

Men and Parkinson's Disease

Vincent Harley (left) with Joohyung Lee



The work of PHI researcher Dr Joohyung Lee to explain gender differences in Parkinson's Disease has captured the attention of some of Australia's philanthropic organisations.

It is estimated that more than 70,000 Australians have Parkinson's Disease. As well as the social stress placed upon families and

carers this disabling brain condition poses a huge economic burden through the years lost to work.

What is much less well known is that men are about 50% more likely than women to be diagnosed with the condition and that progression is more rapid.



Associate Professor Vincent Harley has already linked the functioning of male specific gene SRY to brain and movement problems. In a novel proof of concept study Joohyung now aims to demonstrate and understand the link between the SRY gene and the development of Parkinson's Disease in males.

The study is being supported by three philanthropic organisations; the CASS Foundation, the Helen Mcpherson Smith Trust and the Rebecca Cooper Foundation.

Ride for Research 2009

Prince Henry's Institute invites you to become part of the team by supporting our cyclists in their Ride for Research.

The challenge for the PHI team of cyclists is to complete a 520 km relay from Echuca to Port Fairy in 24 hours. The annual Murray to Moynes Cycle Relay, held this year over the weekend of 3-5 April, attracts 1600 cyclists representing over 150 organisations.

This is the fourth year PHI researchers and supporters have participated in the event.



Our target this year is to raise \$50,000 for new technology platforms and research programs.

With your help, we can make a difference. Support a member of the PHI team by making a donation and help give them that extra motivation to keep striving to the finish line.

For more information contact Andrew McCallum, on 03 9594 7908

Left: Team Leader Andrew McCallum, R4R 2008

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men's health - clinical studies & research....

cancer research, genetics, hormones, fertility...

Research News

Two clinical studies in men's health are bridging the gap between basic research and the development of new treatments

Contraception for Men

How far are we from the wide availability of a hormone based method of contraception for men - the equivalent of the contraceptive pill for women? The idea has a long history with researchers at the institute playing a key role in demonstrating the proof of principle that it works.

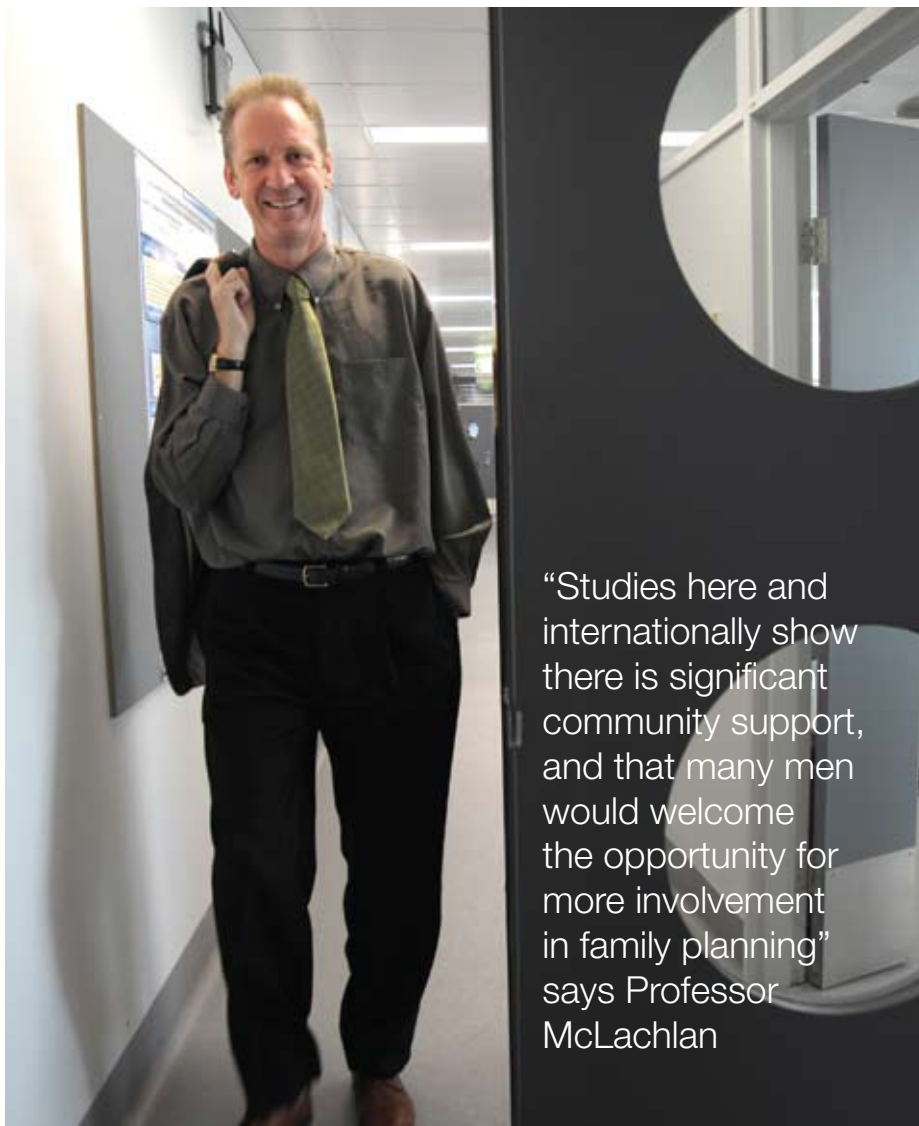
In the next stage PHI is one of only 8 sites worldwide that are collaborating in an international clinical trial which will involve 400 couples. The study is supported by the World Health Organisation.

Study leader Professor Rob McLachlan went on air in February to launch the call for volunteer couples to take part in the study. He was interviewed in depth by "Dr Feelgood", Sally Cockburn, on her popular 3AW radio show. The media coverage attracted the attention of dozens of couples interested in being part of the study.

The trial is an important part of PHI's goal to increase the contraceptive options available to both men and women. Whilst Australian men have one of the highest rates in the world of vasectomy, the male hormonal approach could provide a practical alternative for many of them.

The research team are seeking healthy couples who are not planning a pregnancy for next two years. Interested men need to be 18-45 years and in good health.

Interested in joining the male contraception study? Call 03 9594 3554



"Studies here and internationally show there is significant community support, and that many men would welcome the opportunity for more involvement in family planning" says Professor McLachlan

Healthy Men



Carolyn Allan

PHI researchers are seeking healthy men to participate in a study which seeks to map some of the hormonal changes that occur in men as part of normal ageing.

It is known that testosterone (the most important male hormone) levels fall slightly with age, and that specific health conditions can accelerate this decline. However little is known about testosterone levels in older men who maintain very good physical health as they age.

PHI researcher Dr Carolyn Allan says the new Healthy Man Study will offer a better understanding of these normal changes in ageing.

"We know that there can be significant variation in hormone levels in men who

appear physically similar in most other respects" says Carolyn.

If you are a man older than 40 years old and you feel that you are in excellent overall health, then perhaps you are interested in taking part in the new study.

Participating in the Healthy Man Study involves three visits over three months to PHI at Monash Medical Centre in Clayton. There will be some standard physical examination and blood tests but no treatment is offered.

Interested in participating? Call the Healthy Man Study on 03 9594 3087.

Two early career researchers, working on male and female fertility have been recognised by the National Health and Medical Research Council



Eva Dimitriadis (left) with Mai Sarraj

Dr Eva Dimitriadis has received significant National Health and Medical Research Council (NHMRC) funding to commence in 2009. A NHMRC Career Development Award enables investigators such as Eva to establish themselves as independent and self-directed researchers. Eva also secured additional NHMRC funding for new research projects.

Eva's research interests focus on the signalling molecules, cytokines, which are critical in the earliest stages of pregnancy.

Eva recently published a significant research paper in one of the highest ranked

science journals, Proceedings of the National Academy of Science. Her research has identified a potentially new biological approach to female contraception which would not rely on modifying the body's hormones for its effectiveness.

In August Eva was also interviewed on SBS Television World News about her research to develop a new non hormonal female contraceptive.

Dr Mai Sarraj is the TM Ramsay Fellow at PHI and recently received a NHMRC New Investigator Award. Mai is teasing apart the roles of a key signalling molecule in the critical days in our reproductive development.

Early events in the embryo affect both male and female fertility. Together with her colleagues Mai is studying the action of a molecule, betaglycan, that plays a key signalling role in both the male and female development pathways.

Mai has shown that this molecule is specifically present in the embryo area which goes on to form reproductive organs. She has also been able to demonstrate that if

there is a problem in betaglycan production then reproductive development is seriously affected.

Mai says that the discovery is strong evidence that this is a central molecule in reproductive development.

"We believe that understanding the early role of betaglycan action in the embryo has clinical importance in adult reproductive health" she says.

Cancer Awards

PHI researchers, Dr Ashwini Chand and Dr Andrew Stephens have been selected to receive Victorian Cancer Agency seed grants.

The new Victorian government agency, established to promote and enhance the development of research driven cancer services, has highlighted the potential of PHI research to improve cancer detection and treatments. Dr Chand is focussing on a molecular switch that controls production of the hormone oestrogen in breast tissue.

The production of oestrogen is critical in many breast cancers of older women. The team will be testing several new drug like compounds to see if they can control the hormone production.

Dr Stephens is searching for markers in blood samples from women with ovarian cancer. It seems likely that some self markers may trigger the body to launch an immune response and that these markers are also linked to ovarian cancer.

Every year about 800 Victorian women die of breast or ovarian cancer.

Andrew Stephens and Ashwini Chand



Breast Cancer Expert

Professor Evan Simpson has been awarded one of the highest levels of NHMRC fellowship, a Senior Principal Research Fellowship. The position recognises that he is a leading authority in the



importance of hormones in breast cancer and has made substantial and highly original contributions to the area.

Evan was one of only 5 Victorian medical researchers to be recognised at this prestigious level. The fellowship recognises his "outstanding record as a researcher and a contributor to the broader workings of science".

PHI Students Excel



L - R: Quantum Scientific's Gavin Williamson, Kenneth Walker and Peter Fuller

PHI has over 30 Honours and PhD Students. In December Kenneth Walker won the 2008 Quantum Award Winner for best conference presentation and at the annual PHI Student Symposium fellow students Jason Liew and Peter Nicholls picked up the Novo Nordisk prizes.

Interested in becoming a student at PHI? Check our website for the latest opportunities: www.princehenrys.org

Events



Leading Position

Dr Sarah Meachem is currently the National President of The Australian Society of Medical Research (ASMR), the peak body for health and medical researchers. Sarah is the fifth PHI researcher to hold this position.

ASMR is currently organising a series of professional and community events for Medical Research Week which will be held nationally from 28th May to 5th June.

Further information: www.asmr.org.au

Melbourne Talk

May 20, 8:00 pm - 9:00 pm
2009 Vic ANZAAS talk
"Genes and your sex"

Gene Technology Access Centre,
1H Royal Parade, Parkville Victoria 3052

Associate Professor Vincent Harley will be giving a public talk Genes and your Sex on May 20th at the Gene Technology Access Centre in Parkville. The talk is organised by the Australian & New Zealand Association for the Advancement of Science.

Vincent and his collaborators have just won a share of the Federal Government's most highly sought-after research grants. They were among just 15 research teams across Australia to be awarded a highly competitive NHMRC Program Grant. The \$5m grant, entitled Disorders of Human Sexual Development will pool expertise across PHI, the Murdoch Children's Research Institute and the University of Queensland. Disorders of sexual development are surprisingly common and often result in infertility, genital abnormalities, gender mis-assignment and long-term psychological trauma.

Associate Professor Vincent Harley is Head of Human Molecular Genetics at Prince Henry's Institute.

Further Information: www.anzaas.org.au/vic

Festival Highlight

PHI researcher Dr Natalie Hannan has been selected to participate in the 2009 Australian Science Festival. The public jamboree of science, held in Canberra, is the world's 2nd largest science festival. Natalie will be an expert panelist in the Hot Innovation event to be held on May 27th.

Further information:
www.sciencefestival.com.au

Donations

Our important work would not be possible without the support of individual, business and community groups. Donations over \$2 are tax deductible (ABN 48 132 025 024)

For general enquiries about research and activities at PHI contact:

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Peter Marr Wine Trader has teamed up with PHI and when you purchase wine from them you can now also support our medical discoveries.

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Delivery of wines, usually next business day, is free to your home or work in the Melbourne Metro area.

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Telephone 03 9421 3555



Further information:

www.pmw.com.au for wine listings, reviews and pricing.