According to the Global Burden of Disease Study 2013 (GBD 2013), major depressive disorder is the second leading cause of disability in Australia. The first line treatment for depression is typically antidepressant drugs. However for at least one third of sufferers these medications are ineffective. Forcing sufferers and their families to live with a debilitating condition, that puts them at a higher risk of suicide and self-harming behaviours.

At MAPrc we specialise in revolutionising mental health treatments. As such our Deputy Director Prof Paul Fitzgerald has developed an innovative response to treatment resistant depression. Called Transcranial Magnetic Stimulation (TMS) it uses a very focused magnetic field to stimulate nerve cells in the surface areas of the brain. Magnetic pulses are applied using a coil resting lightly on the person’s head. When a number of TMS pulses are given consecutively, it is called repetitive transcranial magnetic stimulation (rTMS).

rTMS is used to treat disorders in which parts of the brain are either underactive or overactive, such as depression and schizophrenia.

Research over the past 20 years has found rTMS to be a safe and potentially effective treatment, with no major adverse effects. rTMS is given to patients who are awake and alert and who are usually able to function completely normally immediately after treatment.
ABOUT US: DR MANREENA KAUR

Meet Manreena who is an NHMRC (National Health Medical Research Centre) Early Career Fellow in the Therapeutic Brain Stimulation team lead by Professor Paul Fitzgerald. She has been working at MAPrc since July 2016 and started as a research assistant working in mental health research eight years ago.

My undergraduate degree was a Bachelor of Science in Biomedical Sciences that I did at Newcastle University in the UK. I then moved to the Brain and Mind Centre at the University of Sydney and worked as a Research Assistant for two years after which I did my PhD on neurophysiological biomarkers of psychotic and affective disorders.

I chose to work at MAPrc because of Professor Paul Fitzgerald and his Therapeutic Brain Stimulation team! Paul is the Australian Leader in brain stimulation so I was delighted that he agreed to be my mentor throughout my fellowship!

I love this area of research because it has promising treatment options in psychiatry. While medications do work for some people, we have realised that in order to be able to treat mental illness, investigating newer treatment modalities is absolutely vital. In my opinion, brain stimulation treatments are probably the most promising approach to treat mental illness after medications, however, there is still a huge amount of work to be done before we see optimised benefit of brain stimulation treatments.

For me a successful outcome is producing meaningful, high quality research. That is, research that is carried out ethically, thoroughly and that is based on a compelling rationale and, which can ultimately have real world, clinical implications. If we carry out our research around these values, even if the findings aren't what you expected, they will be meaningful.

I love hearing from my patients that they feel better after participating in our research. I think this is undoubtedly the driving force for everyone working at MAPrc. I have many inspiring and incredible people around me and they are all inspirational in different ways to me. These people are my family, my friends and the team of people I work with at MAPrc.

What we do at MAPrc is really very novel and we lead the way in our respective fields in Australia and internationally. Additionally, I think there is a very high standard of research here, in terms of research ethics and quality and this combination is critical for making the most of funding to produce the best possible research.

Every person at MAPrc is extremely grateful for the support we get from philanthropists, funding bodies, clinicians, the community and most importantly, our patients. We all take great pride in the work we do here and feel very fortunate that every day, we are able to contribute to improving the lives of people with mental illness.
Christmas seems like an age away as Autumn is approaching. It’s already been a busy start to 2017 as our researchers continue their pioneering work in developing new treatments, new understanding and new services for mental illnesses. Our underlying philosophy is to conduct world class psychiatric research with respect, equality and understanding. At MAPrc so often we are the last resort for many patients who have tried many different treatments to no avail.

I am pleased to announce that we were recently awarded two grants.

The first was received from the National Health and Medical Research Council to conduct trials of a new treatment of Borderline Personality Disorder also known as Complex Trauma Disorder.

The second from the Mason Foundation is to establish the efficacy of treatment for Fibromyalgia. For this grant we acknowledge the support of the Judith Jane Mason & Harold Stannett Williams Memorial Foundation as managed by Equity Trustees.

This edition of the MAPrc Gazette, highlights the cutting edge work of Prof Paul Fitzgerald in transcranial magnetic stimulation for those with treatment resistant depression. Our case study in this edition of a young woman Alice, whose life and her family have been shattered by her mental illness and how our research has transformed her life for the better. I am also pleased to introduce you to two members of our dedicated team Dr Manreena Kaur on page two and Dr Bernadette Fitzgibbon on page seven.

If you have never been to our research centre or met any of our team, or if you’re interested in hearing more about work, I am delighted to invite you to join us for Morning Tea on 19 April 2017, more details are on the back page. This is a great opportunity to ask us questions, understand our work and also an opportunity for us to say thank you to you our supporters. MAPrc could not do all its incredible work, without your continued support. We are committed to finding new and effective treatments for those living with the devastating impact of mental illness. We are resolute in our goal to mend minds, are you?

You can make a donation to fund our work, using a credit or debit card, visit us online at https://community.monash.edu.au/givingmaprc

Professor Jayashri Kulkarni
MAPrc Director
Alice is 22 years old, living at home with her parents, dog and cat. Sadly her twin brother recently passed away in a motorbike accident. Her ambition is to be a clinical psychologist and she is studying part-time at a local university. Since the age of 14 Alice has lived with complex mental health problems and has been diagnosed with borderline personality disorder, depression and anxiety. Her mental illness is significantly influenced by fluctuations in hormones involved in the menstrual cycle. Alice is currently in remission from anorexia.

"Although I loved learning I hated school because I got bullied. I had a lot of time off from high school because I was so sick with mental health issues. I was in hospital for nine months when I was 15, but barely attended school classes since the end of year 8. Since then, I have only had the capacity to study part-time whilst somewhat maintaining my health. It took me four years to complete VCE, a very big struggle. I did a second year 12 at my high school, to finish some more VCE subjects, but did my final year through Distance Education Victoria. Home life wasn’t great, my relationships were quite dysfunctional, which was further complicated by my mum having mental health problems of her own.

My mental illness first started developing as depression when I was about 14½. Before then I had never experienced any mental health problems. Well, I guess there were underlying signs of an eating disorder and borderline personality disorder, from about the age of seven but nothing major until I was 15. From that point, every month just before I got my period, I would become so depressed, my emotions would be so out of control. I would feel so desperate, miserable and in pain from the severity of my emotions, that I would attempt suicide. They had put me on a form of the Pill, taking the active tablets continuously for three days until three days before my period to help me cope. I had to do this for years. It wasn’t easy.

I thought my life would be a constant cycle of uncontrollable rollercoasters of severe mood swings and suicidality. I thought I wouldn’t get anywhere, or achieve anything. To be honest, I think I probably would have been dead by now, what I was going through was awful. I had lost hope that anything could ever get better, that there was anyone who knew how to fix this.
months, so I would only experience the hormone fluctuation (and subsequent suicide attempt) every three months.

My parents struggled to care for me at home, trying to stop me self-harming or attempting suicide. There were countless times my parents needed to call the police or ambulance because I was so unwell and out of control. The stress and trauma from looking after me, and seeing me go through all of this, has had a huge toll on my mum, effecting her mental health. My brother moved out of home when he was 18 because he didn’t feel safe at home with me being so unwell and out of control. I don’t blame him. My dad was working full-time when I first got sick, but had to take a lot of time off to care for me and mum. All of this has also put a lot of stress on my parents’ relationship too, of course, but thankfully they’ve managed to pull through it all.

Whilst I was in the Marion Drummond Adolescent Unit (inpatient mental health) at the Austin Hospital, the psychiatrist, in collaboration with specialists from the Mercy, I was put on a form of the Pill to try to regulate my estrogen fluctuations. Whilst this helped a bit, my condition was far from under control. After seeing every other specialist in the state (that any of my treating doctors had ever heard of/ found on the internet), Professor Jayashri Kulkarni at MAPrc was the last option. Unfortunately, the only way to contact Jayashri was through an email provided on the internet. I was put on the waiting list for a one-off consultation and was seen six months later. It was worth the wait though.

Since becoming a patient at MAPrc life is amazingly different. My mood is fairly stable, I’m not depressed, and I haven’t been suicidal for ages. It’s more than I could ever have imagined. I function the best I have, ever since I got sick as a teenager. I can think clearly, feel sad or happy or somewhere in between, but not hit the awful lows I used to. Most of all, I’m alive and I intend stay that way. There is hope. It may seem impossible (it certainly did to me), but it actually isn’t. There are people who are starting to understand this, and there IS a treatment that helps.

I believe MAPrc saved my life. No, they didn’t cure cancer; they didn’t give me a heart transplant, nothing physical like that. No, they gave me a quality of life, a life worth living. They saved me from suicide.

If I had had cancer, instead of all this mental health stuff, I think I would have had more hope. That’s because there’s so many treatments, so much publicity, and so much ongoing research and new treatments developing every day. It’s not like that for what I have. My primary diagnosis is borderline personality disorder. There is next to no research on borderline personality disorder, it’s not well understood, and treatment is extremely difficult to go through, let alone get access to. There is no medication for borderline personality disorder, there is no “cure” like there is for a physical illness. In the community of sufferers, there’s basically no hope. What MAPrc is doing is groundbreaking, it’s revolutionary.

MAPrc’s treatment has worked, and has made me stable enough to finally be able to benefit from psychotherapy and to improve overall, permanently. Before this, my treatment was just band aids, crisis support, trying to keep me out of hospital. Now, in a couple of months, I will be discharged from the public mental health system after
improving so much. Yes, I will still see a private psychiatrist and psychologist, but I am now well enough to be treated by the private system, whereas before my case was so complicated, and so risky, that private practitioners wouldn’t take me on.

This research desperately needs to be done. This will reduce the rate of suicide and will help people to function. Think about it... If people feel better, they function better. They have motivation to do things, they have the ability to work. When mental health problems get better, generally the comorbid physical health conditions improve too. The burden on the public mental health system (which is seriously struggling and underfunded, with not enough help available for the number of people who need it) and public physical health system will be reduced. There will be more hospital beds, wait lists will decrease. People will be able to work, will earn money, and will no longer depend on Centrelink. The government is constantly complaining about not having enough money. Funding this research, which is already heading towards success, will greatly improve so many of the areas that the government has underfunded. It will improve the economy, and the government will end up with more money. They say the world runs on money... well, this is a sure way to make the world turn round. To everyone that supports MAPrc and donates to their research – thank you. Please keep doing it! You’re making an immeasurable difference to people’s lives and we’re so grateful. Thank you for making it possible for this treatment to be developed, for making it possible for me to try it, for changing my life. “

Alice is a patient of the Women’s Mental Health Clinic. Mental illness has many gender-specific aspects that clinical research has not always addressed. For example, in conditions such as schizophrenia, the age of onset and pattern of symptoms commonly seen is different for women and men. Women and men may also respond differently to medications or other treatments. In addition, changes in the level of sex hormones such as estrogen are known to affect symptoms.

The Women’s Mental Health team is working on numerous aspects of women’s mental health, the experiences of women with mental illness and potential options for treatment. One particular focus of our research is the role of the neuroendocrine system in mental illnesses, and specifically the use of female hormones to improve the results of treatment. We are conducting ground-breaking research into the use of estrogen to improve symptoms in borderline personality disorder, and the use of selective brain estrogens in postmenopausal women. We are also exploring possible links between the oral contraceptive pill and depression.

If you or your family need mental health support please contact us on (03) 9076 6564.

If you are interested in helping more women have access to this service by making a donation please contact Tiffany Davis on (03) 9076 6564 or email Tiffany.davis@monash.edu
Dr Bernadette Fitzgibbon has been awarded an early career grant from the Mason Foundation. The goal of the Foundation is to achieve enduring, positive impact in the area of Chronic Fatigue Syndrome (CFS), a damaging yet poorly understood, illness and causes immense suffering.

Dr Fitzgibbon’s proposed study aims to conduct a double-blind, randomized, sham-controlled proof of principle trial to establish the efficacy of Theta Burst Stimulation (TBS) treatment in fibromyalgia.

Fibromyalgia, a syndrome affecting 1-3% of the population, is characterised by widespread chronic pain and muscle tenderness, and is accompanied by a multitude of co-occurring health issues including fatigue, sleep disturbances and mood disorders. Fibromyalgia and related disorders such as CFS present a substantial health problem, with current treatments limited in their efficacy and associated with a number of side effects. This study will explore for the first time in fibromyalgia a novel non-pharmaceutical intervention, TBS; a non-invasive brain stimulation method that can change the activity of neurons in the brain. TBS is a powerful new alternative to standard non-invasive brain stimulation methods as it can be applied in a much more time efficient manner and may result in greater clinical benefit. If successful, the application of this method for fibromyalgia may be applicable to related disorders such as Chronic Fatigue Syndrome.

Dr Bernadette Fitzgibbon is an NHMRC early career research fellow at MAPrc. Bernadette graduated from her PhD in 2012 where she conducted the first clinical and neurophysiological studies of a new pain phenomenon in amputees. Her current research utilises modern neuroscientific techniques including Transcranial Magnetic Stimulation, Magnetic Resonance Imaging and Electroencephalography, to explore the neurobiology of pain perception and to develop novel treatment approaches for chronic pain syndromes.
EVENTS 2017

Run to Mend Minds
Sunday 27th August 2017

RUN TO MEND MINDS

Lock it into your calendars now because the 2017 de Castella Run 2 Mend Minds, is shaping up to be bigger and better than ever!

With over 1500 runners last year and over $75k raised for mental health research, MAPrc, along with our event partners the Old Xaverians Athletics Club, are poised and ready at the Start Line for this year’s Run 2 Mend Minds!

Set amongst the scenic Kew Boulevard, this very special day is fun for the whole family. Join us for the 5km, 10km or 15km events or the Run Ready program for kids aged 3.5 - 10 years old. Peruse the stalls at the Mind and Body Expo and visit the petting zoo, jumping castle and face painters.

Proceeds from the run, go towards funding scholarships for PhD students to undertake vital mental health research at MAPrc. To find out more about the run, please visit the website decastellarun.com.au

MEET THE MAPRC TEAM MORNING TEA

Ever wondered how exactly we conduct psychiatric research?

Well now is your chance to find out! Meet our award winning researchers who will share their exciting findings in the field of mental health as well as explore our laboratories and clinics.

We are opening our doors at Level 4, 607 St Kilda Rd and invite you to come and hear about our work up close and personal.

All are welcome to join us for morning tea on Wednesday 19 April at 10am with Executive Director Prof Jayashri Kulkarni and members of MAPrc.

Places are limited, so please RSVP by 10 April to Tiffany or Michaela on 9076 6564 or email maprc@monash.edu.

CONTACT US

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MAPrc Morning Tea
Wednesday 19 April 2017