

He Kete Kōrero



WELLINGTON

University of Otago, Wellington Newsletter | Autumn 2017

Dean's welcome

Tēnā kotou katoa

Welcome to this issue of He Kete Kōrero, the newsletter for the University of Otago, Wellington (UOW).

We are proud to be part of one of New Zealand's top universities as well as the capital city's medical school, located next door to Wellington hospital. Our undergraduate health science teaching sits alongside our unique world-leading health research and researchers, and state-of-the-art facilities, such as the GENESIS environmental suite in the [Centre for Translational Physiology](#). UOW is the only place in New Zealand to study radiation therapy.

We hold many public and specialist events all year round, large and small, including conferences and seminars such as the Public Health series, in our Conference Centre.

This year we celebrate several milestones, including [Occupation and Aviation Medicine Unit \(OAMU\)](#) reaching its 30th year, and in February, held our 21st Public Health [Summer School](#), the largest and longest-running in the Southern Hemisphere.

The breadth and depth of health research and teaching are part of what makes UOW unique in Wellington. Our teaching, scholarship and research are among the best, but we also celebrate diversity and strive to offer an inclusive learning culture that reflects our society.

This issue highlights some of our recent achievements and collaborations at UOW.

Check our website otago.ac.nz/wellington for more details and the latest news, progress and upcoming events.

Ngā mihi nui

Sunny Collings
Dean and Head of Campus
University of Otago, Wellington



Unique symbol of partnership Project Korowai

We have this year commissioned the weaving of a Korowai – a traditional Māori cloak – to reflect the significant relationship between UOW and our Treaty partners of Wellington. The korowai is being woven by Kohai Grace from Ngāti Toa Rangatira, Te Āti Awa, Ngāti Raukawa and Ngāti Porou. The UOW Korowai will feature elements relating to our Māori Strategic Framework and the relationship between Ngāti Toa Rangatira, Te Āti Awa and Ngāti Raukawa. The design incorporates our university motto and the Māori proverb equivalent:

Sapere Aude – Dare to be wise!

Whāia te iti kahurangi; me he tūohu koe, he māunga teitei. Pursue that which you treasure the most; should you need to forfeit, let it be only because of an insurmountable obstacle.



New Professor in Primary Care

Professor Sue Pullon has recently been promoted to Professor at the University of Otago, Wellington. She is Head of the Department of Primary Health Care and General Practice and has been in the department since 1994. A practising GP for more than 30 years, she has a special interest in sexual and reproductive health. Her key research areas of interest are in developing and maintaining collaborative practice and effective teamwork in primary care settings. (See IPE story). Under Professor Pullon's stewardship, the [Tairāwhiti IPE programme](#) continues to provide a clinically based programme in a high needs rural area, with specific Hauora Māori, rural health and chronic condition management learning.



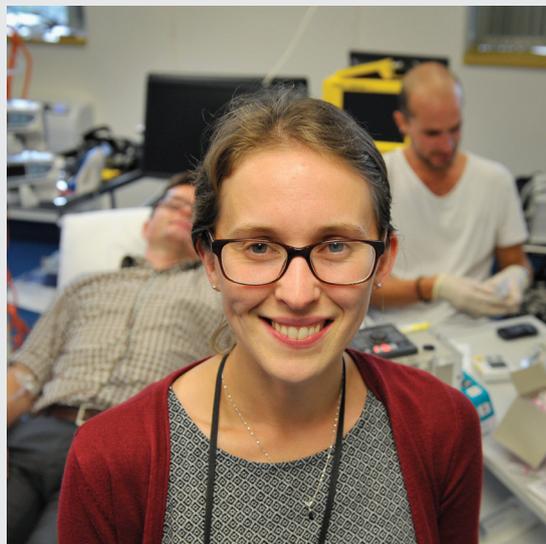
Professor Pullon is passionate about enhancing high quality education for all health professionals and has teaching expertise and research interests in many other aspects of primary health care, general practice, and women's health. She has strong interests in health education and promotion, and is the lead author of the 'New Zealand Pregnancy Book' – a leading book in the health education field that has been in print for more than 20 years, and now has an e-book version in production. In 2009 Professor Pullon received the most prestigious award of Distinguished Fellow from the Royal NZ College of General Practitioners (RNZCGP).

Diabetes research

Several research projects are focusing on diabetes, one of New Zealand's fastest growing long-term health conditions with enormous costs for individuals, the health care system and society. In a recent announcement for multi-million dollar funding from the Ministry of Health, HRC and the Healthier Lives Science Challenge, two [UOW research projects](#), led by Professors Jeremy Krebs and Diana Sarfati, are focusing on Type 2 diabetes.

In addition, many of our University of Otago, Wellington researchers were involved in two recent events in Auckland: The [Diabesity Crisis Symposium](#) which brought together the latest national and international research on obesity and diabetes, and a public debate chaired by Kim Hill about the real [Cost of Sugar](#).

[Recently published research](#) led by the University of Otago, Wellington has found that a 'home-grown' naturally occurring probiotic reduces the risk of developing diabetes during pregnancy (gestational diabetes) and lowers fasting blood sugar.



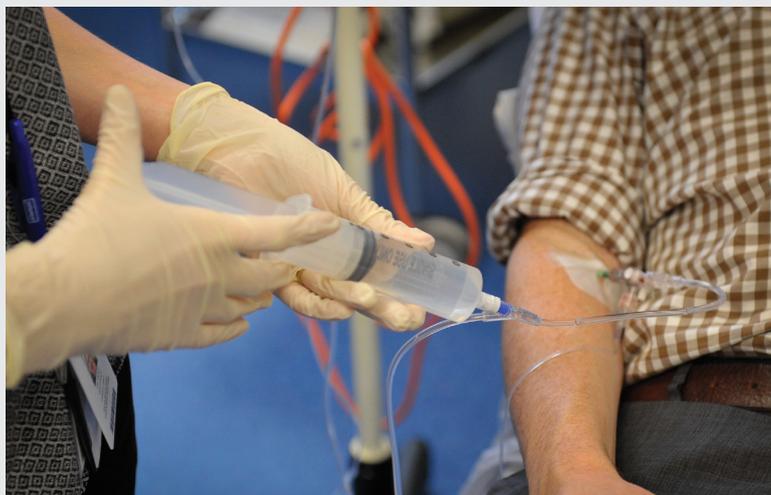
Participants needed for study on diabetes in different ethnicities

A [new study](#) will examine how well people of different body shapes and different ethnicities respond to a weight loss diet. The research will compare energy expenditure, body fat and glucose processing in participants using the new state-of-the-art [GENESIS suite](#) at [UOW's Centre for Translational Physiology](#).

The study being led by UOW PhD student Dr Patricia Whitfield (pictured above), an endocrinologist at Wellington Hospital, and overseen by Associate Professor Jeremy Krebs, Department of Medicine, could have major implications for how New Zealand doctors manage pre-diabetes and diabetes in people from different ethnic backgrounds. Māori, Pacific and South Asian individuals have significantly higher rates of Type 2 diabetes than NZ Europeans.

Dr Whitfield says: "If we can find ways to prevent people developing Type 2 diabetes in the first place, this will have hugely significant benefits for the health of New Zealanders."

The study is still in recruiting phase to find 20 men of different ethnicities. If you would like to join the study or for more information contact patricia.whitfield@otago.ac.nz or check the PROGRESS NZ study website otago.ac.nz/progressnz



Feasibility studies

Congratulations to UOW researchers who gained feasibility grants from the Health Research Council of New Zealand (HRC) in a recent funding round. [Dr Stephen Inns](#), Department of Medicine, will look at the feasibility of a clinical trial comparing treatment of *Helicobacter pylori* in pre-diabetes and Type 2 diabetes to normal care. [Associate Professor Jeremy Krebs](#), Department of Medicine, will identify recruitment strategies and barriers for a study on

Preventing progression from pre-diabetes to type 2 diabetes in New Zealanders and assess the tolerance of baseline investigations and barriers to completion of the proposed dietary and exercise. The 3rd HRC-funded feasibility study by [Associate Professor William Levack](#), Rehabilitation Teaching and Research Unit, is about taking charge of chronic obstructive pulmonary disease (COPD) using a low-cost self-management intervention.

Neonatal Research Success

Congratulations to members of the Perinatal and Developmental Physiology Group, Department of Paediatrics & Child Health:

Dr Maria Saito Benz was awarded the **New Investigator Award for Neonatology** for a superb presentation describing her research at the recent Perinatal Society of Australia & New Zealand's annual scientific meeting. Dr Saito Benz is working on her PhD under the supervision of Dr Max Berry of the Paediatrics Department and the Wellington Neonatal Intensive Care Unit on the NIMO-AI (Near Infrared spectroscopy for Monitoring brain Oxygenation in Anaemic premature Infants) study. Preterm infants can often become anaemic, and as adequate oxygen is essential for normal brain growth and development, it is standard practice to use transfusions to improve tissue oxygenation, and restore cardio-respiratory instability. Dr Saito Benz's research is seeking to provide a robust evidence base that will establish transfusion thresholds for neonatologists.

Senior research fellow **Dr Clint Gray** was lead investigator in a **recent study** published in Scientific Reports developing a blood test in early pregnancy which may help predict the risk of preterm birth. More than 10 per cent of babies are born too early, resulting in over 15 million premature births and more than one million newborn deaths globally. While women with a previous preterm birth are considered at high risk, many women without prior history will deliver their babies early. The study found that the presence of specific genetic molecules in maternal blood (miRNAs) during early pregnancy may help to predict the risk of premature birth. Dr Gray says pilot studies conducted while working with colleagues at the Liggins Institute, University of Auckland, have shown that the new test "detects specific miRNA markers in the mother's blood, which could mean that if a mother gets the test early in pregnancy it can help predict whether or not she is going to deliver her baby preterm. If we can predict whether a mother is at higher risk of a preterm birth, we can advise and prepare her for such an event prior to the onset of preterm labour, leading to improved care and ultimately fewer deaths and better outcomes for both infants and mothers." Full article: [nature.com/articles/s41598-017-00713-8](https://www.nature.com/articles/s41598-017-00713-8). For further information, contact clint.gray@otago.ac.nz

Dr Gray was awarded a Lottery Health Research Grant in March 2017 to examine the role of sugar-sweetened beverage (SSB) intake in adults who were born preterm and their levels of cardiovascular disease. He was awarded a Nutricia Research Foundation Grant in January to investigate the role of increased maternal SSB consumption and offspring obesity. Preliminary results show that maternal fructose intake can alter offspring neurological pathways involved in blood pressure control, appetite regulation, energy expenditure and metabolism.



Dr Rebecca Dyson has received a Lottery Health Research Grant to study whether supplementing maternal creatine (an amino acid) during pregnancy can help with fetal and newborn cellular energy availability. "Health in infancy is the foundation for health in adulthood, so babies born too early (preterm), or too small, face increased risk of neurodevelopmental, cardiovascular and metabolic problems compared to babies born with normal weight at term" Dr Dyson says.

Organ development and maturation occurs during late fetal life but can be disrupted in preterm/growth restricted infants. "Maternal creatine levels rise during healthy pregnancies, but women who go on to deliver preterm/growth restricted babies have lower creatine levels than those with healthy pregnancies, and preterm babies themselves can become creatine-deficient," she says. Strategies to safeguard cellular energy by supplementing with creatine during key developmental stages might therefore protect these infants, and improve their long-term health outcomes.



Curious Minds: Engaging young minds with science

What do you get if you mix a kura and a whare wānanga? Increased access to science teaching and learning in te reo Māori, says **Dr Sara Filoche** from the Department of Obstetrics and Gynaecology, who has been awarded a 2017 Unlocking Curious Minds grant to do just that. This project builds on the highly successful days of science in te reo Māori at UOW in 2015 and 2016, with Year 9-11 students from Te Kura Kaupapa Māori o Ngā Mokopuna. Dr Filoche led the science teaching and experiments and Ruruhira Rameka from UOW's Eru Pōmare Māori Research Centre supported with translating into te reo Māori. The new programme will allow other schools to have the opportunity to come into the laboratory and carry out health science themed experiments – all in te reo Māori.



Interprofessional education improves teamwork

Our **Interprofessional education (IPE)** programme has been broadened this year to include Pharmacy interns. IPE was introduced at UOW in recent years for students across all the disciplines – dietetics, medicine, physiotherapy, and radiation therapy – at the Wellington campus, to work together more effectively, says programme organiser Associate Professor Eileen McKinlay from Primary Health.

For three weeks in March, 64 health professional students learned together to better understand how to manage patients with “long-term health conditions” and their roles in giving team-based care. Long-term condition management is becoming a major burden on society with our ageing population. In November last year, the University’s Pro-Vice-Chancellor, Health Sciences announced the establishment of a Divisional Centre for IPE. The Centre is under the direction of **Professor Sue Pullon** (Primary Health Care and General Practice, UOW), supported by **Dr Margot Skinner** (School of Physiotherapy) as Divisional Lead. IPE campus leads have been appointed and have taken up their part-time roles from the end of January. The IPE lead for UOW working with other campuses is **Associate Professor Eileen McKinlay** (Primary Health Care and General Practice, UOW).

Further information about the Otago-wide IPE Centre is available online at otago.ac.nz/ipe



UOW IPE team: (L to R) Meredith Perry, Rachel Davidson, Ben Darlow, Sarah Donovan, Jonathan Kennedy, Eileen McKinlay, Karen Coleman, Debbie Wallace (Pharmaceutical Society), Hazel Neser.

Public Health Summer School turns 21!

Celebrating its 21st year, February’s Public Health Summer School was once again a huge success with over 800 attendees, amazing presenters and highly topical courses. “Nudging” ahead as the most popular course was Behavioural Economics presented by Otago alumnus Ichiro Kawachi, now a professor at Harvard University in the USA. Our courses addressing children’s health and wellbeing generated much engagement and even saw #PHSS2017 trending on twitter, second only to the NZ Blackcaps!

Because it’s a public health school, we really tried to “walk the talk” this year with guided lunchtime walks, regular standing ovations, and great vegetarian food options. The Public Health Summer School is an important event on the UOW calendar bringing people from so many sectors together to network, learn from our outstanding presenters and learn from each other – how lucky we are to have this opportunity right in the best little capital in the world. For further information see otago.ac.nz/uowsummerschool



Research snippets

Smokefree Wellington

A recent project led by Associate Professor George Thomson used Wellington as a case study to explore issues and options for progressing smokefree outdoor policies in urban public spaces. The study found although there is high support for new smokefree policies, there is often very low awareness of the current policies. The researchers recommended local authorities take on the role of enacting and communicating smokefree policies, in the absence of clear Government policies.

Evidence supports nationwide roll-out of home safety measures

New evidence shows that government social investment in safer housing would be justified to prevent falls. He Kainga Oranga/Housing and Health Research Programme tested the safety benefits of home modifications, including handrails for outside steps and internal stairs, grab rails for bathrooms, outside lighting, edging for outside steps, and slip-resistant surfacing for outside areas such as decks and porches.

Downward trend in disaster events causing mass deaths in NZ (1900 to 2015)

Fewer New Zealanders are now dying in large-scale disaster events a study has found. Led by Public Health researchers Professor Nick Wilson and Associate Professor George Thomson, the study of sudden mass fatality events, with 10 or more deaths, was between 1900 and 2015 in New Zealand.

Cold homes harm NZ youth health and schooling

Young people are experiencing increased health problems, stress, and adverse social effects from cold housing, according to an article in the journal *Social Science and Medicine – Population Health* co-authored by Dr Kimberley O’Sullivan at He Kainga Oranga/Housing and Health Research Programme, and young researchers from Waiopahu College in Levin, Horowhenua.

Researchers call for ban on alcohol sponsorship of sport

A recent study published in the *New Zealand Medical Journal* has quantified the exposure to alcohol advertising of those watching televised sport, in support of recommendations to remove all alcohol sponsorship of sporting events.

For more detail on these stories or other UOW news and research, go to:

otago.ac.nz/wellington

or contact Fleur.templeton@otago.ac.nz

For upcoming events:

otago.ac.nz/uowevents

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