Medical research and the Christchurch community

The Christchurch School of Medicine and Health Sciences has been one of New Zealand's leading centres for biomedical research and health sciences education for over thirty years. From small beginnings the School now has a research capacity of 160 scientists and clinicians working in over a dozen different research groups.

These groups involve clinical and scientific investigations in areas such as heart disease, cancer (breast and bowel), respiratory disorders, liver disease, mental health, depression, and drug and alcohol addiction. Research being undertaken by scientists and doctors at the School often has a direct clinical application benefiting patients, and attracts more than $12 million dollars of funding a year, thus enhancing health care throughout the country.

Progress in the laboratory is reflected at the bedside by assisting more effective management of particular illnesses and diseases. One of our leading research groups with an international reputation is the Christchurch Cardioendocrine Research Group. Its ground-breaking work investigating heart hormones and heart failure has been praised in the prestigious British medical journal The Lancet as a 'landmark study'.

Research is not only carried out in our modern laboratories, but also through studies by the Departments of Public Health and General Practice, and Psychological Medicine. Once again many of those engaged in this work also apply their knowledge to patients in a clinical setting.

Most of the research at the School is funded by contestable grants from organisations such as the Health Research Council or the Foundation for Research Science and Technology, or by donations and bequests through the Canterbury Medical Research Foundation. health@cmrf.org.nz. Phone: (03) 365 2857

Open Day at theSchool …..Latest Health Research.

On Sunday August 31 the School of Medicine and Health Sciences will once again open its doors, inviting the public to catch up on leading-edge medical research being carried out right here in Christchurch.

The **Research Open Day** in association with the Canterbury Medical Research Foundation, will take place on Sunday afternoon from 1pm to 4.00pm. It will be focussed on the main foyer which will have interactive displays, health research talks in the Rolleston Lecture Theatre, and guided tours to laboratories to witness latest research and diagnosis in action.

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Christchurch School of Medicine and Health Sciences
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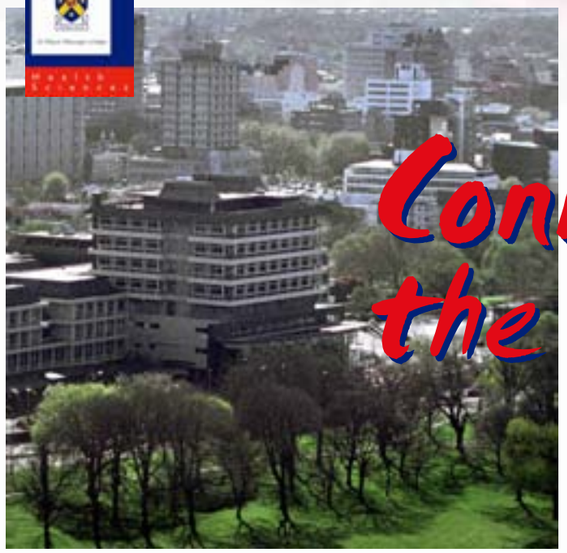


Connecting with the Community

Welcome to our first newsletter from the Christchurch School of Medicine and Health Sciences to the wider community. We are hoping to establish a "Friends of the School" organisation and this newsletter will be one of the ways in which we can make new connections with people who are interested in the work of the School. We will use the newsletter to keep you informed about the way in which we contribute to the community through the teaching of medical students, training of other health professionals and through health research.

Since taking up my position as Dean in January 2002 I have been very impressed with the amount of interest there is in the School. Over the last year we have made a real effort to provide opportunities for members of the wider Canterbury community to visit the School and learn more about what we do.

We have for a number of years had a Mid-Winter Dialogue Series which are open to the public and this year, for the first time, we had a Health Lecture Series which covered some of the major health issues facing society today. The School plays a leading role in the training of young doctors for Canterbury and New Zealand but also has over 500 postgraduate students who are training in research, public health, mental health and other specific disciplines.

The School has a very close and positive working relationship with the senior management team of the Canterbury District Health Board. We have a vital common interest in the wellbeing of the health sector and, of course, our graduates are future doctors in our hospitals and health services.

We plan to produce a newsletter every six months to keep you up-to-date with events at the School and other issues of relevance, particularly about our new medical curriculum as it comes on stream in 2005/2006.

If you have other friends or family that would like to get onto our mailing list please email a request to Rebecca Yorke. rebecca.yorke@chmeds.ac.nz
If you have an interest in joining a small committee to help work with myself and Ainslie Talbot, our Communications Manager, to develop the "Friends of the School" organisation then please contact ainslie.talbot@chmeds.ac.nz or phone 03 364 1199.
We do look forward to hearing your views about the work we undertake here at the School.

Professor Ian Town
Dean.

How genetics help determine the best medication.

Improving the safety and effectiveness of drug treatment is a major research interest of Dr Martin Kennedy and his team in the Gene Structure and Function Laboratory. This research group, in the Department of Pathology, is using human genome information to explore why some people suffer side effects or fail to respond to certain drugs.

“The idea that one drug or one dose fits all is too simplistic, and it is clear that our genetic makeup influences the way we respond to medicines”, says Dr Kennedy.

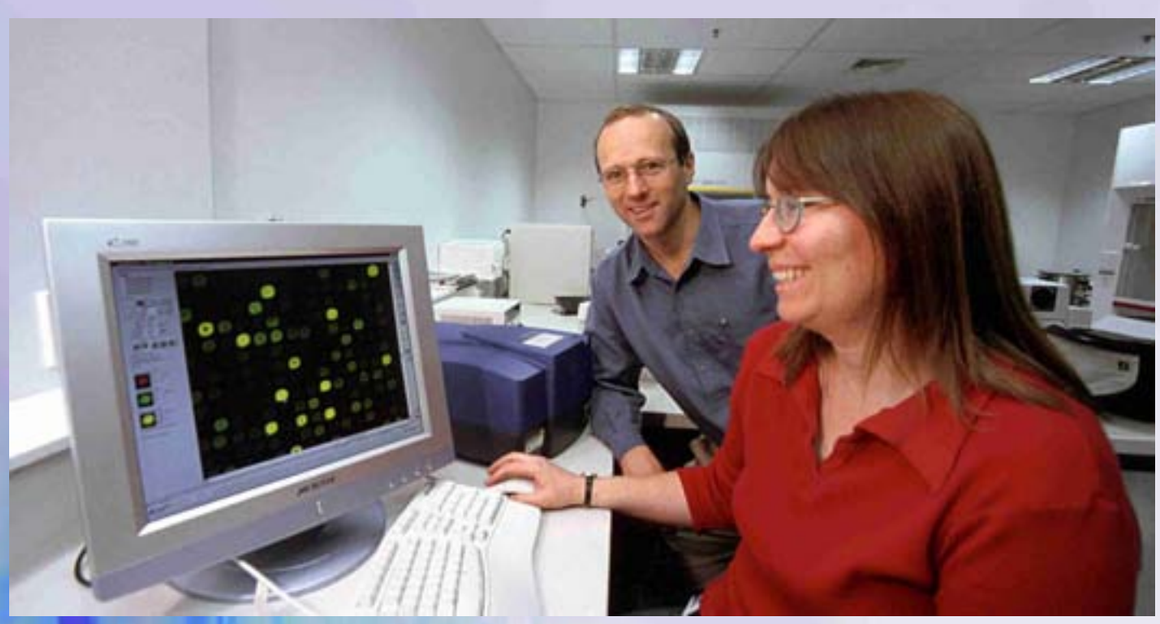
“Trying to understand how genetic differences between people might affect drug responses is a big challenge, and a hot research area internationally.” This field of study, called pharmacogenetics, is likely to be one of the first ways in which human genome knowledge will impact directly on medical treatment.

Dr Kennedy says that the Christchurch School of Medicine and Health Sciences is ideally situated to make major advances in pharmacogenetics because clinical research teams work closely with his genetics laboratory.

“Combining our genetic expertise with the skills of our clinical collaborators leads to great synergy, and means we can tackle a range of important pharmacogenetic questions”.

Those questions include exploring the possibility of tailoring medication to individual patients with illnesses as diverse as depression, asthma, inflammatory bowel disease, leukaemia, and angina.

Pharmacogenetics holds promise in the prediction and prevention of serious drug side effects, and better matching of the right drug to each patient. In future prescribing of drugs may be preceded by a DNA test which guides the clinician in the choice of drug and dosage level. Although Dr Kennedy points out that pharmacogenetics is only part of the answer to improved drug treatment, and DNA tests are likely to be used only for certain types of drugs.



Dr Martin Kennedy and Dr Geraldine Rogers examine genetic patterns altered by antidepressants.

The changing face of medical education

A major responsibility of the Christchurch School of Medicine and Health Sciences is the clinical training of medical undergraduates in their fourth, fifth and sixth years.

However, medical education is about to change. A major review of the medical curriculum is underway, led by Associate Professor Tim Wilkinson. These changes to the way young doctors are taught are expected to be introduced from 2006.

“The new curriculum will mean more teaching in context so students learn about medical problems at the same time as they learn how these affect real people and their lives,” explains Professor Wilkinson. “It will also provide more systematic coverage of key subject areas, and put greater emphasis on professionalism and ongoing learning.”

Professor Wilkinson says the review is in line with what is happening in the best medical schools overseas, and will produce better doctors because they are learning in health care settings rather than classrooms, able to apply their theoretical knowledge to individual patients.

The key educational goals for the New Pathway curriculum are to produce graduates who can think critically, and are competent, diverse, and professional. While we believe our current graduates display these attributes, we are not content to sit back and say we cannot do better.

Professor Michael Ardagh, Emergency Department, teaching medical students how to place a breathing tube into an unconscious patient.

In order to do this, the new course must link theory to practice, encourage students to apply underlying principles, question the status quo and scrutinise new developments. This must occur while encouraging the “human” and compassionate side of medical practice.

We will provide “case-based learning” that is patient-centred, based around problem solving, and where students learn individually and cooperatively.

A case-based structure also allows us to cater better for cross discipline subjects and to deliver the course outside teaching hospitals. Medicine is increasingly practised in the community so there will be more opportunities for rural practice, learning within general practice, and exposure to community based health services.

We hope to encourage diversity and more committed graduates by widening the admission criteria to medical school. The government fixes the number of places, but we will broaden the admission criteria beyond the academic by introducing assessments of reasoning, ethical principles and communication, also involving interviews. It is planned that each applicant will be interviewed by a staff member, and a member of the public, so we select students who will not only be able to cope with the course, but who have the humanistic attributes essential to the practice of medicine.

If you would like to email us about the kind of doctor you would like, please read our graduate profile page and fill out the comment section: www.chmeds.ac.nz/studentinfo/profile.htm.

We will also be having a public consultative meeting in the Rolleston Lecture Theatre at 7:30pm on September 16.