

HEALTHY HEARTS FOR AOTEAROA NEW ZEALAND

HE PŪRONGORONGO Ā-TAU CoRE Annual Report 1 July - 31 December 2022







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 kawe 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

Mā pango, mā whero, ka oti te mahi Through black and red the work will be completed

This whakatauki proverb speaks to the collaborative efforts of different groups working together to achieve a common desired outcome.

Much like Pūtahi Manawa, our distinct Integrated Research Module (IRM) groups all combine to improve healthy heart equity for Māori, Pasifika, and wāhine.

Co-Directors' welcome

We are pleased to report on the substantial progress made by Pūtahi Manawa from 1 January 2022 to 31 December 2022. This succinct annual report details the main activities and accomplishments this year. Our main aims for 2022 were to initiate our flagship research programmes called Integrated Research Modules, fund Pūtahi Manawa Fellowships, launch of an online webinar Ako (teach and learn) series and support our early career research whānau.

We are delighted to report that community-engaged research has commenced through a number of awards, including five flagship Integrated Research Modules. Our agenda of business not as usual (disruptive but not destructive) is role modelling new ways to perform research in Aotearoa New Zealand, which we believe will be relevant across research fields in health, and beyond. The foundation for these programmes of work is built around equity and upholding our Te Tiriti obligations. This is largely what makes Pūtahi Manawa CoRE unique. We are excited to advance how we take a genuinely equitable research approach in all areas, from funding, infrastructure (such as data sovereignty) and engagement. The intention as part of our infrastructure efforts is to contribute to unifying data sovereignty and biobanking nationally for heart research. We are confident that our research ethos, priorities, governance and structure align and demonstrate our values.

We have also been active with our outreach and education across the nation (e.g. schools, museums, community centres, A&P shows) and are now collaborating with four established national groups; Amanaki STEM Academy, House of Science, Pūhoro STEMM Academy and Science Spinners to progress our outreach and education mahi. We have facilitated an Ako webinar series in response to calls from our membership, to help train and educate our workforce. Our Māori and Pacific Leadership teams are integral to the operationalisation of Te Tiriti and equity and are active participants across all aspects of the Pūtahi Manawa workstreams.

Our governance board provides consistent guidance and we have bi-weekly engagements with our board chair in addition to the formal board meetings. We have recently appointed a Pou Tikanga, who will lead cultural processes for Pūtahi Manawa as workflow and projects increase, to ensure that we are consistently supporting Māori and Pacific People engagement.

Before signing off, we wanted to share a planned highlight for February 2023 - Te Ahi Manawa / An Occasion for Celebration. It is the first time we have been able to bring the Pūtahi Manawa whānau together to celebrate our CoRE and the work achieved to date and to look forward to the work ahead. The event focuses on celebrating Pūtahi Manawa with our communities, and with our research and clinical membership far and wide and we look forward to sharing this in our next annual report.

Dr Anna Rolleston and Professor Julian Paton Co-Directors Pūtahi Manawa July 2023

New appointments and changes

Senior Research Operations Coordinator



Linda Fotherby, an experienced Senior Research Programme Coordinator from the School of Medical Sciences (University of Auckland), joined us from December as Senior Research Operations Coordinator. She brings her considerable experience with contracting and

research administration to the role.

Pou Tikanga

In April, we welcomed our Pou Tikanga, Mr Rōpata Pāora (Ngāti Whatua Ōrākei). Rōpata joined us as



our Pou Tikanga at 0.4FTE. He has previously worked with Wānanga o te Aotearoa, Ngāti Whatua Ōrākei, and in the community. He will support the CoRE in Te Reo Māori, tikanga, and Te Tiriti o Waitangi and involves tikanga leadership, workforce development/training,

and engagement with hāpori/communities. Rōpata's skills and experience are ideal for this role, as he has worked as a Kaiwhakahaere Ako at Te Wānanga o Aotearoa and currently works for Ngāti Whatua Orakei as Pouarahi Matua. We welcome him to Pūtahi Manawa.

Finance adviser

Heather Wang replaces Vineeta Sharma as our new finance/budget adviser. Heather is a regular visitor to the Pūtahi Manawa offices and we appreciate her support and passion.

Outreach and Education Lead



We are delighted to have been able to recruit Dr Anuj Bhargava at 0.2FTE as Pūtahi Manawa's outreach and education 'mahi maker'. He is also a professional teaching fellow and undergraduate advisor in the Department of Physiology,

University of Auckland. A National Teaching Award winner, Anuj brings a wealth of knowledge and experience in the outreach space and an unmatched passion for the intentions of Pūtahi Manawa.

Co-Directorship rotation



Dr Anna Rolleston informed us in December that she would be giving up the role of Co-director Māori from mid-2023. Anna is stepping down as Co-Director to further projects and opportunities that sit outside academia, however, she will still be an active part of

our CoRE, as a member of our Māori Leadership Team (MLT). MLT will act as the selection committee and will decide on the process for appointing a replacement. MLT will then make a recommendation to the Board on the new appointment.

We thank Anna for her tireless mahi and dedication to help make our CoRE a reality; we wouldn't be where we are today without the leadership, resilience and guidance Anna has provided. We wish to congratulate Anna for all that she has achieved. It is hard to articulate how much she has impacted each and every one of us as we have journeyed together on this waka. Her innovation and vision has been an absolute foundation to this CoRE and she has ignited in all of us our curiosity and confidence to do research Funding

Research Excellence

Funding awarded in 2022

Including co-funding from the Heart Foundation, Pūtahi Manawa has awarded just over \$10.5million in funding in 2022 – a breakdown of the amounts awarded to the different categories of grants is detailed in the table below. Note that the funding has been awarded in 2022 but will be spent over a one to three year period, depending on the length of the project.

A summary of the value of the research funding awarded is given in Table 1 below. Tables 2 and 3 show the ethnicities and gender of the Primary Investigators awarded funding in 2022.

CATEGORY	TOTAL AWARDED	NO. AWARDED	CO-FUNDING (HEART FOUNDATION)
IRM	\$7,519,094	5	\$1,023,041
Projects	\$250,000	1	
Fellowships	\$1,001,124	2	\$192,930
Primer Grants	\$140,450	2	
Equity Grants	\$543,379	4	
TOTAL	\$9,454,047	14	\$1,215,971
		GRAND TOTAL	\$10,670,018

Table 1: Value of funding awarded in 2022

ETHNICITY OF PRIMARY INVESTIGATOR	NUMBER	PERCENTAGE
Pākehā	7	46.7%
Māori	2	13.3%
Pacific	2	13.3%
South Asian	3	20%
East Asian	1	6.7%
TOTAL	15	

Table 2: Ethnicity of Primary Investigators awarded funding in 2022

GENDER OF PRIMARY INVESTIGATOR	NUMBER	PERCENTAGE
Female	12	80%
Male	3	20%
Other	0	0%
Total	15	

Table 3: Gender of Primary Investigators awarded funding in 2022

Integrated Research Modules (IRMs)

Our IRMs are flagship integrated research programmes that have been awarded for an initial three-year period with the intention to progress for up to six years subject to satisfactory progress at specific time points. The IRMs were reviewed by a panel of both international and national scientists and five IRMs were each awarded \$500,000 per year over 3 years. The Sweet Pressure IRM started on 1 December 2022 and the rest will be starting in the first half of 2023.

Ō tātou ngākau, ō tātou ira, ō tātou korero | Our heart, our genes, our story

Primary Investigator: Dr Polona Le Quesne Stabej, University of Auckland Amount awarded: \$1,500,000

Sudden and unexpected cardiac death is hugely traumatic for families. The cause involves genetic mutations that can be inherited. The phenotypes of these mutations will be studied. Genetic screening will be performed to characterise sudden death across populations in Aotearoa New Zealand. Once these genes are found, screening of them in families will prevent further fatalities.

Te Ara Poutama – Living well with heart disease – A Māori led IRM

Primary Investigator: Ms Erina Korohina, The Centre for Health

Amount awarded: \$1,504,251

This IRM is partly funded by the Heart Foundation.

Heart disease causes a shorter life for Māori vs

non-Māori. The project will employ values, beliefs, process and principles from the Māori world to support Māori living with heart disease. Heart, blood pressure checks and education will be made on marae. Heart health survey to understand more about heart disease in our Māori communities is underway. Co-design solutions that are meaningful to Māori will be made. The IRM will assist other IRMs in culturally appropriate community engagement.

Sweet Pressure – Improving outcomes for people with diabetes and high blood pressure in Aotearoa New Zealand

Primary Investigator: Dr Fiona McBryde, University of Auckland; Dr Andrew Lowe, Auckland University of Technology

Amount awarded: \$1.499.737

Patients with diabetes have high blood pressure & vice versa. Clinically, diabetes & hypertension are managed separately but this project asks: might there be a common origin for these co-morbidities?

The IRM is working with communities who have sweet pressure to co-design long-term management/intervention strategies. Epidemiology of sweet pressure being assessed for best treatment. Community to co-create education programmes to boost knowledge about dangers of sweet pressure.

Restoring the Balance: Heart health of Wahine, Fafine, Va'ine, Fifine & Women of Aotearoa

Primary Investigator: Professor Johanna Montgomery, University of Auckland Amount awarded: \$1,515,106

Women's heart disease is the biggest killer of women

and has been understudied. Women's hearts are not like men's hence, this IRM's aim is to improve women's heart health equity. Women will share their experiences of heart disease and co-create solutions that work for women. Knowledge from Māori and Pacific Peoples will be used and include our transgender community. Increasing the number of women working in science and in heart health is also a goal.

Kāinga Ako - Heart health equity for Pacific People - A Pacific led IRM

Primary Investigator: Associate Professor Dianne Sika-Paotonu, University of Otago

Amount awarded: \$1,500,000

A major danger for Pacific Peoples (and Māori) is rheumatic heart disease. The project will use Pacific values, beliefs, processes and principles to understand the need of people with rheumatic heart disease. New ways to detect RHD non-invasively will be tested. The aim is to improve compliance for prevention, a needle-free injector for penicillin may be trialed.

Lay summaries of the the other research categories funded are given in Appendix 1.

Fellowships





Dr Sandra Hanchard

Dr Dr Anna Ponnampalam

Two, three-year fellowships have been approved for Dr Sandra Hanchard (far left) and Dr Anna Ponnampalam (left). Dr Ponnampalam's fellowship started on 1 December 2022 and Dr Hanchard's will begin in July 2023. Dr Hanchard is the inaugural Pacific Fellow and this fellowship is co-funded between Pūtahi Manawa and the Heart Foundation.

Primer Grants

Primer grants were awarded to Drs Ma'ia'i and

Reynolds, Dahiya and conditionally to Dr Jichao Zhao. Dr Dahiya's project started in November 2022, Dr Ma'ia'i and Dr Reynolds' project will start in February 2023. Dr Zhao's project will start in 2023 if the conditions of the award are met.

Equity Grants

These grants provide additional funds of up to \$150,000, to existing grants that wish to include or expand an equity focus. Four Equity Grants were awarded in 2022 to Drs Dicker, Harwood, Khwaounjoo and Pearson. All projects started between September 2022 and November 2022 apart from Dr Harwood's, which will start in February 2023.

Progress on projects funded in 2021

Professor Frank Bloomfield, Achieving equitable outcomes from critical congenital heart disease, Equity grant

This was due to be completed by 31/12/22 but a oneyear, time-only extension has been granted due to delays in obtaining ethics approval and the impacts of COVID-19. The first three milestones have been completed; milestones 4 & 5 are in progress.

Dr Nikki Earle, FAIR-ACS Females in Aotearoa with Ischemic Heart Disease and Acute Coronary Syndromes, Equity grant

This was due to be completed by 31/12/22 but a one-year, time-only extension has been granted. Enrolling participants at hospitals was heavily affected during 2022 by Covid-19 (and influenza), both for patient overload and staff illness. Enrolment is now well underway.

Professor Suzanne Pitama, Application of a Kaupapa Māori Research design into the Computed Tomography to Reduce Invasive Coronary Angiography in Acute Coronary Syndrome study, Equity grant

This project was due to be completed by 30/06/2023 but a variation has been granted to extend the project until 30/6/2024. The delay was caused by Covid-19 and the testing of a new method within the project.

Dr Kate Thomas, Optimising heat therapy for improving inequities in the treatment of hypertension, Primer grant

This was due to be completed by 1/11/2022 but a time only extension to 31/3/2023 has been granted. There have been delays in recruiting a Māori researcher. Community engagement to facilitate co-design is ongoing, ethical approval has been obtained, recruitment and experimentation is underway.

Professor Alan Davidson, Functional analysis of the hypertension-associated SNP, Primer grant

This project was completed in August 2022. The focus of the project was to investigate a DNA variant in the CALCRL gene that is found at a high frequency in Māori and Pacific people and has been linked to lower blood pressure but increased risk of kidney failure in the setting of type 2 diabetes.

The researchers generated a rat with the equivalent gene variant and found that it shows lower systolic blood pressure, as expected from the human studies. Unexpectedly, they also found that the rats drink and urinate much more than the control rats.

Based on these new findings, the researchers suspect that the Vasopressin hormone system is perturbed (which is involved in regulating water balance in the body) and this is now under further investigation.

Since being awarded this project, the team were successful in getting an HRC project grant and Maurice Wilkins Centre funding to continue this work. A research partnership has been established with Ngāti Porou Oranga and knowledge is disseminated locally by Ngāti Porou Oranga newsletters and their public-facing website.

Assoc. Professor Troy Merry, Untangling the contrasting effects of IL-6 on cardiovascular function, Primer grant

The primer grant facilitated a collaboration with Dr Nikki Earle to undertake analysis which investigated whether there was an association between rs1800795-C and ACS outcomes in Māori and Pacific peoples. While no association was found, this analysis would not have been undertaken without this primer grant. The primer also helped facilitate bidirectional knowledge transfer between the research team and

Tangaroa College staff and students. Tangaroa College is low decile South Auckland high school that has predominantly Māori and Pacific students. Through this primer the research team engaged with Tangaroa through several programmes including delivering a metabolic disease-related module to a senior science class hosting Tangaroa College students for a day at the University of Auckland and running a scientific study design workshop.

Future funding rounds

Fellowships

We opened a fellowship funding round in November 2022 which will be completed in April 2023. We have a healthy balance remaining in our fellowship funding allocation and anticipate that we will be able to fund most if not all of the fellowship applicants in 2023 who are of a high enough standard and meet the CoRE's funding criteria.

Other funding rounds

We will be reviewing the other types of funding we offer next year. We have now run two funding rounds for each funding category (excepting IRMs) and now have a good understanding of how well the different awards are delivering on the CoRE objectives. There will certainly be improvements that we can make to the design of our awards.

Queenstown Research Week 2022

Pūtahi Manawa and Maurice Wilkins Centre cohosted two day Metabolic and Cardiovascular Disease satellite. Anna Rolleston opened the meeting with Peter Shepherd (Deputy Director of Maurice Wilkins Centre) with a 30 min presentation on Pūtahi Manawa. Julian Paton and Anna both chaired sessions and there was a large group of Pūtahi Manawa researchers presenting.

Early Career Researcher (ECR) Rōpū

The ECR ropū has done a lot of work this year to build the group and set it on a good foundation. They have:

INSTITUTION/ORGANISATION

- Defined who is an Early Career Researcher
- Developed the Scope and Terms of Reference for the group
- Completed a survey to ECRs
- Co-organised an ECR Healthy Hearts Forum

Definition of an Early Career Researcher - the tuakana-teina model

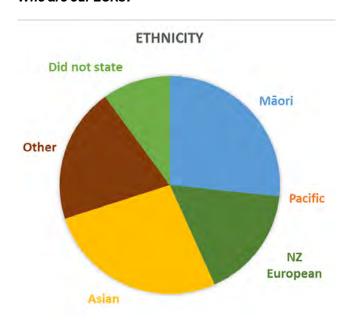
"Someone who self-identifies as being at the beginning of their career in which a primary role is undertaking research, who can demonstrate or are developing independence. They may be involved in mentoring junior researchers and receive or would benefit from mentorship and support from senior colleagues"

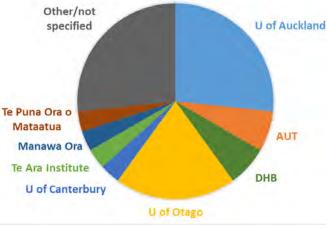
Scope and terms of reference of the ECR Ropū

- To provide a robust communication network with wider academic and non-academic communities.
- To encourage participation and develop opportunities for inclusion in all aspects of the CoRE.
- To ensure an equitable approach in achieving all these objectives whilst upholding the obligations of Te Tiriti.

ECR survey results

Who are our ECRs?

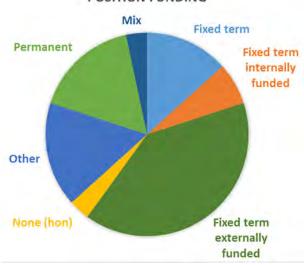




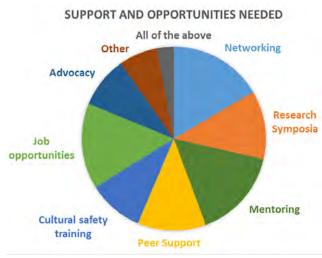
What positions are our ECRs in?

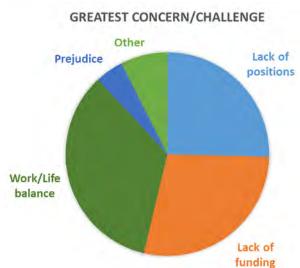


POSITION FUNDING



What support do our ECRs need?





Early Career Heart Health Forum 27 October 2022

The Heart Health Forum was, for the first time, coorganized, co-convened and co-funded by both Pūtahi Manawa and the Heart Foundation. Traditionally a satellite meeting as part of the Cardiac Society of Australia and NZ (CSANZ), this was the first time it was a standalone hui. A group of 10 committee members came together each week to help plan this meeting from Dunedin, Christchurch, Tauranga and Auckland. A survey was sent out to our networks to hear what they wished to get out of this meeting, which informed the programme and our theme

which was Whanaungatanga: Connections and connectedness.

We had 65 registrants, from graduate students to post-doctoral fellows. To facilitate attendance, we encouraged those to present (or re-use a poster) to obtain travel support and also helped to sponsor those who did not have access to travel funds. On the first evening, we had an informal kahoa kakala session with Sione Monu where we gifted the kakala to each other and had some fun ways of getting to know each other through an ice breaker bingo and a slideshow with brief bios about of our attendees. The main day was opened officially by Michael Steedman (Ngāti Whātua, Ngāti Whātua Ōrākei, Te Uri o Hau), Kaiarataki from the office of the Pro Vice-Chancellor (Māori), supported by Ms Kataraina Davis (Ngāti Whātua Ōrākei, Heart Foundation).

Our guest panel of five wāhine (both Māori and Pacific) shared their experiences and stories of the different communities they work with and the intersection of research in those spaces. Professor Ekant Veer, Professor of Marketing from University of



2022 Early Career Heart Health Forum delegates

Canterbury, came and did a fantastic keynote talk on social media. Short workshops on career development and mentorship were facilitated by Professor Julian Paton, Professor Rod Jackson, Dr Anuj Bhargava and Ms Lisa Wong.

Summary of results of the post-forum survey

- Overwhelming positive feedback attendees loved the networking opportunities and whanaungatanga panel discussion
- 95% felt the hui met their desired outcomes
- Networking activities were useful for making connections

We will use the survey feedback to help shape the next Forum

Feedback included:

- Gongratulations to you and the rest of your team for organizing an interactive and meaningful day."
- Mbsolutely loved how the activities kept you moving, engaged and connecting. From the interactive Bingo to the poster treasure hunt and all that eating Brilliant. This was probably the first time I enjoyed the poster session (#true story). The day highlighted the multi-faceted nature of being in this space (face-to-face, social media, traditional media, outreach, co-design)."
- **66** I am sorry to have missed the last sessions. However, some of my takeaways were:
- 1. My Why is why I'm here.
- 2. To be courageous to walk away when it no longer fits your kaupapa.
- 3. Authenticity is key.
- 4. Plan and cost for whanaungatanga in research and after-research.
- 5. Made some very awesome connections and reconnections on the day so thank you."
- experience I had with you all!!! I also mentioned to the wahine in the taxi on the way to the airport, I had a lightbulb moment in respect to wanting to do a higher qualification because of it all."
- 66 Thank you for such a fantastic hui. Although it wasn't specifically a Maori and/or Pacific event, I felt at home as if it were. I think this was a great

example of how applying Maori and Pacific ways of being can positively influence a "mainstream" event."

The passion and messages really resonated with me and will make me think differently about my future research as a consequence."

Outreach and Education

Tē tōia, tē haumatia

Nothing can be achieved without a plan, workforce and a way of doing things

Our team at Outreach and Education (OnE) rōpū have worked extremely hard over the past year and have continued to action the following objectives set out for this important mahi:

- Equitable education opportunities throughout a life course.
- Empowerment of Aotearoa New Zealand with relevant Heart Health information.
- Acknowledge educational encounters in both formal and informal settings.
- Ensure Heart health educational programmes with community engagement at its CoRE.
- Co design Co create from inception to execution.

In 2022, OnE rōpū were able to engage with rangatahi across the motu in face-to-face settings through many and varied wānanga across Aotearoa to deliver equitable educational opportunities and empowerment of rangatahi.

Below is a summary of the aims and outcomes from the various activities we were able to plan and execute in 2022.

Outreach events and empowerment of the rangatahi in formal/informal settings

Pūhoro STEMM mahi

Pūhoro STEM started at Massey University in Palmerston North in 2016 with an aim to increase Māori representation in science, technology, engineering, maths, and mātauranga. Most recently they added an 'M' to become Pūhoro STEMM with the extra M standing for mātauranga. The Pūtahi Manawa OnE team joined with Pūhoro STEMM, on visits to wananga at Tāmaki Makaurau (Auckland), Ōtautahi (Christchurch), Te Matau a Māui (Hawke's Bay) and Manawatū where they met rangatahi from years 11, 12 and 13. The summary table below shows the activities offered at venues across Aotearoa, and the selected feedback highlights some of the successes from these visits.

We were able to develop interactive, enquiry based (Luke with irregular heartbeat) and more importantly mana enhancing activities for our rangatahi and be able to deliver them in in person setting.

This helped the team to get to know the students, appreciate the support system that currently exists in some settings as well as connect with wider communities.

DATE	EVENT	YEAR LEVEL	NO. STUDENTS	LENGTH	ACTIVITIES	SELECTED FEEDBACK
9/9/22	Auckland Wānanga	Y11	102	50 min		"I liked this workshop because this is one of my liked subjects and one of my strengths. I liked looking at the ECG and learning about heartbeats. I really found it interesting as I am interested in nursing."
20/9/22	Christ- church Wānanga	Y11	53	1 hr 40 min	Example case study: ECG and Heart Model and Heart Sounds	"I really enjoyed the practical side of everything and the tutors taking us were really welcoming and made us feel really included. I specifically enjoyed getting taught more on the specific details of the heart for example how it beats and also getting my blood pressure taken was quite a cool experience cause I had never done that before."
23/9/22	Hawke's Bay Wānanga	Y13	11	1 hr 40 min	based on a case study of Luke who has atrial fibrilla- tion.	"We learned about the heart, how it works and helps Doctors to figure out your health status. I enjoyed getting my blood pressure taken. I watched one of my classmates heartbeat and the electricity in our bodies."
31/10/22	Manawatū Wānanga	Y11	50	1 hr 40 min		"We learnt about the heart. I personally really enjoyed this session because I didn't know anything about the heart despite it being one of the main organs in the body. The main lecturer was really funny and made the session really enjoyable, and that goes for all the kaiako from Te Pūtahi Manawa. They were all lovely, articulate and knowledgeable."

Table 4: Summary of 2022 outreach activities with Pühoro STEMM



Outreach activities with Pühoro STEMM students

These visits have been a great learning experience for the Pūtahi Manawa whānau, as highlighted in these snippets from a volunteer's message post hui:

"To be able to see the spark in the eyes of our rangatahi, having the opportunity to interact with medical devices / models and eagerly learn about the complexities of the heart makes these outreach activities incredibly personally rewarding."

"There is always a way to connect personal or shared

experiences with our knowledge and expertise (e.g., a whānau member have a pacemaker and understanding the relationship to the ECG trace)."

"At the end of the day, as researchers, we create neverbefore-seen data daily for the betterment of societythis incredible opportunity to perform outreach activities reminds me of my goal of helping my fellow humans and keeps me grounded to the concerns and questions of everyday New Zealanders."



Empowerment of our communities in informal settings

Amanaki STEM Academy

Amanaki STEM Academy (ASA) is a charitable organisation in Palmerston North run by a wife and husband team, Tanya Koro and Viliami Teumohenga, with an aim to prepare and empower Pacific students into STEM. Originally starting as an informal afterschool tutoring programme, ASA's strategic purpose serves as a foundation to support over 120 students enrolled from years 5-13.

Run entirely by parent volunteers, ASA runs tutoring, school holiday programmes and partners with STEM organisations to ignite and excite these young students. The involvement of the family is at the heart of ASA. Strong family values and participation are the key to its success. Pasifika cultural values are embedded and integrated into the delivery of all events and activities.

Partnering with ASA to promote Pacific Student Success is a key aspiration of Pūtahi Manawa.

In an organisation such as ASA, the involvement of the aiga/Family/kainga/families as part of the holistic approach to empowerment and education is well aligned to our Pūtahi Manawa process and ethos.

OnE rōpū attended the ASA graduation to help celebrate student success and also to discuss a school holiday programme to be offered in April 2023.

Pūtahi Manawa had the privilege to support the two Pasifika tauira towards their tertiary education by sponsoring one Year 9 Achievement Award of \$100 and one Year 13 \$1,000 scholarship. These were presented at the graduation ceremony held 4 December 2022 in Palmerston North.

The Putahi Manawa award for Top Year 9 Science student: Pita Fuafiva (\$100)





The Putahi Manawa ASA Year 13 Scholarship was awarded to Kauriri Vao. (\$1,000)

Empowerment of our own Pūtahi Manawa whānau through Ako

The Outreach and Education (OnE) team held a wānanga at the end of 2021 to scope out what the needs were across our membership. While there is intent to engage with communities and to create meaningful research, many of our members acknowledge a lack the knowledge, expertise and cultural safety to do this. A number of topics to

facilitate this process were identified which we have organised into a series titled Ako (teach and learn). The Ako Series aims to explain and discuss foundational concepts regarding Te Tiriti, Pacific Diversity in Aotearoa, Co-Design and Community Engagement and explore how we can apply them in our Pūtahi Manawa work. Below is a summary of this programme.

KAIAKO	TOPIC	RECORDING
28/3/2022 Sharon Shea	Te Tiriti o Waitangi - This webinar explored and discussed the history of Te Tiriti o Waitangi and why upholding its obligations is fundamental at all levels, from individuals to institutions, to achieve equity in Aotearoa New Zealand	https://youtu.be/iE10mNXjLIM
29/3/2022 Dr Allamanda Faatoese	Pasifika Diversity – This webinar explored the diverse and vibrant Pasifika com- munities, the evolution of Pacific Peo- ples in Aotearoa and considerations for undertaking research in, or with, Pacific communities.	https://youtu.be/4XGEmt6HaM8
30/3/22 Dr Anna Rolleston	Co Design Principles- This webinar explored and examined the principles of Co-design and its importance and relevance within Pūtahi Manawa mahi.	https://youtu.be/sV8j0i7er1g
31/3/2022 Dr Allamanda Faatoese	Community Engagement – This webinar provided useful tips on how to engage with Māori and Pasifika communities in a culturally safe way throughout the research process from inception to knowledge translation and beyond.	https://youtu.be/ps28JNQ794o

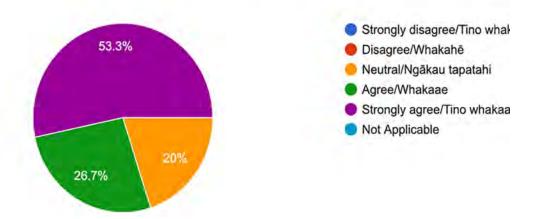
Table 5: Summary of Ako series presentations delivered in 2022

The next series of webinars is planned for 2023 under the theme "Worldviews". It will build on the foundational knowledge above, to understand different perspectives and approaches to health and research, with the aim of enabling us to work better with our communities for more meaningful outcomes:

Post session whakaro/reflection

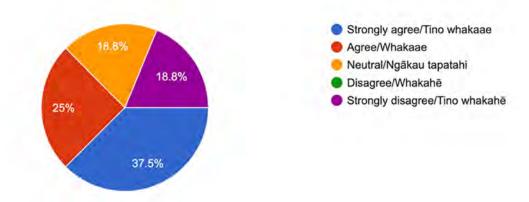
The OnE rōpū has an ongoing evaluation process for the Ako series. The online evaluation helps to capture attendee reflections which are very important in the future development of the Ako series. This also helps us identify topics that are Pūtahi Manawa whānau would like in the future.

Episode materials helped my understanding/l ako ahau mai i tēnei wānanga 15 responses



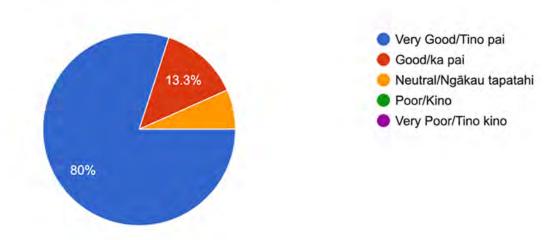
Knowledge and skills developed in this episode will be valuable for my work/He taonga tēnei mō āku mahi:

16 responses



The teaching style was/Ko te ahua whakaako ko:

15 responses



Selected feedback

- 66 I wasn't really sure what I was coming to; I thought it was going to be focused on incorporating Te Ao principles in academic research, instead I found myself learning te reo - way more enjoyable and interesting :D"
- 66 I will continue the outreach we do with schools etc., and try to be proactive to offering other events outside the school to the wider community."
- 66 I will definitely being applying the information gained from this series of lectures in both my

- research planning as well as in my medical training programmes. The sessions have been very helpful."
- 66 These sessions have helped me understand other cultures, how to be respectful and how to engage with the communities. I feel I will be apply these learnings in my future engagements"
- **66** Greater understanding to propel me on my te reo journey"
- 66 This just inspires me to continue on my te reo journey"
- **66** I will be more confident with Te Reo pronunciation"

Ako series registrations

ТОРІС	DATE	NO. REGISTRATIONS
Te Tiriti o Waitangi	28 March 2022	58
Pasefika Diversity in Aotearoa	29 March 2022	62
Co-Design	30 March 2022	77
Community Engagement	31 March 2022	73
Te Reo Māori	11 May 2022	90
Te Reo Māori	12 May 2022	98
Unconscious Bias	18 May 2022	106

Future directions

The OnE ropū mahi will continue to form stronger engagement with Pūhoro whānau with continued participation in rangatahi mana-enhancing wananga across Aotearoa as well as offering studentships to work within Pūtahi Manawa in 2023. We plan to work closely with ASA whānau for a school holiday programme to be offered in term 1 school holiday -April 2023. We will be offering Ako series based on Data sovereignty within Māori and Pasifika context and its relevance with Pūtahi Manawa mahi. Our OnE rōpū will also begin their initial mahi with House of Science to develop Heart Health kits - Kete Toitoi Manawa - Resource Kits to Inspire Hearts and Minds which will be instrumental in getting the primary school kids across New Zealand primary schools get involved with heart health.

Professional athletes to join IRM teams from the NZ Athletes Federation

The Co-directors and the Research Operations Manager met with the NZRPA and the Athletes Federation (https://www.athletesfederation.co.nz) in October 2022. These associations are player advocates, support the non-sport aspect of being a professional athlete, such as wellbeing and post playing career pathways. The Athlete Federation are looking for opportunities to re-engage their athletes back with their communities to do 'good work' but don't often have many areas to place athletes who want to do this type of mahi. This is where we see convergence with Pūtahi Manawa's community engagement. In a number of sports, the majority of the elite athletes are Māori and Pacific (e.g. rugby, netball). These people are well known in their communities and may play an advocacy role for Pūtahi Manawa's community engagement and at the same time explore opportunities of an academic career.

We have submitted a lay summary of the five IRM projects to the Athlete Federation for consideration and discussion with their membership. They are discussing the ideas with selected athletes who they

know are keen to find a kaupapa to support. We have alerted Pūtahi Manawa IRM leads of the opportunity calling for interest and ideas as to possible collaboration.

Pūtahi Manawa – An occasion for celebration

9th & 10th February 2023

The Outreach and Education rōpū have kindly agreed to plan for Pūtahi Manawa's Occasion for Celebration at the University's Fale Pasifika. The event starts with a welcome from Ngāti Whātua Ōrākei, with presentations by the Board, the Outreach team, the Early Career Researchers Rōpū and the Integrated Research Module teams as well as cultural performances.

Congratulations

Some examples of how our workforce is being recognized:

- We wish to congratulate Dr Anna Ponnampalam, one of our Pūtahi Manawa Research Fellows, who was awarded the inaugural Pacific Channel Women in STEM Commercialisation Award. Dr Ponnampalam will receive a prize worth \$100,000 to help commercialise her work which includes a \$50,000 investment from Pacific Channel, \$45,000 worth of legal, finance and communications advice from the firm and its partners, as well as \$5,000 cash. Well done Anna!
- 2. Associate Professor Martin Stiles was awarded a lifetime achievement award from the Kudos Science Trust, Waikato.
- 3. Professor Julian Paton and team won a University of Auckland Research Excellence Award.

Please see Appendix 2 for media attention.

Governance

The Board, Māori Leadership Team and Pacific Leadership Team met regularly during the year and continued to provide the CoRE with excellent oversight and guidance.

There have been no changes to the membership of the Board since last year, the list of members can be found in Appendix 4. The Funding Panel Co-Chairs for 2022 were: Associate Professor Johanna Montgomery, Dept. of Physiology, University of Auckland Dr Martin Stiles, Waikato Heart Ltd & Associate Professor University of Auckland

The co-directors would like to thank the members of the Board, Māori Leadership Team, Pacific Leadership Team and Funding Panel Co-chairs for their support, mahi and continuing commitment to Pūtahi Manawa during the year.

Karakia

Whakarongo rā

E te kāhui o ngā ariki

Ki ēnei tāura

Ki ēnei tauira

Puritia te manawa ora

Ki tēnei kaupapa

Kia ū kia mau

Puritia te manawa reka

Ki tēnei whānau

Ki ēnei uri

Kia ū kia mau

Houhia ki te hā o Hineahuone

E tupu ai te kaha

E tupu ai te ora

E tupu ai te māramatanga

Haumi e hui e taiki e

Listen to us

Those who dwell in the spiritual domain

To these adepts

To these students

Bind the breath of life

To this work

That it may holdfast

Bind a grateful and joyous heart

To this family

To these descendants

That it may holdfast

Fix these attributes to the sacred breath of

Hineahuone

Whereby our strength will grow

Our wellbeing will flourish

And we will gain understanding

Join together in unity

Appendix 1: Summaries of research funded in 2022

Project Grant

A one year project grant was also awarded by the IRM funding panel

Dr Susannah Stevens, University of Canterbury – Which pulse matters? Learning from environments to enact equitable, intergenerational heart health.

Amount awarded: \$249,992

This project, founded on the adage that we are a product of our environment, seeks to unlock the power of indigenous ways of knowing and interacting with the environment for heart health equity. First, our heart health and approach to its prevention and management reflects the dominant cultural context, dominated as it is by western values, knowledge and systems. These world views regard people and their health as autonomous individuals who are independent from the wider environment. Second, in contrast, according to Te Ao Māori, we are literally of the environment - yet we behave as though we are not. The consequences of this disregard for the environmental underpinnings of heart health have been devastating for Māori and Pacific peoples and will likely be so for future generations. This proposed project therefore draws on the strength of a range of knowledges: social theory; Te Ao Māori (via Tiwaiwaka); and physiology (homeostasis and adaptation) as a first step to investigate how best to intervene in ways that prevent the perpetuation of cardiotoxic environments and thereby improve the prospects for future intergenerational heart health equity.

Fellowships

Dr Sandra Hanchard, University of Auckland – Equityfocused discharge planning for heart failure.

Amount awarded by Pūtahi Manawa: \$429,965; Amount awarded by Heart Foundation: \$192,930

This is co-funded by the Heart Foundation (0.5 FTE). Pūtahi Manawa supports both 0.5FTE and consumable costs.

Disparities in outcomes for Māori and Pacific people with heart failure are stark, with significantly higher hospitalisation, readmission and mortality rates compared to non-Māori, non-Pacific people. Heart failure is a chronic syndrome where successful management involves effective communication between patients/whānau and their healthcare providers and coordinated care across providers and systems. While discharge planning is a crucial phase in the overall care of heart failure, there are opportunities to improve current practices.

The aims of this research are to gain a comprehensive picture of discharge planning for heart failure across public hospitals in Aotearoa New Zealand and to determine approaches to discharge planning that work best for Māori and Pacific heart failure patients. A key outcome is to improve the quality of life for Māori and Pacific people with heart failure through consistent evidence-based heart failure care pathways and enhanced coordination of care by streamlining communication between hospital and community providers, and by centering patients/whānau as partners in self-management. The investigation aims to inform nationwide strategies to coordinate cardiac services that work for Māori and Pacific people.

Dr Anna Ponnampalam, University of Auckland – Improved targeted framework for gestational cardio metabolic management among Māori & Pasifika women.

Amount Awarded: \$571,156

Gestational diabetes (GDM) is an independent risk factor for heart disease for both the affected mother and her child later in life. GDM disproportionally affects Māori and Pacific women in Aotearoa New Zealand, which corresponds to the significantly higher preventable heart disease among the population. While there is a universal screening for GDM and follow-up protocols – the current strategy is failing Māori and Pacific pregnant women as they have the lowest participation rate in screening and follow-up of GDM. This fellowship is an attempt to improve

the screening rate through developing strategies with the leadership of the community while trying to understand the biology behind GDM and increased future risk of cardiovascular disease.

Primer grants

Dr Kim Ma'i'ia and Dr Andrew Reynolds, University of Otago – Te Kāika DiRECT: A primary care-led weight management intervention for adults with diabetes and obesity.

Amount awarded: \$49,988

Methods to reduce the burden of obesity and type 2 diabetes in Aotearoa are desperately needed, with obesity one of the greatest predisposing factors for type 2 diabetes as well as heart disease, and certain cancers.1 A recent New Zealand report, The Social and Economic Cost of Type 2 Diabetes, 2 identified several interventions that might benefit people with established diabetes. One promising intervention was a structured programme of a period of rapid weight loss, followed by supported weight loss maintenance. This intervention was modelled to have an overall return on investment in Aotearoa of 3.66 (a ROI of 1 is cost neutral, above 1 is a cost saving). Supported weight loss for those looking to lose weight has social and mental benefits, while potentially enabling diabetes remission3 as well as appreciably reduce risk of cardiovascular disease and prevent diabetes-related chronic kidney disease, retinopathy, nephropathy, and lower limb amputation.2 The acceptability of the programme in Aotearoa however is unknown.

Dr Ekta Singh Dahiya, Auckland University of Technology – Determining the normative arterial pulse wave velocity values in Māori and Pacific people in New Zealand.

Amount Awarded: \$40,462

Cardiovascular disease (CVD) risk for Māori people with diabetes is 30% higher than other ethnic groups, and Māori and Pacific people have a disproportionately higher CVD burden. Investing in early and more accurate means to identify people at high CVD risk, so that targeted and timely interventions can be administered, will benefit the community and reduce medical, economic, and social burden. Arterial stiffness is a reliable clinical biomarker of alterations in large artery structure and

function. The carotid-femoral pulse wave velocity (cf-PWV), a global measure of arterial stiffness, is well established as an additional, independent predictor of CVD events. PWV improves risk prediction, and it does so equally for cardiac and cerebrovascular events. A preliminary study estimated the normative PWV values in the NZ population. However, Māori and Pacific participants, who have the highest rate of CVD and poorest outcomes, were underrepresented. This feasibility study aims to address the past limitations, by focusing on co-design of the research with Māori and Pacific communities and by conducting a pilot study to assess the recruitment rate and other practical aspect of data collection.

Equity Grants

Associate Professor Bridget Dicker, Auckland University of Technology – Impacts on patients and whānau of transporting OHCA patients out of the local area to Cardiac Arrest Centres

Amount Awarded: \$149,741

Taking people to specialist Cardiac Arrest Centres may improve their survival. However, taking people out of their local area may have significant cultural, psychosocial, and practical impacts. We will undertake three wānanga and up to five individual interviews with OHCA patients and whānau members (20-25 people in total), to explore their perceptions of bypassing local hospitals to go to specialist centres. Participants will be people living in rural areas of New Zealand without a Cardiac Arrest Centre, who have been personally affected by OHCA. This research will inform future policy and practice changes to incorporate the needs and perspectives of those affected by any such changes to promote equity in experience and outcome for Māori after OHCA.

Associate Professor Matire Harwood, University of Auckland – Manawataki Fatu Fatu for ACCESS: Co-Design Workshop Series 2023

Amount awarded: \$149,002

Manawataki Fatu Fatu (Māori and Pacific hearts in unison) for Achieving Cardiovascular Care for Equity StudieS is a research programme that aims to improve timely and equitable access to high quality heart healthcare for Māori and Pacific people. The Māori and Pacific team lead kaupapa Māori and Pacific,

quantitative and qualitative research. We seek funding to undertake a series of kaupapa Māori and Pacific codesign workshops with MFF stakeholders. We believe that heart healthcare can better meet the needs, aspirations and outcomes for Māori and Pacific people when they are active participants in the co-design. National workshops will be hosted around Aotearoa followed by online hui. In addition to developing an equity roadmap for Māori and Pacific heart health, a major outcome of the workshops will be to establish sustainable relationships between Māori and Pacific communities and providers with a shared purpose of optimising heart healthcare for better outcomes.

Dr Prashanna Khwaounjoo, University of Auckland – *Twelve Labours Project*.

Amount awarded: \$130,724

We have developed a non-invasive imaging system to accurately measure neck skin movement caused by blood pressure pulses in major vessels, providing information about the heart's function. This system is currently being tested/validated in a clinical setting at Auckland City Hospital (ACH), and the initial results are promising. However, the patients recruited to date are mainly male and New Zealand European/Caucasian. Recruitment of additional female, Māori, and Pasifika patients is needed to demonstrate that our system can cater to all New Zealanders, regardless of gender, ethnicity, and skin colour. Furthermore, the use of the system at ACH has highlighted potential device limitations. Improvements to portability, and application of co-design principles via engagement

with Māori and Pasifika communities, will improve the device and acquisition protocols. This refined system will provide more equitable access to novel diagnostic information and open more channels for community outreach and education.

Dr Andree Pearson, University of Otago – Hauora Manawa mō ngā Kaumātua/Heart health in Kaumātua

Amount awarded: \$113,911

Our key outcome is to improve heart health among Māori. Establishing a meaningful long-term relationship between Ngāi Tahu Papatipu rūnanga, Ngā Mataawaka Māori, and the CHI is critical to achieving this. We will engage in hui with kaumātua and their whānau to determine the best ways to implement marae-based biomedical research in a co-designed study. We will measure CVD biomarkers, frailty and heart structure and function (including electrocardiograms and echocardiograms) in a small group initially to ensure there is consensus on methodology, before proceeding to a wider recruitment throughout Canterbury. Our original aim was to focus on kaumātua, who have not received the attention they deserve regarding CVD research; however, after consultation with the community, we wish to widen the study to include whanau and other members of the local Māori community. This study will lay the foundation for a multicentre New Zealand-wide study that will be able to establish with appropriate power, contributors to CVD and levels of biomarkers that are relevant for Māori.

Appendix 2: Pūtahi Manawa in the news

12/5/22 Business not as usual for heart health Radio New Zealand

https://www.rnz.co.nz/national/programmes/ ourchangingworld/audio/2018841207/business-notas-usual-for-heart-health

16/12/22 \$8 million boost to improve Māori and Pacific heart health equity The Herald

https://www.nzherald.co.nz/kahu/8-million-boost-to-improve-maori-and-pacific-heart-health-equity/6E4H QHKX7NB45ELI7ZBBDQA2IA/



SCIENCE (/TAGS/SCIENCE) / HEALTH (/TAGS/HEALTH)

Business not as usual for heart health

From Our Changing World (/national/programmes/ourchangingworld), 5:00 am on 12 May 2022



Cardiovascular diseases – disorders of the heart and blood vessels – are the leading cause of death (https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds)) globally. In Aotearoa, alongside cancer and respiratory diseases, they are one of the leading causes. (https://www.health.govt.nz/publication/mortality-web-tool)



Pūtahi Manawa co-director Dr. Anna Rolleston Photo: RNZ / Claire Concannon

Follow Our Changing World on Apple Podcasts

(https://itunes.apple.com/nz/podcast/rnz-our-changing-world/id208013620? mt=2), *Spotify* (https://open.spotify.com/show/5sCQRBqoIikVQVyYN7JW7U), *Stitcher* (https://www.stitcher.com/podcast/radio-new-zealand/rnz-our-changing-

world), *iHeartRADIO* (https://www.iheart.com/podcast/256-rnz-our-changing-world-31125585/), *Google Podcasts* (http://bit.ly/2H6viCe), *RadioPublic* (https://play.radiopublic.com/rnz-our-changing-world-Wkw3YW) *or wherever you listen to your podcasts*.

Cardiovascular diseases are also responsible for a large portion of the difference (https://journal.nzma.org.nz/journal-articles/the-contribution-of-avoidable-mortality-to-the-life-expectancy-gap-in-maori-and-pacific-populations-in-new-zealand-a-decomposition-analysis) in life expectancy between Māori and non-Māori and Pacific and non-Pacific people.

Life expectancy is a term used for the average period that a person might expect to live. In Aotearoa there is a difference in life expectancy of about seven years between Māori and non-Māori (https://www.stats.govt.nz/information-releases/national-and-subnational-period-life-tables-2017-2019), and about five years between Pacific and non-Pacific (https://www.stats.govt.nz/information-releases/national-and-subnational-period-life-tables-2017-2019).

A Centre of Research Excellence (CoRE)

(https://www.tec.govt.nz/funding/funding-and-performance/funding/fund-finder/centres-of-research-excellence/) is aiming to address these, and other, heart health inequities. Pūtahi

(https://www.auckland.ac.nz/en/news/2020/10/09/m_ori--pacific-heart-health-targeted-by-new-centre-of-research-e0.html) Manawa

(http://www.auckland.ac.nz/en/news/2020/10/09/m_ori--pacific-heart-health-targeted-by-new-centre-of-research-e0.html) / Healthy Hearts for Aotearoa is one of ten CoREs (https://www.tec.govt.nz/funding/funding-and-newformen.co/funding/funding-and-newformen.co/funding/fund finder/centres of research eventlence/serses funded

performance/funding/fund-finder/centres-of-research-excellence/cores-funded-in-201920-round/), whose funding began in July 2021, and will run until December 2028.

Pūtahi Manawa have set ambitious goals – the Centre aims to address heart health research and health-care gaps that affect Māori, Pacific peoples, women, and rural communities. To do this, it will need to be 'business not as usual' says co-director Dr. Anna Rolleston. That is, a new way of doing research - working with communities to research what is important to them, and within their world view.

Dr. Allamanda Faatoese of the University of Otago Christchurch Heart Institute. Photo: Supplied

While based in the University of Auckland, as a CoRE, Pūtahi Manawa has partnerships with other Universities and groups. Researchers can apply for funding and support if their plans fit with the Centre's goals and values.



One of the partners in the CoRE is the University of Otago's Christchurch Heart Institute. As part of her work in Christchurch Dr. Allamanda Faatoese (https://www.otago.ac.nz/christchurch/departments/medicine/people/allamanda-faatoese.html) is investigating the risk factors for cardiovascular disease among Māori and Pacific people. Allamanda has also been learning from these communities about the barriers to them participating in research.

In the University of Auckland, Dr. Anna Ponnampalam (https://unidirectory.auckland.ac.nz/profile/a-ponnampalam) has been investigating the intergenerational heart health impacts that can result from pregnancy complications. Anna has focused on gestational diabetes – when the person develops diabetes during their pregnancy. While gestational diabetes generally resolves after pregnancy, it leaves both the pregnant person and their baby at greater risk for developing diabetes and heart disease later in life.

Dr. Anna Ponnampalam, reproductive biologist at the University of Auckland, Photo: Cornell Tukiri

The risk of developing gestational diabetes has distinct ethnic differences. Anna wants to identify early biological clues of a person being susceptible, so that we can move more towards prevention. She also wants to work with Māori midwives to develop a framework of screening and monitoring of gestational diabetes that better works for Māori.

And in seven years time?

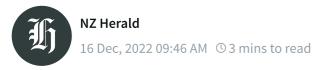


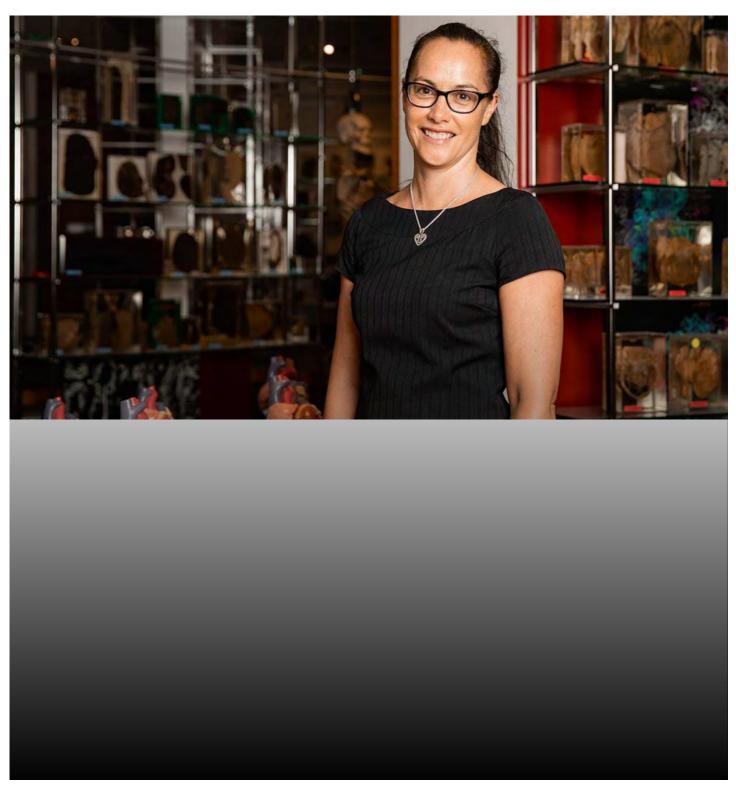
Pūtahi Manawa co-director Dr. Anna Rolleston is realistic about how unlikely they are to have closed that life expectancy gap, but she is hopeful that they will have paved a new way; 'We hope that we have role modelled a different way of doing health, not just in research but across the board, so that we can show others that there is a new way. Because if the way that we've done it, up until now, if that would have worked, then we wouldn't have these gaps. So it doesn't make any sense at all to continue to work in the way that we have.'

To learn more

Recommended podcast listening: <u>Getting Better – A year in the life of a Māori medical student. (https://www.rnz.co.nz/programmes/getting-better)</u>

\$8 million boost to improve Māori and Pacific heart health equity





Pūtahi Manawa - Healthy Hearts for Aotearoa New Zealand has just released funding for six major research projects which amounts to more than \$8 million over three years.

"It's one of the biggest ever tranches of funding for equity-based research in Aotearoa New Zealand and offers the opportunity for a fresh new way to perform heart research that will champion health equity," says Professor Julian Paton, co-director of Pūtahi Manawa.

It's what leaders have described as a "business not as usual" approach, moving away from the idea that academics and clinicians are the only experts to research from within the worldview of the people needing equitable care and urgent action.

Pūtahi Manawa also introduces two significant leadership teams that reflect the communities which need urgent impact: the Māori leadership team, which is co-chaired by Waipapa Taumata Rau's honorary fellow in the department of medicine Dr Anna Rolleston (Ngāti Ranginui, Ngai Te Rangi, Ngāti Pukenga), and senior lecturer Dr Mataroria Lyndon (Ngāti Hine, Ngāti Wai, Ngāti Whātua, Waikato).

The Pacific leadership team is co-chaired by the University of Otago's Associate Dean Pacific Associate Professor Dr Dianne Sika-Paotonu, and Associate Professor Dr Daryl Schwenke.

"There is a Māori proverb that says: 'Tungia te ururua, kia tutu whakaritorito te tutu o te harakeke', which means to set the overgrown bush alight and let the new flax roots spring forth," says Dr Rolleston.

"This is, in essence, what we are doing with Pūtahi Manawa, setting fire to the old ways and letting innovation grow."

For example, a kaupapa Māori model is holistic in that it approaches heart health from the point of view of a whole person as a part of their community and whānau, not just as their physical body or illness.

She says Mahitahi, partnerships and collaboration, are a critical kaupapa for equitable outcomes in heart health for Māori.

"We'll be instilling Te Ao Māori worldviews and leadership as a tūāpapa (foundation), elevating whānau voice within our mahi, and tuakana-teina to set a path for future generations of Māori health professionals and researchers."

Dr Sika-Paotonu says the Covid-19 pandemic has exacerbated pre-existing health inequities in Aotearoa New Zealand.

"It's further emphasised the need to move towards equity-based approaches that take into account the specific needs of different communities and groups."

Pūtahi Manawa intends to expand its methodologies beyond science-based in a lab and dive into community-focused concepts, such as implementing holistic models of health that resonate with Māori and Pacific communities.

For example, a kaupapa Māori model is holistic in that approaches heart health from the point of view of a whole person as a part of their community and whānau, not just as their physical body or illness.

This understanding is included in Pūtahi Manawa workstreams and would be considered business not as usual for heart health research and clinical practice.

The mission of Pūtahi Manawa is to improve equity in heart health for Māori and Pacific peoples through research excellence and precision medicine, bringing together an inter-disciplinary team of research scientists, clinicians, educators and communities to take action against heart health inequities.

Dr Sika-Paotonu says that, for example, one of the six research teams being funded is a Pacific-led multi-disciplinary research collective, with members representing different Pacific ethnic groups, different disciplines, health sector and system areas.

"They are all committed to working together in partnership with and for Pacific communities to help address and prevent inequities in heart health and through codesigning appropriate targeted and tailored solutions for Māori and Pacific peoples."

Cardiovascular Disease remains the leading cause of death and disability in Aotearoa New Zealand.

Appendix 3: Programme - Heart Health Forum 2022

Whanaungatanga - Connections and Connectedness

School of Population Health 28 Park Avenue, Grafton Campus Auckland, Auckland 1023

Funders: Pūtahi Manawa and National Heart Foundation of New Zealand

Table 6: Programme for Heart Health Forum 2022

Table 6: Programme for Heart Health Forum 2022		
WEDNESDAY 26 OCTOBER 2022		
	Informal get-together	
5.15 – 6.30 pm	Kahoa kakala workshop with Sione Monu	
6.30 pm	Dinner - informal & casual	
	WEDNESDAY 26 OCTOBER 2022	
	Welcome	
9.00 – 9.15 am	Mihi whakatau Michael Steedman, Pro Vice-Chancellor (Māori), University of Auckland	
9.15 – 10.00 am	Opening remarks Julian Paton (Pūtahi Manawa Co-Director) and Gerry Devlin (Heart Foundation Medical Director) Ice-breaker bingo	
10.00 – 10.20 am	Intro to "What's your why?" Facilitators: Erina Korohina and Sandra Hanchard	
10.20 - 10.45 am	Morning tea	
Session 1		
10.45 – 12.00 pm	Expert Panel Discussion – Enacting Whanaungatanga Panel: Kataraina Davis (Chief Māori Advisor – Heart Foundation), Soteria Ieremia (Kudos Science Trust), Mary Roberts (Moana Connect), Mariana Hudson (Heart Foundation Research Fellow and Registered Pharmacist)	
12.00 – 12.30 pm	Reflections – how to tie in whanaungatanga in your research disseminations	
****Photo session****		
12.30 – 1.30 pm	Lunch	
1.30 – 2.00 pm	Poster Treasure Hunt Facilitator: Andrew Reynolds	

	Session 2
2.00 – 3.00 pm	Social Media Mythbusting Presenter: Ekant Veer (Associate Dean of Postgraduate Research, University of Canterbury)
3.00 – 3.30 pm	Afternoon tea
3.30 – 4.05 pm	Concurrent Resources Workshop x 2 Workshop 1: Alternate Career Pathways (Presenter: Lisa Wong) Workshop 2: How to Network? (Presenter: Anuj Bhargava)
4.10 – 4.45 pm	Concurrent Resources Workshop x 2 Workshop 3: Science Communication (Presenter: Rod Jackson) Workshop 4: Collaborations and Juggling It All (Presenter: Katrina Poppe)
4.50 – 5.00 pm	"What's your why?" Facilitators: Erina Korohina and Sandra Hanchard
5.00 – 5.15 pm	Next steps

Appendix 4: Pūtahi Manawa Board members

Chair

Mr Kent Gardner Co-Founder and CEO at Evans Randall Investors

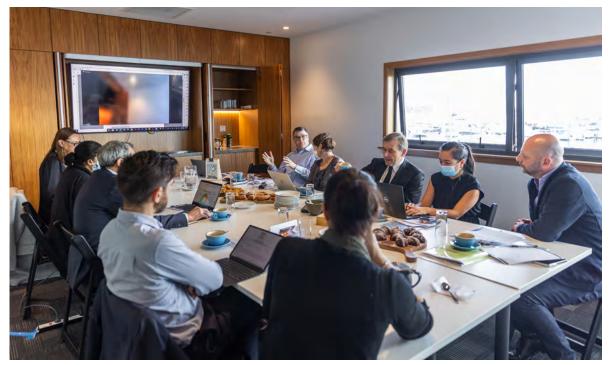
Members

Professor Sue Crengle General Practitioner, Professor University of Otago

Dr Mataroria Lyndon Pūtahi Manawa Māori Leadership Team Co-chair, Senior Lecturer, University of Auckland Professor Tasa Havea Dean Pacific, Office of Pacific Student Success, Massey University

Professor James Metson Deputy Vice-Chancellor Research, University of Auckland

Ms Sharon Shea Chair of BOP DHB, Chair of the Māori Expert Advisory Committee, Health & Disability review



Pūtahi Manawa Board meeting 26 May 2022







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