

Tāmaki Update

March 2012
A newsletter for
Tāmaki Innovation
Campus

Sport and Exercise Science clears final hurdle to new home



Professor Greg Anson (right) with Bruce Rattray, Department Manager

Ask Sport and Exercise Science head of department, Professor Greg Anson, what's good about their brand new research and teaching laboratories and the answer's "everything".

For the Department, it's nearing the end of a year-long rehousing exercise, which has seen it move from Building 734 to take up a place in the Health Innovation cluster

in Building 731 adjacent to the School of Population Health.

While the floor area is similar to 734, any resemblance internally is not, with good design creating more room and a working environment billed as state of the art. Previously, access often created issues, but the new building provides a more logical layout and is organised by research sector.

And, although movement neuroscience, exercise neurometabolism, exercise biochemistry and exercise physiology have unique research needs, access between the labs is significantly improved, with researchers no longer needing to transit teaching labs to get to their research projects.

Professor Anson explains the interior was completely gutted - back to its bare bones - and a new research suite built after intense and lengthy involvement with consultants, architects, engineers and, importantly, academic staff.

While many of us regard air conditioning as a 'nice to have', for Sport and Exercise Science it is top of the 'must have' list.

"For example, the testing in the movement neuroscience lab requires a relatively constant air temperature, whereas scientists investigating individuals exercising, say on treadmills or bikes, need to be able to replicate specific environmental conditions," he says. Previously, although temperature and humidity could be measured, they could not be controlled and this significantly limited the design of physiological experiments.

Another advantage of the move, says Professor Anson, is "proximity makes our ongoing collaborative studies with colleagues in the School of Population Health easier, such as the Clinical Trials Research Unit and the Vitamin D study".

Academic and administrative staff moved in November and the research labs are currently in the final stages of unpacking equipment, calibrating and retesting, as well as checking every electrical outlet and computer port - typical teething issues for an infant laboratory.



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Message from Pro Vice-Chancellor Tāmaki Innovation Campus

Dear colleagues

It is very pleasing to see the level of academic achievement at the Tāmaki Innovation Campus, which has seen 2012 kick-off to an impressive start. First of all I would like to extend my congratulations, together with those of the Campus community, to Toni Ashton, Health Systems, who has been promoted to Professor. There have been three promotions to Associate Professor: Suzanne Barker-Collo, Psychology; Janet Fanslow, Social and Community Health; and Ralph Maddison, Clinical Trials Research Unit. Congratulations to you all. Last, but not least, congratulations also go to Associate Professor Papaarangi Reid, Te Kupenga Hauora Māori, a member of the Faculty of Medical and Health Sciences team that won The University of Auckland Teaching Excellence Awards 2011 for Collaboration in Teaching. These are extremely significant achievements that reflect well on the high quality of research and teaching taking place at Tāmaki.

I would particularly like to mention Debes Bhattacharyya, who has recently been appointed to the rank of University Distinguished Professor. Professor Bhattacharyya's impressive career and outstanding reputation, both in New Zealand and internationally, is a credit to his ability as an engineer, researcher and contributor to the community. He is an extremely valued colleague in the Faculty of Engineering and the Tāmaki Innovation Campus.

You may have noticed the building work currently taking place next to Café Zestys - this is the new data centre, an exciting development which will put The University of Auckland at the forefront of IT infrastructure in New Zealand. There are two important elements to the Tāmaki Data Centre. Firstly, it will act as a disaster recovery backup to the City Campus data centre. Secondly, the supercomputers used by New Zealand's National eScience Infrastructure (NeSI) will be based at the Tāmaki Data Centre allowing for growth and expansion to meet the needs of researchers. This is a very exciting development for research across New Zealand.

I am pleased to announce that this year I am introducing the Pro Vice-Chancellor Tāmaki Innovation Campus Seminar Series. The Seminar Series speakers will present on topics that are aligned to the strategic plan for the Tāmaki Innovation Campus. The seminars are intended to be at the cutting edge of their discipline in their material but also accessible to an "educated general audience". The purpose of the seminars is to allow colleagues from across the Campus to understand what research is being conducted in the different disciplines represented at the Tāmaki Innovation Campus and, perhaps, spark new interdisciplinary activity. The first seminar is to be presented on 18 May by Professor of Nutritional Ecology, David Raubenheimer from Massey University. I am sure you will find this a fascinating insight into his area of expertise. Look out for an invitation to Professor Raubenheimer's seminar and information about future seminars across the year.

Best wishes

Professor Michael C.R. Davies

Pro Vice-Chancellor Tāmaki Innovation Campus



Telehealth "call to arms"

A "call to arms" has been issued at the Telehealth Symposium held recently at the Tāmaki Innovation Campus, and it is evident that telehealth has risen to the top of the health agenda given the level of interest shown.

Hosted by Health Informatics New Zealand (HINZ), the School of Population Health and the newly formed New Zealand Telehealth Forum (NZTF), the programme included high-profile, globally recognised experts in telehealth, as well as local researchers and practitioners.

Professor Richard Wootton, editor of the Journal of Telemedicine and Telecare, shared his wealth of experience and research findings via the KAREN network from Norway. Graeme Osborne from the National Health IT Board discussed the imperative for widespread adoption of telehealth to meet a range of needs including clinical care and workforce development.

Throughout the world, the use of telehealth is growing in support of integrated healthcare, empowering patients and bringing health "closer to home". Telehealth uses ICT to deliver healthcare where patients and care providers are separated by distance, and has the potential to reduce demand for high cost services and improve the healthcare of those with long-term conditions.

Malcolm Pollock, Director of the National Institute for Health Innovation and interim chair of NZTF, says that ICT can and should be utilised as a disruptive force.

He says, "Unlike most industries, to date ICT in health has largely been deployed to do more efficiently what has been done traditionally. Increasingly it is being seen as an innovation enabler, changing existing practices and in due course helping transform the landscape of the sector. The jury is no longer out on telehealth - mounting evidence from overseas and New Zealand studies point to its effectiveness as a significant agent of change."

Highest honour to Tāmaki academic



Debes Bhattacharyya with fellow distinguished professors, Jane Harding (middle) and Viviane Robinson (right)

The University of Auckland's most prestigious academic position of Distinguished Professor has been awarded to Professor Debes Bhattacharyya from the Department of Mechanical Engineering and the Director of the Centre for Advanced Composite Materials.

He is the only professor from Tāmaki Innovation Campus and one of 13 across the whole University to receive the honour. The last time these awards were presented was in 2001 when only five were honoured.

The title recognises professors who have achieved international eminence of the highest order in their fields of research and study. Professor Bhattacharyya said he was extremely honoured by the award, calling it "one of the highest possible", and he has received congratulatory messages from friends and colleagues in Australia and the United States.

Professor Bhattacharyya is also the recipient of a number of international, prestigious awards, with several high honours from his homeland, India, including the 'Glory of India'. He has been awarded an honorary 'Doctor of Engineering' (honoris causa) by the University of Southern Queensland, Australia.

At home in New Zealand, he has been given the highest award within

the Institute of Professional Engineering New Zealand (IPENZ), naming him a Distinguished Fellow.

Pro Vice-Chancellor Tāmaki Innovation Campus, Professor Michael Davies, said he is delighted that Professor Bhattacharyya has received this award in recognition of the outstanding work he has done throughout his career.

"Professor Bhattacharyya's reputation reflects not only his outstanding international achievements, but also the work that he has been instrumental in attracting to the Tāmaki Innovation Campus. His reputation as a researcher, teacher and industry leader has helped bring high quality students and academics to the campus, as well as creating excellent linkages with industry. The Faculty of Engineering is extremely lucky to have someone of his calibre."

In presenting the awards, Vice-Chancellor Professor Stuart McCutcheon said, "Our Distinguished Professors are held in high esteem by the scholarly community across the world and we take pride in recognising them in this way. We have some 261 professors in the University, many of them outstanding teachers and researchers. To be named a Distinguished Professor among such company is therefore a truly special achievement."

The Conectus centre combines on campus

A new alliance of four established health-related organisations has formed at the Tāmaki Innovation Campus. All share a passion for improving aspects of health for infants, children, young people and their families, and their synergy will help achieve individual and collective goals as well as making a positive difference to families.

The group, collectively named The Conectus centre, provides a range of services, focussing primarily on the training, support and education of health professionals who work in the community. The centre provides the overarching structure and support for the four organisations.

The Immunisation Advisory Centre provides immunisation advice to the public and professionals, information and training for health professionals and research into many aspects of vaccines and vaccine-preventable diseases.

TAHA, Well Pacific Mother and Infant Service provide support and services to health professionals who work with Pacific families to improve the health and wellbeing of Pacific mothers and infants during pregnancy and the first year of life.

The Werry Centre for Child and Adolescent Mental Health provides training and workforce development to mental health professionals, promotes research in child and adolescent mental health, advocates for mental health needs of children and adolescents in New Zealand and supports the child and adolescent mental health workforce nationally.

Whakawhetu National SIDS Prevention for Māori is a national kaupapa Māori organisation dedicated to supporting whānau to nurture and protect their babies from the risk of Sudden Unexpected Death in Infants (SUDI) through strengthening the services with which they engage.

The formal launch of The Conectus centre is planned for May.



Fuelled by a driving passion



As a five year old girl, Kayla Craig loved motorsport and told anyone who would listen that she wanted to be a race car driver.

Some years later, and in her third year of a Mechanical Engineering degree at The University of Auckland, Kayla is on the way to achieving her dream of working in motorsport.

Even before enrolling for her course, she had heard about The University of Auckland Formula SAE Team, a project that students work on over and above their

studies and based at Tāmaki Innovation Campus.

That, coupled with the chance to indulge a passion for motorsport, engines and all things fast, as well as studying “anything mechanical”, got the dream underway.

Formula SAE is an internationally-renowned design competition, attracting teams from around the world in the ‘design it, build it, race it’ event. Financial constraints mean The University of Auckland team tend to focus on the Australasian event. Since their debut in

2004, where the team bagged the Best Rookie Award, the 30-40 strong team has consistently placed in the top 10. This year, the team managed its best placing ever, with a creditable fourth, and Kayla got to partially fulfil a childhood dream of driving by being one of the five drivers on the team.

Her official title is Race Engineer which sees her collect and analyse data, but her main contribution is in suspension design and making changes to the car during sessions to improve the handling and performance.

“That work draws a lot from my undergraduate study, but also a huge amount from the rest of the team. I’ve also learned the importance of time management, trying to fit my life into working over 40 hours a week at the workshop (at Tāmaki), as well as studying and doing a part-time job.”

Kayla admits her passion for cars sees her virtually living at the workshop, along with around 10 other die-hard enthusiasts. Despite the time commitment, it benefits her studies by bringing the theory to life in the most exciting way possible.

Working in a predominantly male environment has no fears for Kayla. “I think it’s great; I have a lot in common with them all so it works well, and they treat me like one of the boys. We all have a lot of fun together and of course there are always the jokes, however becoming a driver meant I could silence the ones about women drivers, which is nice.

“A few of them are like brothers to me. There are also four other girls in the team and we get on well. It’s a huge improvement on previous years, where the team would be lucky to have one or two women. We are hoping to increase these numbers again this year.”

At this point, Kayla has few plans to further her education beyond her undergraduate degree. She’s understandably keen to get to work and when she finishes, will be looking for a job in the motor industry in New Zealand.

She says she’d like to end up working in the Australian V8 Supercars series, “but of course, I wouldn’t turn down a job in Formula One.”

Family Violence Clearinghouse leverages on-campus strengths



From left: Gay Richards, Nicola Paton and Associate Professor Janet Fanslow

New Zealand sits around mid-ranking in terms of family violence globally, but changing that is going to need sustained and comprehensive action, says Associate Professor Janet Fanslow.

Family violence is a complex social issue that requires the best quality evidence to inform national efforts to intervene safely and to prevent family violence.

Associate Professor Fanslow is the co-director of the New Zealand Family Violence Clearinghouse (NZFVC), the national centre for collating and disseminating research on domestic and family violence which arrived on campus in March last year.

The move to Tāmaki Innovation Campus recognises the clear alignment between the goals of the Clearinghouse, the goals of the School of Population Health and goals of the wider university. As well as translating knowledge into practice to improve the lives of New Zealanders, the NZFVC relies on academic independence and has the role of being an 'honest broker' of information in a sensitive area.

Associate Professor Fanslow explains, "The Clearinghouse offers a suite of specialist information services to support service users, which include members of the general public, students, practitioners and policy makers.

"And, while the statistics are not encouraging (33% of women will experience violence from a partner in their lifetime), the challenge is to create social change that will go beyond responding to violence after it occurs, to investing in preventing violence before it happens."

Over the past few decades, programmes in the public arena have moved from focusing on the problem to action on prevention. Examples include the Violence Intervention Programme in the health sector, to the public awareness campaign 'Family violence: It's not OK' and a variety of other projects across different sectors. They are, says Associate Professor Fanslow, all world leading programmes, but require good information and evidence, as well as sustained funding investment to help them reach their full potential.

The NZFVC provides a wide range of information from epidemiological, qualitative and evaluation research that informs these and other external programmes. The Clearinghouse also provides information to stretched community organisations who provide front line services, support which is critical in assisting them prepare funding applications, and which can support the development of future programmes.

"Another goal is to foster the growth of the research community in the family violence sector. We believe this is an important part of supporting the good work already being done and enhancing the evidence which will guide future work."

In her 20 years of work in a fairly gruelling area, Associate Professor Fanslow admits she retains 'a profound sense of hope', and has seen phenomenal strides made in New Zealand in gaining recognition of the scale and impact of the problem. "When I first started in the field, it was a subject that was swept under the carpet. Now, if we choose, New Zealand has the potential to lead the world in preventing family violence."

The NZFVC can be accessed at www.nzfvc.org.nz

Tāmaki Data Centre



Construction is well underway on the Tāmaki Data Centre which will act as a disaster recovery backup to the City Campus data centre. It will also house supercomputers for the New Zealand eScience Infrastructure (NeSI), a nationwide supercomputer network designed to support cutting-edge research.



Speech Science complex but growing field



Professor Suzanne Purdy with Liz Fairgray (right)

The Speech Science Group, in the Department of Psychology, is quietly growing. Now in its ninth year, it has grown from 13 to around 60 students and offers postgraduate programmes for researchers and clinicians, including a Master of Speech Language Therapy Practice, and a Postgraduate Diploma, Masters and PhD degrees in Speech Science.

There has been an upsurge of interest not only in the combination of psychology or linguistics with speech science as a career path, but also in understanding what the field entails. Speech Science encompasses speech language therapy and communication science, attracting students with a wide range of backgrounds.

Professor Suzanne Purdy, Head of Speech Science and a clinical audiologist, says historically there has been some misunderstanding of speech science, perhaps based on a simple view of speech language therapy treating stuttering or teaching elocution.

“Speech science is a large and complex field that spans many disciplines. Links between cognitive psychology and current understanding of speech language disorders

make the combination of psychology and speech science particularly interesting and real for our students.”

She believes one reason for the growing success of the Speech Science Group is the advantages in linking psychology and linguistics, already strong areas within the University. This means high quality students are being attracted to this rapidly-developing field.

“There is an advantage for us being at Tamaki and able to work in close proximity to psychology, audiology, optometry and the Centre for Brain Research’s brain recovery clinic. We have excellent research and clinical facilities in The University of Auckland Clinics, and are developing links with AphasiaNZ and other research groups based at Tāmaki.

“The Tāmaki Innovation Campus not only provides comprehensive research and clinical resources, but it is convenient for our clients who might not be able to have the same level of active care if we were based on the City Campus.”

Improving the quality of client care and the learning experiences of students are high on the agenda for the Speech

Science Group, which has just completed a successful pilot of tele-rehabilitation - something Professor Purdy admits the Group is very excited about. This work conducted by the clinical teaching team is led by Clinical Director, Philippa Williams.

“Through this we’ve had students doing therapy using Skype, at a level of intensity not usually possible due to location or simply the difficulties of travel for a person who has had a stroke or who has other mobility difficulties.”

CeleBRation Choir



The CeleBRation choir was created in 2009 by The University of Auckland Centre for Brain Research. It is at the centre of a study led by Professor Purdy, investigating how singing influences the quality of life, mood, voice and other outcomes of choir participants. People who have had a stroke and have aphasia may have problems speaking but can still sing, and people with Parkinson’s disease can experience a progressive decline in their voice. The study is investigating whether singing can ameliorate these changes. It performs Mondays 1.45 to 3.15pm in Room 234, Building 733.