FOREWORD

A warm Pacific welcome to Pacific Voices XII, 2015! This annual event, which has been running for over a decade, showcases research by Pacific postgraduate students. At the University of Otago we are fortunate to have a very talented group of Pacific postgraduates, whose research will make a significant contribution to a range of fields, with widespread application to the Pacific region and beyond. Congratulations to those students whose work features in these Proceedings for the Pacific Postgraduate Symposium. Their research is inspiring, impressive and, importantly, it will make a difference!

The participants of Pacific Voices XII, 2015 are all part of a vibrant graduate research community. These postgraduate students and their supervisors push the boundaries of knowledge, with new ideas, creativity and enthusiasm, and boost the University of Otago’s research achievements and culture.

I am sure that readers of Pacific Voices XII will be impressed and intrigued with the quality and variety of research that is reported in this volume. In 2015 there are over 25 abstracts spanning a range of disciplines across the University. Topics range from bicultural analogies in Harry Potter films, to the sustainability of Pacific mental health services, fisheries development in Kiribati and Tuvalu, and a novel interface for reviewing mobile apps. This is just a snapshot of the presentations that are included in this Symposium.

Geographically, the research being reported includes issues in Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Tuvalu, as well as issues related to Pacific Islanders in Aotearoa/New Zealand.

Finally, on behalf of the University, I would like to thank all those responsible for Pacific Voices XII, and in particular Tofilau Nina Kirifi-Alai, Drs Claire Matthewson, Mele Taumoepeau, Nanai Iati Iati, Rose Richards, Marie Inder, and Ms Clara Pau.

Professor Rachel Spronken-Smith
Dean, Graduate Research School
### CONTENTS

**Foreword:** Professor Rachel Spronken-Smith  
From public awareness to public theology: Response to domestic violence in Samoan society  
*Mercy Ah Siu-Maliko*  
Kinetic studies of bacterial thiol dioxygenases  
*Sekotilani Aloi*  
Organisational sustainability of Pacific mental health services: What constitutes success?  
*Nandika Currey*  
I'm happy and I know it? Exploring links between parent-child reminiscing and children's emotion understanding  
*Shika Das*  
Circumscribing hymnal translation with postcolonial criticism: The language of Samoan hymns and colonialism  
*Olataga Elu*  
Association of melanocortin receptor polymorphisms with gout in New Zealand Pacific, Māori and European populations  
*Tahzeeb Fatima*  
Clinical benefits from a community-based rehabilitation programme for adults with diabetes/prediabetes  
*Chris Higgs*  
Is there an immigrant paradox in the prevalence of mental disorder among Cook Islanders in New Zealand?  
*Jesse Kokaua*  
The Pacific peace paradox: A Samoa case study  
*Michael Fusi Ligaliga*  
Banishment in the light of Jesus’ teachings and practices (Chris Marshall)  
*Selota Maliko*  
Pharmacoepidemiological approaches examining preventive medicines and multimorbidity in older people  
*Sujita W Narayan*  
Exploring community resilience to climate change in Samoa  
*Anita Niusulu*  
SNS (Social Networking Samoans): Exploring the ethnic identities of Samoan Facebook users in Aotearoa  
*Clara Kathryn Pau*  
Archaeology and shell adzes in prehistoric Oceania: A descriptive analysis of a Solomon Islands collection  
*Charles Radclyffe*  
Is genetic programming good at symbolic regression?  
*Aysha Rimoni*  
Effectiveness of New Zealand's Official Development Assistance (ODA), the X-factor for fisheries development: Cases of Kiribati and Tuvalu  
*Kaitoa P Sailusi*
Motivation and burnout in professional Pasifiki rugby players

**Matani F Schaaf** 38

Diet in prehistoric Tonga and Fiji (CA. 750—150 BP)

**Christina Stantis** 40

Mixed blessings: Oral histories of war children born to US servicemen and indigenous Cook Islanders

**Marsa Dodson Stokman** 42

A novel user interface for reviewing mobile apps

**Tavita Su’a** 44

Before CSI: Making the case for a novel portrayal of forensic science

**Vanda Symon** 46

Promoting intrinsic motivation for priority learners’ writing skills within the social sciences

**Kilisimasi Tamua** 48

Bicultural analogies in the Harry Potter film series: Understanding audience engagement through negotiated space in the *Philosopher’s Stone* and *Half-Blood Prince*

**Amie Taua** 50

Barriers and enablers around the transition to university experiences of Pacific students in the Health Sciences First Year (HSFY) Programme at the University of Otago

‘Alapasita Teu 52

Voices of parents: Pacific parents’ views on the role of connectedness and teenagers’ wellbeing

**Kimberly Tuitoga** 54

The effect of remote ischemic preconditioning on cardiac specific microRNAs in the diabetic heart

**Langi Vehikite** 56

A deepening understanding of rehabilitation in the Cook Islands: A participatory action research project

**Rebecca Washbourn** 58

Curation and performance in Selina Tusitala Marsh’s ‘Fast Talkin’ PI’ and Tusiata Avia’s ‘Alofa’

**Bradley Watson** 60

*Profiles*

**Guinevere Alai** (Education)

**Arpana Arthi Devi** (Oral Rehabilitation)

**George Mombi** (Theology and Religion)

**Jarrod Toluono Moors** (Biochemistry)

**Lenara Lana Tuipoloa-Utuva** (Tourism)

*Faafetai tele lava*

**Tofilau Nina Kirifi-Alai**
Mercy has a BA and a BTheol from the University of Auckland. In 1998 she completed an MTh and a Diploma in Women’s Studies at the Pacific Theological College in Suva, Fiji. In May 2015 she was awarded a PhD (in Practical Theology) from the University of Otago. Mercy currently works as a tutor and supervisor for Disability Information and Support.

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FROM PUBLIC AWARENESS TO PUBLIC THEOLOGY: RESPONSE TO DOMESTIC VIOLENCE IN SAMOAN SOCIETY

Mercy Ah Siu-Maliko

Domestic violence is a serious social problem in Samoa. Some studies have suggested that nearly half of Samoan women have been subject to abuse by intimate partners or parents. The increase in cases of domestic violence in Samoa is slowly raising the public's awareness of its impacts on the victims, who are overwhelmingly women and children. The growing number of named cases of domestic violence, and many other cases, which are not reported, has made domestic violence a priority issue in theological reflection.

This paper shows how the concept of public theology has relevance in societies where public spirituality is not an issue, but where theology can also challenge patriarchy, power, and entrenched ideas about acceptable religiously sanctioned behaviour.

Keywords: domestic violence, public theology, Samoan core values
Sekotilani is from Samoa, studying towards an MSc degree in Chemistry. She holds a BSc in Biochemistry from Brigham Young University-Hawaii, and a PGDipSci in Chemistry from the University of Otago. Her study is supported by the Memorandum of Understanding between the University of Otago and the National University of Samoa.

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Mammalian cysteine dioxygenase (CDO, EC 1.13.11.20) is an extensively studied thiol dioxygenase (TDO), which is essential for human health due to its primary role in the dissimilation, and tight regulation of intracellular L-cysteine.\(^1\) Despite numerous studies, a detailed catalytic mechanism by which CDO oxidises cysteine to cysteine sulfenic acid remains unsolved. This project takes a comparative approach in gaining insight into the CDO mechanism by probing how substrate specificity is controlled in bacterial thiol dioxygenases.

This study uses two CDO homologs, PaTDO and ReTDO, from gram-negative bacteria *Pseudomonas aeruginosa* and *Ralstonia eutropha*, respectively. These enzymes have very similar active sites, and catalyse the oxidation of a cysteine analog, 3-mercaptopropionic acid (3-MPA) to 3-sulfinopropionate. By comparison with CDO, active-site residues Q62 and R168 are expected to stabilise cysteine and 3-MPA binding respectively, by forming a salt bridge with the substrate carboxylate. To understand these interactions, this study involves measurements of pH dependent kinetics of the two enzymes with different substrate analogs using a range of techniques including NMR, HPLC, O2 electrode, and mass spectrometry. In addition, site-directed mutagenesis was used to generate variants of PaTDO which contain mutations of Q62 or R168 (i.e., Q62R, R168A/C). Kinetics of these variants will provide direct insight into the role they play in substrate binding. Initial results show that intriguingly ReTDO does not react with cysteine but PaTDO does. The mutation of Q62 to R62 decreases 3-MPA reactivity in PaTDO, suggesting that 3-MPA does not bind in a similar fashion to cysteine in CDO.

**Keywords:** cysteine dioxygenase, thiol dioxygenase, substrate specificity, pH-dependent kinetics

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ORGANISATIONAL SUSTAINABILITY OF PACIFIC MENTAL HEALTH SERVICES: WHAT CONSTITUTES SUCCESS?

Nandika Currey, Sunny Collings, Tony Dowell

There have been increasing demands on Pacific mental health services in New Zealand to demonstrate sustainability. These calls, predominantly driven by external stakeholders, have put additional pressure on services struggling to bring about sustained change. Overall, there has been a lack of consensus and common language on what sustainability means and how to implement it. To address this, the perspectives of relevant stakeholders were investigated to identify what constituted successful mental health services, before developing a conceptual framework for organisational sustainability (OS) applicable to the NZ Pacific mental health context.

Interviews were conducted with four key stakeholder groups – clinicians, managers, policy makers and funders. A culturally appropriate methodological framework, underpinned by a strengths approach was used to gather data. Narrative methodologies were used to guide data analysis.

Several key themes emerged, which contributed to the development of the OS framework. Internal contextual factors which influenced OS comprised three aspects – the individual, the team and the leader. There were four external contextual factors – organisational, cultural, political and financial. Two pervasive factors emerged – professional and cultural hierarchies, and organisational stigma – whose influence on OS could occur at any point in the organisation’s context. Finally, four success factors were identified – effective communication, shared cultural values and beliefs, stakeholder engagement and understanding, and relationship strength – each of which was equally critical for sustainability.

The conceptual framework provides a starting point for stakeholders to discuss what constitutes successful Pacific mental health services using a common language to help address OS.

Keywords: organisational sustainability, mental health services, Pacific, New Zealand
Shika is a Fijian-Indian, born and raised in Auckland. After completing her undergraduate degree at the University of Auckland, she moved to Dunedin to complete a Postgraduate Diploma in Psychology. She is currently studying towards her PhD and a Postgraduate Diploma in Clinical Psychology. Shika is a recipient of a University of Otago Doctoral Scholarship.

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I'M HAPPY AND I KNOW IT? EXPLORING LINKS BETWEEN PARENT-CHILD REMINISCING AND CHILDREN'S EMOTION UNDERSTANDING

Shika Das, Amanda Clifford, Elizabeth Schaughency, Elaine Reese

Parent-child conversations about past events facilitate unique opportunities for transmission of ideas and knowledge. While literature has focused on describing what parents say in these reminiscing conversations, research is needed in exploring the relationship between parents’ references to emotions on children’s emotion development. Data from parent-child dyads (N=67) were collected during the baseline phase of a larger school-readiness project, including eight local kindergartens and child care centres serving families from diverse educational backgrounds. Reminiscing conversations about a positive and negative event were audio-recorded, transcribed and coded for emotional attributions (e.g., he was sad) and emotional explanations (e.g., …because he hit me).

Preliminary results suggest that within the positive event, parents’ use of emotional attributions and emotional explanations were positively associated with children’s use of emotional attributions and explanations respectively. Interestingly, within the negative event, parent explanations were linked to children’s use of explanatory language, yet both parental attributions and explanations were associated with children’s use of emotion attributions.

The pattern of correlations suggests that how parents and children converse is related but that children’s emotion language does not simply reflect the language parents use. It appears that exposure to conversational elements linking possible explanations for emotional experience may be important for children’s emotion understanding. Findings highlight a role for discussing negative events in children’s emotional development to help make sense of and resolve their emotional distress, while also exploring alternative behavioral responses. Future research should examine the ways that family interactions promote children’s well-being across cultures.

Keywords: parent-child reminiscing, emotion understanding, language, school-readiness

Olataga is an ordained Methodist Church minister. He is a University of Otago Pacific Islands Doctoral Scholarship recipient, currently working toward a PhD in Theology. He also holds a BMus (University of Auckland), a BD (Piula Theological College), and an MTh (Pacific Theological College). Between 2003 - 2013, he lectured in Theology at Piula Theological College.

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The theological motifs intrinsic in Samoan hymnody have played, and still play, a major role in the sustaining of Christian beliefs and Church doctrines. As such, this research probes the issue of “translation” in Samoan hymnody and the impact of this translation on the Christian consciousness of the people, and on the theology and mission of the Church.

According to André Lefevere, translation is a “rewriting” of an original text. All “rewritings” reflect a certain ideology and poetics, and as such, can manipulate an original piece of literature to function in a given society in a given way. Samoan hymnody is an example of this manipulation and translation strategy. The ‘missionaries’, as “rewriters” of Samoan hymnody, had a vested interest in preserving the ideology of British imperialism and colonialism, whilst combating and destroying that which is unique and distinctive in the ‘faa-Samoa’.

The author hopes that this work will bring about an awareness in the Church to look at the significance and impact of hymnal theology on the Church and its members. Any attempt to effectuate change must begin with the ‘text’ that advocated, and still advocates, the colonial mentality. For the once colonised spaces, the Church must look at a postcolonial or post-missionary stage of hymn and biblical translation. Translation is no longer about ‘revisions’, or ‘re-editions’, of the hymns; it is about ‘re-translation’ – not only the language of hymns, but also the Christian consciousness of the people.

**Keywords:** hymnology, postcolonial criticism, theological hermeneutics, cross-cultural theology

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TAHZEEB FATIMA

Tahzeeb is an international student pursuing her doctoral studies in Biochemistry on a University of Otago Doctoral Scholarship. She completed her MPhil in Medical Physiology and Biochemistry in Pakistan. Tahzeeb’s research focuses on integrating scientific and medical understandings of the relationship of gout with metabolic disease.

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ASSOCIATION OF MELANOCORTIN RECEPTOR POLYMORPHISMS WITH GOUT IN NEW ZEALAND PACIFIC, MĀORI AND EUROPEAN POPULATIONS

Tahzeeb Fatima, Tony R Merriman, Nicola Dalbeth, Lisa K Stamp

Two variants of the melanocortin 3 and 4 receptor (MC3/4R) genes have previously been associated with obesity and weight regulation.1-3 Higher adiposity and weight gain are strong risk factors for gout.4 Furthermore, MC3R acts as the target for adrenocorticotropic hormone, a drug used potentially for treatment of gout.5 This research aims to investigate the association of these variants with gout in New Zealand (NZ) Pacific, Māori and European people.

A total of 2526 clinically-ascertained gout cases and 2106 controls were genotyped for the variants rs3827103 (MC3R) and rs17782313 (MC4R) by Taqman.6 Multivariate adjusted logistic regression was carried out using R version 2.15.2.

The minor allele of the MC3R variant was associated with a decreased risk of gout in Māori and Pacific Island and European cohorts. The minor allele of the MC4R variant didn’t show any association with gout in Māori and Pacific people, although it was associated with increased risk of gout in European participants. A combined meta-analysis of Polynesian and European participants indicated evidence for association towards lower and higher risk of gout for the minor allele of MC3R and MC4R variants, respectively.

Association of the MC4R variant with increased risk of gout in European participants provides an etiological link between obesity and onset of gout. However, MC3R variant seems to be involved in determining the risk of gout in all populations studied.

Keywords: gout, obesity, weight regulation, MCR genes

CHRIS HIGGS

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CLINICAL BENEFITS FROM A COMMUNITY-BASED REHABILITATION PROGRAMME FOR ADULTS WITH DIABETES/ PREDIABETES

Chris Higgs, Margot Skinner, Leigh Hale

Exercise combined with patient education and support are effective components of diabetes/prediabetes management. Adults of Pacific descent have more than double the prevalence of diabetes/prediabetes compared with the general population. This study investigated the clinical benefits and acceptability of a novel community-based 12-week physical rehabilitation and education programme for adults with diabetes/prediabetes targeted towards high-needs communities.

The programme included twice-weekly exercise and education sessions supervised by a physiotherapist, physiotherapy students and a nurse and supported by other health professional educators. Clinical benefit was assessed using the Six-Minute Walk Test (6MWT), waist circumference, exercise behaviour and self-efficacy at three time intervals: baseline, programme completion and three-month follow-up. A standardised evaluation form comprising open-ended questions was used to assess programme acceptability.

All participants were overweight/obese and had multimorbidity; 33% of participants identified as Māori or Pacific. Clinically significant improvements were found from baseline to programme completion and at three-month follow-up for the 6MWT, waist circumference, exercise behaviour and self-efficacy. Evaluation of the data suggests two key themes determined programme acceptability: “social support” and “self-management.”

This study demonstrated that a community-based rehabilitation programme for adults with diabetes/prediabetes is safe, feasible, culturally accepted, and provides benefits to participants. These benefits were observed in measures of health-related physical fitness and in reports of increased social support and confidence in their ability to independently manage their diabetes/prediabetes. This community-based rehabilitation programme has the potential to be reproduced in other regions and further research into the programme’s efficacy and cost-effectiveness is warranted.

Keywords: diabetes mellitus Type II, rehabilitation, exercise, self-management
Jesse KoKaua

Jesse is a Cook Islander living in Dunedin. He has recently completed his PhD thesis, which involved an application of Bayesian statistical models to analyse prevalence of mental disorder and service-use patterns among Cook Islanders in New Zealand. He currently works for the Pacific Islands Research and Student Support Unit and the office of the Director, Pacific Development.

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IS THERE AN IMMIGRANT PARADOX IN THE PREVALENCE OF MENTAL DISORDER AMONG COOK ISLANDERS IN NEW ZEALAND?

Jesse Kokaua

In a follow-up to a paper that reported on the prevalence of mental disorders in migrant and New Zealand-born Pacific residents, this study discusses the association between migration and the prevalence of mental disorders among Cook Islanders living in New Zealand.1

An immigrant paradox occurs where a migrant ethnic group appears to report healthier outcomes than a similar ethnic but non-migrant group. Often, the poorer health outcomes of the non-migrant group are associated with living conditions that increase risk of poorer health status. To further add to the paradox, subsequent generations of migrant descendants have much poorer health than the original migrant community. Several theories have been proposed to explain the paradox for a range of health conditions in different parts of the world. Most common would be: a selected “healthy” migrant hypothesis, a “salmon bias” effect (where less healthy migrants return home), negative effects of acculturation, native influences (high or low prevalence at home) and a protective effect of ethnic density. Hajat, Blakely, Dayal, and Jatrana concluded that no immigrant mortality paradox was present for Pacific people in New Zealand.2

The evidence presented in this paper suggests there is an immigrant paradox for any mental disorder. That is, older migrants appear to have lower rates of mental disorder while subsequent generations of migrant descendants have increased rates. However, this effect is not evident for substance related disorders. The evidence was unclear about the presence of a healthy migrant hypothesis and did not support a salmon bias but leaned instead towards suggested negative effects of acculturation and a positive effect of ethnic density and native influences.

Keywords: Cook Islanders, Pacific, mental health, immigrant paradox


Michael has a BA in Political Science and International Peacebuilding from Brigham Young University - Hawaii (BYUH). After receiving his PGDip and MA from the National Centre for Peace and Conflict Studies (NCPACS) at Otago, he spent two years teaching peace and conflict theory at BYUH. Michael returned in 2015 to the NCPACS where he is pursuing his PhD. Michael is of Samoan descent.

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THE PACIFIC PEACE PARADOX: A SAMOA CASE STUDY

Michael Fusi Ligaliga

The road to nationhood for many Pacific Island countries (PIC) was paved through similar circumstances and experiences. Pacific Island nations were moulded by the forces of Christianity, colonialism and globalisation. Consequently, the modern PIC is a product formed through the synthesis of their old indigenous traditions and the adaptation of introduced non-traditional practices. The amalgamation of “historical and contemporary circumstances” such as “colonial rule, lingering effects of cold war politics and powerful forces of globalisation” have been the cause of prolonged conflicts within the Pacific archipelago. Understanding conflict issues in the Pacific have been attempted through various academic disciplines such as political science, sociology, and conflict theory. However, there is minimal contribution from the peacebuilding discipline. This research examines the interface between peace and conflict issues in the Pacific. More specifically, the study seeks to understand why, despite PICs undergoing similar pre/post-colonial experiences, the road to peace and stability for some PICs has been easier than others. This research will use the Independent State of Samoa as a case study.

Keywords: peace, paradox, hybridity, faafaletui
Selota is an ordained minister of the Methodist Church of Samoa, with a Bachelor of Divinity with Honours and an MTh from Pacific Theological College, Fiji. A former lecturer at Piula Theological College, Samoa, and recipient of a University of Otago Pacific Island Doctoral Scholarship, Selota is a final-year PhD student in Pastoral Theology.

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Banishment in traditional Samoan society is regarded as a legitimate practice that maintains peace and social control within village communities. People guilty of committing crimes or of unacceptable behaviour are regarded as deserving punishment and banishment is considered to be an appropriate means of achieving justice. Many have quoted the retributive aspect of biblical punishment, such as the banishment of Adam and Eve (Genesis 3:22-24), Cain (Genesis 4:11-12), Hagar (Genesis 21:14) and “an eye for an eye” (Exodus 21:24) principle of punishment, as a biblical foundation to validate the punishment of offenders in society as well as the sinners in religious institutions. However, this practice in its contemporary execution has been labelled by others as unjust and lacking in compassion. The aim of this paper is to examine how the current practice of banishment might be transformed in the light of Jesus’ teaching and practice.

Drawing on Christopher Marshall’s *Compassionate Justice* (which focuses on the Parables of the Good Samaritan and the Prodigal Son), the study will highlight the legalistic and altruistic concerns; the theological dialogue concerning the issue of “victimization and the law of neglect”;1 “justice” in relation to the law offenders, the victims of the offence, and the law-abiding citizens; and particularly the response of “compassion”2 as enacted in the light of Jesus’ ministry.

**Keywords:** banishment, justice, altruism, legalism, compassion

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2 ibid, 249.
Sujita is from Fiji and is a pharmacist by background. She graduated with her Bachelor of Pharmacy from the Fiji School of Medicine, Suva, and her Master of Pharmacy Practice from Monash University in Melbourne, Australia. Sujita is in the first year of her PhD and is supported by the School of Pharmacy.

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Medication appropriateness among older people with limited life expectancy (LLE) is increasingly being recognised as important. Prescribing of preventive medicines is an important consideration when managing individuals with multimorbidity and life limiting illness such as advanced dementia.

The main objectives of this study were: (1) to examine the prevalence and trends of preventive medicines utilisation at a population level in older New Zealanders, and (2) to examine appropriateness of prescribing statins in older people with LLE.

Pharmaceutical collections from 1 January 2005 to 31 December 2013 were analysed based on age, sex, ethnicity, and District Health Board Domicile stratifications for older people aged ≥65 years old. A repeated cross-sectional analyses and Poisson regression was done to identify the utilisation trends over the nine-year study period. Further to this, propensity score matching and cox regression was carried out to investigate the prescribing patterns of statins in the last year of life.

The results highlighted an increase in the utilisation of aspirin over the study period by 19.55% and clopidogrel by 2.93%. Warfarin use decreased by 0.87%, in contrast, utilisation of dabigatran increased by 0.65%. Statin use increased by 7.0% and bisphosphonates decreased by 2.37%. In individuals with LLE, statins were commonly discontinued during the last year of life irrespective of whether it was prescribed for primary or secondary prevention.

This study provides a national perspective on temporal trends in the prevalence and utilisation of preventive medicines in older New Zealanders. A higher prevalence of statin discontinuation was identified in LLE.

**Keywords:** preventive medicines, older people, statins, limited life expectancy
Anita is studying towards a PhD on a University of Otago Doctoral Scholarship. She was born in Samoa and has been a lecturer at the National University of Samoa for 13 years.

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EXPLORING COMMUNITY RESILIENCE TO CLIMATE CHANGE IN SAMOA

Anita Niusulu, Tony Binns, Etienne Nel

The literature on climate change cautions that islands will be continually affected by prolonged dry spells, increased storminess and sea level rise in the next five decades due to global warming. Human mobility, social networks, flexible knowledge, skills and livelihood diversification have thus far largely enabled resilient communities to cope with major environmental events. But will these strategies allow island communities to survive future climate change? This study assesses the capacity of Samoan communities to cope with future climate change by trying to understand their perceptions of current (the last 5 to 10 years) and future climate-related changes (the next 50 years). Moreover, it explores how these perceptions have influenced community responses to climate change. The study should hopefully pinpoint areas where further assistance to enhance community resilience may be needed and suggests appropriate ways to strengthen resilience and ensure future sustainability.

Keywords: climate change, resilience, communities, sustainability
Clara is of Samoan and Pākehā descent and is currently employed as the Academic Programmes Coordinator at the Pacific Islands Centre. Clara holds an MA in Indigenous Development, a BA (Hons) in English, and a BSc in Botany. Her MA project was supported by a University of Otago Pacific Islands Master’s Scholarship and completed in 2014.

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SNS (SOCIAL NETWORKING SAMOANS): EXPLORING THE ETHNIC IDENTITIES OF SAMOAN FACEBOOK USERS IN AOTEAROA

Clara Kathryn Pau

As digital media pervades the institutions and infrastructures of contemporary society with new inventions, new applications and new devices, so too does it pervade daily lived experiences. The social networking site Facebook.com is one such application which is highly integrated into the daily habits of individuals worldwide. Despite the ubiquity of Facebook and the extensive writings on ethnic identity, there has been a limited contribution by scholars on how ethnic identity ismanifested in and informs Facebook use. This research examines the daily Facebook use of seven Samoan individuals located in New Zealand. This research argues that key elements of individual ethnic identities are manifested in and expressed through use of the streamlined photograph, timeline post and friending Facebook functions. These three themes are explained in terms of three N’s: Nationalism, Natives (and Immigrants) and Nostalgia. Utilising a reflexive ethnographical inquiry and adapting it to a New Zealand-Samoan perspective, this research found that imagined chasms of difference between generations of Samoans are manifested in the frequency of Facebook use, Facebook friending and Facebook privacy functions. Photography as a performative act is a means through which Samoanness and nationalism can exist within the Facebook sphere of the participants of this research. Finally, nostalgia for culturally similar relationships and for physical land was present in timeline posts of the participants.

Keywords: Facebook, Samoa, New Zealand, social media
Charles is of Kiribati and British descent, and lives in the Solomon Islands. He recently completed a Bachelor of Arts, majoring in Anthropology, and is currently undertaking a BA Honours project. In 2015 he was awarded a University of Otago Scholarship in Arts. He aspires to work in the Pacific in the field of archaeology.

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Shell adzes, specifically those made from *Tridacna* or giant clam shell species, have been used in the Pacific for thousands of years and are an iconic tool type. They have been recorded as early as seven to ten thousand years ago on Manus Island in Papua New Guinea, and were made throughout almost the entire Pacific. The manufacture and use of *Tridacna* adzes is conventionally associated with cultures inhabiting low-lying atolls and raised coral islands lacking in good quality stone sources. However, they are found on numerous volcanic islands as well, establishing a fairly broad range of island habitats for their distribution. Like other shell artefact forms including shell money, ornaments and emblems of cultural identity, shell adzes formed a significant part of the material culture and traditional way of life of Pacific Islanders.

Charles’ study is an archaeological investigation of shell adzes in the Pacific, and involves a descriptive analysis of two collections of shell adzes from the Solomon Islands: one stored at the Otago Museum in Dunedin and the other at the Solomon Islands National Museum in Honiara, Solomon Islands. His study has two key aims. The first is to provide a critical review of methodological approaches and terminology used in the analysis of shell adzes in the Pacific. The second is to use his improved methodology to analyse the museum collections to develop some models about the functional, technological and ecological role of shell adzes in Solomon Island prehistory.

**Keywords:** shell adze, archaeology, *Tridacna*, Solomon Islands
Aysha Rimoni is from Samoa and received a NZAID Scholarship in 2011 to study at Otago. She completed a BCom in Finance and Information Science in 2013 and a BCom with First Class Honours in Information Science in 2014. Aysha has now returned to Samoa and is currently a Graduate Trainee at Bank South Pacific.

**Academic department:** Information Science, University of Otago

**Division:** Commerce

**Supervisor:** Dr Grant Dick

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IS GENETIC PROGRAMMING GOOD AT SYMBOLIC REGRESSION?

Aysha Rimoni, Grant Dick

A common application of Genetic Programming (GP) is the symbolic regression problem. It is used to search the space of possible equations, to find one which best matches the relationship in a given data set. Many benchmark problems used in GP are centred on symbolic regression instances. However, most previous work only measures the performance of GP against itself, and not against other traditional regression methods within their experimental framework.

This work focuses on identifying a suitable performance baseline for symbolic regression via genetic programming. This baseline is then compared to well-known traditional machine learning methods. Selected GP methods and traditional machine learning methods are applied to three data sets, which are representative of regression problems found in both GP and traditional machine learning. The performance of each method is measured via the relative root mean squared error (RRMSE) on testing data set, using a multiple resampling process to reduce the effect of sampling on exhibited performance. The results show that the performance of GP on the selected problems is no better or significantly worse than traditional machine learning methods. Additionally, analysis is performed on the Bioavailability data set, which has previously been used to support the use of GP for regression. The results of this analysis reveal several issues with the data set that make it questionable for use as a benchmark. The conclusion of this work suggests that canonical GP does not present a suitable baseline from which to compare GP to traditional machine learning methods.

Keywords: Genetic Programming, symbolic regression, traditional machine learning methods
Toa is Tuvaluan. He has an MBA, specialising in International Finance, from Ritsumeikan Asia Pacific University (APU) in Japan. He is a recipient of a University of Otago Pacific Island Doctoral Scholarship, and commenced his PhD degree in the Department of Politics in 2015.

**Academic department:** Politics, University of Otago

**Division:** Humanities

**Supervisor:** Dr Iati Iati

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EFFECTIVENESS OF NEW ZEALAND’S OFFICIAL DEVELOPMENT ASSISTANCE (ODA), THE X-FACTOR FOR FISHERIES DEVELOPMENT: CASES OF KIRIBATI AND TUVALU

Katoa P Sailusi

Every region or a nation state seeks sustainable economic development, including micro-states in the Pacific. Globalisation and modernisation have had a major impact on Small Island Development States (SIDS) such as Kiribati and Tuvalu. However, the challenges facing SIDS, which include geographical isolation, limited human capital, poor infrastructure, market failures, limited international and local finance, and government corruption including the mismanagement of aid have led to conclusions that these are ‘weak states’. This raises the question, how can SIDS finance ‘access costs’ given these limitations, in particular: smallness, isolation, fragmentation, susceptibility to natural hazards? Furthermore, how can they strengthen democracy, security, and sustainable development? This study will examine the effectiveness of New Zealand’s official development assistance (ODA) in the development of tuna fisheries revenues to finance access costs of SIDS countries like Kiribati and Tuvalu. Finding effective ways for New Zealand financial assistance to complement and promote SIDS ‘sustainable developments’ should help SIDS address the aforementioned issues.

Keywords: sustainable economic development, aid, New Zealand’s ODA, SIDS
My name is Matani (Marty) Schaaf. My interest in Pasifiki rugby players’ motivation and burnout stems from concern for Pasifiki players, Pasifiki peoples in general, and my personal passion. Whether Tongan, Samoan, Fijian or Pālāngi, every New Zealand rugby player dreams about making the All Blacks. For now, I am content with participating in rugby as a Tongan, Pasifiki person, spectator, coach, mentor and a PhD candidate.

**Academic department:** TeTumu – School of Māori, Pacific and Indigenous Studies, University of Otago

**Division:** Humanities

**Supervisors:**
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Rugby players from Pasifiki backgrounds are fast becoming a very powerful group globally. This paper examines why Pasifiki players are playing rugby or, in more scientific parlance, what was/is the participation motivation of elite Pasifiki rugby players. While there is considerable research in sport psychology on motivation, and some on motivation of elite athletes, there appears to be little or no research on the participation motivation of elite Pasifiki sports people. Sports participation research has been dominated by Western theories and models. There is little or no research that has incorporated a theory or model that encompasses those values that are significant to Pasifiki peoples. The lack of research in this area suggests that there is little scientific knowledge, at least, about this phenomenon, and that research is needed to identify what specific cultural factors exist that motivate so many Pasifiki peoples to play sport. Drawing on the implications of this doctoral research so far and its implications for rugby, this research intends to outline this mismatch between the lived realities of a Pasifiki rugby player and the lived realities of non-Pasifiki rugby players playing semi-professional and professional rugby – in essence whether Pasifiki athletes’ experiences of motivation and burnout are similar to non-Pasifiki athletes’ (that is, Pālāngi) experiences.

**Keywords:** Pasifiki rugby, rugby motivation and burnout, cultural factors
Christina is from the United States. She received her BA in Anthropology from Auburn University (USA) and her MSc in Paleopathology from Durham University (UK). Christina submitted her PhD for examination earlier this year and was a recipient of a University of Otago Doctoral Scholarship.

**Academic department:** Anatomy, University of Otago  
**Division:** Health Sciences  
**Supervisors:** Associate Professor Hallie Buckley  
Dr Rebecca Kinaston  
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Due to their geographic proximity, the cultures of Tonga and Fiji have been inexorably linked throughout human occupation. However, the climatic and geographical differences, as well as the cultural influences from the western Pacific islands that affected Fiji around 2200 BP and never reached Tonga, left these cultures with different cultural, linguistic, and genetic backgrounds.

Stable isotope analyses ($\delta^{13}C$, $\delta^{15}N$) of bone collagen provides insight into the diet of past peoples. In this study, late prehistoric Tongan and Fijian diets are explored using two contemporaneous archaeological sites. The first site, ‘Atele, consists of two burial mounds excavated from Tongatapu, the centre of the Tongan maritime chiefdom during the Chiefdom period (500—150 BP). The second site, Bourewa, is from the southwest coast of Viti Levu and contains burials from the Vuda phase of Fijian prehistory (750—150 BP).

Factors such as status, power, climate change, and competition may have influenced resource acquisition in these two populations. ‘Atele individuals displayed significantly lower $\delta^{13}C$ and higher $\delta^{15}N$ values, suggesting that the individuals from Tongatapu consumed proportionately more animal protein and terrestrial foods while those from Bourewa were more heavily reliant on marine foods from relatively low trophic levels (e.g., shellfish, seagrasses, seaweed).

There were also sex-based differences in diet in ‘Atele, with males having consumed more animal protein as interpreted by higher $\delta^{15}N$ values. There were no differences between males and females in Bourewa. The possibility of climatic changes destroying gardens, reducing food choices and lifting sex-based restrictions in Bourewa is discussed.

Keywords: bioarchaeology, paleodiet, carbon, nitrogen
Marsa graduated in Law and Justice from Central Washington University and earned a Master of Social Work from the University of Washington. Marsa's first PhD from the University of Otago (Department of Social and Community Work) was for her study of Mangaia's practice of informal adoption. She now works as a research assistant for the Asian Migrations Research Theme at the University of Otago.

Academic department: Te Tumu – School of Māori, Pacific and Indigenous Studies, University of Otago

Division: Humanities

Supervisors: Professor Michael Reilly
Dr Michelle Schaaf

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MIXED BLESSINGS: ORAL HISTORIES OF WAR CHILDREN BORN TO US SERVICEMEN AND INDIGENOUS COOK ISLANDERS

Marsa Dodson Stokman

War stirs the gene pool. Certainly this was the case in World War Two after Japan bombed Pearl Harbor, Hawaii. In response, the United States joined the Allied forces and officially entered World War Two in the Pacific. This meant that several thousand multi-ethnic US servicemen came to the Cook Islands, in effect, doubling the population of the two small remote islands which hosted bases for the friendly occupation. Away from the battle zones, the soldiers and officers fraternised with indigenous Cook Islanders. Intimate relationships, many long-term, developed over the war years, even though the young couples were forbidden to marry because of the US military’s policy on interracial marriage. My thesis discovered what happened to over half of the mixed-race war children whose US Army fathers left them to be raised by their island-mothers’ families. I highlighted the voices of these children as they shared their life experiences in interviews. In exploring the oral accounts, I discovered themes and patterns. I found that outcomes varied depending upon the families involved, the child’s gender and birth-father’s heritage. Many of the children experienced stigma in their communities from being illegitimate; and yet they were considered attractive in appearance, often popular and they generally excelled in sports. This thesis provides a window on the lifelong search for identity when a progenitor is missing and how a foreign father’s absence influenced post-war family life in the Cook Islands. For the American/Cook Islands children of World War Two, their lives have mixed blessings.

Keywords: identity, illegitimate, stigma, war child, World War Two
Tavita was born and raised in Samoa. He received an NZAID Scholarship to pursue tertiary studies in New Zealand. In 2014 he completed a BSc with a double major in Computer Science and Information Science. Tavita was then accepted into the BSc Honours degree (in Information Science), which he is completing on his scholarship.

**Academic department:** Information Science, University of Otago

**Division:** Sciences

**Supervisors:**
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Reviews created by users of mobile applications (apps) provide information that benefits other users and app developers. These reviews provide feedback that is essential for app evolution, maintenance and improvement. Although reviews contain information about an app’s performance and problematic features, these details are often concealed in the reviews. App developers then spend considerable time and effort in reading and analysing app reviews, with the aim of addressing deficiencies and improving end-user satisfaction.

Previous research has used time-consuming data mining techniques and analytical approaches to filter and extract useful information from reviews regarding app feature deficiencies. However, another way of addressing this challenge could be to capture users’ reviews so that there is little need for analytics, while also providing aggregated information about features’ strengths and weaknesses. To facilitate the extraction and presentation of this information, we present a novel user interface in the form of an app that informs users on another app’s most commonly reported features, aiding users in their app review.

This will be achieved by implementing a bottom-up, data-driven approach to delivering mobile app reviews by: 1) exploring and identifying best practices for user interfaces; 2) design and implementing a novel user interface (UI) to solicit informational, non-ambiguous app reviews, and 3) evaluating the usability and performance of the UI tool in comparison to the existing app review mechanisms. The evaluation will be conducted on two Android apps: MyTracks and Facebook.

**Keywords:** user interface, app review, android, mobile application
Vanda is of Fijian descent and is a final year PhD candidate in science communication. She has a BPharm(Hons) and PGCert in Pharmacy Research. Her PhD has been supported by a University of Otago Doctoral Scholarship. She is a published crime writer and is examining the communication of science through crime fiction.

**Academic department:** School of Pharmacy, University of Otago

**Division:** Health Sciences

**Supervisors:**
- Associate Professor Natalie Medlicott
- Dr Susan Heydon
- Professor Warwick Duncan (Sir John Walsh Research Institute)

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BEFORE CSI: MAKING THE CASE FOR A NOVEL PORTRAYAL OF FORENSIC SCIENCE

Vanda Symon, Susan Heydon, Natalie J Medlicott, Jules Kieser, Jean S Fleming

Forensic science has been portrayed in television, journalism, and fiction for over a century. Since the launch of the flagship television show “CSI: Crime Scene Investigation” in 2000, much has been made of the so-called “CSI Effect”. However, forensic science had been incorporated into many traditional media long before CSI. Ngaio Marsh’s 1935 novel, *The Nursing Home Murder*, is used to illustrate the influence of news media, literature, and drama on the author’s decision to use hyoscine as a poison in the work. The accurate portrayal of science in written crime fiction and its dissemination to the reader are examined, as is the possible use of that information in copycat crime. This demonstrates the possible influences of written media and personal connections on Marsh when choosing hyoscine as her murder weapon, and suggests that she was aware of the potential for a criminal to get “the big idea” from her work.

**Keywords:** science communication, Ngaio Marsh, popular media, copycat crime
KiLISIMASI TAMUA

KiLisimasi (Kili) is of Cook Island Māori and Samoan descent, born and raised in Auckland. He has completed a BA, majoring in Film and Media Studies. He is currently completing his Master of Teaching and Learning (MTchgLn) endorsed in Secondary Education. His subject focuses are Drama, Media Studies and Social Sciences.

Academic department: College of Education, University of Otago
Division: Humanities
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“Priority Learners”, a term coined by the Ministry of Education, refers to the inability of certain groups to succeed under the New Zealand Curriculum. These groups include Māori, Pasifika, and disabled learners in Aotearoa/New Zealand. As an emerging teacher, Kilisimasi (Kili) believes it is his duty to enable students to succeed in every learning area.

The aim of this research was to find strategies to implement in his teaching for learners with low literacy. Kili supplied a low ability Year 10 Social Studies class with 3B1 notebooks and called them 'Running Records'. Students were asked to use these to record their personal thoughts, troubles, worries or fictional stories, however they wished, as long as it was consistent. Every Wednesday Kili collected their notebooks and provided individual feedback. His theory for implementing this strategy was based on medical reports on how to teach students with learning disabilities, specifically Dyslexia.

Kili strongly believed in the purpose of the 'Running Records', which was to eliminate the fear most students had when asked to write anything down. Simply put, if they could write in a diary, they could write in an exam. He conducted this strategy and research over two terms, which totalled over twenty weeks of contact. By the end of their junior examinations, that most students felt confident in literacy was reflected significantly in their exam marks. Kili is continuing to develop a further range of strategies to engage student interest and motivation in his classes.

Keywords: literacy, education, priority learners
Amie is a half New Zealand European, half Samoan student, who completed a BA majoring in English and Film and Media Studies. At the end of 2014, Amie was awarded the Pacific Bridging Scholarship for the Division of Humanities, along with a $3000 grant. In 2015, Amie is completing her Honours degree.

**Academic department:** Media, Film and Communication, University of Otago

**Division:** Humanities

**Supervisor:** Dr Davinia Thornley

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BICULTURAL ANALOGIES IN THE HARRY POTTER FILM SERIES: UNDERSTANDING AUDIENCE ENGAGEMENT THROUGH NEGOTIATED SPACE IN THE PHILOSOPHER’S STONE AND HALF-BLOOD PRINCE

Amie Taua

In this dissertation, Amie critically examines the bicultural analogies in two Harry Potter films, specifically looking at how Harry negotiates two separate sociological spaces, the Muggle world (our world) and the Wizarding world. By using examples of spatial navigation in these Harry Potter films as illustrations of a binary of cultural knowledge, Amie conveys how the bicultural audience successfully engages with such pop culture media texts, subsequently contributing to the texts’ ongoing relevance and popularity.

For this study, Amie chose the two films, Harry Potter and the Philosopher’s Stone (2000) and Harry Potter and the Half-Blood Prince (2009), to draw attention to the developments in Harry’s understanding and approach to these spaces. Using such texts as Robert Stam’s “Multiculturalism, race and representation”,1 and Haley De Korne’s “Familiarising the stranger: Immigrant perceptions of cross-cultural interaction and bicultural identity”,2 Amie shows how the separation of the Muggle and Wizarding worlds in Harry Potter are analogous to contemporary debates about bicultural identity – both within the bicultural audience itself as well as in the academic field.

Keywords: audience studies, biculturalism, film, Harry Potter

‘ALAPASITA TEU

‘Alapasta is of Tongan and Samoan descent. She has recently completed a Master of Public Health at the University of Otago. She holds a Bachelor of Physical Education (Hons) and Postgraduate Diploma in Public Health. Her research interests lie in Pacific health and education, health policy and the first-year university experience.

**Academic department:** Preventive and Social Medicine, Dunedin School of Medicine, University of Otago

**Division:** Health Sciences

**Supervisors:** Faumuina Associate Professor Faafetai Sopoaga
Dr Jacques van der Meer (College of Education)

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BARRIERS AND ENABLERS AROUND THE TRANSITION TO UNIVERSITY EXPERIENCES OF PACIFIC STUDENTS IN THE HEALTH SCIENCES FIRST YEAR (HSFY) PROGRAMME AT THE UNIVERSITY OF OTAGO

‘Alapasita Teu

Despite the increase in participation of Pacific people in tertiary education, completion rates and levels of success and achievement for Pacific students compared to other groups are lower. Understanding factors that enable and facilitate Pacific students’ successful transitions into higher education allows tertiary institutions to provide effective and appropriate support services for under-represented groups such as Pacific peoples.

This study explored the transition to university experiences of Pacific students in the Health Sciences First Year (HSFY) programme at one New Zealand University, the University of Otago. Using a qualitative research approach guided by Pacific methodologies, semi-structured interviews were conducted with ten HSFY participants who were split into two groups: (1) students who had passed all core semester one papers and (2) students who had failed one or more of the core papers.

Enabling factors were: support from family, friends and university support services such as the Pacific Island Research and Student Support Unit (PIRSSU) and the Pacific Orientation at Otago Programme (POPO), personal academic goals and aspirations and spirituality. Family in particular was a significant and important facet of students’ university transition experiences. Reported barriers included a lack of self-efficacy, perceived increased family expectations, a perception of competition regarding the HSFY programme and the academic workload underlying the HSFY programme. The results of this study demonstrate that the university experiences of Pacific students in the first year of study are complex, multifaceted and shaped by many layers of influences.

**Keywords:** transition to university, Pacific students, first-year experience

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Kimberly is from Fiji. Her family moved to New Zealand during her high school years to further educational studies. She is in her final year of her Master’s, studying Psychology which focuses on factors that promote Pacific parents’ and their teenagers’ wellbeing and health. She is a recipient of a University of Otago Pacific Island Master’s Scholarship.

**Academic department:** Psychology, University of Otago  
**Division:** Sciences  
**Supervisors:** Dr Mele Taumoepeau  
Dr Patrick Vakaoti (Sociology, Gender and Social Work)  
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A person’s wellbeing is determined by an individual’s appraisal of their life in a positive manner such as quality of life, positive and negative effect, happiness and life satisfaction. One route to advancing health, construed as the presence of wellness, is to focus on having a sense of purpose and direction in life, good-quality relationships with others, and opportunities to realise one’s potential.

New Zealand (NZ) born Pacific people experience higher rates of mental disorder (25%) compared with the general NZ population (20.7%) population. Recent data from the Dunedin Pacific Teenagers’ study showed that better mental health in Pacific teenagers was associated with higher identification and connectedness with Pacific culture as measured on the Pacific Identity and Wellbeing Scale (PIWBS). Thus, when Pacific people feel they belong and connect to society this enhances their wellbeing and mental health.

My involvement in the Dunedin Pacific Teenagers’ study as part of my summer studentship led me to question the factors that contributed to Pacific teenagers’ wellbeing from a parent’s perspective. Therefore, the aim of this study was to extend the findings from the Dunedin Pacific Teenagers’ study by interviewing ten Pacific Island parents to identify culturally specific factors that parents consider important for their teenagers’ wellbeing. The discussions will be recorded and then transcribed to obtain key themes which will be used to develop a questionnaire that measures variations in Pacific parenting style and parent-teenager connectedness.

Keywords: mental health, wellbeing, family, connectedness

Langi is Tongan and was born and raised in Christchurch. She came to the University of Otago through the Dux Scholarship and completed her Bachelor of Science, majoring in Physiology, in 2014. She is currently working towards her BSc(Hons) in Physiology with a focus on the cardiovascular system.

**Academic department:** Physiology, University of Otago  
**Division:** Health Sciences  
**Supervisor:** Dr Rajesh Katare  
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Diabetes mellitus is a chronic metabolic disorder which is becoming increasingly prevalent throughout the world, with cardiovascular disease (CVD) being the leading cause of death in diabetes. Diabetes induced molecular changes contribute to CVD and can be observed years before clinical manifestation of diabetic heart disease (DHD).

Remote ischemic preconditioning (rIPC) is an endogenous protective phenomenon in which short bouts of sublethal ischemia of a remote region of the body followed by reperfusion is able to protect the heart from subsequent prolonged ischemia. However, the mechanisms underlying the protection remain obscure. microRNAs (miRs) are short, non-coding RNA molecules which are involved in the post-transcriptional regulation of gene expression. miRs are rapidly gaining interest, as they have been shown to be implicated in the pathogenesis of various diseases, including cardiovascular diseases.

This study aims to look at the effect of rIPC on the diabetic heart, and whether it is able to prevent/delay the onset of DHD through the modulation of cardiovascular specific miRs (miR-1, miR-34a, miR-15a, and miR-15b). Diabetic and non-diabetic mice were subjected to weekly rIPC protocol over an eight-week period. Cardiac function was assessed using echocardiography and peripheral blood samples were collected fortnightly to measure the expression of the miRs of interest using RT-PCR analysis. Cardiac tissue will be collected after 8 weeks to evaluate the expression of miRs and the protective effect of rIPC in the heart. While the preliminary results show modulation of miRs with rIPC, more samples are currently analysed to confirm the initial results.

**Keywords:** diabetes, microRNAs, remote ischemic preconditioning, diabetic heart disease
Rebecca Washbourn is a physiotherapist (BPhty, PGDipRehab [Otago]) of New Zealand European ethnicity. In 2009/10, Rebecca was involved in establishing a rehabilitation service in the Cook Islands. This abstract relates to a study undertaken in partial completion of a Master’s degree in Rehabilitation (University of Otago).

**Academic department:** Rehabilitation Teaching and Research Unit (RTRU), University of Otago

**Division:** Health Sciences (Wellington)

**Supervisors:**
- Dr William Levack (Research Office)
- Frances Graham (Public Health)
- Nandika Currey (Social Psychiatry & Population Mental Health Research Unit)

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A DEEPENING UNDERSTANDING OF REHABILITATION IN THE COOK ISLANDS: A PARTICIPATORY ACTION RESEARCH PROJECT

Rebecca Washbourn

This study aimed to explore the themes and understandings of rehabilitation services in the Cook Islands in order to support and strengthen rehabilitation service provision by Te Vaerua Community Rehabilitation Inc. Te Vaerua was established in 2007 to provide rehabilitation and disability support services in a Community Based Rehabilitation (CBR) framework. Overseas therapists are employed to support the service. Little research has been completed in the Pacific considering understandings and provision of rehabilitation. This study used a participatory action research (PAR) method to provide some clarity for Te Vaerua regarding what rehabilitation should ‘look like’ to meet the needs of their community. It utilised focus groups, interviews and observations as data collection modes.

Three emergent themes of rehabilitation were identified: Rehabilitation is available, rehabilitation is relational, rehabilitation gives hope. These themes had specific culturally relevant expression. The PAR process allowed for discussion within Te Vaerua to recognise and reflect their cultural understandings of rehabilitation and to ensure service delivery is aligned with these values.

CBR allows local people to implement culturally appropriate rehabilitation services to their identified need. However, there is a paradox and tension between locally based services and reliance on overseas ‘experts’. This study suggests that focus and expectation of rehabilitation in the Cook Islands differ from a traditional Western approach. Visiting rehabilitation ‘experts’ should be aware of the cultural framework that underpins and allows ‘successful’ rehabilitation. More research and dialogue are needed to ensure that CBR rehabilitation meets the needs of indigenous communities that they serve.

Keywords: rehabilitation, Pacific
BRADLEY WATSON

Brad is of Samoan and European descent and has completed a Master of Arts in English (with Distinction) and a Bachelor of Laws. He was awarded the University of Otago Pacific Island Master’s Scholarship to complete his MA. Brad currently manages the Pacific Islands Research and Student Unit, Health Sciences, and is also studying towards his admission to the bar while exploring potential doctoral studies abroad.

Academic department: English and Linguistics, University of Otago
Division: Humanities
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This paper explores how Selina Tusitala Marsh’s ‘Fast Talkin’ PI’ and Tusiata Avia’s ‘Alofa’ negotiate the multiple lens often cast on Pacific peoples. Pacific identity in our New Zealand context is multifaceted and is arguably constructed through an interplay of Pacific and non-Pacific cultures alongside various forms of dissemination across media. Both Marsh and Avia negotiate a space ‘in-between’ cultures with their Pacific and non-Pacific heritage. Marsh, of Samoan, Tuvaluan, French and English descent, employs techniques of curation to respond to embedded colonial representations of Pacific peoples in contemporary structures. In ‘Fast Talkin’ PI’, Marsh challenges what it means to be “PI” through repetition and curation of words. Marsh extends this further in her spoken word with music version of the poem and curates media specific elements of the musical backing track to bring forth (and push back) specific representations of being “PI”. Avia, of Samoan and European descent, employs performative poetics to negotiate Samoan cultural approaches to alofa and love. Avia performs repetition and narration in her poem ‘Alofa’ to emphasise the multiple voices influencing Pacific identity. Avia’s performance of the poem in her one woman show Wild Dogs Under My Skirt further emphasises how performance can respond to the cultural representation of Pacific identity. Overall, both Marsh and Avia highlight in these poems how Pacific identity in a contemporary New Zealand context is complex and I argue there is a need to respond to specific representations of this identity in the form of which they are embedded.

**Keywords:** Pacific literature, postcolonialism, performance, curation, Pacific identity
Guinevere is a New Zealander of Samoan descent. She holds a BA in Design Studies and a PGDip in Peace and Conflict Studies from the University of Otago. Guinevere is currently completing a Master of Teaching and Learning degree (MTchgLn) endorsed in Secondary Education. Her passion for teaching became clear after a year of teacher aide work and more than three years as a student mentor and youth leader for Pasifika youth in Dunedin.

**Academic department:** College of Education, University of Otago

**Division:** Humanities

**Supervisor:** Dr Steven Sexton

**Research topic or focus:** Making technology relevant to Pasifika students (secondary)

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Arpana is from Fiji. She is currently pursuing a Doctor of Clinical Dentistry supported by a University of Otago Pacific Island Doctoral Scholarship. Arpana graduated with a Bachelor of Dental Surgery from the Fiji School of Medicine. She was a recipient of a Rotary Ambassadorial Scholarship which supported her PGDip in Clinical Dentistry (Endodontics) from the University of Western Australia. Arpana was also a Lecturer at Fiji National University from 2008 to 2013.

**Academic department:** Oral Rehabilitation. Faculty of Dentistry, University of Otago

**Division:** Health Sciences

**Supervisors:** Professor Robert Love
Dr Brian Monk

**Research topic or focus:** Enhancing the efficacy of Antimicrobial peptide BM2 against mono-species biofilms. Her research interest is in Endodontics, and she has five publications to date in this specialist field.

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George Mombi

George is from Papua New Guinea. He graduated with a DipTh, a BTh and an MTh from Christian Leaders’ Training College (CLTC), PNG. George commenced his PhD in semester two 2015, and is supported by a University of Otago Doctoral Scholarship. Before coming to Otago, he was a lecturer at CLTC from 2011 to June 2015. At the end of his studies, he will return to teach at CLTC.

Academic department: Theology and Religion, University of Otago
Division: Humanities
Supervisors: Professor Paul Trebilco
Dr John M. Hitchen
Research topic or focus: Exploring the meaning and significance of the concept of ‘in Christ’ in Colossians as a response to Melanesian concept of Gutpela Sindaun. Special attention will be paid to the concepts of fullness, riches, mystery and hidden, which feature significantly in Melanesian cultural approaches to Gutpela Sindaun.

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1 Gutpela Sindaun refers to “the good life.” Gutpela Sindaun is the object of the cultural aspirations of many cultural groups in Melanesia. The concept lies at the heart of many of the new religious movements which have characterised the Melanesian religious scene since the advent of the colonial powers.
Jarrod was born in New Zealand and raised in Samoa. He holds a BSc and a PGDipSci in Anatomy from the University of Otago. He was a recipient of the Full Circle Theme: Genetics of Māori and Pacific Health summer scholarship. His MSc investigates the genetics and metabolic health in Pacific teenagers. Jarrod is a recipient of the NZ Health Research Council's prestigious PhD scholarship to pursue a doctoral degree in Biochemistry.

**Academic department:**  Biochemistry, University of Otago

**Division:**  Health Sciences

**Supervisor:**  Associate Professor Tony Merriman

**Research topic or focus:**  Examining the metabolic health status of young Pacific people and evaluating specific genetic variants associated with obesity and gout. Further PhD study will investigate the blood biochemistry and lipid profiles of Pacific people to identify pathways that could be targeted in treating metabolic disorders to which Pacific people are more susceptible.

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Lenara is of Samoan-Chinese ethnicity. She is currently studying towards a Master of Tourism at the University of Otago. She holds a BA in Tourism and Sociology from the University of the South Pacific, a Certificate in Visual Arts and Design from NMIT, Nelson, and a Certificate of Training and Assessment from the Australia-Pacific Technical College, Samoa. Lenara has previously served as a public servant in the Samoa National Provident Fund, tutored at USP and is currently a Lecturer at the National University of Samoa.

**Academic department:** Tourism, University of Otago  
**Division:** Commerce  
**Supervisors:** Associate Professor Brent Lovelock  
**Research topic or focus:** Discussing community responses to tourism development on Apolima Island in Samoa, relative to Samoa's overarching sustainable tourism focus.  
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FAAFETAI TELE LAVA

The Pacific Postgraduate Reference Group was established in late 2002 to support our research students via monthly seminars and meetings. This led to the idea of an annual symposium and the birth of Pacific Voices. The first symposium was held in 2004.

The 12th Symposium, as in previous years, has come together through the hard work of many people who gave their time, intellect and experience to ensure that our students’ voices are heard. This group continues to grow, as students are supported in the early stages of their research and postgraduate studies. A new growth initiative has been added this year – publishing profiles of students wishing to declare their research interest (rather than present a full abstract). More needs to be done; Pacific students need to go on to higher degrees, and the Symposium is one way of assisting them to get there. I am encouraged by the growth of similar support being established within Departments and nationwide through the Talanoa programme.

I would like to pay tribute to our editorial team, Drs Claire Matthewson, Mele Taumoepeau, Nanai Iati Iati, and new members Dr Rose Richards, Dr Marie Inder, and Clara Pau – to see the growth of Pacific academic staff involved in this annual event is reason enough to celebrate. I would also like to acknowledge the supervisors and academic staff who work tirelessly supporting our postgraduate students in their various researches. Thank you to Katherine Milburn and Amanda Mills from Hocken Collections for assisting our students all year. Thank you – to Professor Rachel Spronken-Smith, for once again writing this publication’s Foreword; to Mr John Patrick, Chief Operating Officer of the University, for providing the 2015 Opening Address. It’s a pleasure also to acknowledge our Symposium Chairs: Professor Tony Ballantyne, Pro-Vice-Chancellor, Humanities (designate), Professor Pauline Norris from the School of Pharmacy, and Dr Charles Tustin, Head, Abbey College. Faafetai tele lava. Most of all, to the Stars – our students –

Oceania
O le faasinomaga
a place we fondly call home
That place – echoing in the wind
calling you and me
The land/famua/fonua that marked us
Oceania
The flower/sulu/tapa that you and I wear proudly
Our musical medleys, overlapping, infusing
Calling us Defining us
Oceania
(TNKA 2015)

Tofilau Nina Kirifi-Alai
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