



UNIVERSITY  
of  
**OTAGO**  
Te Whare Wānanga o Ōtago  
NEW ZEALAND

CHRISTCHURCH  
WINTER 2016

# University of Otago, Christchurch **Newsletter**

## Deans' welcome

On Sunday 18 September we will be holding a Health Research Open Day at our campus. You are warmly invited to attend. Details for the day are below and at [otago.ac.nz/christchurch](http://otago.ac.nz/christchurch)

### AN INTRODUCTION

New Dean Professor David Murdoch

At the end of August, Professor Peter Joyce retires as Dean of our Christchurch.

I have been very proud to work at the University of Otago's Christchurch health campus for the past 16 years, and am excited to become its Dean.

I have big shoes to fill as Peter has been a strong leader for the campus, particularly following the earthquakes.

We have a positive culture on campus with lots of collegiality, benefiting our research and teaching activities. We also collaborate on a global scale and I am keen to grow this global perspective in my time as Dean.

Our campus produces a high standard of health research. A large part of this success is due to collaborations with the Canterbury District Health Board. Ongoing support from funders is also important.

Cantabrians like yourself are important to our campus. You are participants in our research, support our research and teaching through your taxes and, hopefully, benefit from our work when our medical students become doctors and our research improves understanding or clinical practise. I thank you.

In future, we want to play a greater role in our community. I recently chose Professor Vicky Cameron as my Deputy Dean. A key part of her role is helping to raise the profile of our campus.

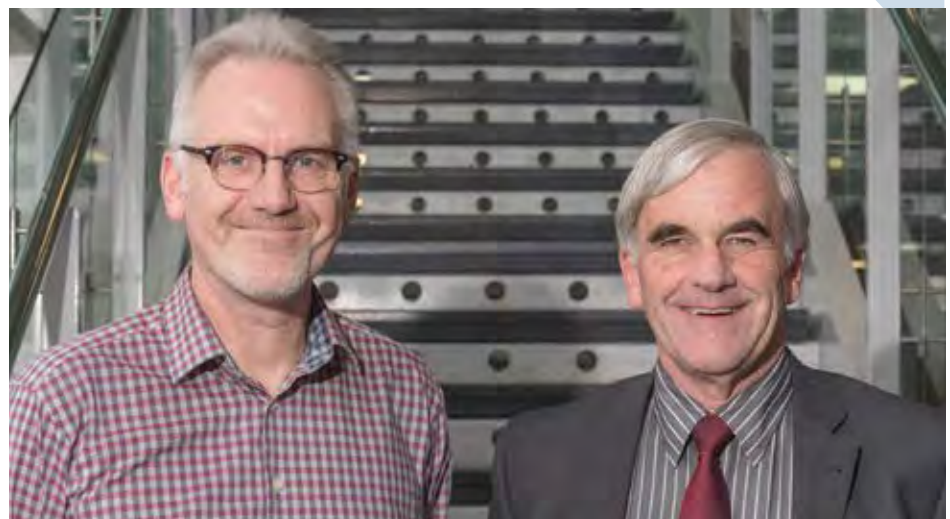
### A FAREWELL

Retiring Dean Peter Joyce

This newsletter brings to a conclusion more than 40 years of involvement with the Christchurch campus for me. My first involvement was as a Summer research student over 10 weeks in November 1973 to February 1974, plus subsequent Summers. I was then a medical student in Christchurch from 1976 to 1978, followed by time as a house surgeon and psychiatric registrar for the Canterbury District Health Board. Since 1984 I have been on the staff of the University of Otago, Christchurch, including 19 years as Head of Psychological Medicine and 11 years as Dean. The strength of the Christchurch campus lies in its outstanding staff; however to paraphrase the Crusaders – “We are a champion team, not a team of champions”.

I wish David Murdoch and the Christchurch campus all the best for the future, and I am confident the campus will go from strength to strength.

Peter Joyce



Professors David Murdoch and Peter Joyce

Christchurch

## Health Research Open Day

Sunday 18 September | 1.00pm – 5.00pm  
University of Otago, Christchurch building  
2 Riccarton Ave | Christchurch Hospital Campus

- Explore the laboratories and Simulation Centre
- Meet our talented researchers and hear about the latest health research advances
- Find out about postgraduate health research and study opportunities

## Medical students creating asthma resources for whānau

Super hero movies, apps and fridge magnets explaining asthma to children are some of the resources developed by Christchurch medical students as part of an innovative teaching programme.

The programme was initiated by the University of Otago's Māori/Indigenous Health Institute (MIHI). Fourth year students were given a case study – a young Māori boy with asthma – and asked to develop resources to help him better understand the condition and how to manage it.

MIHI lecturer Dr Tania Huria says the initiative benefits both students and the community.

Research done by Otago University's Wellington campus shows health professionals have an important role in promoting health literacy, and can contribute to better outcomes, particularly for Māori whānau with young members with asthma.

Huria says the education session developed by MIHI provides students with an opportunity to be creative and consider and design a health resource that could make a difference for whānau.

She says the medical students excelled at producing relevant, fun and interactive resources. There is scope in the future that some of the students' creations could be commercially produced and used by clinicians or organisations such as the Asthma Foundation.



## Bringing Māori history of Ōtautahi-Christchurch to life

A Christchurch medical student has produced a digital guided tour of Māori historical sites surrounding the University of Otago, Christchurch and hospital campus.

Sophie McKellar did the 'iHikoi' project as part of the University's Summer Studentship Programme. The 10-week programme allows medical and tertiary science students to experience working as a researcher under the guidance of experienced scientists.

"The University of Otago, Christchurch campus and Christchurch Hospital are located in an area long occupied by Ngāi Tahu and the local sub-tribe Ngāi Tūāhuriri. The purpose of the guided walk was to provide an opportunity to connect with historical sites and stories," McKellar says.

Working with the University's Māori /Indigenous Health Institute (MIHI), McKellar developed a detailed guide, map, and video showing the route and significant sites. Beginning at the University of Otago building at 2 Riccarton Ave, the tour (which takes less than an hour to walk) goes into Hagley Park North and the Botanical Gardens before crossing the Avon River at the Boat Shed and returning to the Christchurch Hospital site.

The tour guide discusses rongoa (traditional Māori medicine), the impact on Māori of the purchase of the land in mid-1800s, and parallels between the Christchurch earthquakes and land purchase.

McKellar says she hopes the iHikoi tour gives people a deeper understanding and respect for Ngāi Tahu and Ngāi Tūāhuriri as well as the significance of the environment they live and work in.



## Christchurch educator: 'extraordinary Māori talent

A Christchurch educator and researcher was one of the 'extraordinary Māori talents' honoured in the inaugural Matariki Awards.

Associate Professor Suzanne Pitama is the director of University of Otago, Christchurch's Māori /Indigenous Health Institute (MIHI).

She was a finalist in the Te Ururangi Award for Education section of the new awards. The awards were presented by Māori Television and

Te Puni Kōkiri, and recognise high achieving Māori cross a broad range of fields.

Associate Professor Pitama says being a finalist is an acknowledgment of the collective work of the MIHI team – in the design, implementation and evaluation of an indigenous health curriculum. It is also an acknowledgement of the Otago Medical School providing space for indigenous health curriculum, she says.

## Geneticist and keen sportsman to lead big research department

Genetics researcher Professor Martin Kennedy is the new head of the University of Otago, Christchurch's Department of Pathology.

Kennedy has worked on the Christchurch health campus for nearly 30 years, starting there in 1986 after completing his PhD at the University of Auckland, and returning in 1991 after postdoctoral studies at the MRC Laboratory of Molecular Biology in Cambridge, United Kingdom.

The Pathology Department is a powerhouse of internationally-renowned research. It is home to eight independent research groups including The Infection Group, the Centre for Free Radical Research, and two groups led by Kennedy – the Carney Centre for Pharmacogenomics, and the Gene Structure and Function Laboratory.

Kennedy collaborates with researchers locally and internationally as a genetic expert. One of his specific areas of interest is understanding how genes influence patients' responses to drugs.

He says he is very privileged to lead a department filled with so many dedicated and excellent researchers, teachers, students and support staff. "My main goal is to ensure we retain and further develop the wonderful environment we have in the department for research and teaching, to allow our staff and students to reach their full potential," says Kennedy.

He will replace Professor David Murdoch, who steps down from the Head of Department role on September 1 to become Dean of the Christchurch campus.

When Kennedy is not working, he is a keen mountain biker and skier, and generally loves being outdoors. His wife is a secondary school teacher. Together they have three daughters, one of whom is also a scientist, and two grandsons.



## Improving medicine safety from Christchurch

Clinical pharmacology is the study of drugs in humans. Although medication can save lives and help with chronic health conditions, it can also harm.

Associate Professor Matt Doogue is a key part of Christchurch's Pharmacology Department, a partnership between the University of Otago, Christchurch, and the Canterbury District Health Board (CDHB). A lot of its work is focused on improving the use and safety of medicines.

One big current project is helping develop and improve the electronic prescribing system under development at the CDHB.

Doogue says an electronic system should mean fewer errors in prescribing drugs than the current paper system. The electronic system will have a built in 'safety mechanism' that raises a query if medication prescribed is outside the standard or expected dose for a particular condition, and common and negative interactions between certain medications.

The new software will also record patients who have adverse drug reactions in hospital, so reasons for these can be studied further.

One of Doogue's research interests is understanding why some people have bad reactions to drugs and others don't. This involves studying genetic differences between the two groups.

A better understanding of genetic differences could ultimately lead to patients getting personalised medicine – where medical decisions, including medications, are tailored to individual patients based on their predicted response or risk of disease. A person's genetics could play an important role in their individual needs.



## Couple's generosity enables ongoing genetic research

Pharmacogenomics is the study of how genes influence a patient's responses to drugs. In 2005, thanks to a generous donation from the Jim and Mary Carney Charitable Trust, the Carney Centre for Pharmacogenomics was established in Christchurch. At the time of the donation, the Government matched certain large donations dollar for dollar – meaning the newly established Centre had a guaranteed future.

The Centre is a hub for researchers around New Zealand who work in the area. Its director is Professor Martin Kennedy. Some recent research projects include clarifying how genetic differences contribute to a person's risk of side effects, or failures in medication, in the areas of mental disorders, inflammatory bowel disease, rheumatoid arthritis, asthma and heart disease.

A big picture goal of pharmacogenetics is to be able to tailor medication to an individual based on their genetic make-up, meaning better responses to drugs and fewer side effects.

# Longitudinal study funded to continue policy-informing work

The Christchurch longitudinal study that has helped shape New Zealand social policy for more than 30 years has received more than \$4 million in funding from the Health Research Council.

The Christchurch Health and Development Study (CHDS) has documented the progress of more than 1200 people from their birth until the age of 35. The \$4,363,673 HRC programme grant will allow Associate Professor John Horwood and his team to comprehensively record and analyse participants' situations at the age of 40.

With the new funding, the team will study issues such as the long-term mental health consequences of exposure to the Canterbury Earthquakes; the consequences of alcohol and cannabis use and misuse to age 40; impairment resulting from mental health disorders; long-term consequences of exposure to maltreatment in childhood; genes, environment and mental disorders; and translation of research findings to policy outputs.

The study results will inform health and social policy development, as they have done for several decades.

The study has previously provided important insights relating to areas such as early intervention for at-risk children, breastfeeding and IQ, cannabis use, domestic violence, abortion and mental health, suicidal behaviour, and the later mental health impacts of childhood sexual abuse.

One key insight was that children from families facing multiple problems, stresses and difficulties have a greatly increased risk of developing later severe problem behaviours.

Associate Professor Horwood has taken over as the lead researcher after the retirement of study stalwart Professor David Ferguson last year.

## Infertility new focus of long-standing Christchurch study

Infertility, financial security, and self-esteem are facets of life now being examined by the Christchurch Health and Development Study thanks to researcher Associate Professor Joe Boden.

The Canadian-trained social psychologist joined the influential longitudinal study in 2002. He worked closely with study stalwart Professor David Fergusson who retired last year.

The CHDS has gathered in-depth information on more than 1000 people born in Canterbury in 1977. As the participants are now aged in their late 30s, Associate Boden and his colleagues can see how aspects of early life, such as child maltreatment, have affected them later in life.

Because it is a longitudinal study, the CHDS has to ask consistent questions over time. However Associate Professor Boden has managed to make his mark on the study by adding a few new areas of enquiry. It now includes questions on participants' financial situation, infertility, and parenting skills. Answers to these questions can all be related back to the vast catalogue of information on participants to understand how early experiences can, for example affect the way they parent their own children.



Associate Professor Boden

## New leader for longitudinal study

The new head of the Christchurch Health and Development Study (CHDS) describes himself as someone who likes 'being in the background'. While this might sound an unlikely profile of a leader, Associate Professor John Horwood has just the right attributes to head a longitudinal study.

His background as a statistician and detail-orientated nature means he can extract meaningful

insights from the millions of pieces of data collected on more than 1000 people over three decades. He has also worked on the CHDS for more than 30 years and is arguably our country's foremost expert working in longitudinal research today.

Associate Professor Horwood took over the world-renowned study after the retirement of Professor David Fergusson last year.

Under Associate Professor Horwood's leadership, the team has secured more than \$4 million in new funding from the Health Research Council to study participants at age 40.

He is excited about the new phase of the study which includes looking at the long term effects of the Canterbury quakes on mental health.



Associate Professor Horwood

## Watch our 2016 public health lectures online

[otago.ac.nz/chch-podcasts](http://otago.ac.nz/chch-podcasts)

- Resilience in everyday life.
- Schizophrenia genetics.
- A good-humoured heart.
- When good medicine is bad for your health.
- Brain imaging in Parkinson's disease.
- One Health: a global approach to infectious disease.
- Will eating cake give me cancer?
- Engineering customised care.