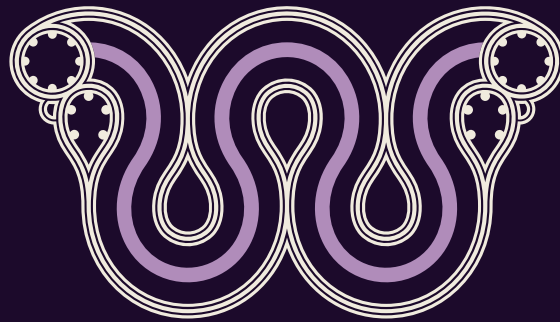




PŪTAHI MANAWA

HEALTHY HEARTS FOR
AOTEAROA NEW ZEALAND

HE PŪRONGORONGO Ā-TAU
CoRE Annual Report

1 January - 31 December 2023





Mihi

Tihei mauri ora!
Ko te manawa pūtahi o te ora
Ko te manawa pūtahi o te kōrero
Ko te manawa pūtahi o te iwi
Ko Pūtahi Manawa tēnei e mihi ake nei.
Ki ngā manawa tītī
E kawē nei, ā, e tautoko nei
I ngā hapori o te motu
Tēnā rā koutou katoa.
Anei te Pūrongo-ā-tau
Hei mātakitaki māu.
Ko te tūmanako ia ka arotakengia
E tātou ngā mahi o te tau tawhito
Hei hua ki te tau hou.

Greetings

I sneeze the breath of life
A confluence of heart health experts
A confluence of research
A confluence of communities
Pūtahi Manawa greets you
To the tireless efforts of the many
That serve and support
Our many communities
We wish to thank you all.
Please find here our Annual Report
For your perusal.
We trust you will join us in reviewing
The past 12-months
To help us better navigate the next year.

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Whakatauki

Nā tō rourou, nā taku rourou ka ora ai te iwi

With your food basket and my food basket the people will thrive

Māori whakatauki

O le tele o sulu e maua ai figota

Through collaboration, the most difficult challenges can be overcome

Samoan proverb

These whakatauki/proverbs speak to the collaborative efforts of different groups working together to achieve a common desired outcome.



He mihi nā te Poari me ngā Manutaki

| Welcome from the Board and Co-Directors

It has been a very busy and hugely successful year for Pūtahi Manawa. The year got off to a most dynamic start with Te Ahi Manawa – a moment for Pūtahi Manawa membership to finally meet face-to-face and celebrate with our communities the establishment of a Centre of Research Excellence (CoRE) for heart health equity. Since then, it has been all systems go as our four flagship research projects, called Integrated Research Modules (IRM), got fully underway with their community engagement across the motu. A major highlight this year was our inaugural and hugely successful summer internship programme for 24 (mostly Māori) students. Pleasingly, some wish to continue in research and have initiated research Honours and Masters degrees.

We were sad to see Dr Anna Rolleston step down as Co-Director in July and we are extremely grateful to Dr Rolleston for her leadership, energy, ideas and mahi for Pūtahi Manawa, including during the inception phase prior to the establishment of the CoRE. Following Dr Rolleston's resignation, we were delighted to welcome Dr Karen Brewer as our new Co-Director Māori. Dr Rolleston remains an active member of the CoRE, continuing to serve on our Māori Leadership Team, and was available to provide support for our new Co-Director Māori during the handover.

As well as overseeing a well-ordered transition for our Co-Director Māori and ensuring that operations have run smoothly during the change, our Governance Board has been busy providing guidance and oversight for Pūtahi Manawa. Membership of the Board is unchanged (see Appendix 1), and meetings continue to be held quarterly, with additional ad hoc meetings as required, as well as fortnightly meetings between the Co-Directors and Board Chair. As part of our Annual Report, the financial report for 2023 can be found in Appendix 2.

In addition to the above, we have also completed an outcomes framework (see Appendix 4), which will be used to guide the CoRE's strategy and to measure our success. The framework will be reviewed and updated as needed. The Board and Co-Directors have also instigated a piece of research to evaluate the effectiveness of our co-design processes in our flagship IRM projects. The project has been awarded to an outstanding team from Moana Connect and Weaving Insights which began in February 2024. Details of the project can be found in the Research Excellence section. By evaluating the effectiveness of this element of our funding principles we hope to establish that our business not as usual model works and to provide a best practice guide that will support the use of co-design by Pūtahi Manawa researchers and communities and beyond. With all that is going on and a need to keep everyone up to date, we introduced reporting by IRM leads to our Governance Board and established early career researcher representation across our Board and committees. We are also delighted to have launched our brand new Pūtahi Manawa website (www.putahimanawa.ac.nz).

Projecting forward, plans are afoot for a tripartite directorship with appointment of a Co-Director Pacific in 2024 to boost our Pacific leadership and research.

We wish to thank our fantastic operations team (Linda Fotherby, Research Operations Manager; Lisa Wong, Research Engagement Manager; Dr Anuj Bhargava, Outreach & Education Lead; Matua Joe Pihema, Pou Tikanga; Nuseta Hope, Research Operations Coordinator), our Māori and Pacific Leadership Teams, Funding Panel Co-Chairs, Outreach and Education Team and all members of our Governance Board.

Kent Gardner,
Board Chair, Pūtahi Manawa
on behalf of the Governance Board

Dr Karen Brewer
Co-Director Māori
Pūtahi Manawa

Professor Julian Paton
Co-Director
Pūtahi Manawa

April 2024



Pūtahi Manawa Board members at our Te Ahi Manawa celebration in February 2023. From left: Professor Sue Crengle, Ms Sharon Shea MNZM, Kent Gardner (Chair), Professor Jim Metson, Dr Mataroria Lyndon, Professor Palatasa Havea ONZM.



Pūtahi Manawa Co-Directors Dr Karen Brewer and Professor Julian Paton

Rangahau kounga | Research Excellence

Pūtahi Manawa's research work continues to develop and thrive. Our four Integrated Research Modules (IRMs) are up and running and we have shared highlights from the year for each IRM below. A three-year fellowship for Dr Debbie Zhao on *Redefining references ranges for heart health in Aotearoa* started in October 2023. A research project to evaluate the co-design work undertaken by our IRMs was also initiated and is being led by Jacinta Fa'alili-Fidow of Moana Connect and Nan Wehipeihana of Weaving Insights.

Several of our Primer and Equity projects awarded in previous years are still ongoing, having had time extensions. This is due to the time needed to undertake co-design work and we acknowledge that working in this way does take longer than a business-as-usual style project. The Primer grant to Dr Kate Thomas has concluded successfully, with the work leading to two further research projects – a summer research project and a Lottery Health Research Grant to Associate Investigator, Dr Brendan Roxburgh.

Our inaugural summer research student programme has been an outstanding success which we will build on for 2024. Our Infrastructure Working Group is developing useful resources and information to support the research work of our members. Pūtahi

Manawa has presented at several symposia including the NZ Medical Sciences Congress at Queenstown Research Week and the Cardiac Society of Australia and New Zealand (CSANZ) New Zealand Annual Scientific Meeting.

Future funding rounds

We paused our funding rounds in the latter part of 2023 to review and redesign our awards to ensure they provide maximum benefit and support for our vision of heart health equity for Māori, for Pacific Peoples and for women. A revised funding plan is being put in place for 2024. Eligibility criteria for fellowships has changed to make them more accessible to Māori and Pacific community researchers and there are dedicated awards for Māori and for Pacific researchers and for women researching women's heart health. Scholarships are being offered for Doctoral and Masters/B(Hons) study, with dedicated awards for Māori and for Pacific students. These rounds opened in April 2024. Project funding rounds and Summer Research Scholarships programmes for both Māori and Pacific students will open in the later part of 2024 along with a funding round for a Pacific-led IRM. A total of ~\$7million has been allocated for funding rounds in 2024.



IRM research team members and Pūtahi Manawa operations team at IRM hui, November 2023.

Integrated Research Modules

The four Integrated Research Modules (IRMs) that were awarded funding in 2022 are up and running – the projects all started between 1 December 2022 and 1 March 2023. These projects are:

- Sweet Pressure – Improving outcomes for people with diabetes and high blood pressure in Aotearoa New Zealand (henceforth referred to as Sweet Pressure).
- Te Ara Poutama: Living Well with Heart Disease (henceforth referred to as Te Ara Poutama).
- Ō tātou ngākau, ō tātou ira, ō tātou kōrero / Our heart, our genes, our story (henceforth referred to as Our Hearts, Our Genes).
- Restoring the Balance: Heart health of Wahine, Fafine, Va'ine, Fifine & Women of Aotearoa (henceforth referred to as Wāhine).

All IRMs reported some delays to the co-design process – establishing relationships and arranging co-design hui has taken longer than first anticipated. However, the IRMs now have their co-design underway, and the delays will only be a few months. IRMs have pivoted and adjusted to compensate and minimise negative impact on progress. The Te Ara Poutama and Wāhine projects are collaborating to undertake co-design with Māori communities together, and this is working well.

Highlights from IRMs

Te Ara Poutama

Te Ara Poutama launched their bilingual heart health survey at Te Matatini kapa haka festival in Auckland. The festival attracts tens of thousands of mostly Māori visitors and was a fantastic opportunity for the IRM to collect data from across the motu. The team had a welcoming tent with snacks, drinks and chill-out space for visitors, as well as clinicians available to whānau to talk to about their heart health stories and concerns. Further data were collected through networks in the following months and the survey was completed by around 1,000 participants. Analysis of the data began at the end of 2023 and is being undertaken by a health data analyst funded by Pūtahi Manawa.

Te Ara Poutama has also completed a very successful summer research student (Kura Raumatī) programme, as well as supporting Pūtahi Manawa's Māori summer research students – details on that are given above.



Erina Korohina and members of Te Ara Poutama at their stand at Te Matatini

Sweet Pressure

Sweet Pressure has developed excellent relationships and started co-design work with Turanga Health in Tairāwhiti and Amanaki STEM Academy (a Pacific initiative) in Palmerston North. Initial engagement has been with the community-facing staff of Turanga Health partners. With the support and feedback from Turanga Health the IRM team are now embarking on direct engagement with the Elgin community in collaboration with Prof. Holly Thorpe. Members of the Sweet Pressure team also attended a talanoa organised by Pūtahi Manawa with Amanaki STEM Academy (ASA) students and families in Palmerston North in April 2023. The community indicated they were very interested in the Sweet Pressure project. Sweet Pressure has now held multiple talanoa with the ASA students, staff and whānau. They have met with Pacific community health leaders in Palmerston North, who have offered support and guidance with how to safely approach the Sweet Pressure topic with the ASA community. In the second half of 2024 the team will work with ASA staff, students and parents to design a formal research study around a planned 8-week wellbeing/health program that ASA parents are encouraged to participate in during the first term of each year.



Prof. Andrew Lowe from Sweet Pressure teaching students at an Amanaki STEM Academy talanoa.

Wāhine

Wāhine has completed a stock take of existing data related to women's heart health available in national health datasets and National Women's data and identified relevant data on pregnancy-related risk factors. A literature search has been completed, resulting in the identification of the following relevant biomarkers to identify in stored bloods: oestradiol, testosterone, sex hormone binding globulin, anti-müllerian hormone and follicle-stimulating hormone. A literature review has also been completed that uniquely combines standard academic literature with community feedback. Community engagement partners in the transgender communities have been identified and confirmed in Wellington, Nelson and Hamilton and engagement started at the beginning of 2024.

In 2023 Pūtahi Manawa had several meetings with the New Zealand Athlete's Federation to discuss whether some of their retiring athletes could participate in the work being done by the IRMs. This has resulted in an agreement for Franchise and Silver Fern netball player Sulu Fitzpatrick to join the Wāhine IRM. This will be a



Sulu Fitzpatrick

part-time paid role, with Sulu working with the team on engagement with Pacific communities. Pūtahi Manawa has provided extra funding to cover Sulu's salary.

Our Hearts, Our Genes

The Our Hearts, Our Genes team held a successful workshop titled "Unlocking Life's Code: Genomics in Schools" at the Fale Pasifika, Waipapa Taumata Rau | University of Auckland on 10 July 2023, supported by the Pūtahi Manawa Outreach and Education Team. The principal purpose of the workshop, run in conjunction with Genomics Aotearoa, was to introduce primary and secondary school teachers to some of the opportunities and pedagogical strategies available for incorporating environmental DNA sampling, genomics and bioinformatics content in the classroom. The workshop provided an opportunity to raise teacher awareness about Indigenous perspectives on genomics and the activities of organisations that are working to encourage more Māori and Pacific students into genomics-related STEM careers. Approximately 60 teachers from Auckland and Northland attended. Post-workshop a majority of teachers reported a significantly increased interest in pursuing environmental DNA sampling activities with their students, and an increased desire to run DNA-based practical lessons in the classroom. Dr Theirry Lints ran a follow-up professional development training day with teachers at Bay of Islands College on 20 November giving



Teachers at Unlocking Life's Code: Genomics in Schools workshop

teachers hands-on experience of DNA techniques (PCR, restriction digestion of DNA and agarose gel electrophoresis). In 2024, this will be rolled-out to students in classrooms at Bay of Islands College.

Saraya Hogan (Ngāti Hako) began her Master of Genetic Counselling thesis project with Our Hearts, Our Genes in July 2023. Title: 'Understanding the perspectives of Māori towards whole genome testing for cardiovascular inherited diseases; a Qualitative phenomenology/Kaupapa Māori framework'. The Masters programme is run by University of Technology Sydney as an online course, as there is no equivalent programme offered in New Zealand. Saraya will be the first Māori student in Aotearoa NZ to gain this qualification. The IRM is partially funding Saraya's tuition fees.



Saraya Hogan

IRM hui 24 November 2023

We held an in-person hui for our Integrated Research Module teams in November 2023. This gave the researchers the chance to learn more about the work that was being done by other research teams and discuss potential collaborations. The Infrastructure Working Group gave a presentation on the work that was being done to provide access to resources for all Pūtahi Manawa researchers. Researchers from the newly awarded "Evaluation of the Co-Design Process of the Pūtahi Manawa Integrated Research Modules" introduced themselves to the IRM teams and informed them of the work they will be doing to evaluate the IRM co-design processes. The researchers felt it was a valuable session and would like to have further chances to meet up in 2024.

IRM contracting

A fifth IRM project was considered and awarded conditionally. Following discussion with the IRM Principal Investigator, advice from the Pacific Leadership Team and Board, and an independent review, the project did not proceed. Pūtahi Manawa will run a special funding round in 2024, guided by the Pacific Leadership Team, to establish a Pacific-led Integrated Research Module. The Board will also consider the implementation of recommendations from the review.

2023 fellowship award

Dr Debbie Zhao, Auckland Bioengineering Institute, University of Auckland – Redefining references ranges for heart health in Aotearoa

Amount awarded: \$843,039

Project Dates: 1/10/2023 – 30/9/2026

Summary of Research

Cardiac magnetic resonance imaging (MRI) is widely used to assess cardiovascular function in health and disease. It is regarded as the gold standard for non-invasive measurement of heart size, morphology, and function. Essential to assessment with MRI is knowledge of the "normal" ranges for cardiac size, mass, and volumes, which vary naturally with age and body mass composition, which in turn are influenced by sex and ethnicity. These ranges provide important threshold values for diagnosis, prognosis, and ultimately clinical decision-making.



Although these have been defined for European populations, MRI reference ranges specific to Māori and Pacific populations do not yet exist. The use of the current non-representative guidelines results in missed or incorrect diagnosis of heart disease for Māori and Pacific Peoples. This delays treatment and adversely affects patient health. There is a critical and urgent need to establish appropriate normative reference values for cardiac assess.

Project award

Jacinta Fa'alili-Fidow, Moana Connect & Nan Wehipeihana, Weaving Insights - An Evaluation of the Co-Design Process of the Pūtahi Manawa Integrated Research Modules

Amount Awarded: \$500,000

Project Dates: 1/2/2024 – 31/1/2027

Summary of Project

The aims of the project are to:

- Understand the experience of engagement and co-design from the perspective of communities to inform a best-practice processes by research and health practitioners.
- With communities, determine a set of principles



Jacinta Fa'alili-Fidow



Nan Wehipeihana

for engagement and co-design that support mana-enhancing experiences for communities involved in research to form the basis of an Aotearoa – based “Gold Standard” of co-design for health.

- Describe and document case studies of Pūtahi Manawa researchers who are undertaking this “business not as usual” (BNAU) journey in their research to understand their “why”. This will help to inform how one may engage other researchers to adopt a BNAU approach, such as Pūtahi Manawa’s funding principles, in future.

Primer grant completion

Optimising heat therapy for improving inequities in the treatment of hypertension

Awarded to Dr Kate Thomas, University of Otago in December 2021

The project was extended as work to recruit Māori participants took longer than anticipated. The recruitment and data collection for the heat therapy intervention was completed by the end of 2023. The study found that ambulatory systolic blood pressure was 5-7 mm Hg lower in the 24-h following each immersion, compared to control. This is a clinically meaningful decrease in systolic blood pressure and occurred irrespective of duration of exposure or water temperature. In follow-up interviews, although many participants highlighted the physical benefits, many commented on the hinengaro (mental), wairua (spiritual) and whānau (family) hauora (health) benefits of water.

This work has led to two further studies. One is a study investigating if hypotensive benefits can be achieved with home-style bath or lower leg bathing. HeartOtago funded a Cook Island Māori student to initiate data collection for these studies as part of a summer studentship. As the study showed that thermoneutral immersion is effective for reducing 24-h blood pressure the student is now inspired to investigate the effect of lagoon style bathing on blood pressure in her home community (Rarotonga).

This funding has also led to Assoc. Investigator Dr Brendon Roxburgh receiving a \$160,000 Lottery Health Research Grant to conduct a randomised controlled trial investigating heat therapy vs exercise on 24-h blood pressure. The results and feedback from the ongoing co-design process have helped with the study design for this.



Dr Brendon Roxburgh in the spa treatment room

Boosting allied health in research

Pūtahi Manawa is supporting the Cardiac Society of Australia and New Zealand (CSANZ) Allied Health Chapter, led by Stacey Neilson (Team Leader at Te Whatu Ora Lakes) to look at how we can boost allied health participation in research. Allied health professionals in cardiology include physiologists, physiotherapists, pharmacists, cardiac technicians and sonographers. While there are increasing pressures in service delivery, the role of Allied Health in leading, conducting, and implementing research is critical in ensuring our patients are getting the best and most up to date care possible. These professionals are best placed to come up with the research questions to impact patient care but may not have the support or funding to do so.

To boost engagement, Lisa Wong (Pūtahi Manawa Research Engagement Manager) and Stacey have conducted small discussion groups and surveys at Tauranga Hospital, Christchurch Hospital and Waikato Hospital to gauge interest and identify barriers to research in order to develop appropriate resources and support in partnership with CSANZ. Allied Health are the second largest workforce in public health and increasing their participation in research engagement will have enormous impact on health research in the country and ultimately improve patient care.

Lisa Wong and Stacey Neilson



Summer Research Scholarships for undergraduate students

In 2023 we initiated a summer research programme for undergraduate students, with the aim of encouraging students, especially Māori and Pacific students, to consider a career in research or to incorporate research as part of their career. We offered six scholarships of \$8,500, two to each of our local heart research centres – Manaaki Manawa, Heart Otago and Christchurch. Of the two scholarships, at least one had to be awarded to a Māori or Pacific student.

We also funded summer scholarships for 8 Māori students from Pūhoro STEMM Academy and organised research projects for them with Pūtahi Manawa researchers. Our Te Ara Poutama Integrated Research Module project funded and supported projects for 10 Māori summer research students.

This resulted in a total of 24 summer research scholarships and projects being funded. The summer scholarships started at the beginning of December 2023, were completed in February 2024 and were 8-10 weeks long.

A full list of the students, their supervisors and projects is given in Appendix 3.

For our 21 Māori summer research students a whole programme (Kura Raumati) was put together by Te Ara Poutama Principal Investigator Erina Korohina and Pūtahi Manawa Outreach and Education Lead Dr Anuj Bhargava. This included a five-day residential induction wānanga at Araparera marae in the Kaipara District, kindly hosted by Ngāti Whātua, continuing support by Erina and Anuj in addition to that offered by the supervisors, an end of programme presentation to Pūtahi Manawa members and supervisors at Waipapa Marae and the Fale Pasifika at the Waipapa Taumata Rau | University of Auckland on 7-8 February and continued contact and support by Erina and Anuj after the end of the programme.

A video of some of the Kura Raumati tauira talking about their experience can be seen at <https://m.youtube.com/watch?v=jULNiusHksk>.



Above: Our Pou Tikanga, Matua Joe Pihema, with Kura Raumati students at wānanga, Araparera marae

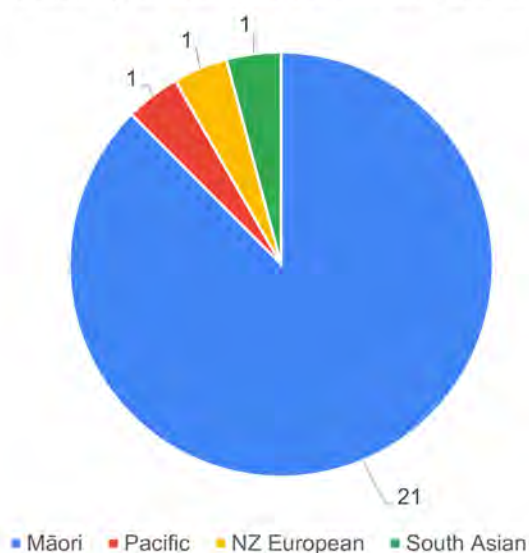
Below: Pōhiri at end of Kura Raumati programme celebration, Waipapa Marae, Waipapa Taumata Rau | University of Auckland





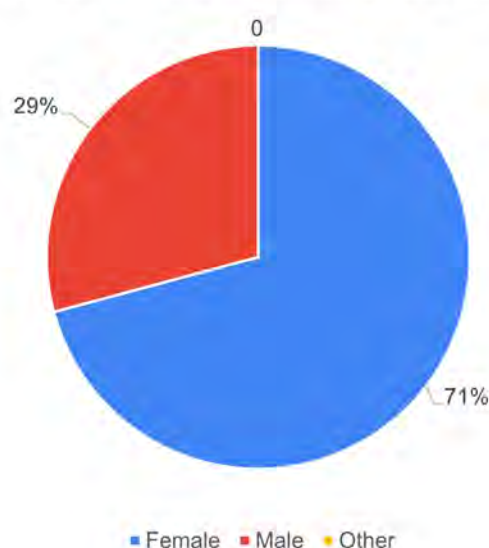
Above: Kura Raumati taura Akuira Whaanga presenting her project on “Equity-focused Discharge Planning for Heart Failure” at the end of programme celebration at Waipapa Taumata Rau | University of Auckland.

Ethnicity of Summer Research Scholars



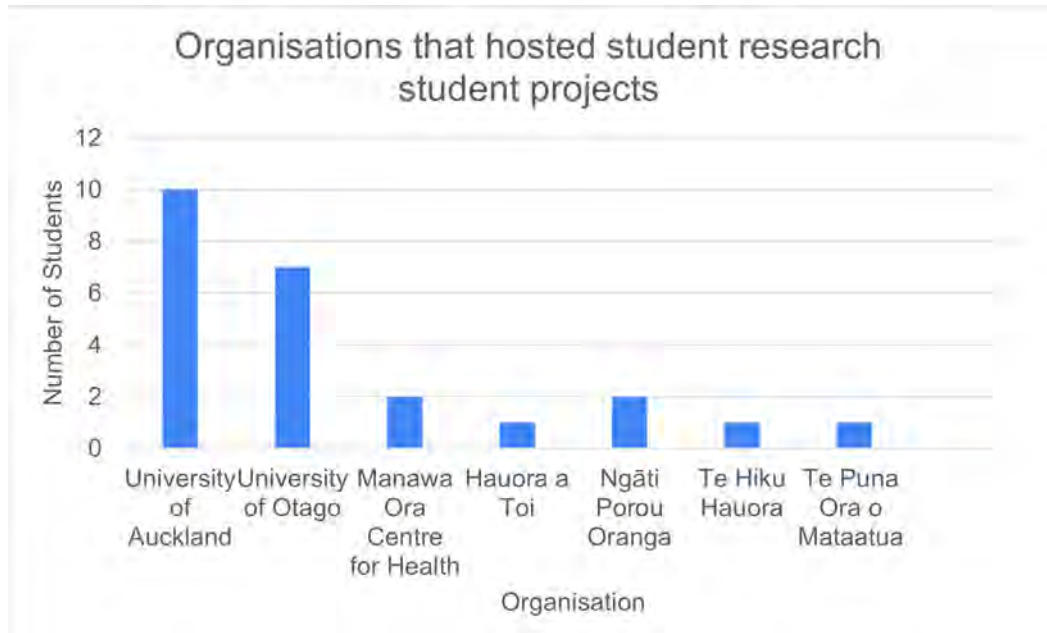
As the chart above left shows, most of the students were Māori. This was because the majority of students came via the Māori focused Te Ara Poutama Integrated Research Module and Pūhoro STEM Academy, a nationwide Māori STEM education initiative. We are continuing the successful Kura Raumati programme in 2024 but are also investing in the development of a Pacific Summer Research

Gender of Summer Research Scholars



Programme. Erina Korohina has been engaged part time to lead the Kura Raumati programme for 2024/25.

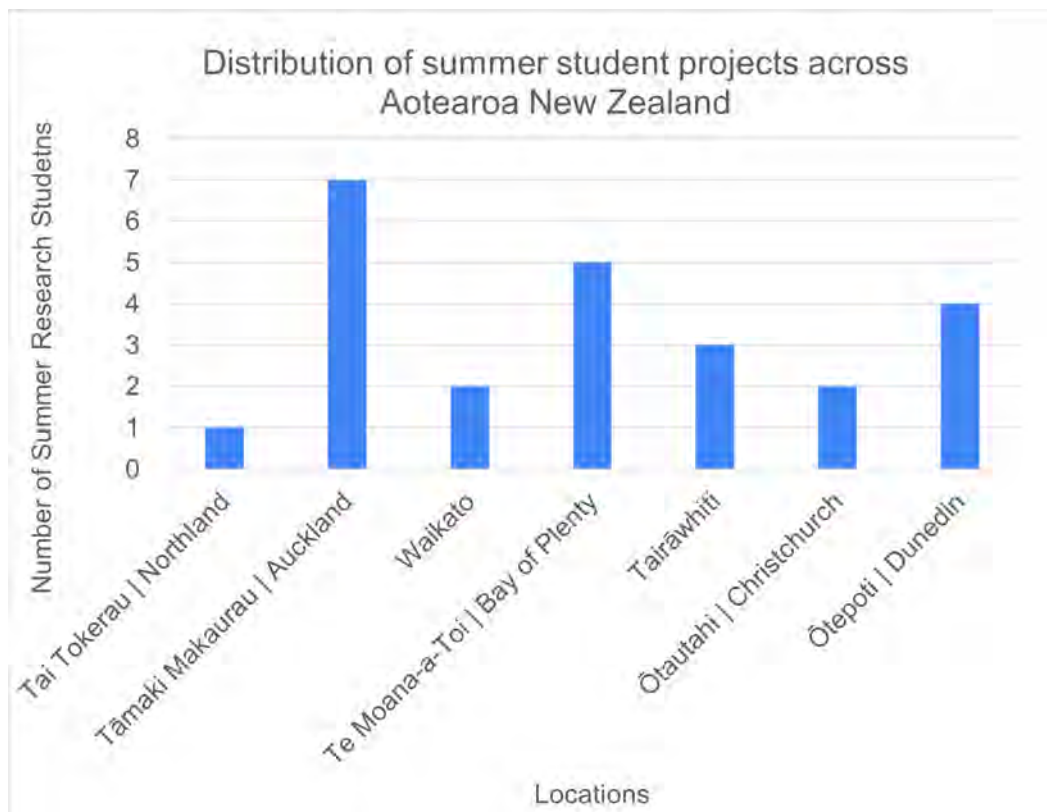
The chart above right shows that majority of students were female, which is consistent with Pūhoro Manawa's drive to support women capacity and capability in research and women's heart health.



The graph above indicates the number of students hosted by each organisation. The majority were at the University of Auckland and University of Otago, but seven students in total were hosted by Māori community/iwi organisations in the students' home communities such as Ngāti Porou Oranga in Tairāwhiti and Te Hiku Hauora in Tai Tokerau. We

plan to increase this proportion in the Kura Raumati programme during 2024/25 summer.

The graph below shows the distribution of the summer research student projects across Aotearoa New Zealand. We hope to spread the distribution of projects even more widely across the country in future years.



Infrastructure Working Group

The Pūtahi Manawa Infrastructure Working Group has been established to ensure that Pūtahi Manawa members have access to infrastructure such as tissue banks, data sets and research equipment needed for their research work. Part of this work is supporting a user manual on Māori data sovereignty. It also supports accessing existing large data sets (eg, epidemiological) which is described below.

Data Technologist

Pūtahi Manawa has employed a part-time data technologist, Katharine Sworden, to complete and maintain a stocktake of cardiovascular research involving human participants in Aotearoa New Zealand. This work has now been completed and will be made available to Pūtahi Manawa researchers. Katherine has also been assisting our IRMs with data analysis and reporting support and has been working on the data collected by the Te Ara Poutama and Wāhine IRMs.

Health Data Platform

Infrastructure group member, Assoc. Prof. Katrina Poppe has led the development of the University of Auckland's Health Data Platform, which was launched at the end of 2023. The Health Data Platform is a University of Auckland service providing secure access to linked routinely collected national health data (eg, hospitalisations, mortality, medication dispensing) in a format that is ready for analysis for research or teaching projects with ethics approval. The service is operated by the Schools of Medicine and Population Health in the Faculty of Medical and Health Sciences. The service is currently only available for University of Auckland (or affiliated) staff and students, but the intention is to extend this paid service to external researchers in the near future. Pūtahi Manawa researchers who collaborate with University of Auckland researchers on their projects (eg, our IRMs) will be able to access the platform. Assoc. Prof. Katrina Poppe gave a presentation on the service at the hui we held for our IRMs in November 2023 and information on the platform will be published on our website.

Māori Data Sovereignty

The Infrastructure Working Group identified a need for more support for our researchers on Māori Data Sovereignty. Pūtahi Manawa has engaged

Dr Karaitiana Tairuru of Tairuru & Associates Ltd and Naomi Manu of Auraki Group Ltd (<https://aurakigroup.com>) to prepare guidelines on Māori Data Sovereignty for Pūtahi Manawa members. Naomi Manu founded Pūhoro STEM Academy and recently co-founded Auraki Group, which encourages Māori participation in STEM careers through its Poipoia data apprenticeship programme and enhances data tech capabilities of Māori and iwi organisations. Naomi was made a Member of the New Zealand Order of Merit in the New Year Honours list for services to STEM (science, technology, engineering and maths) education and Māori. Dr Tairuru is a leading authority and highly regarded Māori technology ethicist specialising in Māori rights with AI, Māori Data Sovereignty and Governance with emerging digital technologies and biological sciences.



Ms Naomi Manu



Dr Karaitiana Tairuru

Pūtahi Manawa Presentations at Symposia in 2023

Auckland Cardiac Electrophysiology Symposium

Pūtahi Manawa Research Operations Manager Linda Fotherby, Outreach and Education Lead Dr Anuj Bhargava and Pūtahi Manawa Fellow Dr Debbie Zhao gave a presentation on the CoRE's BNAU model and our outreach and education work at the Auckland Cardiac Electrophysiology Symposium hosted by the Auckland Bioengineering Institute, University of Auckland in April 2023.

NZ Medical Sciences Congress at Queenstown Research Week

Several Pūtahi Manawa members presented at this annual meeting held in August 2023, at two symposia:

Pūtahi Manawa CoRE: Education and Outreach in Science Technology Engineering (Arts) & Mathematics (STEM/STEAM)

Chairs: Dr Anuj Bhargava (University of Auckland and Pūtahi Manawa Outreach Lead) and Ms Lisa Wong (Pūtahi Manawa Research Engagement Manager).

Speakers included:

- Dr Susannah Stevens, University of Canterbury and Pūtahi Manawa Outreach team
- Dr Allamanda Faatoese, University of Otago, Christchurch and Pūtahi Manawa Outreach team
- Ms Soteria Ieremia, Kudos Science Trust and Pūtahi Manawa Pacific Leadership Team Co-Chair
- Mrs Naomi Manu, Auraki Group
- Mr Viliami Temohenga and Tanya Koro, Amanaki STEM Academy

Auckland University of Technology and Pūtahi Manawa CoRE: Data and Digital Technology in Healthcare.

Chairs: Prof. Andrew Lowe (Auckland University of Technology) and Ms Lisa Wong (Pūtahi Manawa Research Engagement Manager)

Speakers included:

- Samaneh Madanian, Monash University
- Dr Karaitiana Taiuru, Taiuru and Associates & Pūtahi Manawa Māori Leadership Team member
- Dr Corina Grey, Ministry of Health & Pūtahi Manawa Funding Panel Co-Chair

Cardiac Society of Australia and New Zealand (CSANZ)

Pūtahi Manawa was invited to contribute to the

Plenary Session of the Cardiac Society of Australia and New Zealand (CSANZ) New Zealand Annual Scientific Meeting in June 2023 to discuss: Improving cardiac care equity with research. Dr Anna Rolleston and Professor Julian Paton both spoke and Dr Rolleston chaired a session. The presentation discussed Pūtahi Manawa's BNAU approach to research and showcased our Integrated Research Modules as examples of this approach.

Other members who presented include Dr Wil Harrison, Dr Matire Harwood, Dr Corina Grey (who delivered the Heart Foundation Lecture), Prof. Rod Jackson, Dr. Karen Brewer and Assoc. Prof. Katrina Poppe also presented.

Pūtahi Manawa's code of conduct has been used as a gold standard exemplar by the CSANZ team working on the terms of reference for a CSANZ equity working group.

Te Whare Tukutuku

The Te Whare Tukutuku wānanga is held yearly in conjunction with the CSANZ Annual Scientific Meeting. Te Whare Tukutuku provides a specific and safe place for Māori and Pasifika to come together and continue to build this 'web' of strong connections and whānaungatanga (relationships) in the heart health space. Pūtahi Manawa members (including Dr Anna Rolleston, Dr Corina Grey, Erina Korohina and Dr Wil Harrison) have been instrumental in establishing and organising the Te Whare Tukutuku network.



Speakers from Pūtahi Manawa Education and Outreach in Science Technology Engineering (Arts) & Mathematics, at NZ Medical Sciences Congress at Queenstown Research Week

Sweet Pressure and ASA

Connecting community, growing the next generation of Pasifika researchers

Pūtahi Manawa has one main goal – to close the gap in heart health equity for Māori and Pacific Peoples. It supports research that is very much not business as usual. The projects take a multidisciplinary approach to tackling heart health challenges while putting at the centre those people and communities they hope to help.

Dr Anuj Bhargava, Pūtahi Manawa's outreach and education lead, connects with these communities to develop education programmes which can lead to long-term relationships and opportunities

to collaborate on more impactful methods of research.

“One of the aspects of research is ensuring it's done in a culturally informed way. You can't do world-class research if it doesn't go into the community,” says Dr Bhargava.

Dr Bhargava recognised the mahi already underway at Amanaki STEM Academy (ASA), an after-school programme dedicated to nurturing Pacific youth, prioritising work ethic and normalising excellence in STEM. The programme has been immensely successful, delivering an NCEA pass rate of 94%, on par with prestigious and well-funded private schools. ASA's work dovetailed nicely with Pūtahi Manawa's.



Dr Fiona McBryde with Amanaki STEM Academy students at Heart2Heart session in Palmerston North, April 2023

“We’ve learned the best way to engage is through the young people. They can make a difference,” he explains.

“Rather than us coming in and saying, ‘You need to do this or that,’ we can empower young people with knowledge, so they can make their own decisions and influence their families and communities.”

ASA invited Pūtahi Manawa to engage and, after some initial outreach events, 60 whānau, researchers and students came together for the Heart to Heart Talanoa. This whakawhanaungatanga – building trust, connecting and learning from one another – is a critical first step in all of Pūtahi Manawa’s mahi.

“We spent a year building that relationship,” says Dr Bhargava. “It is not a tick-box exercise. We take the time, but once the relationship is established, it’s there forever.”

One of those researchers at the talanoa was Dr Fiona McBryde, a senior research fellow and senior lecturer at Auckland University’s Faculty of Medical and Health Sciences. Her research initiative, Sweet Pressure, is one of Pūtahi Manawa’s flagship IRM projects. Aiming to prevent and treat high blood pressure and diabetes together, Sweet Pressure’s work is far from traditional research.

“ We have the freedom to explore open-ended questions. We can listen to the communities and shift our mahi accordingly.”

Dr Fiona McBryde

That freedom meant that Dr McBryde and the Sweet Pressure team weren’t locked into their programme. They could change their plans to work alongside ASA when the opportunity came up.

Out of the lab and to the kids

Connecting with ASA gave Sweet Pressure the chance to help build the heart health literacy of

students while inspiring the next generation of Pacific health researchers. It also enabled Sweet Pressure’s own heart health research projects. The key, says Dr McBryde, is to co-design the mahi with the students and community.

“It’s moving away from the model where I sit in my ivory tower at the university and write a programme of work,” says Dr McBryde.

“Instead, we’re out in the community, meeting people, patients and whānau, hearing the stories and taking them back to the lab to shape what we’re doing.”

That codesign takes more than a single meeting. “It’s iterative. We have regular meetings, going back and forth, arguing,” she explains.

When research is conducted from the ground up, the outcomes are better suited to the realities of the community it hopes to help.

“The research can then be culturally informed, locally made, and in the context of the availability of resources,” says Dr Bhargava. “It also removes much of the blame and shame attached to the interventions.”

Building health literacy in tupulaga talavou | young people

Sweet Pressure contributes to the programme’s content. It helps frame the STEM activities and learning around health and medicine, and supplies information and specialist equipment. The idea is to influence and equip Pasifika youth to see health research as a career option, ensuring we have the people who can lead this work in the future. The team also supports students to create their own research projects on heart health with their families, with a goal of entering these into a Science Fair.

The relationship with ASA will also have a more immediate impact on the health of the kids, their families and communities.

“By helping these kids, we’re also increasing their health literacy – and they can become a vector for change in their families,” says Dr McBryde.

Whakatupu pitomata | Investing in the Future

Celebrating and connecting - Te Ahi Manawa

Pūtahi Manawa held our first ever in person event, our Te Ahi Manawa celebration on 9 and 10 February 2023, in spite of the extreme weather events in the preceding weeks. It was held at the Fale Pasifika at Waipapa Taumata Rau | The University of Auckland. The Co-Directors thank the Outreach and Education Lead, Dr Anuj Bhargava, and Operations Team members Lisa Wong and Linda Fotherby for their extremely hard work to make the event a success. This was the first opportunity for our members to meet in person, make connections and cement our shared vision since the CoRE was established.

There were presentations from the Board, the Co-Directors, the Outreach and Education Team and the Early Career Researcher Rōpū. The highlights of the event however were:

- Majic Paora's moving performance of waiata.
- Presentations by the IRM teams.
- Lissy and Rudi Robinson-Cole's talk about how their work is inspired by their tupuna including their current work - Wharenui Harikoa, a "large-scale crocheted wharenui that aims to transform intergenerational trauma into deeply felt joy, one loop at a time" as well as their crochet workshop.
- The talk and performance by Neil Ieremia and Black Grace dancers. Neil shared his story of living for fifty years with rheumatic heart disease and the

impact it had on him as a young Pacific man and on his family. This emotionally charged story reaffirmed for our members the importance of Pūtahi Manawa's work and of the need for everyone to give their full commitment to our mission.

On day two, performances from Drums of the Pacific and the University of Auckland Samoan Association injected joyfulness and energy to our celebration at the end of a full programme. The programme for the event can be found in Appendix 5.



Majic Paeora and daughter



Crochet workshop - Rudi Robinson-Cole instructs Melanie Cheung



Above: Neil Ieremia and dancers from Black Grace.

Below: Drums of the Pacific dancers with Pacific Leadership Team member Soteria Ieremia



Early Career Researcher Heart Health Forum

The Heart Health Emerging Researchers Forum 2023 was held on 11-12 October 2023 in Ōtepoti|Dunedin at Puketeraki Marae and Otago Museum. The one-and-a-half-day hui was attended by 47 emerging researchers from a broad range of heart health disciplines from around Aotearoa. Co-funded by Pūtahi Manawa and the Heart Foundation, the Forum was co-led by a diverse team of Heart Foundation Fellows and Pūtahi Manawa emerging researchers.

Below: Heart Health Emerging Researchers Forum 2023 at Puketeraki Marae



The theme for 2023 was Manaakitanga: Respect, Kindness and Support, which built on the 2022 theme of Whakawhanaungatanga: Connections and Connectedness. The programme was designed to encourage interaction between participants and included structured and unstructured networking activities (including a half-day visit to Puketeraki Marae - a highlight of the Forum), workshops, presentations and expert panel discussions. Prior to attending, attendees participated in a series of workshops run by Takiwai Russell-Camp (Kāi Tahu, University of Otago) to learn about the pōhiri process and develop a mihi mihi, which they delivered on the Marae.

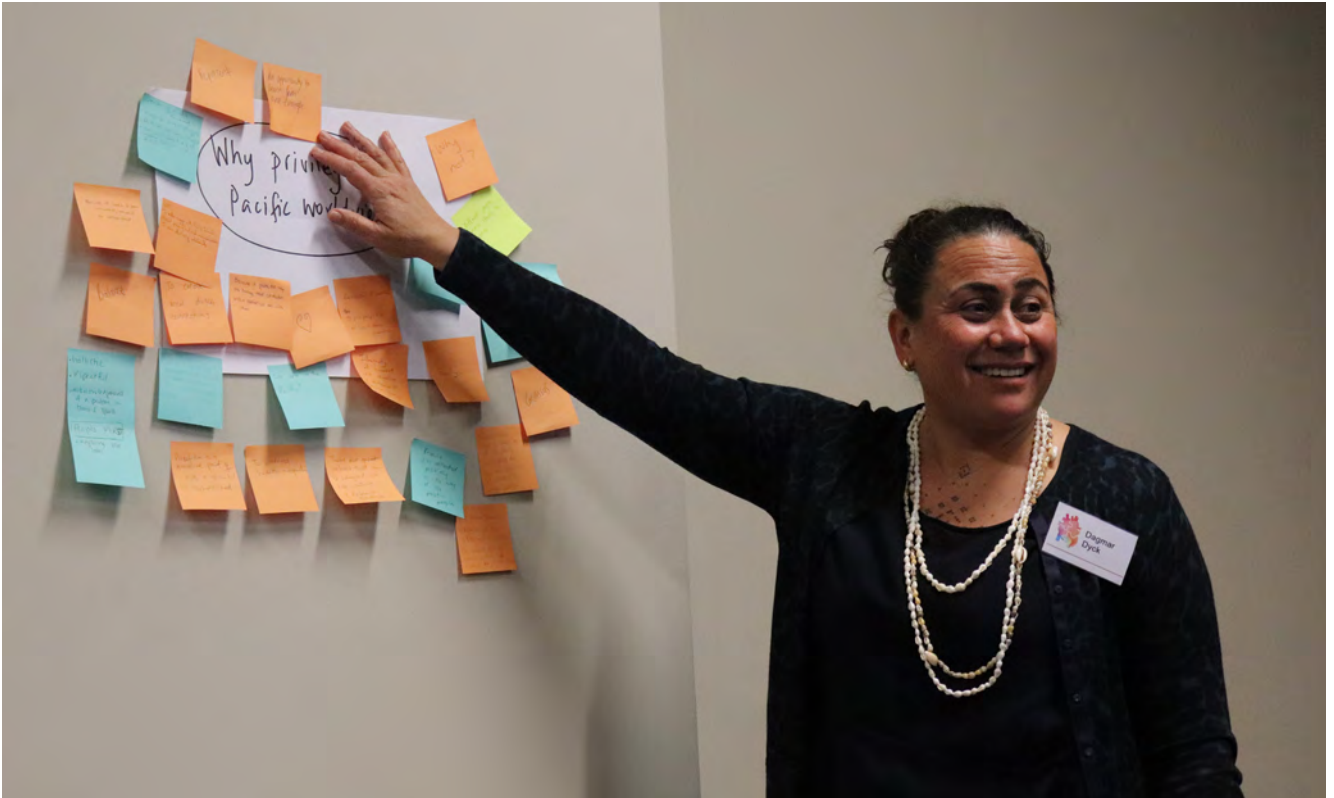
The feedback from attendees was overwhelmingly positive with 100% of survey respondents saying that their desired outcomes were met. The attendees appreciated the unique structure of the day which embedded manaakitanga throughout and provided a safe, fun and friendly environment that facilitated building new relationships. Attendees felt they gained insight into Māori and Pacific perspectives, which will help them undertake more impactful heart health research.

“It was such a meaningful learning experience both academic and cultural. The preparation that was provided before the visit to the marae was also really helpful in demystifying the pōhiri process for a lot of attendees.”

“It was great there was more time outside of structured talks to network and discuss amongst ourselves, and meet new people. I immediately used some of the new information I'd got from informal discussions on Outreach the following days.”

“These are the sorts of sessions that are the most helpful at conferences that I wish we got more of... All of the speakers/facilitators did an amazing job.”

The 2024 Forum will be held alongside the CSANZ New Zealand Annual Scientific Meeting 2024 in Ōtautahi | Christchurch in mid-June.



Workshop on the Tapasa Pacific values framework run by Dagmar Dyck - artist, educator and programme leader of Tui Tuia Learning Circle

Outreach and Education

Our Outreach and Education (OnE) team has gone from strength to strength in 2023. The OnE team:

- Leads educational initiatives with primary to high school aged rangatahi/tupulaga talavou, on the importance of heart health.
- Inspires rangatahi/tupulaga talavou into careers in science and heart health related fields.
- Raises awareness about heart health and heart health research in Māori and Pacific communities and with women.
- Develops opportunities for connection through community-driven projects to foster meaningful collaboration between researchers and communities.
- Develops programmes to upskill researchers around equity, decolonisation and community engagement.

Outreach sessions with Pūhoro STEMM Academy students

Pūhoro STEMM (Science, Technology, Engineering, Mathematics and Mātauranga Māori) works with young Māori students to increase engagement

in STEM subjects. The sessions include Heart Models, Stethoscopes, BP machines, ECG and 2D Echocardiography. Contributions were made at the following events:

- 20 March 2023: Ngā Kete Wānanga Marae at the Otara campus of Manukau Institute of Technology, Auckland
- 16 June 2023: Hawkes Bay, 75 Year 11 students
- 26 June 2023: Rotorua, 80 Year 11 students
- 27 June 2023: Hamilton, 110 Year 12 students
- 15 September: Christchurch, 80 year 11 students
- 18 September 2023: Palmerston North, 100 Year 11 students

Some student feedback from Pūtahi Manawa's outreach event held in Christchurch on Friday 15 September by Year 11 students, which are representative of many other events:

“We learnt about the heart and was given a challenge to figure out what was wrong with a 15 year old boy's heart. We looked at blood pressure, heart rate and also looking at the inside of a heart. I really enjoyed figuring out what was wrong with his heart and looking at how the heart works and functions.”

“For this workshop I really enjoyed watching my heart rate in real time on the stat machine, watching my heartbeat change when I did jumping jacks or did a run compared to my testing heart beat was very entertaining and fun.”

Amanaki STEM Academy Heart2Heart event

Our OnE team hosted an event with the Amanaki STEM Academy based in Palmerston North on 14 April 2023. This event, titled Heart2Heart included a morning session with heart related science

activities for students and then an afternoon talanoa (discussion) with aiga/family/kainga of our ASA students. We invited student volunteers from the Māori and Pacific Admissions Scheme (MAPAS) as well as other members of our Pūtahi Manawa aiga/family/kainga. Research leads from our Integrated Research Modules attended both our student events to support our volunteers and to help seed ideas for future activities. The research leads also attended our talanoa to hear from our aiga and to better understand how to integrate aiga priorities, perspectives and worldviews into their research work. A highlight reel is available at <https://fb.watch/k5G9znmkKA/>.



Left:
Heart2Heart with
Amanaki STEM
Academy students,
Palmerston North,
April 2024



New Zealand International Science Festival, 3-4 July 2023

The three heart centres (Manaaki Manawa, HeartOtago and Christchurch Heart Institute) within the Pūtahi Manawa CoRE participated in the New Zealand International Science Festival in Dunedin on 3 and 4 July.

On 3 July the Centres held a community kōrero/talanoa on heart health.

The following day the Centres set up a Heart Health Hub with educational materials including heart models, stethoscopes, BP machines, ECG and 2D echocardiography.

Connecting at our local schools and events

MOTAT health event 7 April

1100 kids of all age groups engaged with Pūtahi Manawa OnE team with interactive hands on sessions

with microscopes to look at heart muscle cells as well as exercise bikes and heart rate monitors to showcase effect of exercise on the cardiovascular system.

Waitakere school hui 13 September

Year 10 to 13 students' information session on heart health and careers with sciences.

Tangaroa college hui 21 September

Seventy Year 10 students engaged in heart health activities which included ECG, Heart models and 2D ECHO cardiography.

Pasifika in the Bay, 27 October 2023

This was the first time Pūtahi Manawa OnE team had a stand at the Pasifika in the Bay event in Tauranga. There was a lot of interest and good engagement from the festival attendees and the team will make this a regular event.

Below: Outreach team demonstrating real time echocardiology at Pacifika in the Bay, Tauranga



Early engagement with our House of Science Resource Kits

In November 2023 Pūtahi Manawa signed a sponsorship agreement with the House of Science to sponsor ten Cardiovascular System teaching resource kits for three years. The House of Science (<https://houseofscience.nz>) is a charitable trust that provides quality science resources to primary and intermediate schools and professional learning for teachers to promote positive engagement with science in all its forms. The House of Science currently has 20 branches around New Zealand. The resource kits contain everything a teacher needs to teach at least 5 hands-on experiments to the whole class. The kits are fully aligned with the NZ curriculum and are bilingual. The activities can all be adapted to the age level of the children.

A primary school can book a kit for two weeks where it will be used by different classes in the school over that period. It is anticipated that each kit will be used by 1,500 children per year. There are House of Science branches across the country and a kit will be assigned to a single branch who will manage the distribution of the kit and check, make repairs as needed and replenish consumables before sending the kit out again. The Pūtahi Manawa Outreach and Education Team will work with the House of Science development team to design the resources in the kit. Development work on the kit will begin in March 2024 with an anticipated launch in July 2024. Pūtahi Manawa will provide the kits in regions with high numbers of Māori and Pacific students and has set aside funds to assist kura that can't afford to pay the subscription to access the service.

Ako series

We have continued our successful Ako series of webinars during 2023. Ako Series I laid the foundational knowledge to understand the basic concepts around Te Tiriti, Pacific Diversity in Aotearoa, Co-Design and Community Engagement.

Ako Series II under the theme of "Worldviews" builds on this foundational knowledge to understand the different perspectives and approaches to health and research to enable us to work better with our communities for more meaningful outcomes.

The Ako Series webinars delivered in 2023 were:

Matua Joe Pihema

Tikanga: awareness and the application of tikanga in the workplace and home

Matariki - how it is recognised and celebrated by Ngāti Whātua



Matua Joe Pihema (Ngāti Whātua) started in April as Pūtahi Manawa's new Pou Tikanga. He has worked in Māori education and the Cultural and Heritage sector for over 25 years and is a trustee for the Taumata-a-Iwi at the Auckland Museum and is a senior tikanga advisor, historian and cultural

leader for Ngāti Whātua ki Tāmaki.

Dr Karaitiana Taiuru

Data Sovereignty- Māori Data: an Overview



Dr Karaitiana Taiuru (Ngāi Tahu, Ngāti Toa and Ngāti Kahungunu), Director of Taiuru & Associates, is a leading authority and ethicist specialising in Māori rights with AI, Māori Data Sovereignty and Governance in emerging digital technologies and biological sciences.

Naomi Manu

An Equity Lens to Māori STEM Capability



Naomi (Ngāti Kahungunu, Rangitāne, Ngāti Raukawa) founded and established the nationally and internationally award winning Pūhoro STEM Academy programme. She is co-founder of Auraki Group, who champion equitable solutions for Māori STEAM and help organisations to enhance outcomes for Māori.

Jacinta Fa'alili-Fidow

Pasifika Data Sovereignty



Jacinta has extensive leadership and management experience in health research, public health and Pacific wellbeing in New Zealand. As a co-founder of Moana Connect, Jacinta empowers the importance of Pacific worldviews, and the prominence of self-determination in all Moana Research work, including evaluation, research and advocacy.

Whakatupu Mātauranga Māori hei manawa ora mō te katoa | Building mātauranga Māori for heart-health equity

Kura Raumati, Māori Summer Research Scholarship Programme

The first of its kind, the Kura Raumati research scholarship programme was uniquely tailored to support tauira Māori and maximise the positive impact on heart health equity.

An initiative from Pūtahi Manawa, the scholarships were awarded using more holistic criteria, not focusing on traditional academic measures but on students' passion for improving Māori heart health outcomes.

Dr Karen Brewer (Whakatōhea, Ngaiterangi), Co-director of Māori for Pūtahi Manawa, says that's because grade point averages are poor measures of a student's commitment and capability.

"The students brought with them a vast array of life experiences and skills that aren't reflected in an academic transcript, but are the most important for research and health practitioners," she explains.

Dr Anuj Bhargava, Pūtahi Manawa's outreach and education lead, says applicants were asked to describe their project and explain why it was important to them.

"They also needed to be available mentally and physically, with whānau support, for a research project that could be done close to home, in and alongside their own communities."

Erina Korohina (Ngāti Porou) is a research fellow with The Centre For Health and the Pou Ako Lead on the programme. She says the quality of the applicants was outstanding.

"We had 67 applicants, and if we'd had 67 positions available, we'd have taken all of them."

Building community relationships

Dr Brewer supervised a student and also lent her expertise on kaupapa Māori and the tauira's roles

as researchers in the community. She says she was impressed with the student's capacity to create that essential community connection.

"While [my student] was gaining research and community health experience, she was also building relationships in the Waikato communities for Pūtahi Manawa, which Pūtahi Manawa didn't previously have."

That community connection was built into the fabric of the scholarships. Students were encouraged to work from their home locations and immerse themselves in their communities – often where their research is most needed. This model promotes practical, emotional and cultural connections to the



Pōhiri at end of Kura Raumati programme celebration, Waipapa Marae, Waipapa Taumata Rau | University of Auckland

work, enhancing both the research process and its outcomes.

Scholarship recipient Fushia Tibble (Ngāti Porou) worked alongside Ngāti Porou Oranga to study the CREBRF gene within the iwi's health research system.

"Seeing firsthand that there is a way and a method to do that within taha Māori and Ngāti Porou mātauranga has been incredible. It's really encouraging for me as a future researcher," says Ms Tibble.

Empowering tauira with kaupapa Māori

The programme was open to all tauira with whakapapa Māori who were undertaking tertiary studies in any health field. It was designed to encourage researchers to work with other students, their local communities and Māori supervisors and mentors.

Mrs Korohina says the tauira-supervisor relationship was better described as tuakana-teina, which allowed supervisors to learn from the tauira too.

"We call them tauira, but they were actually kairangahau – researchers in their own right – because they contributed their knowledge and experiences to

what we were doing with them," she explains.

Building their work around kaupapa Māori empowered students and expanded the potential value of the students' research while enriching their projects with their iwi knowledge and methodologies.

Ms Tibble adds that a key opportunity of the programme was that tauira had the space to celebrate their whakapapa.

"We got to be Māori safely and unapologetically," says Ms Tibble.

The next generation of Māori heart-health workers

Dr Brewer says the programme inspires a new generation of Māori researchers and healthcare workers and gives them a peer group and support network.

"It sets them up for their studies and future careers," she explains. "You can't underestimate the importance of the Māori health workforce – they're a precious group of people."

Mrs Korohina agrees, saying that for whānau, dealing with practitioners who understand you is key to closing the heart-health equity gap for Māori.



Student presentation at end of Kura Raumati programme celebration, Waipapa Marae, Waipapa Taumata Rau | University of Auckland, February 2024

"I'm so stoked to know that this is our next generation of health professionals entering the workforce. Like, look out, world," she says.

\$9000, 10 weeks, broad impact

Students were awarded up to \$9,000 to commit fully to their research for the summer break – up to 10 weeks. At the end of the programme, they delivered a detailed report of their project's outcomes. Students also received a stipend that meets the living wage to ensure the research isn't side-lined by financial stress.

Beyond supporting their summer work, this scholarship is designed to spark a deeper interest in research, one that students can carry into their future careers or as a stepping stone toward advanced degrees.

"I knew some of those students and I didn't think they were inclined to research," says Dr Bhargava. "It's amazing what a little support can do."

A community of scholars

The programme kicked off with a five-day wānanga at a marae, establishing a strong cohort and cultural foundation.

"Most of us had never met before, but we became a collective; it was very emotional," says Dr Bhargava.

Mrs Korohina says the diversity amongst the taura

was amazing, with some just starting their university careers and others well advanced. Likewise, many had been raised on their marae, while others were only just starting to learn about their identity as Māori.

"It was a beautiful mix – everyone connected and supported each other," she says.

At the end of the programme, students came together again to present their projects to Pūtahi Manawa Co-Directors, other scholars, and their whānau, celebrating their achievements and learning from each other.

"Our kairangahau were amazing. What they were able to do over what was essentially just six weeks was fantastic," says Mrs Korohina.

The summer ends, but the connection doesn't. Participants are encouraged to join as student members of Pūtahi Manawa, continuing their involvement with ongoing support, catch-ups and opportunities.

"It was really, really awesome. I'm so proud. If we could upscale this and run it in a bigger way, that would be amazing," says Mrs Korohina.

Dr Bhargava thinks the Kura Raumati programme is "one of the best things we've done in Pūtahi Manawa."

"It's amazing what people can achieve when they believe in what they're doing and have someone who believes in them."



Kura Raumati taura outside Waipapa Marae, at end of programme celebration, Waipapa Marae, Waipapa Taumata Rau | University of Auckland, February 2024

Ngā tāngata - E eke ai te kaupapa | Our People – Enabling us for excellence

Leadership

Ngā mihi to Co-Director (Māori) Dr Anna Rolleston

Dr Anna Rolleston stepped down as Co-Director at the end of July 2023. We all wish to thank Anna for her leadership, energy, ideas, mahi and inspiration. She has worked incredibly hard at putting the wind in our sails and pointing us in the right direction. We congratulate her on everything she has achieved. It is hard to articulate how much Anna has impacted every one of us at Pūtahi Manawa as we have journeyed together on this waka.



Dr Anna Rolleston

Her innovation and vision have been an absolute foundation to this CoRE, she has ignited in all of us our curiosity and confidence to approach our work for Pūtahi Manawa with a business not as usual mindset.

Haere mai to our new Co-Director (Māori) Dr Karen Brewer

Our new Co-Director (Māori), Dr Karen Brewer, started in October 2023. Karen (Whakatōhea, Ngaiterangi) is a kaupapa Māori researcher and a speech-language therapist at Waipapa Taumata Rau

| The University of Auckland. Dr Brewer's latest work has been on the qualitative aspects of the Manawataki Fatu Fatu research programme for equity in heart health, employing kaupapa Māori and Pacific research methodologies in interviews and focus groups with Māori and Pacific patients and their support networks, service providers and policy makers. She is also a Senior Lecturer in Speech Science, Psychology, University of Auckland.

We welcomed Karen with a pōhiri on Friday 17 November at the Grafton Campus, University of Auckland. Ngā mihi to CJ Gilbert for leading the pōhiri on behalf of Ngāti Whātua Ōrākei and Pūtahi Manawa. Ngā mihi also to Jeremy Hema, Poutiaki Rangahau Māori, Office of the Pro Vice Chancellor Māori, for his whaikōrero on behalf of Karen and the manuhiri.

Whaikōrero were also given by Dr Mataroria Lyndon (Pūtahi Manawa Māori Leadership Team Co-Chair) and Prof. Julian Paton (Pūtahi Manawa Co-Director) on behalf of the hosts and Prof. Suzanne Purdy, University of Auckland from the manuhiri.



CJ welcomes Karen during the pōhiri

Message from Dr Karen Brewer

Ko wai au?
Ko Tarakeha te maunga
Ko Opepe te awa

Ko Whakatoohia rāua ko Ngaiterangi ngā iwi
 Ko Ngai Tamahaua rāua ko Tauwhau ngā hapū
 Nō Aotearoa, Tiamana, Ingarangi, Aerana me Kōtirana oku
 tupuna
 Kei Kirikiriroa tāku kainga inaianei
 Ko Joan Moroney rāua ko Colin McLellan ōku mātua
 Ko Karen Brewer tāku ingoa
 Nō reira, tēnā koutou, tēnā koutou, tēnā tatou katoa



Dr Karen
Brewer

I am honoured to be the new Co-Director Māori of Pūtahi Manawa. First, I acknowledge all that Anna Rolleston has invested in setting up and nurturing this CoRE and I'm grateful for her support as I step into this role.

My professional background is as a speech-language therapist, and I have a part-time role as a Senior Lecturer in Speech Science at Waipapa Taumata Rau | The University of Auckland. Someone asked me recently "what's that got to do with the heart?!" That's a fair question. I came to kaupapa Māori health research through my PhD and postdoc, which involved qualitative research with whānau Māori experiencing communication difficulties caused by stroke. When the postdoc came to an end, in the thick of COVID lockdowns, I was fortunate to be offered work as a Senior Research Fellow on Manawataki Fatu Fatu for ACCESS. Co-led by Dr Corina Grey and Assoc. Prof. Matire Harwood, Manawataki Fatu Fatu is a programme of research aiming to achieve equity in cardiovascular health outcomes for Māori and Pacific peoples. I have been working on the qualitative aspects of this programme, employing kaupapa Māori and Pacific research methodologies in interviews and focus groups with Māori and Pacific patients and their support networks, service providers and policy

makers. I've learned a lot about the heart through this research, but I still have a lot more to learn.

I love Pūtahi Manawa's "business not as usual" approach, although I admit that, as a kaupapa Māori researcher, it feels "usual" to me. I am passionate about growing the Māori and Pacific health workforces, both clinicians and researchers. The whānau I listened to during Manawataki Fatu Fatu interviews told many stories illustrating how important it is to have health care providers who share the patient's cultural background and fully understand their context. When I think about my priorities for Pūtahi Manawa I am drawn to the words of Distinguished Professor Linda Tuhiwai Smith in *Decolonizing Methodologies*. "Titiro, whakarongo ... kōrero" (look, listen ... speak) (p.137).¹ As a newcomer to Pūtahi Manawa it is important for me to watch what is happening and listen to those who are already here before I speak. Likewise, it is important for Pūtahi Manawa to observe and listen to our communities before we act, and I look forward to being a part of this.

1. Tuhiwai Smith, L. (2021). *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books. Retrieved October 5, 2023, from <http://dx.doi.org/10.5040/9781350225282>.

Pou Tikanga

We have been most fortunate to have two Pou Tikanga this year and both from Ngāti Whātua Ōrākei. We wish to thank Rōpata Pāora for his wisdom; we learnt a great deal and are so appreciative of his time and assistance as we grew Pūtahi Manawa.



We are pleased to introduce Pūtahi Manawa's new Pou Tikanga Joe Pihema (Ngāti Whātua) who started in May 2023. Joe is held in high esteem in his community and has worked in Māori education and the Cultural and Heritage sector for over 25 years. He is a former member of the Ngāti

Whātua Ōrākei Trust Board, Toi Tāmaki Māori Advisory Committee and the Tupuna Maunga Authority o Tāmaki Makaurau. Joe is currently

serving as a trustee for the Taumata-a-Iwi at the Auckland Museum. Joe was part of the design team at the design firm, Haumi (<https://www.haumi.nz>) that gave life to the Pūtahi Manawa logo and branding. His knowledge regarding the philosophy and underlying connection of the design elements that underpin the Pūtahi Manawa tohu to our purpose, will be invaluable. In his role as Pou Tikanga, Joe will provide leadership regarding the implementation of cultural competency, te reo Māori, and tikanga policies and practices. This will enable us to meet our obligations under Te Tiriti o Waitangi and become more culturally robust.

Nau mai haere mai e te rangatira.

Pacific Leadership Team Co-Chair – Ms Soteria Ileremia



Ms Soteria Ileremia stepped up as Pacific Leadership Team Co-Chair in June 2023 while previous Co-Chair Assoc. Prof. Dianne Sika-Paotonu was overseas on a Fulbright Scholarship. Soteria was the CEO of the Kudos Science Trust and founder

of Science Spinners - a free hands-on STEM rotational programme helping to ignite students' passion about science in schools right across the Waikato, the Bay of Plenty including Rotorua and Auckland. She is a long-term member of the Pacific Leadership Team and is active in supporting our outreach and education programme.

Deputy Vice-Chancellor (Research) and Board member

We would like to thank the outgoing Deputy Vice-Chancellor (Research), Professor Jim Metson, who has sat on our Board since the establishment of the CoRE in 2021. Professor Metson has moved to a new role at the University of Auckland, so has left his ex-officio position on our Board.

We welcome Professor Frank Bloomfield ONZM, FRSNZ to the Board as the new Deputy Vice-Chancellor (Research) at the University of Auckland. Professor Bloomfield took up the role in March 2023.



Prior to this, he was Director of the Liggins Institute, one of the University of Auckland's Large Scale Research Institutes. He is a Professor in Neonatology, having worked clinically for many years as a Consultant Neonatologist at Auckland City Hospital.

Funding Panel Co-Chairs

Drs Martin Stiles and Johanna Montgomery stepped down from their positions as Co-Chairs of our funding panel. We would like to thank them both for their excellent mahi and keeping our kaupapa on course. Martin and Johanna have agreed to remain on the funding panel for continuity.



We are delighted that Dr Corina Grey has agreed to Co-Chair our funding panel and will replace Martin. Corina is a Director of the Board of Vaka Tautua (a national 'by Pacific, for Pacific' health provider in Aotearoa), is a public health physician and currently leads the new Data and Insights

Directorate at the Ministry for Pacific Peoples. Corina, who is Samoan - born, is also the Co-Director of Manawataki: Fatu Fatu (a program of research on heart health equity) and is part of the Pacific Health Team in the Transition Unit for the new health reforms. She is also a member of our Pacific Leadership Team.



Dr Anna Pilbrow (Senior Research Fellow) from the Christchurch Heart Institute, University of Otago will be our second new Co-Chair. Anna is Deputy Head of Department for Medicine, University of Otago (Christchurch), and leads an impressive research laboratory studying how

genetic variation contributes to susceptibility to heart disease. She was recently awarded the Heart Foundation's inaugural Foundation100 Fellowship.

Career Development

Early Career Representative on our Board



The Pūtahi Manawa Early Career Rōpū were asked if they would like to have a representative from their group to participate in Board meetings. The representative would be there to learn about governance and would participate fully in Board discussions and represent views from an early career

perspective but would not be able to vote. The position would rotate every couple of years. The Early Career Rōpū nominated their Chair, Dr Michelle Munro, as their first representative on the Board. The Board are delighted to have Dr Munro at the Board meetings and value her contribution.

Te Ahi mō āpōpō

The Early Career Researcher Rōpū presented a summary of the group's Terms of Reference, mission and activities to date at our Te Ahi Manawa event in Auckland, 10 February 2023.

They also have a new name – they are now Te Ahi mō āpōpō (the fire for tomorrow). Te Ahi mō āpōpō is open to anyone who self-identifies as being at the beginning of their career in which a primary role is undertaking research, who can demonstrate or are developing independence. Members may be involved in mentoring junior researchers and receive or would benefit from mentorship and support from senior colleagues.

Members of the group helped to organise the Early Career Researchers Heart Health Forum in collaboration with the Heart Foundation held in Dunedin in July. A report on the event can be found on page 22.

Auraki Group Courses

Cultural Confidence

Research Engagement Manger Lisa Wong, Research Operations Manager Linda Fotherby, Outreach and Education Lead Dr Anuj Bhargava and Early Career

Researcher Working Group Chair Dr Michelle Munro completed the Auraki Cultural Confidence Course in August. Auraki's four-week Cultural Confidence Course offered practical insights into understanding and confidently working with Māori and Māori communities. The course explored the skills needed for effective interactions, fostering connections and contributing positively to diverse communities.

Māori Data Sovereignty

Members of our Infrastructure Working Group, Erina Korohina, Assoc. Prof. Katrina Poppe and Assoc. Prof. Pete Jones, plus our Pou Tikanga Matua Joe Pihema completed Auraki's Māori Data Sovereignty course in September. In this course participants gained an understanding of Māori and iwi data sovereignty principles and their real-world applications; the significance of Māori data sovereignty in an increasingly data-driven world and learnt about the tools and strategies to implement it in their workplaces through ethical data practices that honour Te Tiriti.

Operations

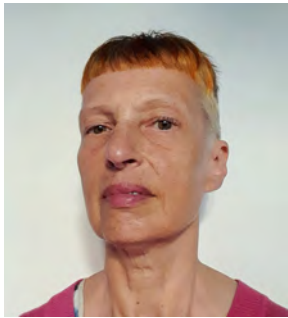
Research Engagement Manger



Ms Lisa Wong, previously our Research Operations Manager, took up the new role of Research Engagement Manager for Pūtahi Manawa in March as part of The University of Auckland's Strategic Engagement Function.

"I am excited for the opportunity to step into this newly established role for Research Strategy and Engagement to build on the foundations and relationships that Pūtahi Manawa and Manaaki Manawa have developed over the last four years. Having worked with the Pūtahi Manawa since its inception, I'll seek to explore how we can strengthen our national network of community members, researchers, clinicians and educationalists to foster transdisciplinary collaborations, workforce development, and impact for equitable heart health outcomes across Aotearoa, pushing the boundaries of "business not as usual".

Research Operations Manager



Ms Linda Fotherby, previously our Senior Research Operations Coordinator, is now our Research Operations Manager.

“I have really enjoyed my secondment role as Senior Research Operations

Coordinator for Pūtahi Manawa during the last few months and am absolutely delighted to be moving into the Research Operations Manager role for the Centre. I have come from the School of Medical Sciences where I was a Senior Research Programme Coordinator so I have extensive experience in research project support. I am loving working with the team and everyone in the Pūtahi Manawa whānau.”

Research Operations Coordinator



Nuseta Hope joined our team as Research Operations Coordinator in November. Nuseta has years of experience supporting teaching staff and Māori, Pacific and adult learners at Academy X.

“Tulou te malu mo te tapu o te Atua tafasili ite maluga. Tulou faiakoga fakaakoako ite Iunivisite o Aukilani, kaiga mo taugaso. Tulou.

“Talofa koutou, Malo ni and warm pacific greetings my name is Nuseta Hope and I’m from the beautiful islands of Tuvalu - Funafuti and Nukulaelae, Tokelau - Atafu and Fakaofo and Samoa - Saleimoa.

Growing relationships

Pūhoro STEM Academy

The relationship with Pūhoro STEM Academy that was established in 2022 has continued to grow and develop in 2023.

Launched in 2016, Pūhoro improves rangatahi engagement in STEM (Science, Technology, Engineering, Maths and Mātauranga). Pūhoro helps rangatahi see the connection between mātauranga Māori (traditional Māori knowledge) in STEM; improves their academic achievement in STEM; and, through strategic partnerships, provides pathways into high value careers (<https://www.puhoro.org.nz>).

The Pūtahi Manawa OnE team regularly support Pūhoro STEM at wānanga | learning sessions around the country, including in the Waikato, Auckland, Christchurch, Hawke’s Bay and Manawatū, working with students from years 11 to 13. This is a key developmental stage for all rangatahi as they start to shape their identity and goals.

In 2023 Pūtahi Manawa also partnered with Pūhoro STEM in their Summership programme. Pūtahi Manawa sponsored nine Pūhoro STEM students with stipends and research projects supervised by Pūtahi Manawa researchers over the summer break.

Pūtahi Manawa team members with Pūhoro STEM summer students at the Pūhoro STEM induction Whakatau in Palmerston North, November 2023



Mentorship was provided by both Pūhoro STEMM and Pūtahi Manawa staff and the teams collaborated closely to ensure the students had good pastoral care during the programme.

Members of the Pūtahi Manawa team attended the Pūhoro STEMM induction whakatau and end of programme celebrations in Palmerston North. Pūhoro STEMM CEO Kemp Reweti, founder Naomi Manu and team members also attended the Pūtahi Manawa Kura Raumati end of programme presentations.

Pūtahi Manawa team members with Pūhoro STEMM summer students at induction wānanga, December 2023

After the success of the 2023 Kura Raumati programme, the Pūtahi Manawa Kura Raumati team are working closely with Pūhoro STEMM to plan and improve the programme and experience for Pūhoro STEMM students participating in the programme in the 2024/25 summer period.

Amanaki STEM Academy

Amanaki STEM Academy (ASA) is a charitable organisation based in Palmerston North. Headed by Tanya Koro and Viliami Teumohenga, it prepares and empowers Pacific students into ASA. Run entirely by parent volunteers, ASA provides after school tutoring and school holiday programmes, adopting the “homework around the kitchen table” model.

The involvement of the family is at the heart of ASA, where volunteers contribute meals, tutoring and additional support (even tables and chairs) Pacific cultural values are embedded and integrated into the delivery of all events and activities. ASA supports over 120 students enrolled from years 5-13 and has a waiting list of students wanting to join. Pūtahi Manawa is growing this relationship with ASA through a number of engagement channels.

Shared events

As well as standard education and tutoring sessions for students run during the school year and school holidays, Amanaki STEM and Pūtahi Manawa held a successful talanoa on heart health in April 2023 titled Heart2Heart.

Several stations and activities around different cardiovascular related concepts where students and their parents could participate and learn.

Ongoing outreach

Researchers from our Integrated Research Module (IRM)s Sweet Pressure, led by Professor Andrew Lowe and Dr Fiona McBryde have continued to develop their relationship with ASA after this initial talanoa. The Sweet Pressure IRM focuses on the relationship between Hypertension and Diabetes, which are conditions that ASA and their wider aiga have an interest in. Drs McBryde and Lowe have continued to lead and support ASA through running science



Heart2Heart with
Amanaki STEM
Academy,
Palmerston North,
April 2024

programmes and supporting students to lead their own research projects. There is more information on this work in our feature story on pages 18-19.

Invitation to scientific meetings

To help engage Tanya Koro and Vili Teumohenga and highlight their efforts in growing the next generation of researchers, Tanya and Vili were invited to a symposium organised by Pūtahi Manawa at Queenstown MedSci conference. This conference is part of Queenstown Research Week, the country's biggest annual scientific gathering, where major scientific meetings are coordinated to bring diverse disciplines together in one event. Our symposium at the MedSci 2023 conference was titled Pūtahi Manawa CoRE: Education and Outreach in Science

Technology Engineering (Arts) & Mathematics (STEM/STEAM). Tanya and Vili presented alongside our Outreach and Education researchers as well as Naomi Manu from Auraki Limited.

Scholarships & Prizes

Pūtahi Manawa has sponsored three prizes at the ASA student graduation on 9 December – one scholarship for \$1,000 and two prizes for \$500. In addition, the Pūtahi Manawa Sweet Pressure Integrated Research Module project has sponsored four \$100 prizes for students who demonstrated the spirit of ASA by helping their peers.

Pūtahi Manawa and Amanaki STEM will continue to build this relationship in the coming years.

Prof. Andrew Lowe and Dr. Fiona McBryde (Sweet Pressure), Prof. Julian Paton (Pūtahi Manawa Co-Director), Ben Fakavā (prize winner) and Ms Soteria Ieremia (Pūtahi Manawa Pacific Leadership Team Co-Chair) at the ASA graduation ceremony.



Naomi Manu and Auraki Group

Auraki Group, who champion equitable solutions for Māori STEAM (science, technology, engineering, arts and maths) and help organisations to enhance outcomes for Māori was co-founded by Naomi Manu (Ngāti Kahungunu, Rangitāne, Ngāti Raukawa), who was also the founder of Pūhoro STEMM Academy. Naomi was made a Member of the New Zealand Order of Merit in the New Year honours list for services to STEM education and Māori.

Members of Pūtahi Manawa's Operations Team, OnE Team, Infrastructure Working Group and Te Ahi Mō Āpōpō have completed Auraki Group's online courses in Cultural Confidence or Māori Data Sovereignty.

Ms Manu also delivered one of our AKO Series webinars on An Equity Lens to Māori STEM Capability in August 2023. She was also one of our speakers at the Kura Raumatī induction wānanga for our summer research students in December, introducing important concepts in Māori Data Sovereignty to our taurā.

We have commissioned Ms Manu to co-author guidance on Māori Data Sovereignty for Pūtahi Manawa researchers, which will be completed in 2024. We look forward to continuing this relationship and working with Auraki Group in this area in the coming years.

Some of our members' achievements

Dr James Hewett



Dr James Hewett, University of Canterbury, was awarded an MBIE Science Whitinga Fellowship.

Dr Hewett has a degree in Mechanical Engineering in fluid dynamics and researches the development and growth of blood clots and deep vein

thrombosis. James talks about his work and his fellowship in a video at <https://www.youtube.com/watch?v=TDmLC2Nyn9M>.

“Thanks to the Fellowship, I’ve been able to connect with other organisations and funding bodies within New Zealand, particularly the new Centre of Research Excellence, Healthy Hearts for Aotearoa New Zealand.”

“By engaging and collaborating with this group, I’ve been fortunate to form networks and links with the community and clinicians. This will help me ensure that my more theoretical modelling analysis can be applied and connected to real clinical outputs. I’m really hopeful that with this collaboration, my research will translate through to real clinical outcomes, and essentially at the end of the day, save lives.”

Professor Johanna Montgomery



We would like to congratulate our outgoing Funding Panel Co-Chair, Professor Johanna Montgomery on her promotion to professor at the University of Auckland.

Dr Julia Shanks

Dr Julia Shanks, University of Auckland, was awarded a five-year Sir Charles Hercus Fellowship by the Health Research Council for “Developing novel treatments for HFpEF by studying vagal control of the heart”



Dr Anuj Bhargava



Dr Anuj Bhargava, University of Auckland, Finalist in The Kudos Science Trust Science Spinners Science Teacher / Educator / Communicator Award. Dr Bhargava was nominated for his outstanding outreach work with Māori and Pacific students - <https://www.thekudos.org.nz/dr-anuj-bhargava>.

Stacey Neilson



Stacey Neilson - Cardiac Sonographer/ Physiologist, Te Whatu Ora | Lakes and Pūtahi Manawa Early Career Researcher Working Group member was awarded the Allied Health Investigator Award at the CSANZ New Zealand Annual Scientific Meeting

in June 2023 for her work on Incidence of cancer therapy related cardiac dysfunction (CTRCD) in Maori vs non-Māori.

Professor Daryl Schwenke



Congratulations also to Professor Daryl Schwenke, Pūtahi Manawa Pacific Leadership Team Co-Chair, who has been promoted to professor at the University of Otago.

Āpitihanga 1: Tō tātou iwi |

Appendix 1: Our people

Governance Board

Kent Gardner (Chair), CEO Evans Randall Investors

Professor Frank Bloomfield (Ex officio), Deputy Vice-Chancellor Research, University of Auckland

Professor Sue Crengle (Kāti Māmoe, Waitaha to Kāi Tahu), General Practitioner, Professor, Public Health Physician, University of Otago

Professor Palatasa (Tasa) Havea ONZM, Dean Pacific, Pacific Success Office, Massey University

Dr Mataroria Lyndon (Ngāti Hine, Ngāti Whātua, Waikato), Senior Lecturer, University of Auckland, Co-Founder - Tend Health, Board member - Te Aka Whāi Ora Māori Health Authority

Ms Sharon Shea MNZM (Ngāti Ranginui, Ngāti Haua, Ngāti Hine, Ngāti Hako), Principal, Shea Pita & Associates Ltd. CEO, Manawaroa Ltd

Directorate

Professor Julian Paton, Co-Director, School of Medical Sciences, University of Auckland

Dr Karen Brewer (Whakatōhea, Ngaiterangi), Co-Director Maori, Senior Lecturer, School of Psychology, University of Auckland



Pūtahi Manawa Governance Board members at our Te Ahi Manawa celebration in February 2023. From left: Professor Sue Crengle, Ms Sharon Shea MNZM, Dr Mataroria Lyndon.

Māori Leadership Team

Dr Karen Brewer (Co-Chair) (Whakatōhea, Ngaiterangi), Co-Director Maori, Senior Lecturer, School of Psychology, University of Auckland

Dr Mataroria Lyndon (Co-Chair) (Ngāti Hine, Ngāti Whātua, Waikato), Senior Lecturer, University of Auckland, Co-Founder and Clinical Director - Tend Health, Deputy Chair - Te Hiringa Hauora Health Promotion Agency

Matua Joe Pihema (Ngāti Whātua Ōrākei), Pou Tikanga Pūtahi Manawa, Trustee, Taumata-a-Iwi - Auckland Museum, Senior Tikanga Advisor, Ngāti Whātua ki Tāmaki

Dr Wil Harrison (Ngāti Porou, Rongowhakaata), Interventional Cardiologist, Te Whatu Ora Counties Manukau Assoc. Prof. Justine Camp (Kāi Tahu, Kāti Mamoe, Waitaha), Associate Dean (Māori), University of Otago.

Dr Anthony Jordan (Ngāti Wai), Clinical Immunologist, Te Whatu Ora Te Toka Tumai Auckland

Dr Karaitiana Taiuru (Ngāi Tahu, Ngāti Toa and Ngāti Kahungunu) Director, Taiuru and Associates

Associate Professor Matire Harwood (Ngāpuhi), Deputy Dean, Faculty of Medical and Health Sciences, University of Auckland; General Practitioner, Papakura Marae Health Clinic

Ms Bren Tai-Rakena (Tainui), Practice Manager - Tu Tonu Hauora

Ms Takiwai Russell-Camp (Ngāi Tahu), Department of Medicine Kaiwhakare, University of Otago

Dr Rāwiri Keenan (Te Atiawa, Taranaki), GP, Senior Research Fellow, University of Otago

Mr Jeremy Hema (Ngāti Paoa, Ngāpuhi), Kaiarahi, University of Auckland

Pacific Leadership Team

Ms Soteria Ieremia (Samoan) (Co-Chair), CEO, The Kudos Science Trust. Director, Pacific-i Ltd

Professor Daryl Schwenke (Samoan) (Co-Chair), Professor, University of Otago

Dr Collin Tukuitonga (Niuean), Associate Dean (Pacific) University of Auckland

Dr Allamanda Faatoese (Samoan), Research Fellow, Christchurch Heart Institute, University of Otago

Ms Julie Winter-Smith (Tongan), Doctoral Candidate, University of Auckland

Dr Corina Grey (Samoan), Data and Insights Directorate Lead, Ministry for Pacific Peoples

Dr Amio Ihikele (Te-Whanau-a-Apanui & Niuean), Nurse, Innovations Lead for Moana Research

Dr Tua Tauetia-Su'a (Samoan), Nurse and Senior Research Fellow, University of Auckland



PLT member Dr Allamanda Faatoese in the Pūtahi Manawa tent at Pasifika in the Bay, October 2023

Āpitihanga 2: Pūrongo-ā-pūtea | Appendix 2: Financial report



**Tertiary Education
Commission**
Te Amorangi Mātauranga Matua

Tertiary Education Commission
CoRE Financial Reporting Template
[Calendar year] results, budget, and forecast

Name of CoRE:	Healthy Hearts
Name of host institution:	University of Auckland
Report:	Statement of Financial Performance
Year:	[2023]

Sign-Off Sheet

Name of CoRE: **Healthy Hearts**

Name of host institution: University of Auckland

The following collaborative partners have been included in the figures:

Anna Rolleston - Co-director (SOW- \$304,157)

Contact details for TEC enquiries (e.g. Chief Financial Officer)

Name: Allister Jennings

Position: Research and Trust Accounting Manager

Telephone number:

Email address: allister.jennings@auckland.ac.nz

Sign-Offs

I certify that the information contained in this statement of financial performance is, to the best of my knowledge, a true and correct representation of the financial performance and position of the CoRE for which I have responsibility, and the figures correspond to those which appear in the host institution's financial statements, the budget approved by the TEC, internal forecasts, and year end reforecasts.



Insert electronic signature
Director (or other designation)

David Jordan, ?Head of Research & Operations Finance

Date 23-Apr-24

Name of CoRE:	Healthy Hearts
Name of host institution:	University of Auckland
Report:	Statement of Financial Performance
Year:	[2023]

Statement of Financial Performance

(NZ\$000s)

CoREs Funded Income

Government Funding

CoRE Funding	5,400	5,400	0	0.00%
Surplus/Deficit carried forward	6,518		6,518	-
Total CoRE funding	11,918	5,400	6,518	120.71%

CoRE Funding Expenditure

Salaries

Salaries funded by CoRE	1,135	1,967	(832)	-42.3%
Total Salaries & Salary-related costs	1,135	1,967	(832)	-42.3%
as % of Total Expenditure	43.0%	28.9%		

Other Costs

<u>Indirect Costs:</u>				
Overheads	592	2,022	(1,430)	-70.7%
as % of Total Expenditure	22.4%	29.7%		
<u>Direct Costs</u>				
Project Costs	705	2,422	(1,717)	-70.9%
as % of Total Expenditure	26.7%	35.6%		
Travel	209	182	27	14.9%
as % of Total Expenditure	7.9%	2.7%		
Postgraduate students	0	219	(219)	-100.0%
as % of Total Expenditure	0.0%	3.2%		
Equipment depreciation/rental	0	0	0	-
as % of Total Expenditure	0.0%	0.0%		
Subcontractor(s) specified	0	0	0	-
as % of Total Expenditure	0.0%	0.0%		
Extraordinary Expenditure (specified)	0	0	0	-
as % of Total Expenditure	0.0%	0.0%		
Total Other Costs	1,507	4,846	(3,339)	-68.9%
as % of Total Expenditure	57.0%	71.1%		

Total CoRE Expenditure

Total Expenses	2,642	6,813	(4,171)	-61.2%
as % of Total Expenditure	100.0%	100.0%		
Less Funds contributed by collaborative partners (i.e. returned overheads net of GST)	0	0	0	-
Total Net Expenditure (after recoveries and GST exclusive)	2,642	6,813	(4,171)	-61.2%

Net Surplus/(Deficit)

Underspend/(Overspend) - Any underspend of CoREs funding must be returned to TEC. Any overspend on CoRE budget must be funded from other sources (non TEC)	9,276	-1,413	10,689	-756.6%
Total approved CoRE funding	11,918	5,400	6,518	120.7%
as % of Total Income	ok 100.0%	ok 100.0%		

Co-Funding:

Other Government Funding

Other Government Funding (specify funding by source)	0	0	0	-
			0	-
Total Other-government funding	0	0	0	-
as % of Total Income	0.0%	0.0%		

Non-Government Funding

Domestic - Private Sector Funding (specify funding by source)	0	0	0	-
Domestic - Other non-NZ government Funding (specify funding by source)	0	0	0	-
International - Private Sector Funding (specify funding by source)	0	0	0	-
International - Public Sector Funding (specify funding by source)	0	0	0	-
Host/partner Support (specify funding by source)	0	0	0	-
Total Non-government funding	0	0	0	-
as % of Total Income	0.0%	0.0%		

Total Income

Percent of Budget Received

ALL FIGURES SHOULD BE GST EXCLUSIVE. ENTER ONLY IN SHADED CELLS

Actual / Original Budget Comparison				Projections		
[2023]	[2023]	[2023]	% variance (+ = fav ; - = unfav) against budget	[2023]	[2023]	[2023]
Unaudited Actual	Budget	Variance		FTE Actual	FTE Budget	Variance
\$000	\$000	\$000	%			
5,400	5,400	0	0.00%			
6,518		6,518	-			
11,918	5,400	6,518	120.71%			
1,135	1,967	(832)	-42.3%	5.16	8.95	(3.8)
1,135	1,967	(832)	-42.3%	5.16	8.95	(3.8)
43.0%	28.9%					
592	2,022	(1,430)	-70.7%			
22.4%	29.7%					
705	2,422	(1,717)	-70.9%			
26.7%	35.6%					
209	182	27	14.9%			
7.9%	2.7%					
0	219	(219)	-100.0%			0.0
0.0%	3.2%					
0	0	0	-			
0.0%	0.0%					
0	0	0	-			
0.0%	0.0%					
0	0	0	-			
0.0%	0.0%					
1,507	4,846	(3,339)	-68.9%			
57.0%	71.1%					
2,642	6,813	(4,171)	-61.2%			
100.0%	100.0%					
0	0	0	-			
2,642	6,813	(4,171)	-61.2%			
9,276	(1,413)	10,689	-756.6%			
9,276	-1,413	10,689	-756.6%			
11,918	5,400	6,518	120.7%	5.16	8.95	(3.8)
ok 100.0%	ok 100.0%					
0	0	0	-			
0.0%	0.0%					
0	0	0	-			
0	0	0	-			
0	0	0	-			
0	0	0	-			
0	0	0	-			
0.0%	0.0%					
11,918	5,400	6,518	120.7%			
100.0%	100.0%					
220.7%						

Variance Explanations

Major Variances (+/- 10%) budget vs actual

Most of projects extended upto 2024 which delay the new FTE increase to year 2024-2025.

With more project set up contract for service instead of FTE, Overhead accumulated based on small salary base.

Most of projects extended upto 2024. New projects will commence in 2024 and 2025.

Most of projects extended upto 2024. New projects will commence in 2024 and 2025.

Most of projects extended upto 2024. New projects will commence in 2024 and 2025.

Āpitihanga 3: Te hunga Kura Raumati | Appendix 3: Summer research students

CATEGORY	HOST ORGANISATION	PROJECT TITLE
KURA RAUMATI COHORT:		
Makayla Kahi	University of Auckland	A new plant-based treatment for high blood pressure
Tea Hunia	University of Auckland	A new plant-based treatment for high blood pressure
Akuira Whaanga	University of Auckland	Equity-focused Discharge Planning for Heart Failure
Maiea Mauriohooho	University of Auckland	Mapping out inequities in surgery for Māori in Aotearoa
Noah Appleby	University of Auckland	Surgery on State Highway 35 (SOS35) – An Inquiry into the Provision of Colonoscopies in Te Tairāwhiti
Nikora Wade	University of Auckland	Mapping out inequities in surgery for Māori in Aotearoa
Shane Ormond	University of Auckland	Sympathetic Nervous System and Gestational Diabetes
Holly Kewene	University of Auckland	Gestational diabetes and future heart health
Kenisha Keung	University of Auckland	Diabetic Retinopathy and CVD Risk
Keenan Rush	University of Otago	Homelessness and Health: Community Voices
Rawiri Manley	University of Otago	Acceptability of a new AI-powered ECG platform for real-time diagnosis and monitoring to Māori
Rebekah Mager	University of Otago	RCT Dietary Intervention
Jeremy Caudwell	University of Otago	Mauri bibliography for heart health
Simone Ada	University of Otago	Determining predictors of long term left ventricular function in paediatric patients after rheumatic heart disease surgery
Madison Randall	Manawa Ora Centre for Health	Rongoā Rakau
Panitahi Howe	Manawa Ora Centre for Health	Kaupapa Māori methods in heart health research
Te Tai Ata o te Rangi Hona	Te Puna Ora o Mataatua	Mataatua Community Survey
Fushia Tibble	Ngāti Porou Oranga	Understanding CREBRF variant in Māori
Hine Te Ariki Parata Walker	Ngāti Porou Oranga	Understanding CREBRF variant in Māori
Sharna Job	Te Hiku Hauora	Outreach with Te Hauora o te Hiku o te Ika - How do whānau access support services in Tai Tokerau?
Brooklyn Glanville-Rolleston	Hauora a Toi - Bay of Plenty	Pūrākāu for tamariki with Congenital Heart disease
OTHER SUMMER RESEARCH STUDENTS:		
Yasheshwini Shiv Sharma	University of Otago	Transgender Heart Health
Tausi Tausi	University of Otago	Assessing Ryanodine Receptor Organisation in Heart Failure
Elizabeth Derby	University of Auckland	Gestational diabetes and future heart health

Āpitihanga 4: Ngā whainga | Appendix 4: Outcomes Framework



PŪTAHI MANAWA OUTCOMES FRAMEWORK

VALUES	CRITERIA	OUTPUTS	WHO WILL BENEFIT	SHORT TERM OUTCOMES	MEDIUM-TERM OUTCOMES	LONG TERM OUTCOMES	IMPACT
		WHAT WE PRODUCED		MAKING A DIFFERENCE			
Toitōi manawa Encourage and inspire We encourage and inspire behaviours and actions that align and reinforce our vision and mission Manawa whānau Team and Stakeholders Our team and stakeholders are the foundation of our work Tānga manawa Place of refuge Our approach is unified and collective, we create safe spaces to engage and work Puna manawa Spring of water The source (or spring) of our vision and mission is the source of our mana. Through knowing the source, we can extend our care within our team and to our communities. Manawa ora Breath of life We acknowledge the connection between us all through the breath of life. Identifying and acknowledging our connections gives us strength Manawa rahi Resilience When faced with challenges we remain firm and optimistic in seeking positive outcomes Manawa tina Decisiveness Our vision and mission encourage and inspires a decision-making process which is underpinned by our shared values, due diligence, and transparency Manawa popore Considerate We are committed to an approach that enhances the mana and general well-being of others through considered behaviours, language, and actions	Equity Focussed ²	#/% of Māori², Pacific & women fellowships compared to general population #/% of Māori², Pacific & women PhD students compared to general population # of researchers engaged in equity focused training # of early career researchers supported # and value of equity grants funded # of grants and value of grants funded that focus on Māori² heart health # of grants and value of grants funded that focus on Pacific People's heart health # of grants and value of grants distributed that focus on women's heart health	Māori Pacific Women Researchers Clients Whānau Community System Stakeholders	Māori, Pacific and women researchers active on heart health projects Researchers report that they feel more able to imbed equity in their work compared to before attending the training Early career forum established Māori, Pacific and women are active research participants Research focused on priority populations compared to general population	Māori, Pacific and women researchers remaining within the heart health workforce Māori, Pacific and women researchers progressing through tertiary qualifications Early career researchers engaged in numerous workstreams Māori, Pacific and women are seeing health benefit from involvement in research projects Funding value to priority communities increased as more equity focussed projects are submitted Funding distributed to priority populations compared to general population	Māori, Pacific and women researchers leading work in heart health Māori, Pacific and women researchers promoted to roles of significance in Universities and Communities Early career researchers are integral within all workstreams Māori, Pacific and women from our communities are engaged in heart health research and their whānau and communities are seeing health benefits Changing ethos in heart health research about the funding, conduct and intention of research work	Improvement in the heart health of all New Zealanders Māori and Pacific People have experienced a positive impact from the work undertaken by the CoRE Improved capacity and capability for Māori and Pacific People in heart health research
	Te Tiriti o Waitangi Embedded	#/% of partnership with iwi & Māori organisations compared to non-Māori organisations⁵ #/% of engagements with Māori communities compared to non-Māori communities⁴ #/% of Māori in leadership roles compared to non-Māori #/% of kaupapa Māori projects compared to non-kaupapa Māori projects¹ # of TToW focussed professional development opportunities for CoRE members³ # of attendances at TtoW focussed professional development opportunities³	Māori organisations Māori researchers Tauiwi researchers	Māori organisations are key stakeholders in research and outreach/education work Māori hold key leadership roles across Pūtahi Manawa Mātauranga Māori is starting to be imbedded into research projects¹ Kaupapa Māori projects funded Learning opportunities for Pūtahi Manawa members to grow within Te Ao Māori³	Māori organisations are directing research and outreach/education work Māori organisations are engaging directly with Pūtahi Manawa Māori within Pūtahi Manawa have a collective capacity to direct research intentions across the CoRE Kaupapa Māori research is routinely funded Kaupapa Māori methodologies are applied within outreach and education activities Researchers report that they feel more comfortable within Māori communities compared to before attending learning opportunities	Māori organisations are authentic partners in research and outreach/education work Kaupapa Māori and Te Tiriti focussed activities are business as usual Tauiwi researchers are role modelling authentic working partnerships with Māori	
	Co-design	# and value of projects that include co-design as a research methodology funded # of co-design / community engagement hui/fono held # of kaupapa Māori codesign (mahitahi) projects funded^{1,4} # of kaupapa Pacific codesign projects funded # of codesign projects funded with women as the co-design partners	Researchers Clients Whānau Community	Researchers and communities building relationships around heart health research Māori, Pacific People, women are active in co-design teams as part of research projects	Strong trust relationships exist between communities and researchers Communities engaged with Pūtahi Manawa are represented in codesign teams Co-design projects prioritise Māori, Pacific People and women	Communities pose research questions to researchers for proposals Communities are leading codesign Research is supported, impactful and meaningful to communities	
	Multidisciplinary and Collaborative	# of Pūtahi Manawa members by discipline # of projects funded that are multidisciplinary	Researchers	Relationships across disciplines being initiated Researchers are learning about outreach and education activities	Researchers have established working relationships with peers from other disciplines	A strong network of heart health researchers connect and collaborate in a non-competitive way	

		# of education and outreach activities by research teams # of activities that are collaborative between projects	System Stakeholders	Research funding takes into account multidisciplinary teams Collaborations are encouraged	Researchers are active participants in outreach and education activities Funding decisions support non-competition and collaboration	Outreach and education activities are standard within research projects about heart health Multidisciplinary and collaborative teams influence the funding, conduct and intention of heart health research work	
	Translational	# of dissemination events within Māori and Pacific Communities # of dissemination events focussed on women # of research outputs/findings/interventions active within Māori and Pacific communities # of stakeholders engaged # of academic publications # of reports of work to government organisations # of next user engagements from funded research # of media engagements # of direct translation events into clinical spaces	Clients Whānau Community Researchers Clinicians	Communities are involved in outreach and education activities Communities are involved in telling their stories Increased understanding of the benefit of academic and community focussed dissemination Media engagement by Pūtahi Manawa members starting Clinical members engaged in research projects	Communities are guiding dissemination events and the development of community appropriate dissemination resources Communities are supported to tell their stories in their own way Career progression and CV enhancement Research progression by next users is beginning Media engagement by Pūtahi Manawa members is common Clinical members collaborating across research projects to support clinical translation	Māori and Pacific communities are seeing health improvements from Pūtahi Manawa research Women are seeing health improvements from Pūtahi Manawa research Pūtahi Manawa has a steady stream of publications Media regularly seek engagement by Pūtahi Manawa members Evidence-based research is improving clinical practice for heart disease	
	Research Excellence	# of publications in peer-reviewed journals # of Pūtahi Manawa projects supported or funded by other funders # invitations to write reviews and speak at meetings # of prizes awarded to Pūtahi Manawa members # of summer, Masters and PhD students # of communities engaging with Pūtahi Manawa	Researchers System Stakeholders	Research is presented at national and international meetings Press releases and media attention on publications (e.g. radio, tv) Securing grant funding on basis of prior CoRE research	High citation rates on published work Commercial/industrial interest in the work Attraction of funding from commercial sector Adoption of methods/data/knowledge by others	Improvement in heart health equity in Aotearoa as defined by life longevity in Māori & Pacific Heart health policy changes based on CoRE research nationally & internationally Research methodologies and process of Pūtahi Manawa reflected across other research entities in Aotearoa National and international recognition for the research	

Te Tiriti Principles are represented within the Outcomes Framework

¹ Tino Rangatiratanga, ² Equity, ³ Active Protection, ⁴ Options, ⁵ Partnership

- **Tino rangatiratanga:** The guarantee of tino rangatiratanga, which provides for Māori self-determination and mana motuhake in the design, delivery, and monitoring of health and disability services.
- **Equity:** The principle of equity, which requires the Crown to commit to achieving equitable health outcomes for Māori.
- **Active protection:** The principle of active protection, which requires the Crown to act, to the fullest extent practicable, to achieve equitable health outcomes for Māori. This includes ensuring that it, its agents, and its Treaty partner are well informed on the extent, and nature, of both Māori health outcomes and efforts to achieve Māori health equity.
- **Options:** The principle of options, which requires the Crown to provide for and properly resource kaupapa Māori health and disability services. Furthermore, the Crown is obliged to ensure that all health and disability services are provided in a culturally appropriate way that recognises and supports the expression of hauora Māori models of care.
- **Partnership:** The principle of partnership, which requires the Crown and Māori to work in partnership in the governance, design, delivery, and monitoring of health and disability services. Māori must be co-designers, with the Crown, of the primary health system for Māori.

Karakia Whakapiki Manawa

Whakarongo rā	Listen to us
E te kāhui o ngā ariki	Those who dwell in the spiritual domain
Ki ēnei tāura	To these adept
Ki ēnei tauira	To these students
Puritia te manawa ora	Bind the breath of life
Ki tēnei kaupapa	To this work
Kia ū kia mau	That it may holdfast
Puritia te manawa reka	Bind a grateful and joyous heart
Ki tēnei whānau	To this family
Ki ēnei uri	To these descendants
Kia ū kia mau	That it may holdfast
Houhia ki te hā o Hineahuone	Fix these attributes to the sacred breath of Hineahuone
E tupu ai te kaha	Whereby our strength will grow
E tupu ai te ora	Our wellbeing will flourish
E tupu ai te māramatanga	And we will gain understanding
Haumi e hui e taiki e	Join together in unity

Kaikōrero Matua Keynote Speakers

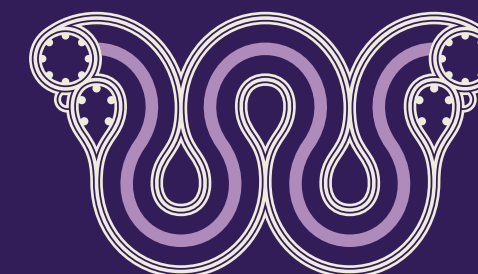
Majic (Te Aupouri, Ngā Puhi and Ngāti Whatua) is an internationally renowned songwriter. At 16, she was the first New Zealand artist to ever record at Bob Marley's TUFF GONG studios and in 2015, she was named Best Māori Female Solo Artist at the Waiata Māori Music Awards.

Lissy and Rudi Robinson-Cole (Ngāti Hineamaru, Ngāti Kahu) and Rudi Robinson-Cole (Waikato, Nātagi Pāoa, Ngāruahine, Te Arawa) are the well-known multidisciplinary artist duo made famous by their colourful and joyful crochet installations. Their current major work, Wharenui Harikoa, is a “large-scale crocheted wharenui that aims to transform intergenerational trauma into deeply felt joy, one loop at a time”.

Drums of the Pacific (NZ) is a Polynesian Spectacular based in Tāmaki Makaurau | Auckland. Founded by award winning Jacob Samson, their aim is to promote, showcase and keep Polynesian cultures and values alive.

Neil Jeremia (ONZM) is the founder and artistic director of the highly regarded dance company Black Grace. Impacted by rheumatic fever and rheumatic heart disease, dance was the physical and creative outlet during his childhood when rugby was too risky. Hailing from Cannons Creek Porirua, and of Samoan heritage, Jeremia draws from his Samoan background and weaves it with Māori and Western influences, profoundly influencing the world of contemporary dance. His work embodies three important Samoan principles: Fa'amaoni (integrity, honesty and pride), Fa'amalosī/Loto Tele (perseverance and determination) and Fa'aaloalo (humility and respect).

Dame Rangimārie Naida Glavish DNZM JP



PŪTAHI MANAWA

HEALTHY HEARTS FOR
AOTEAROA NEW ZEALAND

Te Ahi Manawa

An Occasion to Celebrate

Day 1 - Thursday 9 February

MC- Mr Jeremy Hema, University of Aucland Poutiaki
Rangahau Māori | Pro Vice-Chancellor (Maori), (Ngāti Paoa, Ngāpuhi)

8:00 am to 9:00 am

- Registration
- OnE rōpū

9:00 am to 10:00 am
Whakatau | Welcome

- Mr. Rōpata Pāora, Pou Tikanga (Ngāti Whatua Ōrākei)

10:00 am to 10:30 am

- Kai and kōrero

10:30 am to 12:00 pm
Manawa ora | Breath of life

- Mr. Rōpata Pāora & Mr. Joe Pihema (Ngāti Whatua Ōrākei)
- Pūtahi Manawa Co-Directors:
What this means in context of “Pūtahi Manawa”
- Ms. Majic Pāora - Waiata (Te Aupōuri, Ngā Puhi, Ngāti Whātua)

12:00 pm to 1:00 pm

- Kai, kōrero and workshops

1:00 pm to 2:30 pm
Puna manawa | Spring of water

- Mana whenua / Ngāti Whātua Ōrākei
- Governance Board – Panel discussion

2:30 pm to 3:00 pm

- Tea and coffee

3:00pm to 4:00 pm
Manawa whānau | Team and Stakeholders

- Lissy Robinson-Cole (Ngāti Hineamaru, Ngāti Kahu) and Rudi Robinson-Cole (Waikato, Nātagi Pāoa, Ngāruahine, Te Arawa)

4:15pm to 5:15 pm
Toitoi manawa | Encourage and inspire

- Mr. Neil Ieremia (ONZM) and Black Grace - Talk and performance “Excerpts”

5:30 pm

- Whakaaro and Close
- Drinks and Canapés

Day 2 - Friday 10 February

MC- Mr Jeremy Hema, University of Aucland Poutiaki
Rangahau Māori | Pro Vice-Chancellor (Maori), (Ngāti Paoa, Ngāpuhi)

8:00 am to 9:00 am

- Welcome and registration
- Wānanga organisers/ OnE rōpū

9:00 am to 9:30 am
Manawa popore | considerate

- ECR rōpū to introduce Manawa popore

9:30 am to 9:45 am

- Kai and kōrero

9:45 am to 11:30 pm
Manawa popore | Considerate

- Integrated Resarch Modules (IRMs) kōrero

11:30 pm to 12:30 pm

- Kai and kōrero

12:30 pm to 2:30 pm
Manawa tina- rahi | Decisiveness -Resilience

- Drums of the Pacific - Perfomance
- University of Auckland Samoan Association - Performance
- Outreach and Education (OnE) rōpū

5:30 pm

- Whakaaro and Close
Mr. Rōpata Pāora, Co-directors

We’re here to help

Get in touch with our team at the reception desk if you need asistance. We can help with:

- Wifi connection password
- Storing your coats and bags safely
- Siging up for workshops
- Exit tickets for parking
- General queries

Toilets:
The Fale toilets are closed for painting. There are toilets available in the Owen G Glenn Building - follow the signs.

Pūtahi Manawa

Pūtahi Manawa is ‘Business-not-as-usual’. We strive for equity in all our heart research, outreach and education activities. Te Ahi Manawa | An Occasion to Celebrate will share and acknowledge our Pūtahi Manawa values that are rooted in Te Ao Māori.

- Manawa ora | Breath of life
- Puna manawa | Spring of water
- Manawa whānau | Team and Stakeholders
- Toitoi manawa | Encourage and inspire
- Manawa popore | Considerate
- Manawa tina- rahi | Decisiveness - Resilience

Community voices are central to our celebration. The sharing of lived experiences illustrates the impacts on individuals, their whānau and the wider community. Cultural customs will be woven into this event to showcase some of the elements that form cultural identity of Māori and Pacific Peoples. Pūtahi Manawa | Healthy Hearts for Aotearoa New Zealand Centre of Research Excellence (CoRE) is a national and international collaboration designed to work in partnership with iwi, hāpu, whānau and aiga to create a vibrant world-class centre for research into heart and respiratory diseases to improve outcomes, particularly for Māori and Pacific Peoples who are the groups most affected by these diseases in Aotearoa.

Whakatakanga | Mission Statement

The mission of Pūtahi Manawa is to improve equity in heart health for Māori and Pacific Peoples through research excellence and precision medicine. Pūtahi Manawa will bring together research scientists, clinicians, educationalists and communities by comprehensively and collaboratively addressing issues around equity in heart health outcomes to support and complement the public health approach. We wish to work in partnership with communities and researchers to create a vibrant world-class environment and network for heart research in Aotearoa that is underpinned by evidenced based, multi-disciplinary collaborative research that delivers clinical benefits and equity to patients with cardiovascular diseases. It is our aim that Pūtahi Manawa works directly with and for communities across Aotearoa.







PŪTAHI MANAWA

HEALTHY HEARTS FOR
AOTEAROA NEW ZEALAND

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