



Fred Binns  
Parkinson's Foundation

# newsletter

What's been happening to raise awareness of, and support research into, Parkinson's disease

AUTUMN 2017

## Fred's Walk the Bay for Parkinson's



*Wear  
a splash  
of purple!*

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This annual event allows us to increase awareness of Parkinson's disease and to raise funds for research. We are hoping for a nice day on April 2nd – however the Pavilion at Wilkinson's Point will offer protection if necessary.

We are pleased to have two new food and drink vendors this year, Flammkuchen and Double Shot.

• **Flammkuchen**, known as 'german pizza', originate from Alsace in France and Bavaria, Germany, and are made using a sourdough base which is rolled out very thinly and topped with creme fraiche. Markus sources the best Tasmanian ingredients, including Callington Mill flour, Heidi Farm cheeses, Boks bacon, Huon

Aqua salmon, and Tongola goat's cheese. Gluten free options will also be available.

- Fancy a long black, a cappuccino or maybe a hot chocolate? Glen and his team from **Double Shot** will be making coffees and selling soft drinks.

We are delighted to have a range of partners join us again this year:

- **Allcare Physio**, who run a PD Warrior program, an exercise program designed to target your brain and your body
- **Tasmanian wheelchair specialists**, who will have numerous products on display,

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- **3 Degrees Pilates** will be happy to provide any information regarding the benefits of pilates and
- **All Round Health** will have information on a range of therapies.

Children can enjoy having their faces painted by the Hudson sisters, Clare and Nikki.

There will be a brief talk from Anastasia Salter, who is starting her PhD at the Menzies Research Institute, partly funded by the Fred Binns Parkinson's Foundation. (See article opposite)

We will have a number of spot prizes to give away at the end of the walk – but you must be there to collect.

Early bird registration is available at [www.fredbinns.org.au](http://www.fredbinns.org.au) (\$12) or \$15 on the day.

Children under 18 are free.

We look forward to seeing you there – don't forget to wear a splash of purple.

## World Parkinson's Day at the Menzies Institute for Medical Research

This World Parkinson's Day, we want to bring the Tasmanian Parkinson's community together. 2017 marks 200 years since Parkinson's was recognised as a health condition. Please join us over afternoon tea as we update you on the research happening right here at Menzies. We will also be introducing the Fred Binns Parkinson's Foundation PhD top-up recipient, Anastasia Salter.

**Tuesday 11 April**  
at 3:30pm

Level 4 Tea Room,  
Medical Science Precinct

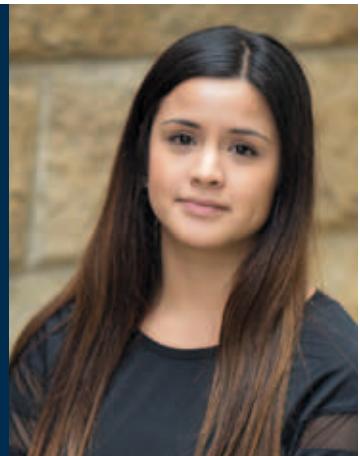
Cnr of Liverpool & Campbell Sts, Hobart  
(Please report to reception on arrival)

Please RSVP by Friday 7 April 2017  
to [Menzies.advancement@utas.edu.au](mailto:Menzies.advancement@utas.edu.au) or  
phone 03 6226 7707. Bookings essential.



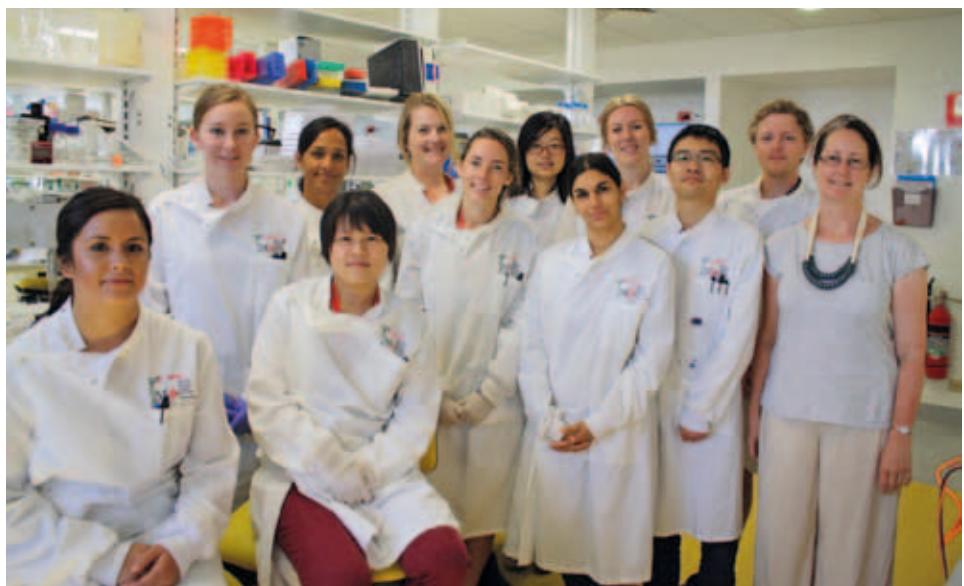
## PhD recipient

The Fred Binns Foundation would like to congratulate Anastasia Salter, the recipient of our top-up PhD scholarship, whom the Foundation has committed to support over the next 3 years. Anastasia, the highest ranked student, will continue her research into Parkinson's disease at the Menzies Institute for Medical Research. We look forward to sharing Anastasia's results with you as she progresses through her PhD studies.



## Stopping the spread of Parkinson's Disease

**Associate Professor Tracey Dickson** | Menzies Institute for Medical Research



**We believe that breakthroughs in the prevention and treatment of Parkinson's disease will be driven by basic scientific research, whereby greater understanding of the mechanisms of neuronal pathology will guide us toward preventative strategies and therapeutic measures.**

Recently, there has been a shift in our understanding of the cause of a range of devastating neurodegenerative diseases, including Parkinson's. It is now thought that abnormal proteins may spread through the brain via a process of cell-to-cell transmission.

Last year Anastasia Salter undertook an Honours project in our lab, and began to look at this process. She had an extremely successful year and was awarded First Class Honours. We are

delighted that she has decided to stay on to commence a PhD in our lab at Menzies Institute for Medical Research. Her investigations will continue to look at this process of cell-to-cell spread, and are focussing on  $\alpha$ -synuclein the protein that characterises the hallmark pathologies of Parkinson's disease. Using our innovative laboratory models, she is determining the mechanisms underlying this process and trialling a new therapeutic approach aimed at manipulating the cellular transport machinery to stop the spread of this abnormal protein. These investigations represent the first critical step towards the development of highly targeted clinical interventions to improve outcomes for people suffering from Parkinson's disease. We look forward to seeing what Ana can achieve in the next three and half years!

# Successful Bunnings sausage sizzle

With a little trepidation, because the February long weekend was packed with activities, including the Wooden Boat Festival, ten committee and family members fronted up to run a sausage sizzle at Bunnings, Glenorchy, for the first time.

A visit the week prior to the Bellerive Family History Society's sausage sizzle was invaluable, as were the lists they gave of purchases and items required. Two friendly members also popped in to check how we were going with our set up. In fact, the Bunnings staff member who arrived to sign off before we started cooking exclaimed, 'Full marks. It's spot on!' We also appreciated the expertise and items lent by Doug Ralph of Kingston Rotary Club.

Our efficient team, decked out in the Foundation's distinctive aprons and caps, were soon in the swing of selling without a queue forming. Garth Johnson and Kim Pitt proved to be expert barbecue cooks with Di Binns and Katherine Marsden wielding tongs too. The bags of sausages and onions seemed somewhat daunting at first; however, the last sausage was sold at 3.55, five minutes before closing!

With a profit of just over \$1200 to add to our funds for research into Parkinson's disease, we'll certainly be applying again. It's a great community opportunity provided by Bunnings.



## Announcing our Patron

We are very pleased to announce that David Walsh, owner of MONA, has agreed to be our Patron. Foundation chairman and former pathologist, Dr Cliff Kelland, who suffers from Parkinson's disease, believes having someone with David's high profile will be a unique asset to the Foundation.

David has a personal interest in Parkinson's disease due his father having the disease in his later years.

The Foundation looks forward to working with David, as we continue to raise awareness of Parkinson's disease in the community, and raise funds for Parkinson's disease research.

# Light therapy

In December 2016 the Fred Binns Parkinson's Foundation invited Professor John Mitrofanis (Anatomy, University of Sydney) to present his work researching the use of near infra-red light in a mouse model of Parkinson's Disease (PD). About 30 people attended. Attendees had a variety of brain conditions including several with PD.

Professor Mitrofanis's talk was entitled "Turning on the lights to stop neurodegeneration: exploring the potential of a new treatment for PD"

Background: in PD there is loss of cells in the substantia nigra (black substance) at the base of the brain. These are the cells which produce dopamine, a key chemical which is deficient in PD. Dopamine serves as a chemical messenger supporting automatic movements such as walking, writing, speaking, swallowing and facial expression. A deficiency can lead to difficulty with these activities.

Cell loss in PD has been linked to poorly functioning mitochondria. The mitochondria are the engine rooms of the cell, producing energy for cell functions.

Scientific studies have revealed that near infra red light (NIR) can favourably influence the survival and function of brain cells through interactions with an enzyme in the mitochondrion leading



Professor John Mitrofanis with Dr Frank Nicklason

to better blood supply and improved energy generation. NIR light also can interact with the cell nucleus to trigger nerve growth factors, increase the development of connections between nerve cells and increase new nerve cell production.

Professor Mitrofanis is a world leading researcher into use of NIR in mouse models of PD. Mice are made to express the signs of PD by injecting them with a chemical called MPTP or by a genetic engineering method. Professor Mitrofanis has demonstrated that administering NIR light, both at the time of MPTP injection or long after injection, can preserve dopamine producing cells and substantially reduce the symptoms of PD. Similar results were found in the

genetic engineered PD mice who were protected by NIR light.

Professor Mitrofanis is collaborating with a French group which demonstrated the benefit of NIR light for a primate model of PD. In this experiment NIR light was administered by probes inserted deep into the monkeys' brains.

A small preliminary human study employing NIR light administered to the head (transcranial NIR, tNIR) has been reported and suggests improvements in both walking and cognitive function. This study needs to be repeated in a more rigorous format before solid conclusions can be drawn.

## Dr Frank Nicklason



## A message from Di

**It's hard to believe that autumn is here already! The past 3 months have been an exciting time here at the Fred Binns Parkinson's Foundation.**

We were excited to host an information evening with Prof John Motrofanis, who spoke about Light Therapy. Many people have had a positive response to this therapy, which we are pleased to say is available here in Tasmania.

Many thanks to our volunteers for all their help with our Bunnings barbecue, held at Glenorchy in February. Not only was it a successful event, it was a lot of fun too.

Recently I was privileged to be invited by the Hon Elise Archer MP to her Community Afternoon Tea with her and Premier Will Hodgman. This was a great opportunity to highlight Fred's Foundation and to network with other organisations.

Plans are well underway for Fred's Walk the Bay for Parkinson's on April 2nd, to acknowledge World Parkinson's Day on April 11th. I extend a warm welcome for you to join us at the beautiful Pavilion at Wilkinson's Point.