

New Vice-Chancellor given warm welcome at powhiri



Assistant Vice-Chancellor (Māori) Sir Tipene O'Regan and new Vice-Chancellor Dr Rod Carr share a joke after a powhiri held to welcome Dr Carr to his position.

With the temperature soaring above 30 degrees and the sound of cicadas in the air, last week's powhiri for Dr Rod Carr was literally a warm welcome for the University's new Vice-Chancellor.

Several hundred staff, many of whom sheltered under the trees adjacent to the Central Lecture Block, the senior management team (SMT) and Council members were joined by the Christchurch mayor and mayoress, members of Dr Carr's whanau and representatives of CPIT, Ngāi Tahu and Jade Software Corporation.

Dr Carr was Jade's managing director before being appointed Vice-Chancellor. Prior to joining Jade in 2003, he was deputy governor and director of the Reserve Bank of New Zealand. He has also held senior positions within the Bank of New Zealand and the National Australia Bank.

He has LLB (Hons) and BCom (Hons) degrees from the University of Otago, an MBA from Columbia University Graduate School of Business (New York), and MA and PhD degrees from the Wharton School of the University of Pennsylvania.

At last week's powhiri, the head of Aotahi: School of Māori and Indigenous Studies, Associate Professor Rawiri Taonui, acknowledged Dr Carr's professional background.

"We know you come from the world of business and our hearts and minds are open to you."

Professor Taonui jokingly said he was looking forward to calling on Dr Carr for assistance with the student management system provided to the University by Jade Software Corporation.

Speaking on behalf of the University Deputy Vice-Chancellor, Professor Ian Town said it was

a privilege and an honour to welcome Dr Carr to "this auspicious occasion".

He said it had been his privilege to lead "this great university" since the departure of former vice-chancellor Professor Roy Sharp last year, and he wished Dr Carr well.

"The burden of responsibility now falls on our shoulders to make you feel welcome," he said. Professor Town noted the timing of the powhiri so close to Waitangi Day.

"It is lovely that today's powhiri follows directly on," he said.

UC Assistant Vice-Chancellor (Māori) Sir Tipene O'Regan spoke of his satisfaction and pride in Dr Carr's appointment.

"It is a great joy that the University has chosen you. I wish you well for a long and successful term as vice-chancellor of this University."

Dr Carr thanked the University for the opportunity to be Vice-Chancellor.

"It is a position of significant responsibility and leadership."

He committed the University to fostering curious minds and building the pool of learning, and protecting those with the desire to stand up for their beliefs.

"I look forward to this opportunity to lead," he said.

The powhiri was followed by a light lunch in the Central Lecture Block.

Later in the day Dr Carr hosted a social function for professorial staff and the following day he hosted a function for SMT members, heads of departments and schools, and deans.

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Exercise an opportunity to test emergency preparedness

A mass shooting at University Hall was the scenario for a major emergency response exercise late last year.

The exercise was part of the University of Canterbury's emergency response planning. It was organised in conjunction with the New Zealand Police, St John, Campus Living Villages and the independent halls of residence.

Observers from other universities, halls, and schools within Christchurch were invited to observe the exercise for their own benefit.

The scenario involved three armed offenders shooting staff and students within the University Halls complex. Members of the Armed Offenders Squad played the three offenders, with 20 student actors playing traumatised victims and witnesses. Security and uniformed police officers provided the initial response, followed by an Armed Offenders Squad response. The scenario included several fatalities.

UC's Policy and Risk Manager Jacqui Lyttle said the emergency planning team was keen to involve external response agencies in a campus exercise, not only to strengthen relationships but to enhance capabilities and test communication strategies.

"The purpose of the exercise was to allow the University's emergency response, strategic and communications teams to work through the issues the University might face if such an event occurred on campus."

The November exercise followed a smaller



UC student Mike Petas (right) and Armed Offenders Squad members pictured during the emergency response exercise at University Hall late last year.

scale exercise earlier in the year in which the scenario was an earthquake affecting the University's Science Lecture Block.

Ms Lyttle said the exercise exposed weaknesses, as expected, which the University would address in its ongoing emergency planning.

"It gave us confidence that we have a dedicated team working with a tested plan. Going forward, we are committed to pushing the envelope and being a leader within the

New Zealand tertiary sector in the realm of emergency preparedness."

The University's efforts have already been recognised nationally. Last year Tai Poutini Polytechnic and the Emergency Management Academy of New Zealand (EMANZ) named UC the Organisation of the Year for its emergency response planning. The award recognises excellence in the emergency management sector.

Chronicle

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Geospatial Research Centre spreads its wings

The Geospatial Research Centre (GRC) has opened a new branch office in Wellington, introducing the capital to a plethora of ground-breaking technology and innovative gadgets including virtual and robotic aircraft.

Founded in 2006 with the active support of the University of Canterbury, the University of Nottingham (UK) and Canterbury Development Corporation, GRC is based at the New Zealand ICT Innovation Institute (NZi3) at Canterbury University. The new Wellington office is located at Victoria University.

The GRC team comprises experienced research scientists, engineers, and embedded PhD and graduate students able to support a range of geospatial technologies and disciplines including positioning and orientation, imaging and image analysis, communications and signal analysis, Geographic Information Systems, and both manned and unmanned aerial vehicle systems.

In the last two years, GRC has secured more than \$1.1 million of research and development contracts from commercial organisations in

New Zealand, the US and UK including Defence Technology Agency, NZ Post, Race Technology, Rakon, Sonardyne, Tait and Trimble.

In addition to the ongoing provision of contracted research and development services, 2009 will see the launch of the first commercial products and services developed by GRC including cost-effective aerial mapping services, integrated airborne mapping hardware systems and an innovative flight replay system for general aviation.

CEO Dr David Park said he was delighted to open GRC's first branch office in Wellington.

"The GRC team, which has grown significantly in the last two years, is looking forward to actively engaging with a range of organisations and opportunities in the wider Wellington region, especially in the areas of disaster management and advanced video analysis," he said.

"I am very grateful for the support we have received so far from Grow Wellington and Victoria University which have been a great source of encouragement and support."

Document navigation tools bring accolade for UC researcher

A Canterbury University computer scientist has received recognition for research aimed at making human-computer interaction more efficient and user-friendly.

Professor Andrew Cockburn (Computer Science and Software Engineering) was recently awarded the Chris Wallace Award for Outstanding Research Contribution by the Computing Research and Education Association of Australasia. The announcement was made at the 2009 Australasian Computer Science Week conference held at Te Papa, in Wellington, from 19-23 January.

Named after Australian computer scientist Professor Christopher Wallace, the annual award recognises work undertaken by an academic for postdoctoral research in a New Zealand or Australian university or research institute. The 2009 award is for work carried out between 2005 and 2007.

The award acknowledged a suite of work Professor Cockburn undertook on human-computer interaction, particularly in the development of improved user interfaces for document navigation.

“People spend a lot of time navigating through documents on computers and the scroll bar is accepted as the be-all and end-all in navigation tools,” Professor Cockburn said.

“But we think we can do better than that so we’ve been looking at user interfaces that can help people navigate better, and we’ve been doing that by understanding what users do and using that understanding to design and construct user interfaces that do the job better, then testing those interfaces in a realistic manner.”

Working with colleagues and students in the Computer Science and Software Engineering department, the navigation tools Professor Cockburn has been involved in developing include a speed-dependent automatic zooming tool, which zooms out from documents when the viewer is scrolling quickly, helping users navigate documents more easily; a footprints scroll bar which captures images of pages viewed for a certain amount of time, creating automatic bookmarks allowing the viewer to scroll back to previous pages easily and quickly; and spatially consistent overview thumbnail zones, which give an overview of all open documents, negating the need for users to search through minimised windows in the task bar or search through open files on the desktop.

Professor Cockburn said the research involved in developing the footprints scroll bar would be presented to the 2009 CHI (Human Factors in Computing Systems) Conference in Boston



Professor Andrew Cockburn with his Chris Wallace Award for Outstanding Research Contribution.

in April. A paper on the project, written by PhD student Jason Alexander, who was involved in developing the system, won the best student paper award at the 2008 Graphics Interface Conference in Canada last year.

Women’s involvement in sport focus of new book



(From left) Dr Jan Cameron, Dr Camilla Obel and Roslyn Kerr with their book *Outstanding*.

Three Canterbury University sociologists have played their hand in the production of a book which recognises both women’s sporting achievements and research on women and sport in New Zealand.

Outstanding: Research about women and sport in New Zealand was published late last year by the Wilf Malcolm Institute of Educational Research at the University of Waikato with support from Sport and Recreation New Zealand.

Dr Camilla Obel (Social and Political Sciences) co-edited the book with Waikato University’s Dr Toni Bruce and retired sport sociologist Dr Shona Thompson, and co-authored a chapter in the book that looks at gender contradictions

and ambiguity in women’s bodybuilding across two decades.

Dr Obel said the volume brought together the work of both emerging and established researchers in New Zealand and was the first of its kind providing, in one collection, research on women in sport in this country.

“There is a big gap to be filled regarding social analysis of women in sport. We hope this contribution goes some way to help fill this void but, equally important, we hope it will inspire others to add to this body of knowledge,” Dr Obel said.

Outstanding adopts a critical perspective investigating the constraints and successes that New Zealand female athletes have faced.

“The book highlights these outstanding individuals and groups while also pointing out the obstacles they continue to face. With so little media coverage, as revealed in Dr Bruce’s chapter, many of these outstanding athletes and their performances are not known outside of their individual sports,” said Dr Obel.

The book explores women’s experiences in sports as diverse as netball, snowboarding, rugby, bodybuilding, soccer, hockey and rhythmic gymnastics and the topics covered include femininity, ethnicity, ageing, motherhood, leadership, men’s and

women’s perspectives of women’s sport, and media coverage.

Lecturer Roslyn Kerr (Social and Political Sciences) and Assistant Vice-Chancellor (Academic) Dr Jan Cameron contributed chapters on the “hyper-feminine” sport of rhythmic gymnastics and gender suppression in senior sports management respectively.

Dr Cameron said the book would give some legitimacy to serious research of women’s sports interests.

“When I started out in this field in the late 80s research on women in sport was not treated as a legitimate area in which to research. Research on sport in New Zealand in general was not regarded particularly seriously in academic circles, particularly on social aspects,” Dr Cameron said. “The lessons learned from the chapter about the impediments to participation of women in sport management are lessons not just for sport but also for other areas where women are continually under-represented.”

- *Outstanding: Research about women and sport in New Zealand*, edited by Camilla Obel, Toni Bruce and Shona Thompson, published by Wilf Malcolm Institute of Educational Research, December 2008, RRP NZ\$39.95, Paperback, 261pp, ISBN 0-9582504-2-1.

Hearing loss no barrier to success



Canterbury University masters student Natasha Barnes (above) has been awarded a \$15,000 scholarship by the National Foundation for the Deaf (NFD).

Natasha, who has hearing loss in both ears, is the 2008 recipient of the foundation's Quest for Excellence Scholarship which recognises deaf or hearing-impaired people who have overcome the odds to achieve excellence. It is aimed at those undertaking postgraduate study.

Natasha, who has an honours degree in diplomacy and international relations under her belt, is currently studying towards an MA in political science. Her thesis is on the diplomatic strategies employed by middle power states, such as Canada, Japan, Norway and New Zealand, as leaders in the field of disarmament.

"I believe we can ensure our world's safety without excessive military spending and, with greater multilateral co-operation, it would be possible to ban specific types of weapons which create horrific humanitarian consequences. Land mines, cluster munitions, chemical and biological weapons have destroyed many lives. Nuclear weapons are very much still a huge threat and it is a massive challenge to strive for complete disarmament but I hope to play a part in making this a reality," she said.

Natasha plans to use the scholarship to help pay course fees as well as contribute towards a research trip to interview policy makers in Canada, Japan and Norway.

"I am thrilled to be the recipient of the Quest for Excellence Scholarship. It will really help to open a lot of doors in terms of enabling me to

meet key people face-to-face and add depth to my research," Natasha said.

Natasha, now 23-years-old, was four when a trip to the doctor uncovered her hearing loss, possibly caused by an ear infection. She spent her childhood struggling to hear but ignored the issue.

"Because I was so stubborn I refused to wear hearing aids. It meant I had to work a lot harder to hear, understand and make sure that I did not miss out on anything, which was tiring and often embarrassing. A lot of people thought I was just 'a bit blonde,'" she said.

It wasn't until Natasha reached university that she realised large lecture theatres, conferences and presentations were a real issue and she could not afford to miss out on anything. She finally relented and was fitted with hearing aids.

"My hearing aids have been fantastic.

Everything is a lot sharper and clearer. It has made my life easier."

Late last year she was one of two UC students invited to take part in the eighth meeting of the Council for Security Cooperation in the Asia Pacific Study Group on Countering the Proliferation of Weapons of Mass Destruction, held in Thailand.

She said her goal was to eventually obtain "real-world" experience in the diplomatic field before returning to university to complete a PhD with a view to lecturing in her chosen field.

Marianne Schumacher, Executive Manager of the NFD, said Natasha was a fantastic role model for the 450,000 New Zealanders with hearing loss.

"Natasha is a very talented woman who must be applauded for overcoming a number of obstacles to get to where she is today," Ms Schumacher said.

UC research set to cut noise levels on frosty vineyards

UC engineers are helping those living close to vineyards sleep a little easier.

Dr John Pearse and the Acoustics Research Group (Mechanical Engineering) have been developing a new low-noise, high-performance blade to reduce the noise from frost reduction wind machines in vineyards.

"The noise has been a very contentious issue for neighbouring residents, so we have worked to reduce the noise levels of the wind machines."

Currently, FMR Group Ltd imports wind machines from the US that are placed among vines to help prevent frost at the critical grape bud stage. The wind machines, which are spaced at one per six hectares, draw down the warmer air above the ground preventing cooler air from settling and causing frost damage.

One frost could destroy an entire crop making the wind machines very important, Dr Pearse said. "But so too are the people who live nearby."

By measuring and analysing the noise from the existing wind machines in the vineyards and in the mechanical engineering labs, Dr Pearse and the research group came up with a prototype blade that reduced the noise by 10 decibels, and that was significant, he said.

"The motor was easy to cut noise down on, but we have had to redesign the blades."

The two-year research project carried out with FMR Group has resulted in a new six metre blade that is much wider and has a more aerodynamic shape compared with the aluminium blades currently used which are of the same length. The new blades are constructed from composites.

"We have now tested the new blades, verified that they produce more thrust, checked out

the noise levels, addressed the mechanical design and have made the prototypes. We have increased the air-moving performance as well as cutting the noise by 50 per cent."

The new technology has created an opportunity to retrofit existing machines with the new blades, which was exciting, Dr Pearse said. "Hopefully they will become standard as they will be much quieter, which makes everyone happy."

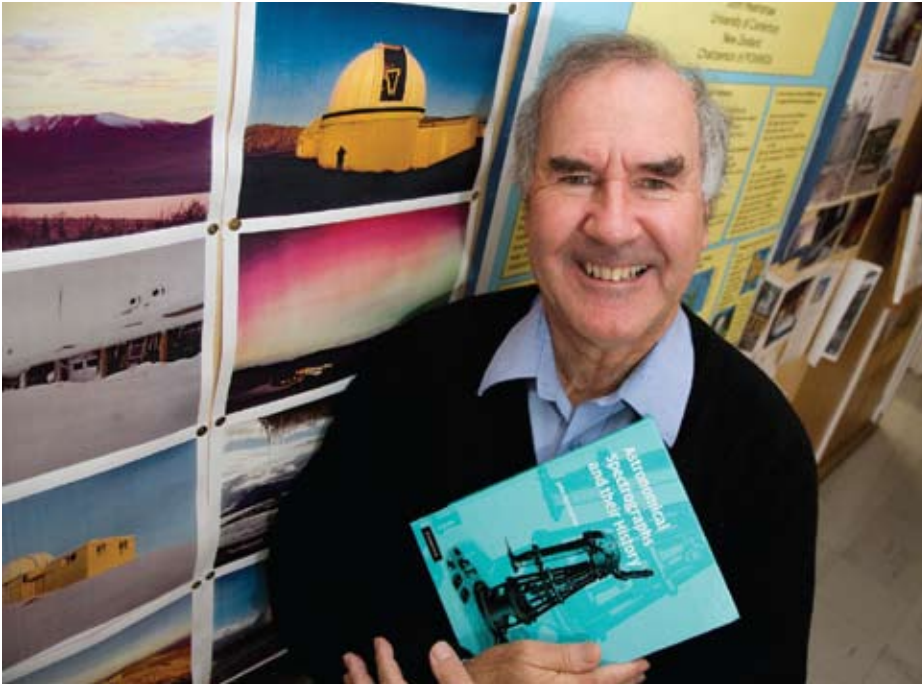
Currently, there are two prototype machines operating at a vineyard in Marlborough and Dr Pearse is working with the Marlborough District Council to verify noise levels before the 2009 frost season starts.

"We are very positive about the contribution we can make to the environment in Marlborough as well as helping the FMR Group provide growers with improved equipment."



Dr Michael Kingan (front) looks at a wind machine blade with research engineer Brian Donohue (back left) and Dr John Pearse.

Hearnshaw joins blogisphere for International Year of Astronomy



Professor John Hearnshaw is spreading the word about his latest book via his Cosmic Diary blog for the International Year of Astronomy.

University of Canterbury astronomer Professor John Hearnshaw is boldly going where he has not gone before in cyberspace.

Professor Hearnshaw (Physics and Astronomy) is one of 27 astronomers from around the world selected to write a regular blog during the International Year of Astronomy (IYA2009).

IYA2009 is a global celebration of astronomy and its contributions to society and culture, and marks the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei. Organised by the International Astronomical Union (IAU) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the aim of the year is to stimulate worldwide interest, especially among young people, in astronomy and science under the central theme “The Universe, yours to discover”.

The *Cosmic Diary* blog is one of 11 “cornerstone projects” planned for IYA2009. Its aim is to put a human face on astronomy, with the professional scientists blogging in text and images about their life, family, friends, hobbies and interests, as well as their work, latest research findings and the challenges they face.

Professor Hearnshaw, who posted his first blog on 1 January and has made posting a new blog a weekly Thursday occurrence, said blogging was a refreshing change from academic writing.

“It’s great fun. There are no referees and you get comments from people on your blogs and it is fun corresponding with your readers,” he said.

To date the novice blogger has written about how he got into astronomy, the value of astronomy, Mt John Observatory, the astronomical heritage of New Zealand and even the science of croquet.

He has also written a blog to coincide with the February launch of his latest book, *Astronomical Spectrographs and their History*. The book, published by Cambridge University Press last week, covers both the theory and history behind the instrument designed to analyse starlight and is the culmination of 12 years’ work, drawing on research Professor Hearnshaw conducted in five top observatory libraries around the world during two study leaves. The libraries were located in Cape Town, South Africa; Potsdam, Germany; Victoria, Canada; Lund, Sweden and the Vatican Observatory in Castel Gandolfo, Vatican City State.

He found he had no shortage of ideas for blog material.

“I’ve found I can knock off these articles in half an hour. I wrote a list of 50 possible topics at Christmas time and have already written about a dozen so I have several stored up waiting to publish. I write about interesting things either happening now or that have happened in recent years. I’ve travelled to quite a few way-out places — Mongolia, Cuba, Uzbekistan, Trinidad and Laos to name a few — and I am travelling quite a bit this year while on study leave so I will certainly write about many of these places in future blogs.”

Professor Hearnshaw said there was a vibrant cross-section of working astronomers participating in the initiative but, in general, most were much younger than himself.

“Most are PhD students or those who’ve recently finished their graduate studies, with an average age of about 30. After being in this game for 40 years I’ve seen a few things so I think I can write from a different perspective based on experience. I don’t know if that’s

necessarily wisdom though,” he said.

In addition to the online blogs, each blogger has been asked to write a short feature article to explain a particular aspect of their work for the public in popular language and the result will be a 24-chapter *Cosmic Diary* coffee table book as a lasting legacy of the project. Professor Hearnshaw’s chapter, which he has written, is on life at his home university observatory, Mt John, which he believes to be “the most beautiful and inspiring” of all the astronomical observatories he has visited.

You can read Professor Hearnshaw’s weekly blogs at www.cosmicdiary.org/blogs/john_hearnshaw and find out more about local IYA2009 events at www.astronomy2009.org.nz.

- *Astronomical Spectrographs and their History*, features on the Cambridge University Press website at www.cambridge.org/uk/catalogue/catalogue.asp?isbn=9780521882576.

Adjunct appointments

The following have had their adjunct appointments renewed: **Dr Antje Linkenbach-Fuchs**, adjunct senior fellow (Social and Political Sciences); **Professor Serge Tcherkezoff**, adjunct professor (Macmillan Brown Centre for Pacific Studies, Social and Political Sciences); **Dr David Robinson**, adjunct senior fellow (Mathematics and Statistics); **Dr Darren Walton**, adjunct senior fellow (Psychology); and **Alistair Jerrett**, adjunct senior fellow (Biological Sciences).

All appointments are for a three-year term.

UC welcomes new staff



Dr Dirk Pons has been appointed Senior Lecturer in Manufacturing in the Mechanical Engineering Department. Dr Pons has a background in mechanical and biomedical engineering with experience in

commercial engineering design, research and development, teaching and management. He has a PhD in mechanical engineering from UC, an MSc Medicine (Biomedical Engineering) from the University of Cape Town, South Africa, and a BScEng (Mechanical) from the University of Natal. Prior to taking up his position at UC Dr Pons was head of the Engineering School at the Christchurch Polytechnic Institute of Technology.

Secondary students enjoy peek into the world of tertiary science



MacDiarmid Discovery Award recipients (from left) Ben Jones, Kate Tarawhiti and Jardin Rose get to work in a chemistry laboratory at UC under the guidance of their mentor, chemistry PhD student Andrew Gross.

Three Year 13 students from Canterbury and the West Coast have had the door to a world of opportunities in science opened up to them during a summer internship at the University of Canterbury.

Kate Tarawhiti (Christchurch Girls High School), Ben Jones (St Bede's College) and Jardin Rose (Buller High School) were recipients of the inaugural MacDiarmid Discovery Awards.

The awards, funded by the MacDiarmid Institute for Advanced Materials and Nanotechnology, are targeted at senior high school students of Māori and Pacific heritage. They aim to nurture an interest in science, expose pupils to possible career options and encourage them to undertake tertiary studies in the sciences. The awards are worth \$1000 each, plus flights and accommodation.

Nationally, five Discovery Awards were given out this round with the other two recipients based at the MacDiarmid Institute at Victoria University in Wellington.

The South Island awardees' programme began with a day visit to the institute in the capital in December, followed by three weeks working alongside academic staff and postgraduate students in the Chemistry, Physics and Engineering departments and MacDiarmid Institute at UC during January.

The programme ended with their attendance at the MacDiarmid Institute for Advanced Materials and Nanotechnology conference, AMN-4, in Dunedin last week where they got to listen to such speakers as Nobel Prize winning chemist Professor Harold Kroto.

Kate, who is Christchurch Girls High School head girl for 2009, said the Discovery Award experience had been brilliant and the physics week was a particular highlight with her because of "all the cool machines".

Ben said that the experience had resulted in him adding chemistry to his list of medicine

and engineering as possible tertiary study options.

"I hadn't even considered that as an option before this but I really enjoyed it and learned a lot during the chemistry part. It was great

to work in the lab and see what it is like to do actual research," he said.

Jardin said his highlight was "being in a university for the first time and seeing what it's really like to do research and use all the awesome equipment".

"I knew I wanted to major in chemistry when I came to uni but this experience emphasised that even more and boosted my interest in physics too," he said.

All three students said it was great to familiarise themselves with the University environment which would make it "less scary" when they enrolled.

MacDiarmid Institute Director Professor Richard Blaikie said the programme had been a great success.

"It's been a wonderful experience for me and I'm sure the students have had a good time too. They've been very enthusiastic and it's opened up my eyes again to being a young person and the wonder they see at being in a lab, with all its equipment new to them, and the joy they take from things we take for granted and that we do everyday."

Awards open up overseas opportunities for students

A record 14 Canterbury University students have received a New Zealand Postgraduate Study Abroad Award (NZPSAA).

The awards, funded by the New Zealand Government and administered by Education New Zealand, are available to postgraduate students whose research would benefit significantly from a short-term period of study or research abroad. The awards have a value of up to \$10,000.

NZPSAA recipient and UC PhD student Sarah-Jane O'Connor (Biological Sciences) is going to travel to Seville, Spain, to work with Dr Pedro Jordano of the Spanish Council for Scientific Research (CSIC). She will undertake a field project comparing the roles blackbirds and thrushes play as seed dispersers in Spain and New Zealand. The two species introduced to New Zealand in the 1800s are native to Spain.

"Dr Jordano has been a major researcher in seed dispersal for the past few decades — he pioneered the genetic technique I am using to assess seed dispersal of matai *Prumnopitys taxifolia*, a native podocarp. I will also have access to some of their laboratory equipment to fine-tune the genetic data I am working on this year.

"Without the NZPSAA I would probably be paying for the trip myself. The award allows me to focus on other factors of preparation instead of worrying about funding."

Having the opportunity to work with Dr Jordano is very beneficial, Sarah-Jane said. "I'm

really looking forward to meeting and working with him. He will be a great aid to the strength of my PhD, my understanding of the field I am working in, and my future career as a scientist.

"The NZPSAA a great award, providing very real opportunities for postgrads and New Zealand research in general."

The other UC recipients are: Payel Bagga, Barbara Garrie, Patrick Geoghegan, Patrick Kailey, Seyed Razavy Toosi, Natrah Binti Saad, Martin Wallace, Kelvin Walst, David Wojtas, Avitus Agbor, Tom Botterill, Jaco Fourie and Mark Hamilton.



NZPSAA recipient Sarah-Jane O'Connor.

UC-business collaboration creates show-stopping roof rack system

Low-noise roof racks designed with the help of UC mechanical engineers have won a green award at Automechanika in Frankfurt and an International Forum (IF) 2009 product design award.

Hubco has been making roof carrier systems in Christchurch for 30 years and, wanting to meet the requirements of the major car companies, approached UC's Mechanical Engineering Department for help with reducing the noise generated by the roof racks. The result is the revolutionary Whipbar technology, which is a wing-shaped roof rack crossbar.

The roof racks were chosen to appear in the *Green Directory* at Automechanika because its shape reduces noise and fuel consumption. The *Green Directory* is a guide to those exhibitors at the show which are making a contribution with emission-reducing and sustainable products, services and processes.

Only 25 products and services were selected for the *Green Directory* so it was a "huge bonus to be chosen", said Chris Angove, Hubco chief operating officer.

"Because the design of the bar creates 70 per cent less drag, eliminating wind noise and reducing fuel consumption, we are ahead of our competitors. Thanks to the University we are able to offer our customers a quieter roof rack, which is what they wanted."

To demonstrate the low noise to visitors at Automechanika, Dr John Pearse (Mechanical Engineering) worked with Hubco engineers to design and construct a portable wind tunnel that was made in Christchurch and transported to the Frankfurt exhibition. The wind tunnel is a smaller version of the one in the mechanical engineering laboratory and can produce wind speeds up to 160kph. It circulates air (wind) through the tunnel at a designated speed that passes over the various roof rack bars to demonstrate how much noise each generates, which is then displayed on a screen. The Whipbar was consistently the quietest.

"As a consequence of the design of the wind tunnel and the aerodynamic Whipbar roof rack we had a lot of interest on the stand, both of which can be attributed to research at the University," said Mr Angove.

When Hubco contacted Dr Pearse for research collaboration they developed an understanding of the noise generation mechanisms and then went on to use this knowledge to develop a quiet shape which is currently being supplied for a variety of vehicles.

"We worked out what the significant parameters were and we worked out a quieter roof rack with Hubco engineers through several postgraduate projects with support from Foundation for Research Science and Technology through Technology NZ. The last



(From left) Chris Angove, Dr John Pearse and Dr Michael Kingan look at Hubco roof racks.

project looked at the nature of the noise from the cavity that is required to fit accessories like a cycle holder or roof box," Dr Pearse said.

"We initially studied the wings of owls which fly very quietly and over time modelled and perfected the shape to what it is today. The results show that it is a very low-noise roof rack and that is what Hubco set out to achieve. This is a really innovative New Zealand business that we have been pleased to work with."

Hubco also won an IF 2009 product design award and are the only roof rack manufacturer to have won such an award.

"We are very pleased with this award," said Mr Angove. "This could not have been achieved without the research work done by the University."

"Untold hours were put in by postgraduate Michael Kingan and Dr John Pearse of the UC Engineering School. Breakthrough results like this don't come from textbooks. Three years work involving a combination of complex modelling and real wind tunnel experimentation has produced a product unsurpassed anywhere in the world."

UC continuing education course receives award

A UC Community Education course on climate change has received an Outstanding Course Award.

The award was presented at the University Continuing Education Directors' Annual Conference (Australia and New Zealand) held in Auckland recently.

The Climate Change Series: Science, Solutions and Consequences was selected as the winner of the Community Continuing Education section for being highly topical, of immediate importance, multidisciplinary, and for fostering community engagement and debate said Continuing & Bridging Education Director Dr Liz Tully.

The course involved a set of seven evening lectures covering different aspects of climate change from a variety of mainly scientific perspectives. It concluded with an open public forum in which participants could engage with the presenters and challenge their views.

"Climate change is a subject that people are interested in and want to be better informed about," said Dr Tully.

"This series presented a range of arguments about climate change and the scientific evidence used to support them. People had a

chance to hear the arguments and then debate with the academics and each other."

The awards were initiated by the continuing education directors to recognise outstanding and exemplary practice; to stimulate reflection, discussion and collaboration; and to encourage professionalism and innovation.

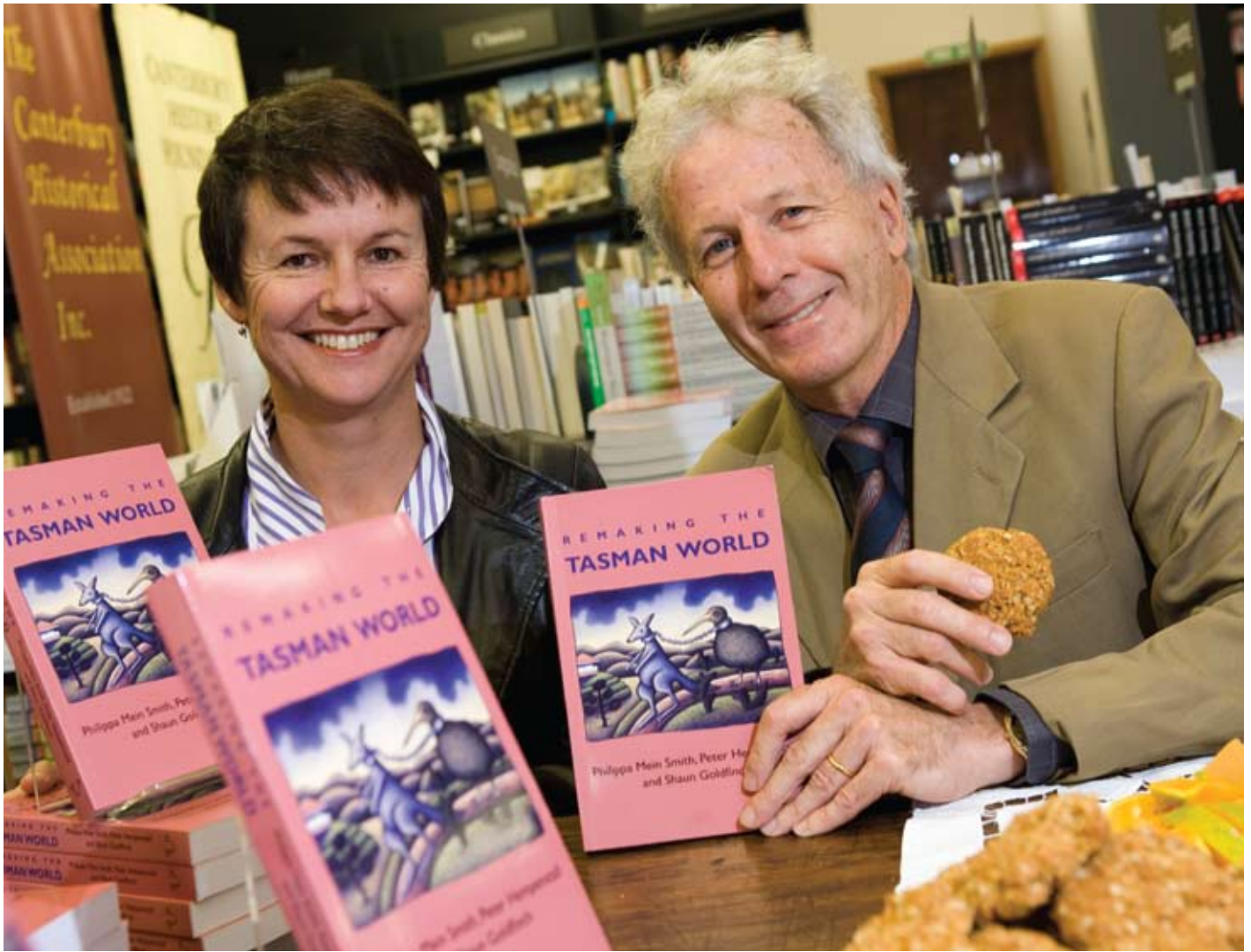
There are three award categories: Community Continuing Education, Professional Continuing Education, and University Preparation/Bridging. UC also had a nomination in each category with OPUS Project Management (offshore) in the Professional Continuing Education section, and Environmental Studies in the University Preparation/Bridging section.

The quality of all the nominations was extremely high and judging was not easy, Dr Tully said.

"The panel had to consider 'fitness for purpose', which means the extent to which the course addresses demonstrated needs and ensures quality learning outcomes, innovation and originality, and any 'outstanding' aspects.

"As directors, we agreed that the awards were an excellent catalyst for highlighting some of the exciting programme initiatives taking place in our various departments," said Dr Tully.

New book offers a shared history for Tasman neighbours



Professor Philippa Mein Smith and Emeritus Professor Peter Hempenstall celebrate the launch of *Remaking the Tasman World* with a true trans-Tasman symbol – the Anzac biscuit.

The multiple ties that bind Australia and New Zealand together are explored in a newly published book from Canterbury University Press.

Remaking the Tasman World, by University of Canterbury historians Professor Philippa Mein Smith, Emeritus Professor Peter Hempenstall and former UC lecturer Shaun Goldfinch, now Associate Professor at Nottingham University Business School, explores New Zealand's most important and extensive relationship – with Australia – on a variety of levels.

The authors present a combined narrative about a “Tasman world”, a working region defined by a history of traffic in ideas, policies, objects and people. The book focuses on myriad “communities of interest” which have spanned the Tasman Sea for more than 100 years, yet have largely been ignored by national histories.

From early maps of Australasia to accounts of shared state experiments, of a trans-Tasman business world, sport and Anzac bonds, the authors have unearthed a common past and reordered it. They also look forward to postulate what the relationship might look like in the future.

The book also contains a chapter on the trans-Tasman defence and security relationship written by Stuart McMillan, adjunct senior fellow in the School of Social and Political Sciences at UC, and Canterbury PhD candidate Rosemary Baird co-wrote a chapter analysing the nations' sporting rivalries. A chapter on the cartoon history of the relationship illustrates the playful banter Aussies and Kiwis engage in. Professor Mein Smith said the audience for the book was the general reader interested in Australian and New Zealand history, undergraduate university students studying history and political science especially, the public policy community on both sides of the Tasman, and people such as herself and co-authors who consider themselves “trans-Tasmanites”.

Professor Mein Smith said the biggest challenge of the research for the transnational history was tracing and interpreting all the diverse links between New Zealand and Australia.

She said racehorse Phar Lap provided historians with the ultimate symbol for the Tasman world.

“He embodies the trans-Tasman story and how it's been dismembered by nationalism. We've

literally had to piece the story back together like Phar Lap whose hide is in Victoria, heart in Canberra and skeleton on display at Te Papa in Wellington.”

Remaking the Tasman World is the first major output of the New Zealand Australia Research Centre (NZARC) at the University of Canterbury, of which Professor Mein Smith is the director. Research for the book was funded through a grant from the Marsden Fund of the Royal Society of New Zealand for the multi-year project, Anzac Neighbours: 100 years of multiple ties between New Zealand and Australia. Funding and support was also received from the New Zealand Ministry of Foreign Affairs and Trade and from the University of Canterbury.

Remaking the Tasman World was launched on 13 February at the University of Canterbury's University Bookshop (UBS) by Vice-Chancellor Dr Rod Carr.

- *Remaking the Tasman World*, by Philippa Mein Smith, Peter Hempenstall and Shaun Goldfinch, published by Canterbury University Press, January 2009, RRP NZ\$39.95, Paperback, 152 x 228 mm 296 pp + 16pp colour illustrations, ISBN 978-1877257-62-9.