Centre for Men’s Health celebrates four successful years
Welcome to ‘MOMENTUM: Men’s Health Research Gathering Speed’, the 1st issue of the Centre’s re-named and new look newsletter.

We believe this new name really captures the pace of our achievements and the progress we continue to make in our pursuit of innovative scientific research and evidence-based program development to better understand, manage, prevent and cure diseases affecting men.

We have accomplished much within our first four years of operation that deserves celebration. Particularly noteworthy is the on-going success of our key research members to attract funds from Australia’s premier research funding agencies to support their research programs. With the recent announcement of grants awarded for 2012 by the National Health and Medical Research Council (NHMRC), the total amount of funding secured by FFCMH researchers now approaches $13M.

This is an outstanding result within such a short timeframe and you can read more on the following page about an extraordinary grant just awarded to Professor Gary Wittert as well the success of Professor Deborah Turnbull in the latest NHMRC funding round.

Additional achievements since the Centre’s commencement include: the establishment of a comprehensive male health research program covering male ageing, male obesity and diabetes, prostate cancer, male androgens and hormones, male mental health, sexual and reproductive health, as well as the development and delivery of health promotion and community-based interventions; the publication of 117 peer-reviewed scientific papers in high-ranking medical and scientific journals arising from this research; the establishment of an early career research program comprising Post-Doctoral Research Fellows and PhD students, as well as the establishment of strong local and international research links.

I hope you enjoy this latest update about our researchers, research programs and recent events and I’m sure you’ll agree that men’s health research at the FFCMH is definitely gathering MOMENTUM!

Professor Villis Marshall AC

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Cover photo: Susan H Smith/Istockphoto
The October announcement of the National Health and Medical Research Council’s (NHMRC) research funding for 2012 has set a new benchmark for men’s health funding.

Two of the Centre’s Principal members, Professor Gary Wittert and Professor Deborah Turnbull have collectively been awarded $5.3 million to address vital male-specific research questions pertaining to diabetes and to colorectal (bowel) cancer.

Professor Gary Wittert and his team will receive $4.8 million over five years to investigate ways of preventing pre-diabetic men from developing type 2 diabetes mellitus (T2DM), a condition that poses an increasing health and economic burden on Australia.

In men, T2DM is associated with low testosterone (T) but while it is currently unknown whether low T is a cause or an effect of diabetes, some evidence does exist to suggest that by correcting low T it might be possible to prevent pre-diabetes from progressing to T2DM. Professor Wittert’s study will be the first large-scale, long-term study to assess the sustained benefits and risks of T therapy for preventing T2DM and will involve a 2-year multi-centre randomised controlled trial to compare the effects of T with placebo in men following a structured lifestyle program.

The study will provide valuable data about the effectiveness of T treatment for preventing T2DM in men over and above lifestyle change alone which is the current ‘gold standard’. Furthermore, the study will yield much needed data related to the cardiovascular effects of T treatment.

Professor Deborah Turnbull and her team will receive $539,000 over two years to investigate strategies to increase men’s participation in colorectal cancer screening.

Colorectal cancer (CRC) is the second leading cause of cancer related death in Australia and men are at higher risk of being diagnosed with and dying from CRC compared to women. Screening for CRC using the Faecal Occult Blood Test (FOBT) has been shown to reduce CRC incidence and mortality but recent research has shown that men consistently display poorer participation in FOBT screening compared to women. Professor Turnbull’s research will involve a randomised control trial to test three targeted gender-specific invitational approaches to identify the strategy that delivers the highest level of male FOBT-based CRC screening participation.

In addition to reducing the burden of CRC, if targeted, gender-specific approaches are shown to increase male participation, the results of this study will have potential to inform the development of improved, alternative forms of screening for other cancers and preventable diseases.

NEWS JUST IN:
Dr Lisa Butler, FFCMH Management Group Member and Head of the Prostate Cancer Therapeutic Research Group at the Dame Roma Mitchell Cancer Research Laboratories (DRMCRRL) has just received a ‘Movember New Directions Development Award’ of $300,000 from the Prostate Cancer Foundation of Australia (PCFA) for her two year research project entitled “Exploiting metabolic alterations to more accurately monitor prostate cancer therapy”.

The FFCMH is extremely proud of these significant funding achievements that reflect not only the world-class reputations of our researchers but also an ever-increasing appreciation of the need for dedicated research into factors affecting men’s health.
**Dr Grant Buchanan**

Significant developments have taken place for Freemasons Foundation Research Fellow, Dr Grant Buchanan and his team at the Molecular Ageing Laboratory in 2011. Earlier this year, the group moved to new laboratory facilities at the Bazil Hetzel Institute for Translational Research where they now occupy greater laboratory and office space and enjoy improved access to core equipment and facilities. Also of significance, Grant commenced a post-graduate medical program at Flinders University at the beginning of the year, so now divides his time between study and research. Yet despite adding considerably to his workload, Grant continues to lead a number of prostate cancer research projects aimed at understanding the ‘inner workings’ of prostate cancer cells, as well as the role of communication between cells in the prostate on cancer development and progression. One of Grant’s PhD students, Mr Damien Leach who is finalizing his first paper for publication, has demonstrated that changes in the cells surrounding a cancer in the prostate are just as important as changes within the cancer cells in determining which patients will progress with metastatic disease, opening up new diagnostic and therapeutic possibilities.

Additional research projects currently underway include the influence of steroids such as testosterone, estrogen and progesterone on biological processes and cancer risk, and an investigation into molecular changes that occur in the prostate cancer microenvironment involving microarray studies in human cancer samples.

**Dr Kate Fairweather-Schmidt**

Freemasons Foundation Research Fellow, Dr Fairweather-Schmidt is currently on her way to Dunedin, New Zealand to attend the Australasian Society for Psychiatric Research (ASPR) Conference (December 5-9). Kate submitted two abstracts for oral presentations at the conference, both of which have been selected. Her presentations, pertaining to research across male mental health, infertility and suicide are entitled: ‘Proximal Mental Health Symptoms with Concurrent Infertility Problems in a General Population Sample’ and ‘Change in factors proximal to non-lethal suicidality and likelihood of suicidal outcome in an Australian community-based sample’.

The ASPR conference will provide a valuable forum for Kate to meet, discuss and exchange ideas with other mental health researchers and professionals – a win-win situation for all! In addition to the research that Kate will be presenting in New Zealand, she is also currently investigating the impact of pregnancy and early fatherhood on male mental health.

**Dr Luke Selth**

Freemasons Foundation Centre for Men's Health Research Fellow, Dr Luke Selth has been making great progress towards identifying molecules in the blood termed ‘biomarkers’ that are capable of distinguishing between aggressive and insignificant forms of prostate cancer. Once identified, these biomarkers can be used in tests to provide diagnoses that will inform the most appropriate type of treatment for each patient. Importantly, this should eliminate the over-treatment of men with insignificant cancer and ensure men with aggressive cancer receive optimal treatment.

Dr Selth has presented his research to audiences at a variety of events this year including the FFCMH Research Update in July at the National Wine Centre in Adelaide; the 12th Australasian Prostate Cancer Conference at the Melbourne Exhibition Centre in August; and at the FFCMH "Moving Men's Health Forward" event as part of the University of Adelaide's inaugural Research Week. Luke has also appeared on local television in relation to his research and is the 2011 recipient of the Millennium Award for his outstanding contribution to Australian scientific research that is based on molecular biology methods including novel analytical concepts.
Dr Evan Atlantis

Research Fellow Dr Evan Atlantis has been adding to his list of publications this year with four papers published in prestigious journals and three further manuscripts currently under review on the topic of depression and co-morbid chronic diseases including diabetes and cardiovascular disease. Evan is also adding to his list of speaker invitations at international peak body conferences. He will soon be travelling to Italy to attend the European Society for Sexual Medicine Conference where he has been invited to speak about whether “a good sex life can reduce depression in later life”. An interesting topic that will no doubt draw an interested crowd!

In March next year he will head back to Europe to attend the 20th European Congress of Psychiatry in Prague to speak about his research at a workshop entitled ‘Lifestyle programs integrated within collaborative care for the management of co-morbid diabetes and depression’. These invitations reflect Evan’s growing international reputation and are testament to the quality of his research. Well done, Evan!

Ms Nicole Palmer

PhD candidate Ms Nicole Palmer completed her Bachelor of Health Science majoring in Reproduction and Genetics in 2007. In 2009 she joined the Gamete and Embryo Biology group headed by Dr Michelle Lane investigating the detrimental effects of male obesity on reproductive and subsequent child health and went on to complete a First Class Honours degree in 2010.

Inspired by her earlier research, Nicole’s PhD project is examining how the detrimental effects of male obesity on reproductive and subsequent child health may be reversed through lifestyle factors e.g. diet and exercise. This research will provide valuable information about the influence of paternal factors at fertilisation and the importance of a healthy lifestyle for the male partner around the time of conception in relation to: 1) their own health; 2) the chances of successful pregnancy; 3) the health and development of their subsequent child.

Nicole’s other research interests include male infertility, improving the selection of sperm used during IVF cycles, and improving methods of sperm storage in relation to the conservation of animal species. In addition to receiving and Australian Postgraduate Ward for her PhD studies, Nicole is the recipient of the Freemasons Prospective Lodge Medical Scholarship.

Mr Andrew Trotta

FFCMH congratulates Freemasons Foundation PhD Scholar Mr Andrew Trotta on the completion of his PhD. Andrew’s thesis investigated the role of the co-chaperone (protein) SGTA as a regulator of androgen receptor activity in prostate cancer and received excellent comments from examiners. The first paper from his thesis is currently under review and there are more in the pipeline. Meanwhile, Andrew has commenced a post-doctoral position in reproductive health at the University of Adelaide. We wish him all the best with this new position and future career.

Mr Sean Martin

Freemasons Foundation PhD Scholar Mr Sean Martin who is also Manager of the Florey Adelaide Male Ageing Study (FAMAS) and the Men, Androgens, Inflammation, Lifestyle, Environment & Stress (MAILES) Study, was awarded the Best Poster prize at the Faculty of Health Science Postgraduate Research Conference, held at the National Wine Centre in August. The competition, involving over 90 PhD students, required each student to explain the content of their poster to a panel of senior researchers from the University. Sean was awarded $300 for his poster about modifiable risk factors associated with lower urinary track symptoms in men. Congratulations Sean!
Men’s Health Research took centre stage at the Centre’s 1st ‘Research Update’ held at the National Wine Centre in Adelaide on July 8. The event, opened officially by our Patron, Mr Tony Piccolo MP on behalf of the Hon John Hill MP, Minister for Health, showcased the world class research being undertaken by FFCMH researchers. The program included presentations on current research in the areas of prostate cancer, lower urinary tract health and bowel cancer screening, as well as an update on the Centre’s GIRTH (Get Involved, Reach Top Health), healthy lifestyle program for men.

Attending the event were members of the public, the Centre’s Patrons, FFCMH members and supporters, as well as researchers and collaborators from South Australia and interstate. The afternoon was well-received and enjoyed by all. We look forward to our next Research Update in 2012.
MEDIEA SPOTLIGHT

The Centre’s research and researchers have generated considerable media interest lately:

- **July**: GIRTH (Get Involved, Reach Top Health) was featured in a report on Channel 7’s evening news and was also covered by ABC Radio (SA and Tasmania), Radio Adelaide and the Saturday Advertiser.

- **September**: Dr Luke Selth (FFCMH Research Fellow) was the focus of a Channel 7 Today Tonight report on prostate cancer to highlight the importance of early detection and the contribution that our scientists are making towards understanding the disease.

- **October**: Professor Gary Wittert, FFCMH Founding Member and Head, Discipline of Medicine at the University of Adelaide has also made it into the news recently (The Adelaide Advertiser; Sydney Daily Telegraph) in the lead-up to the Australasian Sleep Conference in Sydney (October 27-29), where Professor Wittert presented his research into the detrimental effects of poor sleep on health.

- **Dr Lisa Butler**, FFCMH Management Group member and Senior Research Fellow at the Dame Roma Mitchell Cancer Research Laboratories, continues to make an impact in the field of prostate cancer research. Her novel approaches to developing patient targeted pharmacological therapies to treat advanced, castrate resistant prostate cancer were recently featured in Australian Life Scientist (2011; 8:30-33).

‘Moving Men’s Health Forward’ was the title of the Centre’s public event held on November 2 as part of the University of Adelaide’s inaugural Research Week (October 28–November 4).

The program comprised a series of enlightening presentations by Centre researchers about key men’s health issues including obesity, fertility, prostate cancer and mental health, as well as an overview of knowledge gained about men and their health through longitudinal studies such as the Florey Adelaide Male Ageing Study (FAMAS).

Our presenters were Professor Gary Wittert, Ms Nicole Palmer (PhD candidate), Dr Kate Fairweather-Schmidt (FF Research Fellow) and Dr Luke Selth (FFCMH Fellow).

Each spoke not only about their research but also about what drives them to do their research, as the purpose of the event was to inspire the next generation of career scientists as well as to highlight our innovative research. We hope it did the trick!
GIRTH (Get Involved, Reach Top Health), the Centre’s healthy lifestyle program developed to help men reduce their GIRTH (i.e. waist circumference) and their risk of cardio-metabolic disease, was trialled with great success between August and December last year. The pilot program, comprising 12-weekly, peer-led sessions involved a total of 174 men in 11 groups in Adelaide (SA), Alice Springs and Katherine (NT), and Melbourne and Geelong (Vic).

At the start of the program and again after 12-weeks, we collected a series of physical, metabolic, behavioural and psychosocial measurements for each participant so that before and after measurements could be compared. Analyses of these data have revealed statistically significant reductions to several parameters associated with cardio-metabolic disease risk - this is really great news!

On average GIRTH (waist circumference) reduced by 5.2cm (range: -14.5 – +3); weight by 4.3kg (range: -18.2 – +6); and triglycerides by -0.34mmol/L (range: -4.59 – +3.21). Additionally, significant improvements occurred in relation to participants’ self-belief in their ability to manage their physical activity, eating habits, sleep and stress. This self-belief (also known as self-efficacy) is critical for longer-term sustainability of healthy behaviours and represents a key component of the GIRTH program. Self-reported physical activity and mental health status also improved significantly and high-risk alcohol consumption reduced by 17%!

The community trial enjoyed a completion rate of >97%, demonstrating the ability of the GIRTH program to successfully engage men. Participants found the program to be highly acceptable, endorsing our approach not only with their attendance but also with their reported satisfaction regarding all key program aspects including the: number and duration of weekly sessions; method of program delivery (peer-leadership); techniques and methodologies used during the sessions (e.g. goal setting, problem solving, relaxation); session content; and health education materials. Also, very importantly, the men expressed enjoyment in taking part in the program!

“The GIRTH community trial enjoyed an impressive 97% completion rate.”

On the back of these very positive results, we have been busy writing funding applications to enable another, much larger roll-out of GIRTH across Australia. If successful, the next wave will incorporate longer-term follow-up to determine the sustainability of improved lifestyle behaviours adopted by participants during the 12-week program. Notice of the outcome of the first of our funding submissions should be known before the end of the year. Fingers are now crossed!
My experience as a GIRTH peer-leader

By Merv Dyer, Victoria

I was one of eight Freemasons in Victoria trained to become a peer-leader (men’s health co-ordinator) for the GIRTH pilot program in mid-2010. At the training we learned how to facilitate group sessions as well as how to collect and record the body and blood measurements from participants needed for the scientific aspects of the community trial.

I was assigned two groups of men, each group from a very different area of Melbourne – one very affluent and one less so. Yet despite the social differences, both groups were very similar with respect to age and experiences and the extent of personal information that each participant was willing to share among his peers.

On one occasion, during a discussion about testicular cancer and how to feel for growths, one participant volunteered that with his cancer “there was no growth, just the opposite - it (the testis) shrunk to the size of an almond”. This level of personal disclosure came as a surprise to me initially but turned out to be just one of many very personal stories shared by the men throughout the course of the program. It was extremely pleasing to know that the men felt comfortable within the group setting to discuss important matters relating to their health.

A story from one participant really highlights how effective the program has been at helping men manage their eating habits better......

On this occasion, the man had experienced a bad day at work and went to the supermarket on his way home to buy his favourite ‘comfort’ foods. On arriving home, he was about to start his snack food binge when he said that he heard my “voice in his ear” telling him how much extra exercise he would need to do to ‘undo’ the effects of all the ‘goodies’. He told me that the message got through loud and clear and he was able to resist the temptation.

Each group started with 15 strangers but this quickly changed. After the first week, I ceased to be ‘the co-ordinator’ and had become a part of the group where bonds were established rapidly, and the highs and lows of our personal lives shared openly.

I thoroughly enjoyed the experience of being a peer-leader for the GIRTH program and in watching the group dynamic unfold. It was particularly gratifying to see quieter, more reserved group members open up to their fellow participants as the weeks progressed. Being a co-ordinator was a privilege, not a chore and I would have no hesitation in participating again in GIRTH.
**PROSTATE CANCER**

Centre Founding Member Professor Wayne Tilley heads a research team at the Dame Roma Mitchell Cancer Research Laboratories (DRMCRL) committed to improving the quality of life of those directly and indirectly affected by prostate cancer.

Using cutting-edge technology and innovative approaches, they are investigating ways to predict whether a cancer will be aggressive or non-aggressive, how it will respond to treatment and how it may resist treatment, as well as new treatment strategies. The translation of research findings into clinical and general practice, health education and policy is their ultimate goal. In addition to the important research described briefly on page 4 by Dr Luke Selth (Centre for Men’s Health Research Fellow), other key prostate cancer research programs include:

The development of new therapeutic approaches for managing early prostate cancer: This research involves an innovative experimental model developed by Dr Lisa Butler, Head of the Prostate Cancer Therapeutic Research Group at the DRMCRL in which human prostate cancer tissue is cultured *ex vivo*. Tumours removed during surgery are cultured in the laboratory and then exposed to a range of therapeutic agents. Dr Butler’s model offers considerable advantages over standard cell line and animal models because it retains the human tumour microenvironment making it more clinically relevant as a technique for the evaluation of potential therapeutic agents for prostate cancer, and importantly, also allows for investigation of patient-specific tissue responses.

The identification of new candidate gene signature markers involved in human prostate cancer initiation and progression: The gene signature of a condition (e.g. prostate cancer) refers to a group of genes in a type of cell whose combined expression is uniquely characteristic of that condition. Ideally the gene signature can be used to determine the specific state of the disease in a patient. This research program is aiming to validate gene signatures (expression and pathways) in human tissue, that have already been identified in mouse models, to determine whether the gene signatures can predict the likelihood of cancer spreading from the prostate to other parts of the body.

**Acknowledging our Supporters**

**MEET OUR VOLUNTEERS: John Rand**

For a long time I was a volunteer at the Masonic Village in Somerton Park but on moving to the city a few years ago, I reluctantly had to give this up. Since then, I have joined the team of volunteers at the FFCMH and this is suiting me very well. Walking from South Terrace to the Centre's office and back (when the weather permits), helps to keep me fit and the tasks that I have been assigned, including mail outs, photocopying and word processing on the computer help to keep the ancient grey matter from going rusty! I know that many Freemasons volunteer in the Grand Lodge Building where the FFCMH office is located and I enjoy the many benefits of volunteering, including making new friends.

**DONORS: BREIF Club**

Our sincere thanks to the Electrical Industries Fellowship (BREIF) Club and Mr Bill Shaw OAM, FFCMH Patron and Director of the Adelaide Male Voice Choir, for their $500 donation to the FFCMH.

Mr Shaw is a member of the BREIF Club and was guest speaker at their lunch event earlier this year. In acknowledgement, the Club presented him with a cheque for $500 to be given to a community project. Bill kindly nominated the FFCMH as recipient of this generous donation.
In 2011, the Florey Adelaide Male Ageing Study (FAMAS) entered its 9th and arguably busiest year. Much of the activity was centred on The “Men, Androgens, Inflammation, Lifestyle, Environment and Stress” (MAILES) Study that combines the men participating in FAMAS with those also aged 35-80 at recruitment from the North West Adelaide Health Study (NWAHS). This makes a total of approximately 2000 men which means that we will be able to learn a lot about the factors affecting health as men age and how best to ensure the best possible outcomes.

In-home sleep studies commenced this year. To date over 800 men have participated. The ‘sleep’ study involves overnight tests using unobtrusive devices that record sleep stage, breathing & heart rate, snoring and any obstruction to breathing, oxygen level, and body position to provide information about the factors leading to perturbed cardio-metabolic health in men. By early 2012, ~1000 tests will have been completed making this study largest of its type ever undertaken anywhere in the world.

During the year we completed all of the measurement of hormones and inflammatory markers in the blood samples. We have also obtained measurement of environmental contaminants (i.e. Bisphenol-A and Phthalates) that have been prominent in the news and so we will be looking at whether there is any relationship between the levels of these chemicals in the urine and health.

All of the information we aimed to collect is available and the database has been constructed and cleaned. Next year we will be very busy doing the analyses!

Collaborations continue to be of vital importance to us. At the start of 2011, FAMAS Chief Investigator, Professor Gary Wittert spent six productive weeks with our partners at the prestigious New England Research Institute (NERI) in Boston. In turn, NERI’s Vice President of Epidemiology (Prof Andre Araujo) spent three weeks in Adelaide in November to work on a range of FAMAS/MAILES analyses for publications in early 2012.

There have been six papers published this year; an equivalent number are almost complete and we have presented at numerous national and international meetings. We are planning to hold an event during 2012 to share what we have learned with our participants and the wider community.
How you can support the Centre’s vision to enable men to live longer, healthier, happier lives

Donations

You can donate online, post/fax a donation form with a cheque or your credit card details. You may also arrange an electronic funds transfer.

- **Donate online**: through the University of Adelaide’s [new online giving site](#) by selecting the Freemasons Foundation Centre for Men’s Health (FFCMH) as your giving preference.

- **Donation Form**: Download the University of Adelaide donation form listing the FFCMH as your preferred donation. Donations over $2 are tax deductible.

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We offer the following levels of sponsorship with associated benefits:

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About the Centre

The Freemasons Foundation Centre for Men’s Health is based on an innovative partnership between the University of Adelaide and the Freemasons Foundation.

By sharing interests, strengths and resources, this partnership can deliver life changing research to benefit all men.

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