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## February 2016 Newsletter

There are so many things to talk about this month but what I'm most excited to share with you is our first event for the year! Starting our 2016 event series off with a bang, we are very chuffed to have Chief Executive Officer of the National Health and Medical Research Council, Professor Anne Kelso, join us at a spectacular Sydney venue to share her career journey and lessons she's learned along the way (all the details later in our newsletter).

While we think we have some great ideas for other FW events for the year, in the coming month we are going to ask you what you want from us. You see, earlier this month the FW peer advisory committee importantly set aside some time for a Strategic Planning Day. It allowed us to reflect on what we have achieved to date but also reassess our values and the mission of our organisation, as well as our priority areas over coming months to years. Without a doubt the biggest priority was to make sure we are meeting the needs of our members, so please keep an eye out for a survey coming your way soon. Oh, and if you are curious about what is involved in a 'strategic planning day' we are going to blog all about it next month, just in case you want to set aside some time for bigger picture thinking. Trust us, it is worth it....

Hope to see you at our event and happy reading!

Melina and the FW team

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## What happened this month

- February 11 was the first <u>International Day for Women in Science</u> hoorah! an
  initiative highlighting inequality in the field and, more importantly, what we can all do
  to change things.
- Incoming Chief Scientist Dr Alan Finkel, a self-confessed techno-optimist, released his first statement '*Time to back our potential*' outlining his vision for the role.
- NHMRC have announced a <u>structural review of their grants program</u> following a recent consultation regarding their <u>Fellowship schemes</u>.
- The <u>Australian Academy of Science 2017 awards</u> are now open, as well as a variety of <u>research</u>, <u>conference</u> and <u>travel</u> funding opportunities.
- More information was provided on the \$500 million <u>Biomedical Translation Fund</u> a for-profit enterprise aimed at raising capital to invest in Aussie biotech.
- Finally, entries opened for the <u>Australian Museum Eureka Prizes</u>, more info below!

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This month's Journal Club contribution comes from <u>Natalie Matosin</u>, an NHMRC Early Career Fellow (CJ Martin) at the UNSW and Max Planck Institute of Psychiatry. She studies how our genes and experiences change our brain's molecular makeup, and how this can go wrong to cause psychiatric illness. She is also a surfer, boxer and yogi and often found on the beach with her German Shepherd, Henry.

Matosin N, Fernandez-Enright F, Fung SJ, Lum JS, Engel M, Andrews JL, Huang XF, Weickert CS, Newell KA. Alterations of mGluR5 and its endogenous regulators Norbin, Tamalin and Preso1 in schizophrenia: towards a model of mGluR5 dysregulation. *Acta Neuropathologica*. 2015;130(1):119–129.



## What were the aims of this research?

Metabotropic glutamate receptor subtype 5 (mGluR5) is a protein essential for healthy brain function, learning and memory. It's been of interest to researchers over the last decade, because when this protein is disrupted in animals, they exhibit schizophrenia-like symptoms. This study aimed to determine whether mGluR5 was affected in postmortem brain samples from people with schizophrenia, specifically in the dorsolateral prefrontal cortex (a region important for cognition).

What are the top 3 take home findings of your research? 1. Although mGluR5 mRNA levels were

unchanged, mGluR5 protein levels were over 20% higher in the brains of people who had schizophrenia compared to controls. 2. Proteins that endogenously regulate mGluR5's function were expressed at much lower levels (–30%). 3. mGluR5 protein was significantly correlated with mGluR5 mRNA and protein levels of mGluR5 endogenous regulators in control subjects – but all these associations were lost in the schizophrenia subjects.

How does this research contribute to the field? The cognitive abilities of people with schizophrenia are strongly linked to long-term functional outcomes. Unfortunately, current antipsychotics are mostly ineffective at treating cognitive dysfunction. This work provides the first molecular evidence that the mGluR5 system is dysregulated directly in the schizophrenia dorsolateral prefrontal cortex and supports that mGluR5-targeting drugs may offer a way to improve cognition and quality of life in people with schizophrenia.

Who are your collaborators and how did your work relationship come about? Kelly and Fran were my PhD supervisors; Jeremy, Jess and Martin, who were (at the time) also PhD students, helped me with the experiments; Xu-Feng is director of my PhD lab; and Sam and Cyndi are our collaborators from the Schizophrenia Research Laboratory at NeuRA, UNSW. This collaboration extended from a long-term working relationship between our labs through our common affiliation with the Schizophrenia Research Institute in Sydney.

What is your current role and organisation and how long have you been there for? I am just finishing up my current position as a Postdoctoral Research Associate at UNSW, where I have been since May 2015. At this moment, my husband and I are in the middle of moving our house across the other side of the world! I start at the Max Planck Institute of Psychiatry in Munich as an NHMRC Early Career Fellow (CJ Martin) in April. The plan is to be there for two years before returning to the land down under and, mostly importantly, back to our fur child (pictured).

What new skills or projects are you currently working on? I am primarily trained in analysing postmortem human brain tissues to study severe psychiatric illnesses (hence my Twitter handle, <a href="mailto:oppostmortemgir">oppostmortemgir</a>). In my first postdoc position I was really lucky to have had the opportunity to extend my PhD skillset and learn about how genetic variants can influence peoples' brain structure and cognitive abilities. Next month in Munich, I'll be back in the wet lab exploring how particular genetic and epigenetic profiles map onto downstream pathways in the human brain, and how this can go wrong in major depressive disorder.

**Who is a woman that inspires you?** My mum – she always taught me that you could do anything if you are totally committed, which she proved when she bought a little café in a seaside town and systematically turned it into one of the most popular places in the area. The hard work always pays off!

What food have you eaten too much of in your life? Please define 'too much' ©

Have you published recently? Firstly congratulations! Secondly drop us a line at <a href="hello@franklinwomen.com">hello@franklinwomen.com</a>. We'd love to hear from you and are always on the lookout for journal club contributors for our newsletter. ©

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Our first event for 2016 is a breakfast event 'Conversations with Anne Kelso' on Tuesday 5th of April 2016, at the Australian Museum, Sydney.

Whenever we have asked the Franklin Women community who they would like to hear speak at our future events, the answer is always the same – an

awesome/inspiring/motivating/successful woman in our field who can share their story and



any words of wisdom. Well, not only is Anne heading up Australia's peak body for health and medical research, she has also had a very impactful career as a medical research scientist in immunology and also held leadership roles in diverse organisations in the sector – from a cooperative research centre to the World Health Organization Collaborating Centre for Reference and Research on Influenza.

As you can imagine, thanks to her diverse career journey, Anne has lots to share with respects to what it means to have a health and medical research career and the opportunities that exist, as well as advice that she has picked up along the way to help

navigate challenges that arise. No matter what role in the health and medical research field you are in, or at what career level, we hope Anne's journey will have something for you to take away for your own career.

After Anne's talk there will be the opportunity for questions. If you are unable to join us but have a question for Anne, please drop us a line at <a href="mailto:hello@franklinwomen.com.au">hello@franklinwomen.com.au</a> with your name and organisation. We will be tweeting the answers to the questions asked on the day and you can follow the conversation on Twitter using the hashtag #FWAnneKelso.

As always, we have a wonderful venue (thank you to the Australian Museum – see the article below – for coming on board as our venue partner), a delish breakfast and the opportunity to mingle with other women in the health and medical research sector from around Sydney. Can you think of a better way to start your day...

To register to attend the first FW event of the year, Conversations with Anne Kelso, please see the <u>Franklin Women website</u>. There you will also find more details on the event. Places are strictly limited.

## Eureka!

Every year the Australian Museum delivers the 'Oscars of Australian Science' – The Eureka Prizes, the nation's premier national science awards. The Eurekas acknowledge all areas of science, from mentorship of young researchers, to innovation and science journalism. And, this year, there is a new award dedicated to the medical research field. Johnson & Johnson, the award sponsor, tells us why supporting such an award is so important to them.



The 2015 Australian Museum Eureka Prize Award Winners. Photo Credit: Australian Museum Eureka Prizes Photographer: Daniel O'Doherty

Johnson and Johnson Family of Companies Australia is excited to sponsor the new 'Johnson & Johnson Eureka Prize for Innovation in Medical Research' through a partnership with the Australian Museum Eureka Prizes in 2016, 2017 and 2018. The award of \$10,000 is for an individual or team who demonstrate innovation in medical research that is changing and improving people's lives.

Through this award our goal is to

support the best minds in Australia to advance human health solutions, something Johnson & Johnson is very passionate about. As a business our mission is to produce innovative products that assist in caring and saving lives. By creating relationships with specialists and experts in different fields it has allowed our business to grow and help more people than ever before. Partnering with the Australian Museum Eureka Prizes is a part of our

comprehensive approach to create more opportunities within the Medical industry and as the largest health care provider globally, we are uniquely positioned to support innovative progress. Locally, Johnson & Johnson Australia believes that creating unique networks with people and businesses that can combine their resources, ideas and technologies will further improve the lives of many and assist in groundbreaking results.

As we progress into 2016 at a rapid speed, it has never been more crucial to celebrate the research in both medical and scientific fields, as it is clear that innovation throughout Australia has never been stronger. Johnson & Johnson is incredibly proud to become a part of this extraordinary event that exemplifies the amazing work Australians are contributing to the world of Medical Research and Development.

For more information about the 2016 Australian Museum Eureka Prizes including the Johnson & Johnson Eureka Prize for Innovation in Medical Research (and to nominate yourself or another talented woman in health and medical research), visit their website (<a href="http://australianmuseum.net.au/eureka">http://australianmuseum.net.au/eureka</a>) or follow them on <a href="mailto:Twitter">Twitter</a>, Facebook or Instagram!



<u>Stitcher!</u>! This radio/podcast streaming app allows you to search and stream podcasts on-demand, or download them when connected to Wifi for later listening. Invaluable for busy ladies who want to keep up with current affairs (or for some entertainment on the commute to work!)...

But what podcasts should I listen to I hear you ask? You can easily browse shows by what's trending or recommendations on your personalised Smart Station, and here are some of our own FW favourites:

- <u>Radiolab</u> is a show all about curiously, blurring the lines between science, philosophy and the human experience.
- Thought-provoking to humorous, <u>This American Life</u> podcasts are real stories about real people it's an oldie but a goodie.
- <u>Nightlife with Tony Delroy</u>, especially the Future of Medical Research episode that recently aired featuring the one and only Professor Anne Kelso!
- Check out this shortlist of the best <u>20 science podcasts</u>, and these <u>podcasts by</u> <u>women</u> are all worth a listen, especially <u>Women of the Hour</u> with Lena Dunham.
- <u>Talking Animals</u> is 5-minute snippets of the latest in animal science and conservation; listen while watching <u>this video</u> of Prickle the hedgehog and Hazel the puppy.

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We want to include your contributions in our newsletter. If you have published your work recently or are doing (or know of) something that other women in our field would be interested in, drop us a <u>line</u>. Want to receive our newsletters directly to your in-box? <u>Subscribe here</u>.