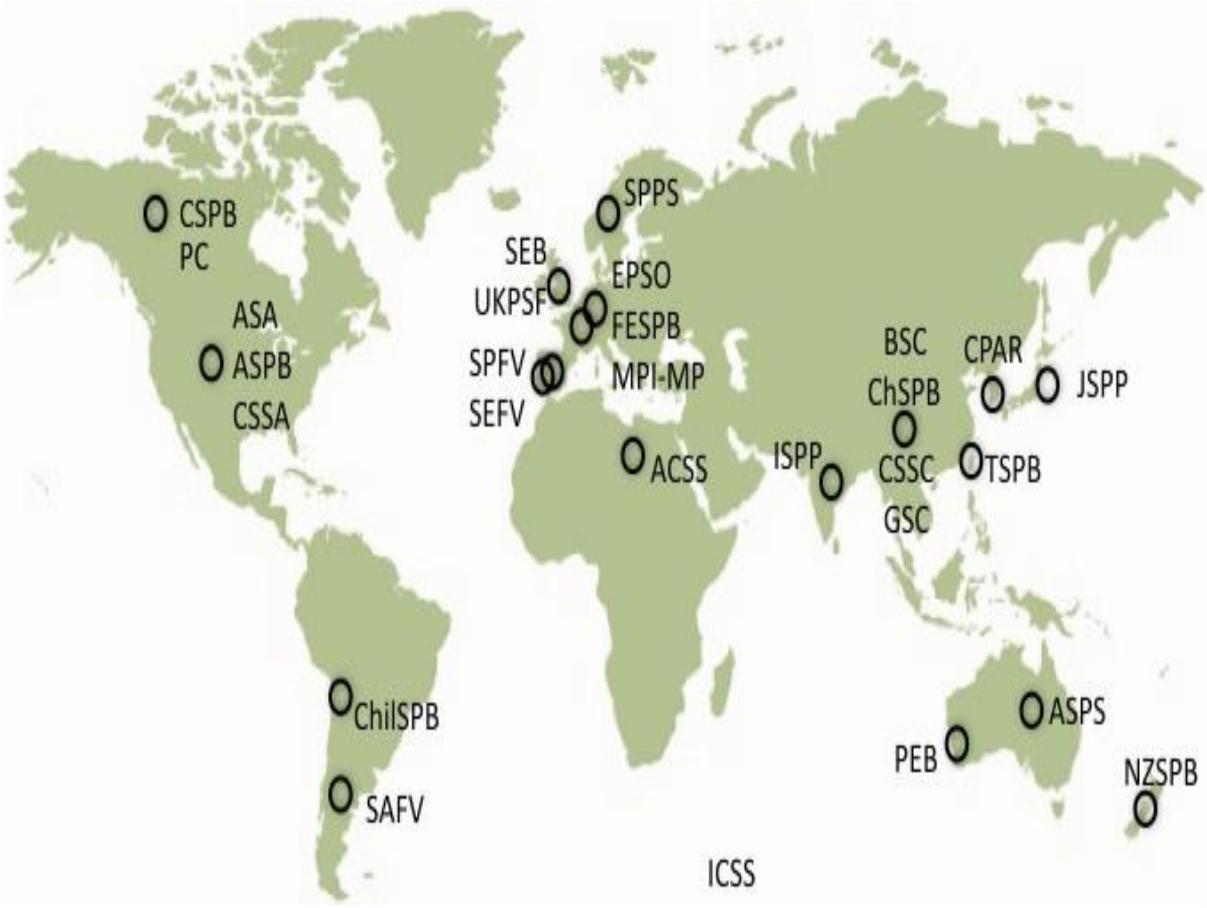
Flipping the symposium
What do you do when a speaker doesn't turn up for the conference session you've organized? Try 'flipping the symposium', like Dr Rainer Hofmann did at the recent ComBio 2016 meeting!

How growing plants improves human well-being: People Plant Council
We might be preaching to the converted, but plants are good for you! Sarah Jose discovered how the People Plant Council is working to communicate the benefits of plants to the public.

Temperate matters in agriculture

In this guest blog from the Global Food Security program, Evangelia Kougioumoutzi reports on the TempAg network.

**Members /**




Click here for details of the GPC Member Societies and Affiliates and their representatives.

Please contact Ruth Bastow (ruth@globalplantcouncil.org) to find out how your organization can join the Global Plant Council.



The GPC is a coalition of plant and crop science societies and affiliates from across the globe. The GPC seeks to bring plant scientists together to work synergistically toward solving the pressing problems we face.

Please click here to make a donation via PayPal to help support the GPC.