Major international conference on personality disorders

The 6th Annual Conference on the Treatment of Personality Disorders will be held at the University of Wollongong on 9-10 November.

Bringing health professionals together to exchange ideas and information about treatment options and innovative programs, the conference theme is: “Guidelines-based practice”.

In fact, by the time the conference gets underway, new National Health and Medical Research Council (NHMRC) clinical guidelines for borderline personality disorder will be released (IHMRI Neuroscience and Mental Health Scientific Leader, Professor Brin Grenyer and Melbourne University Associate Professor, Andrew Chanen, were on the NHMRC guidelines development panel).

The new guidelines will sit alongside other, recently-developed Australian guidelines, including the Project Air Strategy Treatment Guidelines for Personality Disorders (2011) and UK National Institute for Clinical Excellence Guidelines (2009).

The keynote will be delivered by Professor Roger Mulder, Chair of Psychiatry at the University of Otago, New Zealand, editor of Personality and Mental Health, Co-chair of the WHO Committee on Personality Disorders and a member of the ICD-11 Classification Committee for Personality Disorders.

His presentation is entitled: “Rethinking personality disorder diagnosis”.

While the main conference will be held on Friday 9 November, Professor Mulder will present a Saturday morning workshop entitled: “Principles for the management of borderline personality disorder”. The Project Air Strategy team will then present a workshop on “Personality disorder and complexity: understanding counter-transference and other relationship dilemmas”.

For details and registration, visit the Health Professionals section of the Project Air Strategy website: www.projectairstrategy.org
The research scientists involved in the first betahistine study were (l to r): Professor Nagesh Pai, Jiamei Lian, Associate Professor Chao Deng and Professors Xu-Feng Huang (AP Deng and P Huang were supported by the Schizophrenia Research Institute, utilising infrastructure funding from NSW Health. The study was funded by the National Health and Medical Research Council).

Study provides hope in tackling antipsychotic-induced obesity

Over the past two decades, antipsychotic medication has significantly improved the lives of people living with serious mental illnesses such as schizophrenia and bipolar disorder. One of the most commonly prescribed medications, olanzapine, is an effective treatment but comes with a devastating side-effect - weight gain, obesity and, in some cases, type II diabetes.

In 2008, UOW researchers identified the link between olanzapine-induced weight gain and its action on the histaminergic system – which regulates the appetite. In 2008, UOW researchers identified the link between olanzapine-induced weight gain and its action on the histaminergic system – which regulates the appetite.

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Eager to reduce the incidence of preventable disease in a vulnerable population, a group of IHMRI/UOW researchers have since been seeking solutions, focusing in on the potential of another pharmaceutical agent, betahistine. Prescribed for common vestibular disorders such as vertigo and dizziness for over 40 years, betahistine has a low rate (around 1 in 100,000) of adverse side-effects.

Previous international studies reported that betahistine treatment had no effect on body weight or appetite in the general over-weight population. However, in the animal model, the IHMRI team found that when betahistine was combined with olanzapine, it resulted in a significant decrease in appetite and a 45 per cent reduction in weight gain compared to subjects treated solely with olanzapine.

“This study has shown that co-treatment of betahistine with olanzapine can greatly reduce the olanzapine-induced weight gain side-effect through decreased feeding efficiency and food intake,” explains lead scientist, Associate Professor Chao Deng. The findings, recently published in the international Journal of Psychopharmacology, provide hope for the safe treatment of the obesity side-effects.

“This study represents an example of scientific research that translates into real outcomes for clinical treatment; precisely the kind of research that funding bodies around the world are encouraging,” says IHMRI Executive Director, Professor Don Iverson. Thanks to an IHMRI clinical grant, a specialist team of IHMRI, UOW and Illawarra Shoalhaven Local Health District scientists and clinicians have now commenced a clinical trial in the Illawarra involving co-treatment of olanzapine with betahistine.

The team involved in the new trial are: UOW Graduate School of Medicine (GSM) Professor Nagesh Pai, Associate Professor Chao Deng, Professor Xu-Feng Huang and Dr Judy Mullen from the GSM in partnership with ISLHD psychiatrists, Drs Ram Malesu and Sharat Lal.

Welcome, Dr Lezanne Ooi

School of Biological Sciences lecturer, Dr Lezanne Ooi, recently took up residency within the IHMRI building to pursue further research into Alzheimer’s disease. Awarded a research grant from The Medical Advances Without Animals Trust, Lezanne will spend the next two years researching: “Non animal cell systems for drug discovery for Alzheimer’s disease: replacing the use of murine neurons with induced pluripotent stem cells from Alzheimer’s patients”.

“The aim of the project is to develop a cell-based model to study Alzheimer’s disease pathogenesis and the complex signalling pathways that cause neuronal death,” explains Lezanne, who completed her studies at the University of Leeds in the UK. She says that major advances in stem cell technology will provide exciting new opportunities for studying human tissue.

Lezanne is currently collaborating with Gerald Muench (University of Western Sydney) and Kuldip Sidhu (University of New South Wales) and is eager to establish collaborations with clinicians in the Illawarra. Her other research interests include:

- molecular mechanisms of disease
- global control of gene expression and protein function
- effects of inflammation and oxidative stress on neuronal function
- identification of neuroprotective genes and strategies.

Contact details: lezanne@uow.edu.au

Dr Ooi will spend the next two years studying Alzheimer’s disease.
Study proves mining is thirsty work

Mining - and recruiting miners - is big news in Australia. How to look after those miners, who often work in extreme environments, is clearly in everyone’s best interests.

In 2011, researchers from the UOW, ISLHD, Public Health Office Training Program (NSW Health) and a private company successfully applied for an IHMRI grant for a project entitled: “Supporting workplace environments to promote healthy lifestyles among employees of the Illawarra mining industry”.

The project expands upon a preliminary study by former Occupational Health and Safety postgraduate student, Jen Hines, which showed that dehydration was a potentially significant health problem with miners. The new study set out to examine the thermal stress factors affecting workers in two mines while also identifying current health behaviours and barriers to health.

Members of the research team, which included UOW researchers, Associate Professor Vicki Flood, Associate Professor Brian Davies and Dr Vinod Gopaldasani as well as Dr Susan Furber (ISLHD) and Ben Polkinghorne (NSW Health), interviewed health and safety managers in the mines before developing an intervention campaign that promoted a reduction of sugary drinks and an increase in water consumption.

“The study found that hydration among miners is a significant problem in temperate climates,” explains Associate Professor Flood.

“This was known to be a problem for people working in warmer areas, but not identified as an issue among those working in more moderate climates.”

While the final results are awaiting publication, the intervention delivered a significant reduction in dehydration in the study group, which propelled the mining company to implement the program across its work sites.

The team also believes the study could be further expanded to include nutrition and physical activities, with results that may be applicable in remote mining sites around Australia.

Chinese medicine goes mainstream

In early August, New South Wales Premier, Barry O’Farrell, witnessed the signing of a Memorandum of Understanding between IHMRI/UOW and DiAo Pharmaceutics to investigate whether Traditional Chinese Medicine (TCM) can be adapted for Western use.

The signing was part of a trade mission by the Premier and follows negotiations between IHMRI Executive Director, Professor Don Iverson, the UOW’s Manager of Corporate Relations, Emily Zeng, and IHMRI Deputy Executive Director (Scientific) Xu-Feng Huang, who travelled to China to negotiate the deal.

Professor Huang says that the intention is to establish a long-term research partnership. “The first step is to establish a strong academic relationship and exchange, with Chinese researchers to visit IHMRI and vice versa,” he explains.

“From there we will start work on identifying specific compounds for treating type II diabetes and, later, other diseases like cancer, cardiovascular disease, schizophrenia and obesity. However, I must stress that the academic exchange is the starting point; from this a number of other opportunities will arise.”

TCM’s have been used to treat a wide variety of diseases for more than 3,000 years says Professor Huang.

“The evidence [of their effectiveness] is based on experience, but very little is known about the molecular mechanisms and how these medicines work.

“The DiAo is expert in screening individual compounds from TCM and translating research findings into marketable products. IHMRI has extensive expertise in validating compounds for treating disease, so our studies will seek to modify some of these compounds to increase their efficiency.”

Alzheimer’s Scholarship announced

IHMRI PhD Student, Blagojce Jovcevski (supervised by Dr Andrew Aquilina), has just been awarded an Australian Rotary Health/Henning Family Foundation Scholarship to study Alzheimer’s disease. The scholarship provides funding for one year’s full-time employment, but can be extended to three years.

Blagojce says the focus of his research is on understanding aberrant protein behaviour. “The aim of this project is to understand how proteins affect the aggregation process and the outcomes may aid in the development of more specific and effective therapeutics against Alzheimer’s disease and other neurodegenerative diseases.

“We will be using specialised techniques, such as mass spectrometry, to help determine the structural features of small heat shock proteins and how they interact with these inclusions.”
New approach to transplant rejection

IHMRi recently approved funding for five pilot projects which address issues of clinical importance.

One of those projects is seeking a solution to prevent the debilitating effects of graft versus host disease (GVHD), a major complication following transplantation.

Entitled, “A therapeutic strategy (P2X7R blockade) to treat GVHD in humans,” the strategy involves targeting tissue damage associated with the development of GVHD and its role in activating the immune response.

National Health and Medical Research Council Fellow, Dr Debbie Watson (UOW Centre for Medical Bioscience), has an extensive research background in transplantation and immunology.

She is now working with co-lead investigator, Dr Ron Sluyter (School of Biological Sciences), who has expertise in P2X7R biology; the target of the therapeutic strategy to be tested.

“While transplantation is a successful therapeutic strategy in Australia, there are problems associated with the availability of donor organs and transplant rejection,” explains Dr Watson.

“Rejection occurs when a patient’s immune system recognises a transplant or graft as foreign and mounts an immune response to mediate rejection. Similarly, immune cells transplanted from a patient [graft] may attack tissues within a recipient [or host] and this can lead to tissue damage that can activate GVHD.”

The damaged tissues release molecules known as damage associated molecular patterns (DAMPs) that activate the immune system.

“Research suggests this plays a significant role in subsequent transplant rejection and GVHD,” adds Dr Watson.

The team will focus on a specific DAMP known as ATP which mediates its activation through a receptor known as P2X7R.

“In our study we will block P2X7R and examine the effects on the human immune response and development of GVHD.”

This novel approach is enhanced through the collaboration of researchers with expertise in different areas of immunology, including Dr Jude Taylor and Associate Professor Stephen Alexander, a leading transplant researcher at the Children’s Hospital at Westmead.

“We are hoping that it leads to life-saving treatment for transplant recipients and we are grateful for the generous support from IHMRi in promoting new projects,” says Dr Watson.

Equipment in focus

IHMRi recently installed a German-made confocal microscope to its research laboratories to provide new insights into a wide range of diseases from type II diabetes to Alzheimer’s and Motor Neurone Disease.

Valued at over $800,000, the new Leica TCS SMD Series is a high-end confocal coupled with a single molecule detection (SMD) fluorescence system that enables researchers to look beyond dead cells to see molecular processes happening in real time.

The system uses sophisticated electronics and lasers to view slices of specimens as thin as one micron (one thousandth of a millimetre), with study volumes down to one femtolitre (one quadrillionth) of fluid.

Funding for the confocal was secured with an Australian Research Council Linkage Infrastructure, Equipment and Facilities (LIEF) grant topped up with contributions from IHMRi, the UOW and the University of Sydney.

The Leica system comes with a microscope, control panel, workstation and multiple detectors. It also comes with four computer screens; two of which are for basic imaging, two for single molecule detection.

IHMRi PhD student, Daniel Whiten, has been studying Motor Neurone Disease and was the first researcher to use the confocal.

“The new system offers greatly improved sensitivity and functionality,” says Daniel.

“Among other things we will be using the microscope for multi-colour detection of protein deposits inside cells and tissues. The SMD capability is particularly exciting, as it offers us the chance to view interactions between single molecules, such as disease-causing proteins and intracellular defence mechanisms. We can now conduct experiments we couldn’t have dreamed of six months ago.”
Electronic health records make life easier for care staff

The biggest clinical IT evaluation ever conducted in a residential aged care setting has led a team of UOW researchers to the conclusion that care staff can benefit greatly from using Electronic Health Record (EHR) systems.

A collaboration between the UOW and aged care organisations in three states, the Aged Care e-Doc study was funded with an ARC Industry Linkage Grant. It was developed to evaluate the processes and outcomes of transforming paper-based health records to EHRs so they can be accessed by professionals quickly and easily online.

IHMRI Network Member Dr Ping Yu (UOW e-Health Research Centre), led a team of three researchers and four postgraduate students in conducting the study which involved 450 care staff and the records of 250 older people in 16 residential aged care homes.

“Because the information was easy to access, staff appeared to read more information than they did in the paper-based record system and their understanding of the information grew,” explains Dr Yu.

Because the information was easier to manage, staff felt they could give more time to the people in their care. With more legible forms and charts displayed compactly on the screen, the content was also seen to be more accurate, complete and up-to-date, therefore the quality of individual residents’ records improved, with increased follow-up of their health issues and a faster response to their care needs.

The systems were also convenient and easy to use, enabling efficient data entry, distribution and retrieval.

It is anticipated that, by utilising an EHR system, aged care homes can attract more funding because the documentation is more accurate and easier to access. The team also believe that homes with EHR systems will attract younger care staff who prefer to enter data into a computer than write on paper.

That said, “The transformation process, of moving paper to electronic health records is huge, and will challenge many professionals in the health and aged care sector,” says Dr Yu.

“Most aged care workers are women over the age of 45 and a fair proportion of them have never touched a computer before, so we hope our research will help organisations make the transition to EHRs as easy as possible.”
Novel target in range for psychiatric disorders

Among the Neuroscience and Mental Health projects currently underway at IHMRI is a project led by Dr Kelly Newell who, with a team of collaborators, is seeking to uncover the pathological mechanisms of schizophrenia and other psychiatric disorders.

Funded through an IHMRI small grant, the project is looking at the metabotropic glutamate receptor 5 \([\text{mGluR5}]\) as a novel therapeutic target for schizophrenia and other psychiatric disorders such as depression and autism.

“We recently conducted a study [supported by the Schizophrenia Research Institute] in post-mortem brains of Australian schizophrenia and control patients to determine if mGluR5 is altered,” explains Dr Newell.

“We found no change in schizophrenia patients, but found an indication that schizoaffective patients with the depressive subtype had reduced mGluR5.

“Therefore, we are seeking to further characterise the diagnostic-specific alteration in this receptor and we are now collaborating with the Stanley Medical Research Institute in the US which has a well-characterised collection of brains from schizophrenia, major depression, bipolar and control patients, as well as a second cohort of brains from subjects with depression-with-psychosis/without-psychosis and controls.”

“We are running experiments to determine if there is a diagnostic-specific alteration in this receptor. This is important as it has implications for the effectiveness of novel drugs that target the mGluR5.”

While it will take time to translate the findings into enhanced therapeutics, the project looks promising.

“Once we determine whether there are diagnostic-specific alterations, the next step is in trialling the novel mGluR5 therapeutics in animal models of psychiatric disease,” says Dr Newell who is collaborating with PhD candidate, Natalie Matosin, Dr Elisabeth Frank, Professor Xu-Feng Huang, Associate Professor Chao Deng and Dr Jenny Wong on the project.

Congratulations

Dr Anna Kemp

IHMRI visiting research fellow, Dr Anna Kemp, has had several papers accepted for publication recently.

Assistant Professor in the Centre for Health Services Research in the School of Population Health at the University of Western Australia, Dr Kemp recently delivered a lecture on data linkage at IHMRI.

IHMRI is cited in four joint papers published in *Nephron*, the *Journal of Health Services Research and Policy*, *Australian Health Review* and *Journal of the American Society of Nephrology.*

Professor Sandra Jones

Active IHMRI Research Network member, Professor Sandra Jones, was recently awarded an ARC Future Fellowship to investigate how to reduce alcohol consumption and alcohol-related harm among 12 to 17 year-olds by using interventions that encourage and empower young people not to drink.

Professor Jones is current director of the UOW’s Centre for Health Initiatives.

Professor Rodney Croft

IHMRI Network member, Professor Rodney Croft (UOW School of Psychology) is leading a National Health and Medical Research Council (NHMRC) Centre of Research Excellence examining possible health concerns associated with mobile phone use.

This is the first time the university has led an NHMRC Centre of Research Excellence, with the study to be run over the next five years, involving IHMRI at various stages.

Professor Andrew Bonney

IHMRI’s Health Care Delivery theme Scientific Leader, Professor Andrew Bonney (see page 8), recently secured Federal Government funding to develop a program to train doctors to carry out video medical consultations with patients (telehealth) using the National Broadband Network.

The $50,000 grant will seed a trial that is expected to see the grant rise to more than $800,000.

The project will be undertaken by the Graduate School of Medicine with specialist consulting rooms in Wollongong and other potential sites and medical student placement sites at general practices in Wollongong and Dapto.
Illawarra study re-born

Announced in 2011, the Wollongong Birth Cohort Study is a longitudinal study that seeks to understand the environmental and genetic factors affecting human development across three generations.

With the IHMRI-based team about to commence recruitment on the pilot study, the project has been re-branded “Illawarra Born” to give local residents a greater sense of ownership.

The pilot aims to recruit 50 pregnant women and to look at their health and wellbeing as well as that of the developing baby. The researchers will be investigating questions such as:

- what is the mother’s knowledge, attitude and behaviour towards folate and iodine?
- what are their attitudes towards breastfeeding and the introduction of solids?
- how do cross generational attachment and relationship patterns influence parenting approaches?
- what are some of the early challenges to prenatal development [genetic and environmental factors] and their impacts on early developmental milestones and caregiver burden?
- how are oxytocin levels and genetic variation of the oxytocin receptor associated with maternal complications relating to pregnancy, labour and the puerperium, related to failure to progress, postpartum haemorrhage, breastfeeding and post-natal depression?

If the pilot study is successful, Illawarra Born will evolve into an 18-year longitudinal study that will collect data from three groups across the lifespan: childhood, adulthood (parents) and older adulthood (grandparents).

Project Officer, Michelle Townsend, says the Illawarra is an ideal location for such a study.

“The population base is stable and representative of Australian demographics. There are also a number of priority health needs for the Illawarra community that can be further understood through a study of this type, including mental illness, obesity, diabetes, heart disease and cancer.”

For further information or to express an interest in the study, contact Michelle Townsend on 02 4298 1304 or michelle_townsend@uow.edu.au

Opening our eyes to ageing

Dr Andrew Aquilina, Head of Postgraduate Studies at IHMRI, and a member of the Proteostasis and Disease Research Centre, has had a paper accepted by the journal Aging Cell. The paper describes a fundamental process of protein ageing evident in the unique environment of the human lens.

Composed of proteins synthesised prior to birth, the lens is an ideal model for the evaluation of long-term protein stability and the processes responsible for the degradation of macromolecules, which underpin the structures and processes of cells and organisms.

Dr Aquilina identified 211 unique peptides in the nuclei of four human lenses aged 16, 44, 75 and 83 years. By analysing the sequences of these intrinsic peptides, he was able to characterise features of protein instability consistent with autolysis via chemical cleavage, and not through the action of enzymes.

The findings provide important new information about cataract development and ageing in general.

Health Connect Population Health Coordinator joins IHMRI

“Health Connect: A Chronic Disease Prevention Program for the Illawarra Shoalhaven Population” was selected as IHMRI’s Population Health Flagship project in March 2012 and in June IHMRI welcomed new project coordinator, Catherine Zelinsky.

Having recently completed a Master of Project Management, Catherine is in a good position to support a multidisciplinary team of medical practitioners, dieticians, statisticians, psychologists, epidemiologists, exercise physiologists, public health experts and health service evaluators on the Health Connect project, which will run for five years and focus on diet, physical activity, health coaching and education.

“I am particularly motivated and enthusiastic about this role and the potential positive impact the project will have on the lives of people living in the Illawarra,” says Catherine.
Meet IHMRI’s new theme leaders

IHMRI’s new research program, which consolidates six research themes into four, came into effect on 1 July, with new theme leaders introduced to IHMRI Research Network members via email.

Following is a longer introduction to the new leaders who will, among other things, establish sub theme groups and plan a program of seminars and workshops for members who have expressed an interest in that theme. Please make them feel welcome.

**Population Health Flagship**

**Professor Maureen Lonergan, Investigator (Clinical)**

Professor Lonergan holds a BMedSc and MBBS (Hons) from the University of New South Wales and a PhD in renal physiology from Sydney University. She became a Fellow of the Royal Australasian College of Physicians in 1991 and has been a staff specialist at The Wollongong Hospital since 1995, becoming Head of the Renal Service in 2003.

Professor Lonergan is on numerous committees and working parties and is actively involved in teaching medical students (at the UOW and hospital), interns, residents and registrars. She provides an annual lecture to UOW nutrition students on renal disease.

Through the IHMRI program, Professor Lonergan is eager to expand research opportunities for all ISLHD staff, including those in Nursing and Allied Health.

**Professor Linda Tapsell, Investigator (Scientific)**

Awarded with an Honorary Life Membership of the Dietitians Association of Australia in 2012, Linda Tapsell is Professor of Nutrition and Dietetics within the UOW’s School of Health Sciences. Her research focuses on the role of food in the prevention and management of lifestyle-related diseases.

Professor Tapsell has served as a director with several food, nutrition and health centres and works with national and international research agencies, contributing to peer review, strategic direction and policy formulation.

Her work in the public health area has contributed to hospital and community interventions and primary healthcare services.

**Health Care Delivery**

**Dr Bruce Ashford, Clinical Leader**

Dr Ashford holds undergraduate degrees in Medicine, Dentistry and FRACS (General Surgery). He completed sub-speciality head and neck and endocrine surgery fellowships in Australia and Canada and is current Program Director of the Head and Neck and Endocrine Fellowship at Liverpool Hospital.

Dr Ashford is also the Director of Surgical and Perioperative Services with the Royal Australian Air Force and has been deployed on operations with the Australian Defence Force as a trauma surgeon. His clinical interests are in head and neck cancer surgery and reconstruction, while his research interests are in reconstruction following ablative surgery and the use of ultrasound as a clinical tool.

**Professor Andrew Bonney, Scientific Leader**

Professor Bonney completed a Master of Family Medicine (Clinical) at Monash University and a doctoral degree with the Faculty of Health and Behavioural Sciences at UOW.

As a general practitioner, he has been in clinical practice on the NSW south coast since 1992 and been involved in undergraduate and post-graduate general practice education since 1997. He is the Roberta Williams Chair of General Practice at the Graduate School of Medicine (GSM), the Director of the Illawarra and Southern Practice Research Network and an active member of the Centre for Health Initiatives.

His research interests include interpersonal aspects of patient care, primary care, models of care for chronic disease management, telehealth (see pg 6) and general practice training.
Dr John Carmody, Clinical Leader

After completing a medical degree and gaining membership to the Royal College of Ireland, Dr Carmody immigrated to Australia in 2004 and completed specialist training in Sydney. He has worked as a Staff Specialist Neurologist at The Wollongong Hospital since 2009. Dr Carmody is actively involved in undergraduate and post-graduate teaching and, in early 2011, commenced a part-time PhD with the UOW.

Through his theme leadership role, Dr Carmody hopes “to facilitate greater interaction between these institutions and alert clinicians to the exciting research opportunities available at UOW/IHMRI”.

Professor Brin Grenyer, Scientific Leader

A practicing clinical psychologist and professor of psychology, Brin Grenyer’s research program focuses on the treatment of chronic and complex psychological problems including personality disorders, chronic depression, aggression and violence, early attachment, chronic lifestyle diseases and substance dependence.

He incorporates both individual and group psychotherapy and structured training into his research program. This includes quantitative clinical psychiatric assessments, longitudinal population studies, content analyses of qualitative reports and health, biomedical and neuropsychiatric assessments.

Ageing and Chronic Conditions

Dr Judy Mullan, Scientific Leader

Dr Mullan holds a Bachelor of Pharmacy degree (University of Sydney) and has gained over 30 years experience as a hospital and community pharmacist. She served on the board of Warrigal Care Aged Care Services and was appointed to the Graduate School of Medicine in 2008.

Since completing her PhD in Public Health, Dr Mullan has been involved in studies looking at health literacy, medication compliance/education, aged care, chronic disease, medication self-management and health professional/patient communication and partnerships.

Her academic experience includes teaching and facilitating the learning of medical, pharmacy and population health students.

Clinical Professor Jan Potter, Clinical Leader

Professor Potter has a strong background in medical research and education with a focus on geriatric care in the United Kingdom and Australia. For seven years she was an honorary senior lecturer in geriatric medicine at the University of Glasgow and for five years a hospital sub-dean of medicine.

Moving to Australia in 2004, Professor Potter has since led the development of a comprehensive geriatric service in the Illawarra and is now the Clinical Director - Division of Aged Care, Rehabilitation and Palliative Care and Senior Staff Specialist Geriatrician with the ISLHD.

Evolving from her clinical experiences, Professor Potter’s research interests centre on understanding and addressing health problems affecting geriatric patients, especially interventions to improve clinical outcomes.
Diagnostics and Therapeutics

Dr Martin Carolan, Clinical Leader
Dr Carolan has been employed as a medical physicist at The Wollongong Hospital since 1996, working in both nuclear medicine and radiation oncology physics. He is Director of Medical Physics at the Illawarra Cancer Care Centre, where he has sought to encourage clinically-relevant research within the physics team as a way of enhancing clinical service delivery.

Dr Carolan obtained a PhD in neutron beam dosimetry at the Centre for Medical Radiation Physics (UOW) where he holds an honorary appointment and remains actively involved in collaborative research and teaching.

Dr Moeava Tehei, Scientific Leader
A recognised expert in the use of radiation to study biological systems, Dr Tehei completed his PhD in France and, after spending a postdoctoral period in New Zealand, was awarded the Young Researcher Prize from the French Society of Biophysics.

In 2004, he co-managed a backscattering instrument at the Institut Laue Langevin in France.

Dr Tehei’s neutron studies inspired him to develop an independent research program looking at the effects of radiation and drugs on various cell types in a cancer context.

Since joining the UOW in 2008, he has been working on a multi-protein molecular machine for DNA replication and in 2010 co-founded the Targeted Nano Therapies team at IHMRI.

clinical research and trials unit

IHMRI Vision and the CRTU
IHMRI has a vision to facilitate research that targets lifestyle diseases. The Clinical Research and Trials Unit (CRTU) is contributing to that vision through the trials it undertakes.

New treatments and prevention strategies for diseases as varied as cold sores, gout and shingles are being investigated, with a sore throat study and asthma trial in the pipeline.

The unit also undertakes investigator-initiated studies on some of the lifestyle factors contributing to ill-health in the Illawarra.

The unit has increased its focus on high blood pressure by opening a hypertension clinic (see opinion piece on page 11) to review and monitor patients at high risk of cardiovascular disease.

By combining the activities of the clinic and the clinical trials, the CRTU is playing an important role in producing information that will lead to increased treatment options for the local community.

If you would like to be informed of upcoming trials and possibly contribute to the development of new treatments and prevention strategies, please subscribe to the CRTU’s database http://ihmri.uow.edu.au/participate

A job well done
The CRTU has received acknowledgement and special thanks from one of its major clients, Novotech, for consistently providing clean data and prompt responses to sponsor queries.

The recognition of the teams’ hard work, dedication and attention to detail is well deserved. It particularly highlights the efforts of the clinical trial coordinators who are directly responsible for data management and the patient experience.
The Director of IHMRI’s Clinical Research and Trials Unit, Professor Wilf Yeo, recently penned an opinion piece for the Illawarra Mercury about the importance of managing hypertension. It was written for a lay audience.

Pressure to know your number
By Professor Wilf Yeo

Getting your blood pressure taken or “knowing your number” is something you need to keep a close eye on at any age. High blood pressure and high cholesterol are, as we know, major risk factors for cardiovascular diseases including heart attacks, stroke, kidney disease and dementia.

But here’s the sting. Getting your blood pressure and cholesterol checked is not something that is necessarily done when you go to the doctor. While many GPs will measure blood pressure as part of a routine visit, it is not a normal Medicare item unless you belong to a particular risk group (i.e., you have diabetes or are over the age of 75).

So, unless you specifically ask to have your blood pressure and cholesterol levels checked, you may never know your number – and you may be unaware that you have a problem.

You should probably start having your blood pressure checked at least once every couple of years from the age of 18. You definitely need to know your blood pressure and cholesterol numbers from the age of 45. If a close member of your family, like your mother or brother, has suffered a heart attack, stroke or kidney disease at a young age, you need screening at a young age too. If you swap GPs regularly, you need to take your number with you so you can be adequately monitored.

For blood pressure we know that a lot of people are not being screened or receiving adequate treatment. This isn’t just a problem in the Illawarra, it is worldwide. In the medical fraternity we call it the “rule of halves”. It says that half the people with hypertension don’t know they have it. Of the half that do know, half are not being treated. Then half of those on treatment are not controlled to the target blood pressure, leaving us with only one eighth who are likely to receive adequate treatment.

We also know that men are more vulnerable than women simply because they visit doctors less frequently. The whole community should be concerned about ensuring there is adequate screening for hypertension and high cholesterol from the age of 45, as the consequences of not knowing could be dire.

In my ideal world, hypertension and preventing cardiovascular disease would have the same profile as other health issues, such as breast cancer screening. As it is a simple test, it could be done in a multitude of locations, from the local pharmacy to the community centre - even the workplace.

In the Illawarra we are taking steps to develop a new clinical service framework by opening a hypertension and cardiovascular risk clinic within IHMRI.

The clinic is a resource for local clinicians to refer patients with complex blood pressure and high cardiovascular disease risk. We are following National Heart Foundation Guidelines for the treatment and management of hypertension and we will be researching and evaluating the success of the guidelines.

Patients referred to the clinic by their GPs are given 24-hour ambulatory blood pressure monitors so they can be monitored as they go about their normal activities. The clinic also provides us with an opportunity to study the condition.

Ultimately, the plan is to collaborate with GPs on developing a new clinical service framework for our region; one that includes practical, easy to access screening options for people of all ages and abilities.

While these are important steps, I strongly recommend that you take responsibility for having your blood pressure and cholesterol checked regularly. Get to know your number and keep it with you so that you have something to refer to as you move along in your life’s journey.
Meet a network member

Kerry Searle, Psychologist, Youth Mental Health Service, Illawarra Shoalhaven Local Health District

How did you end up in mental health?
I was studying nutrition but soon realised that psychology was the subject I enjoyed the most. I was also caring for someone with a mental health problem at the time, so I had a very direct experience of mental health problems and some of the barriers and stigmas that make it hard for people to get help.

Today I specialise in looking after people aged between 14 to 24; a critical time in terms of mental health promotion, prevention and early intervention. It’s so important to get in early!

Describe a typical day and the focus of your current activities
I provide therapy or case management services to young people at risk or who are having their first episode of a mental illness.

I am also involved in the drop-in youth Community Health for Adolescents In Need (CHAIN). Youth Health Centre clinics, which assist vulnerable, disadvantaged and homeless youth and their families. I am involved in running a variety of universal or targeted mental health promotion activities.

I am also completing a Master of Science (Research) in Psychology, which aligns well with what I’m actually doing in my day-to-day work. My research is a quantitative and qualitative study to evaluate the success of a new drama-based youth mental health promotion strategy.

The Healthy Minds Theatre Conference, held on the UOW campus in June, is a new and innovative program designed to engage young people in mental health topics through an interactive theatre piece entitled Understanding Depression: Fill in the Blanks.

Based on the true story of Dan, a young person who suffered clinical depression, the actors tell Dan’s life story on stage and invite the audience to suggest ways for him to overcome his difficulties.

We have pioneered this program in the Illawarra/Shoalhaven and now, through surveys and focus groups with students and teachers, are assessing if it did in fact improve the knowledge and attitudes of participants and whether they are now more likely to seek help. I am also researching the factors that propel young people to seek help.

The program – which is about to be rolled out in high schools across the region – is really about giving young people the tools they need to help themselves and each other, because this age group is unlikely to seek help from adults.

The whole experience of being involved with a theatre not-for-profit company (Mind Blank) has been very interesting and exciting and has opened up many opportunities.

What is your involvement with the IHMRI Research Network?
Like a lot of mental health clinicians, I was unaware of a lot of the research going on in the field, but at the same time recognised the benefits of researchers and clinicians working together. I like to keep up to date and find the networking between clinicians and researchers very beneficial.

Professor Brin Grenyer [Scientific Leader of IMHRI’s Neuroscience and Mental Health theme] has also been a major influence, especially in gaining a better understanding of personality disorders.

What other areas of youth mental health could be improved with research?
From my perspective, there is a lot of knowledge about the barriers to young people seeking help, but not a lot about what is effective. So, I think we need more practical research.

I’m also interested in the intersection between emerging psychosis and personality disorders and learning more about how to help this group of vulnerable young people.

There is so much to learn but so little time!