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Te Whare Wānanga o Ōtago
NEW ZEALAND

CHRISTCHURCH
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University of Otago, Christchurch Newsletter

Dean's welcome



Welcome to the spring edition of our Christchurch campus newsletter.

I am very pleased to be able to share with you news about recent successes that demonstrate our excellence in both health research and teaching.

On the teaching front, our Associate Professor Suzanne Pitama was awarded the Prime Minister's Supreme Award at this year's national Tertiary Teaching Excellence Awards. A story in this newsletter describes how Associate Professor Pitama and her Māori/Indigenous Health Institute team are educating medical students to better work alongside Māori patients and their whanau and ultimately redress health inequalities.

Dr Logan Walker from our Mackenzie Cancer Research Group was recently awarded the Royal Society's Rutherford Discovery Fellowship. It is tremendous the Royal Society fund these fellowships recognising New Zealand's most talented early-to-mid-career researchers and future research leaders. About 10 researchers are chosen a year. We currently have three Rutherford

Fellows on our campus, including Dr Walker whose work on making use of genetic data to better identify those most at risk of developing cancer is featured in this newsletter.

Another invaluable source of funding for our researchers is the Canterbury Medical Research Foundation (CMRF). Every year they hold a very successful wine and art auction. Proceeds from this year's auction will go to Professor Frank Frizelle and his research into bowel cancer.

The CMRF have also teamed up for the first time with the NZ Breast Cancer Foundation to fund a study by Professor Margreet Vissers into the impact of vitamin C levels on health outcomes for breast cancer patients. Professor Vissers' previous studies found bowel and endometrial cancer patients with higher levels of the vitamin C have extended disease-free survival.

Regards,
Peter Joyce

Christchurch teacher named best in the country



Associate Professor Suzanne Pitama

Associate Professor Suzanne Pitama was awarded New Zealand's highest teaching honour in this year's Prime Minister's Supreme Award for tertiary teaching excellence.

Associate Professor Pitama is the Director of the Māori/Indigenous Health Institute (MIHI) at the University of Otago, Christchurch.

She says she is honoured to receive the award. Educating medical students to work alongside Māori patients, whanau and communities in ways that support best clinical practice and reduce Māori health inequities has always been a goal.

One unique teaching initiative that was started in 2010 and continues today, is the Māori health day where fifth year undergraduate medical students undertake student-led clinics within the Māori community.

She and her MIHI team have also several times been recognised as having the best Indigenous health curricula (in medicine) and community innovation programmes in Australia and New Zealand.

**Considered a
career in nursing?
Have a degree
already?**

Find out about the two-year Master of Nursing Science course we are planning for 2016, subject to Nursing Council (NZ) approval.

**otago.ac.nz/
nursingmasters**

Making sense of genetic information



Dr Logan Walker

Geneticist Dr Logan Walker has won a prestigious research fellowship to develop better ways of identifying high-risk breast and ovarian cancer patients.

The \$800,000 Rutherford Discovery Fellowship will allow Dr Walker to work for five years on determining the best ways to take genomic medicine from the laboratory into the medical clinic. Genomic medicine is about customising medical care to each person's unique genetic makeup, and has been touted as the future for medicine.

Dr Walker says in the case of cancer, genomic medicine could potentially provide life-saving information to patients and their families who are most vulnerable to developing the disease.

"One issue is that while technologies are becoming more accessible and affordable than ever, there is still a lack of clarity about what genetic variations really mean for the patient. Deciding who should receive genetic testing, and interpreting the test results, are two major dilemmas for health care professionals."

Dr Walker will use the Fellowship, funded by the Royal Society, to develop better methods for identifying high-risk breast and ovarian cancer patients, and new approaches for evaluating the clinical significance of genetic changes. This knowledge and expertise in cancer will also help in developing protocols to evaluate genetic changes responsible for inherited diseases other than cancer.

Dr Walker says the Fellowship provides a fantastic opportunity to develop in his field of study and hopefully have a positive impact on human health.

Tackling bowel cancer from screening to surgery



Professor Frank Frizelle

Identifying bugs potentially causing bowel cancer and the best way to detect the disease earlier are two of many studies currently underway at the University of Otago, Christchurch.

Colorectal surgeon Professor Frank Frizelle and his team have studied New Zealand's most diagnosed cancer, from symptoms to surgery, for more than two decades.

"We are looking at how to find it earlier, what people are most at risk, how to best manage it and how to support people once they've had it," he says.

A desperately-needed nationwide screening programme could begin within a few years, Professor Frizelle says. A pilot programme in North Auckland uses the Faecal Occult Blood Test (FOBT), which detects very small amounts of blood in the bowel otherwise invisible to the naked eye, to determine which patients need a cancer-diagnosing colonoscopy. Professor Frizelle says the FOBT is 60 per cent accurate. His team is studying another test, called the M2-PK, they believe could be more accurate in a sample of Canterbury patients who are being screened using both tests.

Professor Frizelle says research shows less than 10% of bowel cancer cases are caused by inherited genetic causes. His research team has identified, and are studying, a bacteria that may make a person more likely to develop the cancer. The bug could be acquired as a child possibly from ones mother and could possibly be vaccinated against, he says.

Bowel Cancer's Sad Statistics:

- ~ New Zealand's most diagnosed cancer
- ~ 1200 Kiwis die from it every year
- ~ 3000 diagnosed annually
- ~ NZ has highest death rate in developed world
- ~ Kiwi women highest rate in OECD

(Source: beatbowelcancer.org.nz)

Heart Foundation supports Christchurch research

Soft, unstable plaque that breaks off and blocks arteries is a major cause of strokes and heart attacks, even in those traditionally considered at low risk.

Associate Professor Nigel Anderson has been awarded a Heart Foundation grant to use latest scanning technology to analyse plaque samples and determine which types pose the greatest risk of breaking.

The radiologist is a member of the Centre for Bioengineering. Its director Associate Professor Anthony Butler was one of the inventors of the revolutionary MARS CT scanner. Associate Professor Anderson will use the scanner to identify the most lethal plaque types.

Four other Christchurch researchers won funding to: study the cardiovascular health profile of Christchurch's Pacific community (Dr Allamanda Faatoese); look for better ways GPs can assess patients' risk of heart disease (Dr Anna Pilbrow); study how healthy patients DNA and blood samples differ from those with heart disease (Professor Vicky Cameron); and measure certain hormone levels in emergency department patients with chest pain to predict their risk of an imminent heart attack (Dr John Pickering).



Centre for Bioengineering post-doctoral fellow Raj Panta with the MARS scanner and a sample of atherosclerotic plaque.

Taking medical students' learning high tech



A virtual patient waits to interact with medical students.

The University of Otago, Christchurch is developing a more high-tech approach to teaching medical students including interactive animations of real-life medical scenarios and doing tests online.

E-learning co-ordinator Scott Hallman says today's medical students are digital natives who expect their education will be as high-tech as the rest of their lives.

This means moving towards a paperless system where everything the learner needs is in one digital place, including papers they need to read before lectures, animations portraying real medical situations and all assignments and grades.

Hallman says the focus of improvements is to give a better service to learners and enhance their learning journey.

Medical students deliver safe sex messages to young inmates

University of Otago, Christchurch, medical students are sharing safe sex messages through song with prison inmates.

A group of fourth year students recently visited Christchurch Men's Prison youth unit to run an interactive safer sex education session. It included songs and dances they created.

The innovative assignment, named 'Sex, Bugs and Rock'n'Roll', was developed by the Christchurch campus' Department of Population Health with help from haematologist and 'singing lecturer' Dr Sean Macpherson.

The recent session was the fifth time Christchurch medical students have visited prisons. Fifth and fourth year student groups have been to Christchurch Women's Prison, and also performed for city road workers, bar patrons, young parents, and students in alternate education.

Population Health department senior lecturer Jen Desrosiers says the project has allowed meaningful interactions between students and inmates that their feedback suggests helps both groups feel more comfortable talking about sexual health issues.

She says collaborations with the Canterbury District Health Board and Corrections have been essential to the project's success.

To watch videos of the student's performances: [youtube.com/user/PubHealthUOC](https://www.youtube.com/user/PubHealthUOC)

New treatment for painful osteoarthritis studied

Osteoarthritis causes severe pain but effective and safe treatment options for the condition are limited.

General practitioner Dr Ben Hudson is trialling a drug used for depression as a possible treatment for patients suffering chronic osteoarthritic pain. He is working closely with Canterbury District Health Board orthopaedic and pain experts on the three-year Health Research Council-funded trial.

Antidepressant drug nortriptyline is being trialled to alleviate chronic knee pain caused by osteoarthritis.

Half of the study's participants will get nortriptyline in addition to their usual medication, while the other half will get a placebo pill to take with their usual treatments.

Dr Hudson is a lecturer and researcher with the University of Otago, Christchurch's Department of General Practice.

He says nortriptyline has been used for several decades as an antidepressant but has also been found to be successful in treating some chronic pain conditions such as nerve damage, post-shingles neuralgia and persistent back pain.

"Because of a lack of alternatives, some doctors have been prescribing nortriptyline out of desperation to patients with chronic knee pain and it does seem effective. What we really need to know is whether this effect is real or due to a placebo effect."

Dr Hudson says if the trial is successful the drug could provide an excellent new pain relief option for patients ineligible for knee replacements and those in pain waiting for the surgery.

Anyone interested in taking part or finding out more about the study should contact Alison Parsons on 03 364 3645 or alison.parsons@otago.ac.nz



Study research nurse Gwyneth Steenson examines participant Julia Carr.

Dr Ben Hudson



"Because of a lack of alternatives, some doctors have been prescribing nortriptyline out of desperation to patients with chronic knee pain and it does seem effective. What we really need to know is whether this effect is real or due to a placebo effect."

Christchurch academic in New York Times debate



Associate Professor Gillian Abel

New Zealand is the only country to decriminalise sex work. Associate Professor Gillian Abel is the head of Christchurch's Population Health Department and an international leader in sex work research. Her Health Research Council-funded research on the impact of the Prostitution Reform Act (2003) on sex worker's health and safety has been influential in informing policy both here and overseas.

So it was no surprise when the New York Times wanted to cover the issue of prostitution reform, they approached Associate Professor Abel. She was part of an online debate, arguing either side of the question

of whether prostitution should be a crime. The debate was triggered by Amnesty International passing a resolution in support of the decriminalization of sex work on the grounds it would make sex workers safer.

Associate Professor Abel argued 'no' in the debate, and raised points such as decriminalisation makes life safer for sex workers, numbers of sex workers have not increased since decriminalisation, and decriminalisation means younger workers can be protected.

To read the article, google: NYtimes and sex work.