# ANNUAL REPORT 2019

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Health Research Council of New Zealand
Te Kaunihera Rangahau Hauora o Aotearoa

For the year ended 30 June 2019

Presented to the House of Representatives pursuant to Section 38 of the Health

Research Council Act 1990 and Section 150(3) of the Crown Entities Act 2004

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# Foreword

## From our chair

It has been another busy year for the HRC, and this report shows that we have achieved a great deal over the past 12 months. One of our key achievements has been to complete the work required to develop the New Zealand Health Research Prioritisation Framework, which will be announced later in 2019. This was done with the support of the Ministry of Health and Ministry of Business, Innovation and Employment, as part of our joint efforts to implement the New Zealand Health Research Strategy (NZHRS). The two national consultation processes that we ran to underpin this work taught us a great deal about how we can improve health research delivery in this country and better involve communities in the research process. This knowledge will shape our thinking as we align with the framework in the year ahead.

I would like to thank everyone who took the time and effort to provide input into this landmark project. It is the first of ten actions under the NZHRS that will transform our health research landscape, resulting in a better, more connected health research system that meets the needs of our diverse population.

A huge thank you to the HRC's committees for their outstanding work this year running robust and impartial funding processes, advising on key policy, safety and ethical issues, and building our research workforce. Together with the scores of experts that advise on funding decisions, they are responsible for maintaining a safe and ethical health research environment in New Zealand and identifying the outstanding science and people that we support.

I must also thank two women who have made an outstanding contribution to the HRC. This year we said farewell to Council member Suzanne Snively, ONZM, who has been a committed and hardworking member of Council since 2010, as well as a member and acting chair of the HRC's Risk Management and Assurance Committee. Suzanne's input and carefully considered advice to Council has been invaluable. Replacing Suzanne on Council is Dr Alison Dewes.

We also said goodbye to our outgoing chief executive, Professor Kath McPherson. Kath dedicated nearly five years to the Health Research Council, inspiring the team with her guidance and leadership through a time of significant change for health research. The Council thanks Kath for championing health research and the HRC both on a national and international stage, and for the numerous changes she has made that have enhanced the way the HRC operates and the impact that we can make. I speak for the entire Council when I say that we have greatly enjoyed working with her.

**Dr Lester Levy, CNZM**
Chair

## From our acting chief executive

The HRC is a small organisation that packs a big punch, and the pages of this report are filled with examples of the impact that HRC-funded research is having.

Over the past year Dr Levy and Professor McPherson have met with leaders from health research funders nationally and internationally, sharing ideas and gaining their valuable input into the work that the HRC is doing for New Zealand.

In 2019, we held the first meeting of the HRC's newly appointed International Health Research Advisory Committee, an elite group of individuals at the forefront of health research policy around the world. Their guidance will ensure that the HRC keeps pace with international developments and reaps the benefits of greater international connectivity and dialogue.

We have made some changes to our investment processes in the past year, extending the implementation of our impact criterion to cover all contracts and introducing a Māori Health Advancement criterion for Programme applications to the 2020 round. These changes will help applicants and the HRC to better quantify and maximise the potential impact of research investments. This is crucial to addressing some of the greatest health disparities in New Zealand. We also started a cultural audit of the HRC's practices and processes in 2018/19, which will influence how we operate going forward.

Working with the Ministry of Health and MBIE, we have made a lot of progress in implementing the New Zealand Health Research Strategy 2017-2027. The New Zealand Health Research Prioritisation Framework has been completed and will soon be announced. I would like to say a big thank you to the Development Group who brought their considerable skills and expertise to bear on the task and gave the New Zealand health research sector a unique and practical tool to guide us to 2027, and beyond.

I would also like to thank our former Chief Executive, Kath McPherson. She guided us through another busy, challenging and productive year and her leadership and wit will be missed.

**Dr Vernon Choy**

Acting Chief Executive and
Director Research Investments
and Contracts

# About the HRC

The Health Research Council of New Zealand (HRC) is the Government's principal funder of health research. We were established through the Health Research Council Act 1990 (the Act) and have since built rigorous and equitable investment processes that ensure taxpayers' dollars are spent on the health research and people that will make a real difference to New Zealand.

Appendix 1 provides our full **statutory functions under the Act,** the principal ones are to:

1. advise the Minister of Health on **national health research policy**
2. advise on **health research priorities** for New Zealand
3. **initiate and support health research**
4. foster the **recruitment, training and retention of health researchers** in New Zealand
5. **consult widely when setting the priorities for health research,** including with our Ministers, the District Health Boards, stakeholders and consumers
6. ensure that all our committees **use appropriate assessment standards.**

As a **Crown agent,** we are answerable to the **Minister of Health, as our ownership minister,** and the **Minister of Science and Innovation, who provides most of our funding** through Vote Business, Science and Innovation.

At any one time, **we manage some 300 health research contracts, and 100 more targeted on career development.** Our investment provides research opportunities and training for about 2000 health researchers and health professionals every year. Our contracts are mostly with universities, but also with non-government organisations, Māori and Pacific research organisations and communities, and private research institutes. We are recognised internationally as **leaders in building indigenous health research capacity** through the targeted processes we have developed to support Māori research paradigms.

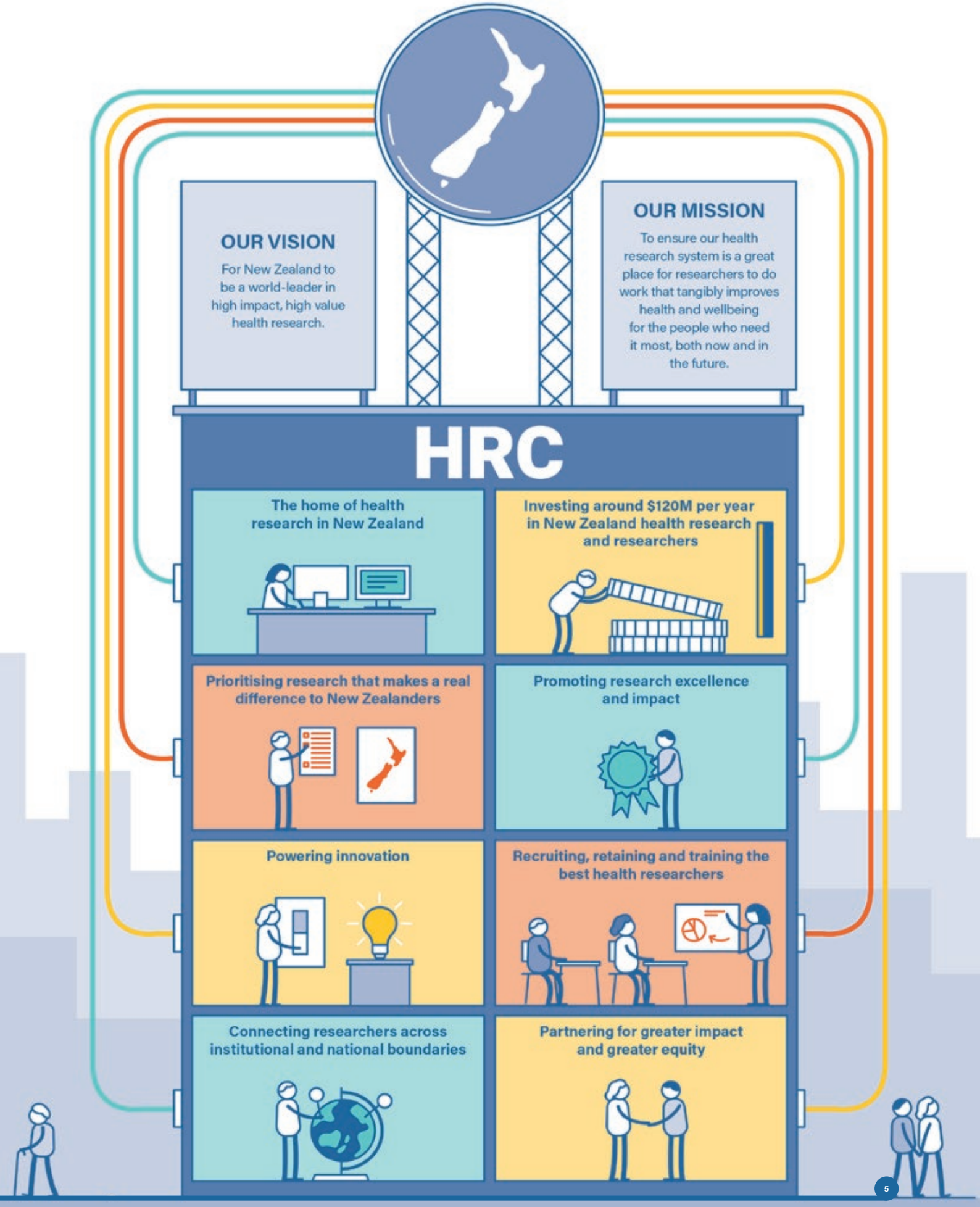
Our core activity is to invest in excellent health research that addresses the health needs of all New Zealanders, and support innovations that will boost New Zealand's economy. We also **have a crucial role in maintaining a safe and ethical health research environment** in New Zealand, **advising the Minister of Health on the uptake of new health technologies, and ensuring the safety of large clinical trials.**

**The HRC is the conduit that connects health research activity in New Zealand**. We anticipate the needs of our stakeholders and take every opportunity to partner with others to maximise the use of limited resources and share our investment processes and expertise for the best results possible.

Another major area of focus for the HRC is the **translation of research findings** into improvements in healthcare at every level. We do this by training and engaging clinicians in research, partnering with our stakeholders to involve them in designing knowledge solutions, and communicating our findings to our ultimate stakeholder — the New Zealand public.

We aim to serve New Zealand in the best way we can by supporting the research that will help to build a healthy future both now, and for future generations.

# The HRC at a glance



# Part 1:
# Driving impact

We named our goals 'Key Decision Drivers' because they drive everything that we do. In Part 1, we report great progress in 'making a difference', 'stimulating growth' and 'increasing engagement and connection' – the three drivers of our strategic vision. We focus our reporting on the priorities that our Ministers have set for us in 2018/19 and beyond.

## Our Ministers' expectations for 2018/19

> *New Zealanders are concerned about the increasing unaffordability of primary health services, regional inequity of access to secondary health services, and inadequate mental health service provision nationwide.*
>
> ***Hon Dr David Clark and Hon Dr Megan Woods, Letter of Expectations to the HRC 2018/19***

We had clear instructions from our Ministers in 2018/19 to focus on some key areas for the Government which guide our activities and our reporting:

- Primary care
- Mental health
- Public delivery of health services
- Improving equity of outcomes.

We were also asked to:

- address climate change and health, taking a broad view of risks to human health and an ecosystem-wide approach to the interaction between humans, animals and the environment ('one health').
- maintain a team approach across government and the health sector to increase efficiency and effectiveness and ensure that existing infrastructure, platforms and systems meet the Government's priorities.
- clearly demonstrate how we are supporting the priorities, actions and outcomes of the New Zealand Health Research Strategy.

We have focused on these issues when reporting our performance in Part 1 of the report. The Health Research Council Investment Impact Report provides more information about the impact that our investment is making (available from our website: www.hrc.govt.nz).

## Our drivers

The HRC's Statement of Intent 2017–2021 sets out our three strategic drivers of:

- Making a difference (new knowledge with clear pathways to impact for health and economic gain)
- Stimulating growth (building a healthy research ecosystem, with the people, capacity, skills and opportunities that we need for a healthier, more prosperous future)
- Increasing engagement and connection (adding value to realise our collective potential)

Under each driver, we set focus areas for our efforts and these provide the framework for reporting on our performance. Our Key Decision Drivers, and how they fit with our four funding outputs and funding inputs, are shown on page 11.

## Our Research Investment Streams

Our investments are mapped to four Research Investment Streams (RIS). The approximate percentage budgets for these are shown in brackets.

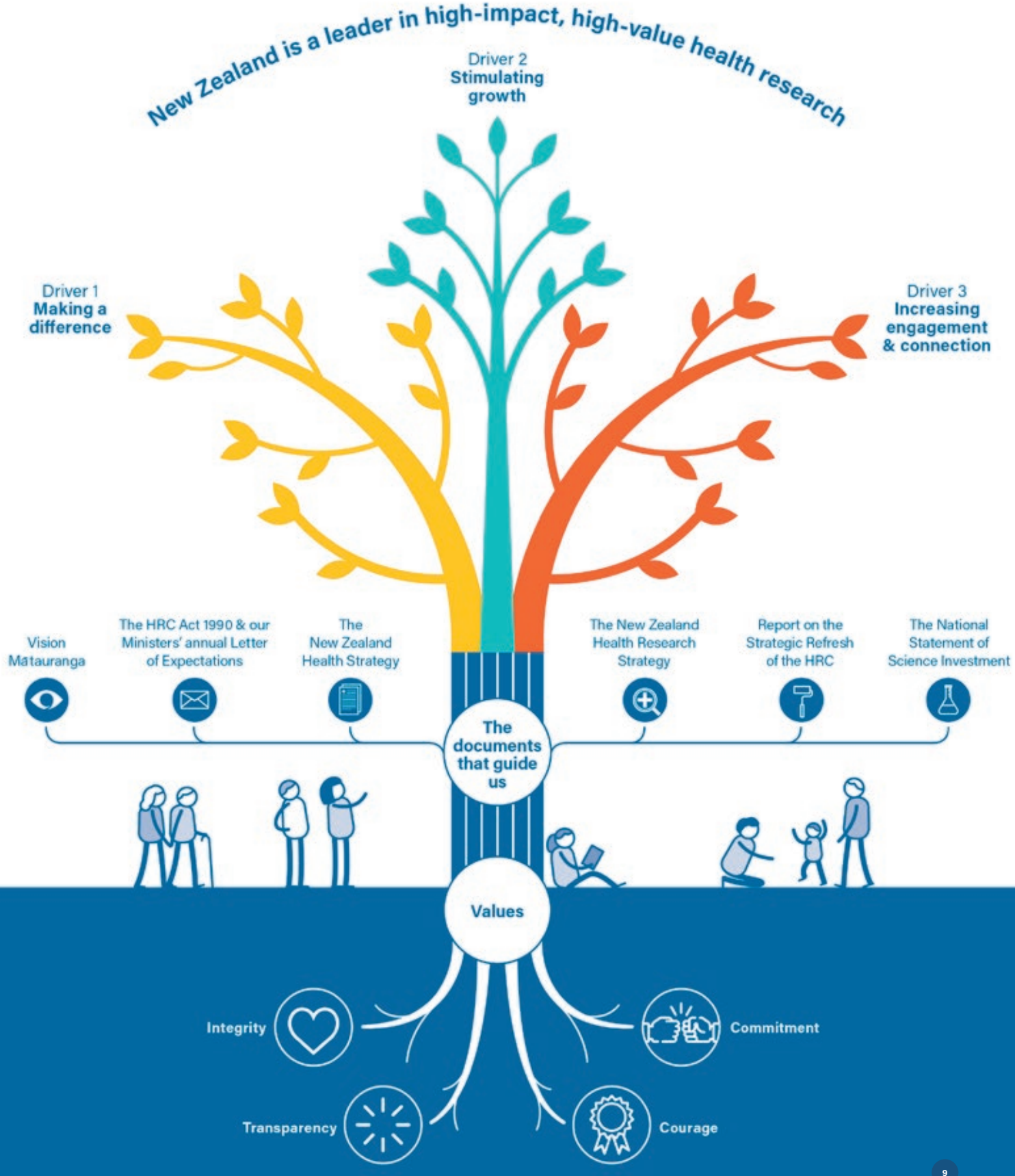
**Health and wellbeing in New Zealand** (30-35%) – Preventing illness and injury and reducing the burden on our health system. Keeping New Zealanders healthy and independent for longer is the major focus, but highly innovative research on how the human body functions in health and disease is also supported, often leading to new diagnostics, drug targets or medical technologies.

**Improving outcomes for acute and chronic conditions in New Zealand** (35-40%) – Understanding, prevention, diagnosis and management of acute and chronic conditions, particularly those causing the greatest burden for New Zealand people.

**New Zealand health delivery** (20%) – Research to improve the health system and service delivery in the short term.

**Rangahau Hauora Māori** (10%) – Improving Māori health outcomes and quality of life by building the knowledge and skills needed to reduce health disparities and realise the benefits of Māori paradigms and traditional knowledge for all New Zealanders.

# The key elements of the HRC's performance framework



## Our investments in 2018/19

The HRC's Statement of Performance Expectations for 2018/19 describes our funding opportunities in detail and what we aim to achieve through each. In 2018/19, we allocated a total of $101.2 million through four Outputs:

- Output 1: Health research contracts (our main funding round)
- Output 2: Career development contracts
- Output 3: Co-funding relationships (our Partnership Programme and international relationships funding rounds)
- Output 4: Contribution to policy, regulatory and ethical frameworks (our ethics and regulatory committees)

Details about funding through these outputs is provided in the Statement of Service Performance (page 41) and the Financial Statements (page 53).

A separate fund for **Research Contract Management** supports the operations of the HRC, funding processes, assessment, committees, consultation and strategic relations, and staff salaries.

We opened 16 funding rounds in 2018/19, but our **annual funding round for Projects and Programmes, Explorer Grants, Emerging Research First Grants and Feasibility Studies** was where we allocated most of our funding from Output 1 ($89.7 million or 89 per cent of the total).

In 2018/19, **we targeted $10.4 million for Māori-led health research through the Rangahau Hauora Māori RIS**. This investment is made through tailored Māori investment processes, including ensuring that assessment and funding recommendations are made by Māori. The HRC does this in response to Articles 1-3 of *Te Tiriti o Waitangi* and because of the value and unique opportunities afforded by mātauranga Māori for health research in New Zealand and around the globe. The knowledge generated by this research is essential to addressing health inequity in New Zealand.

**We also targeted $1.2 million for Pacific-led health research through Pacific Project Grants.** This is needed to help address the persistent health inequities that exist for Pacific peoples, and to learn from Pacific health paradigms, research methodologies and models of care. Assessment and funding recommendations for these grants are made by Pacific reviewers.

We continued funding four **Independent Research Organisations (IROs)** through the IRO Capability Fund. These organisations have secured seven years of funding by demonstrating significant research capabilities that support national outcomes. We have continued our longstanding support of the county's two largest **longitudinal studies** and are also contributing funds to the Growing Up in New Zealand Study and the Pacific Islands Family Study. Over the past 10 years, we have invested $40.2 million in longitudinal research programmes.

Through our **Partnership Programme** we continued to meet the specific knowledge needs of government and non-government partners, with calls for proposals throughout the year. We contributed a total of $1.1 million to partnership initiatives and, as our contribution was matched with almost two dollars for every dollar by funding partners, the total amount invested was $3.2 million.

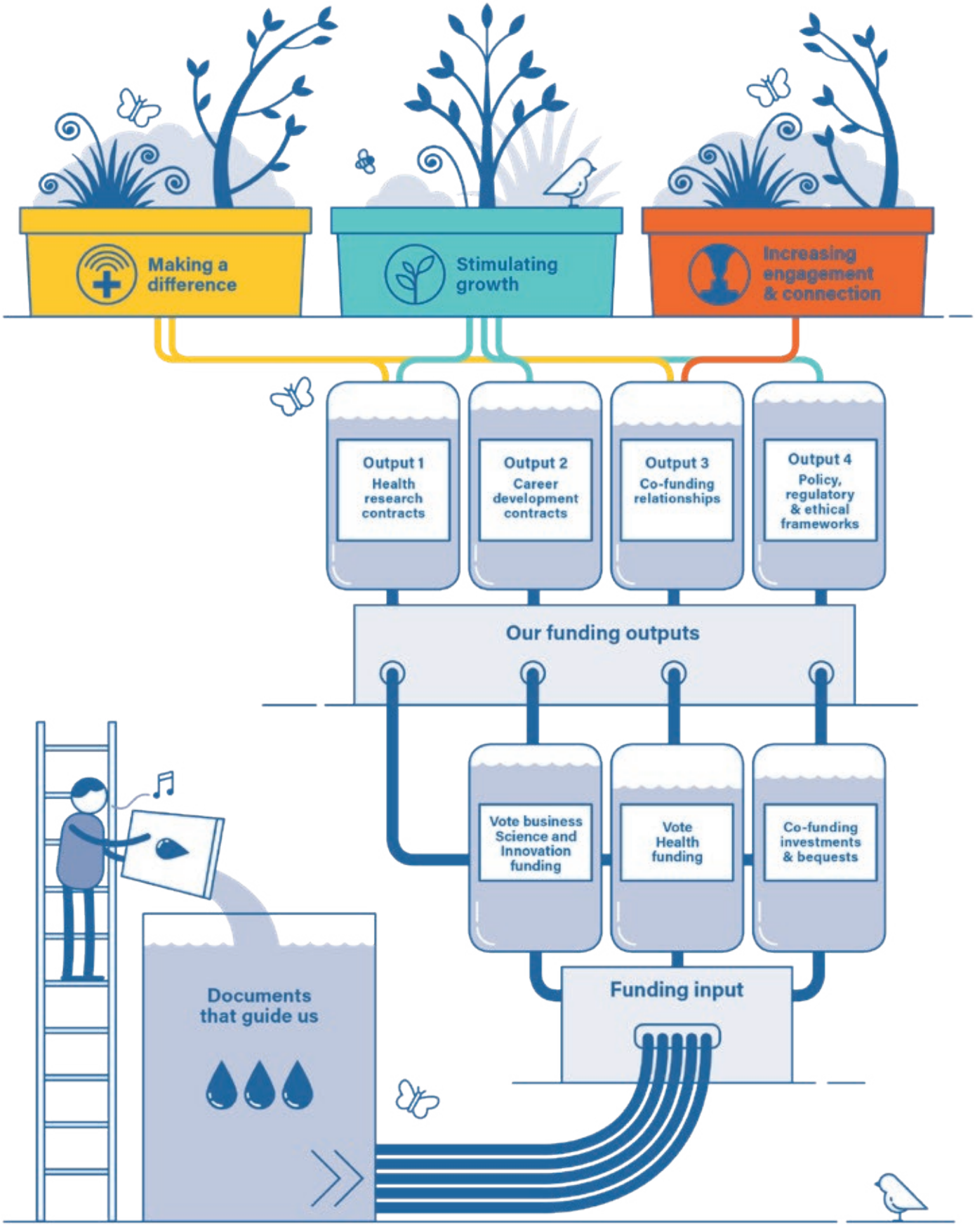
We also invested $0.5 million through **international partnerships** to link New Zealand researchers with global health research efforts and enable them to access equipment and expertise that may not be available within our shores.

Over the past year we have allocated $10.1 million through our comprehensive **career development programme**. Through this programme we partner with Māori to build research capacity and capability for Māori-led research and solutions. Another major focus of this programme is building the Pacific health research workforce. The programme also supports clinicians to gain research training and experience and nurture the next generation of research leaders through our prestigious postdoctoral fellowships.

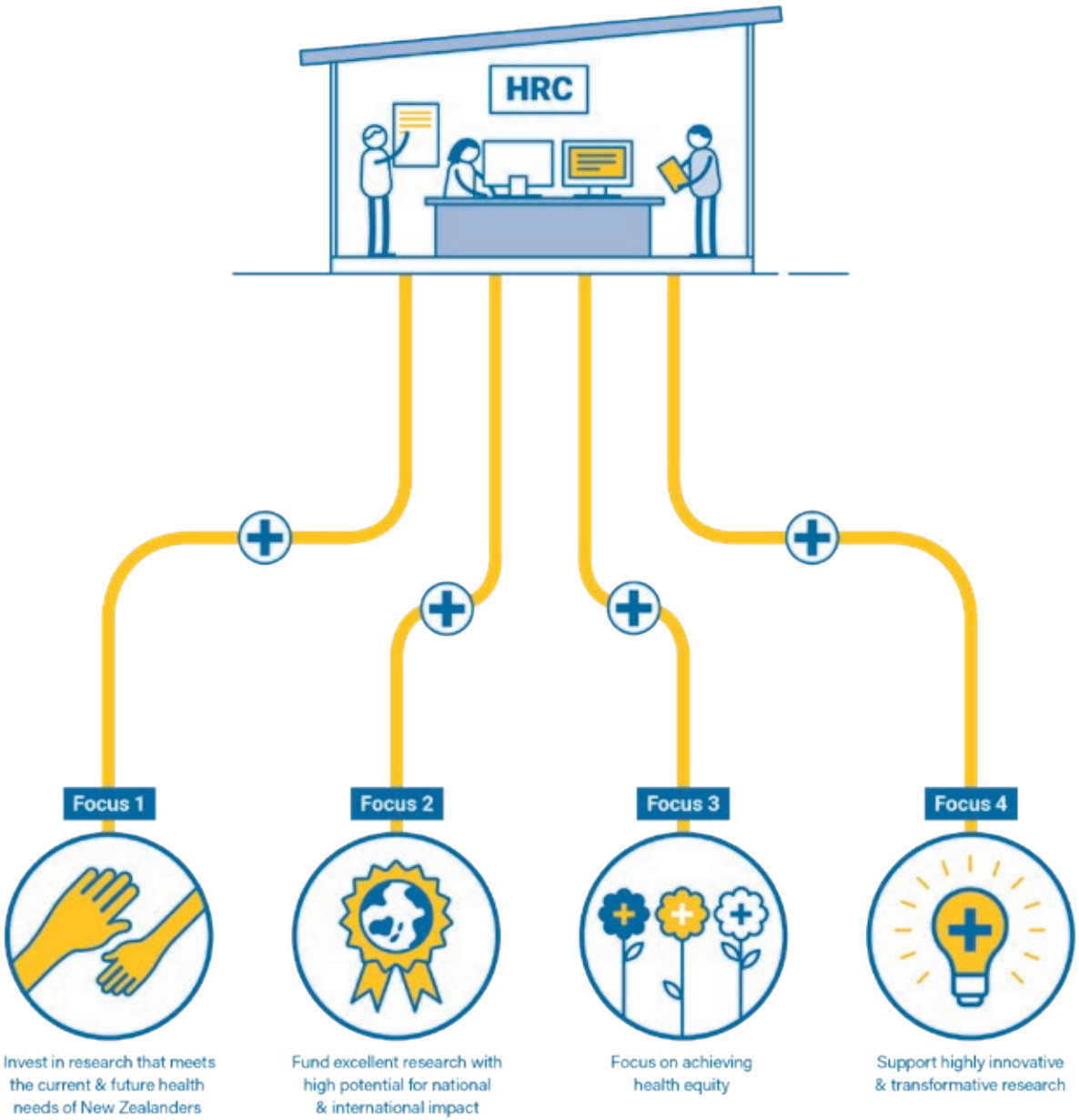
Through the Vision Mātauranga Capability Fund we invested $1.01 million, including $0.38 million in Ngā Kanohi Kitea grants to support iwi, hapū, and Māori community groups to address community-identified health needs. We are about to embark on a redesign of this funding opportunity to grow opportunities for communities to engage in research and deliver maximum benefit and value for those communities.

# Key decision drivers

## New Zealand is a leader in high-impact, high-value health research



# Driver 1: Making a difference



## What we set out to achieve

If we are successful, New Zealand will have a better, more cost-effective healthcare system, underpinned by the knowledge needed to provide the highest standard of care and reduce unnecessary waste. New Zealanders will be getting a bigger bang for their research buck, knowing that every dollar is addressing the issues that matter most to them. Everyone will have a means of contributing to this more focused agenda and helping to shape the research that drives it. Our top researchers will continue to operate at the frontiers of knowledge, providing hope in diseases previously thought incurable, and directly growing our economy through their remarkable innovations.

*Making a difference: HRC Statement of Intent 2017–2021*

## Focus 1: Invest in research that meets the current and future health needs of New Zealanders

### Addressing the issues that matter most to New Zealanders

Reporting in this section is focused on the issues that our Ministers' have identified as being a priority in 2018/19. In the past year, we have additionally invested in a wide range of issues important to New Zealanders, including adding to major portfolios of research focused on cancer, cardiovascular disease and diabetes.

#### Setting national health research priorities for New Zealand

A key tool in our efforts to ensure that every dollar invested is addressing issues that matter most to New Zealanders is the **New Zealand Health Research Prioritisation Framework, which has now been completed**, and will be announced later in 2019. We led this work with support from the Ministry of Health and the Ministry of Business, Innovation and Employment under Action 1 of the New Zealand Health Research Strategy (NZHRS): *Prioritise investments through an inclusive priority-setting process.* A diverse committee of thirteen national experts, the independent Development Group, created the framework.

This work is the culmination of a process that involved a review of international best-practice in establishing health research priorities, three consultation processes (two national) and the involvement of a wide range of national and international experts to advise the committees responsible for making the key decisions. In addition to health researchers, **feedback came from research funders, non-government organisations, consumers, government agencies, clinicians and allied health professionals, public health organisations, Māori health organisations and research experts and leaders from Māori communities, Pacific research experts and communities, and the disability sector.** The Development Group carefully considered all submissions, at times radically revising the framework based on the feedback received.

In accordance with accepted best practice internationally, the New Zealand Health Research Prioritisation Framework sets priorities for research and infrastructure together. **The framework focuses on *how* and *why* we do health research in New Zealand, and leaves *what* we research at the discretion of contributors**. The health research landscape is divided into Domains, each with high-level aims for research and infrastructure to guide activities and provide a coordinated structure for reporting and tracking progress. Research attributes define how research should be done in New Zealand, setting roles and responsibilities for funders, research providers and research teams. Strong themes run throughout the framework, including reducing health inequities, putting whānau and communities at the centre of health delivery, promoting innovation, and ensuring that we are prepared for the challenges and opportunities of the future.

In the coming year, we will focus on implementing the framework as we review and align our policies, funding opportunities and investment processes. In keeping with our leadership role in implementing Action 1 of the NZHRS, we will also work with other agencies to familiarise them with the Prioritisation Framework, share information and methods, and support them in aligning their own processes.

## Better mental health and wellbeing for all New Zealanders

**Over the past five years we've invested over $33 million in addressing mental health issues, building capacity to undertake research and translating knowledge into practice.** Much of the research we fund is aimed at reducing the pressure on mental health services by intervening earlier to prevent serious illness and the need for intensive or residential treatment, reaching New Zealanders who are not currently accessing help, and using technology and tools that are efficient - in terms of both time to administer and cost.

The 81 contracts funded covered many important areas, from building resilience and reducing family violence, to reducing the risks of self-harm, suicide and substance abuse for our young and most vulnerable citizens, and revolutionising the way that we diagnose mental health conditions. There has also been **a strong focus on equity and embracing Māori concepts of hauora and cultural determinants when searching for solutions to New Zealand's mental health challenges**.

## Partnering to addressing inequities in mental health outcomes

In 2017, we launched the first initiative as a member of the Global Alliance for Chronic Diseases (GACD) – a collaboration of 14 health research funding agencies from around the world. We partnered with the Ministry of Health to answer the GACD call for research on mental health. **The joint fund provided up to $2 million for research to better support Māori and Pacific youth with mental health problems**, including depression, anxiety, schizophrenia and bipolar affective disorders. Some outcomes are already available from these contracts.

Professor Felicity Goodyear-Smith was supported to explore the feasibility and acceptability of YouthCHAT – an electronic screening tool - across primary care settings with large Māori populations. In designing the research, her hope was that the e-screening tool would **reach those adolescents who aren't currently accessing help.** In New Zealand, suicide is a leading cause of death for youth aged 15-24, while depression and anxiety affect one in four young people. Māori males living in deprived areas have the highest rates of suicide and disproportionate rates of depressive symptoms.

Preliminary findings for the study have now been published. **YouthCHAT appears to be easy to use and culturally safe.** The inclusion of a resource pack means the clinician can provide appropriate interventions – starting with the most effective and least resource-intensive – and stepping up the level of intervention if required. Importantly, **YouthCHAT is partially modifiable, allowing community providers, users and stakeholders to provide input and tailor it for different contexts and our unique New Zealand communities**. The study is due to be completed in 2021.

In June 2019, a Request for Proposals opened for the newly established **HRC and Ministry of Social Development Māori Mental Health Research Emerging Leader Fellowship**. This fellowship is designed to support the **development of Māori mental health research knowledge**, with a specific emphasis on equity and Māori health research processes that support improving Māori mental health and the social care delivery system. Results will be announced in December 2019.


*A breakdown of 5 years of HRC investment in mental health research and capacity building (2015 to 2019 contracts)*

### Better diagnosis and treatments

The National Institute of Mental Health (NIMH) in the USA has responded to wide-spread criticism of symptom-based diagnosis of mental disorders with a framework for new approaches – the Research Domain Criteria (RDoC). The idea behind this is to integrate as many levels of information as possible to make a diagnosis, including biological markers, genetic information and self-reported symptoms, and draw them together to **replace current diagnostic systems based on subjective judgement of symptoms by clinicians**.

**Professor Neil McNaughton and his team have used their HRC grant to address this by creating a biological diagnostic marker for anxiety** – one of the most common mental illnesses in the Western world. Their marker uses electroencephalography (EEG) technology to record electrical rhythms in the brain during specific parts of the anxiety process, and these patterns can be used to identify clinical groups and test drug effectiveness. The marker is modified exactly as expected by administration of anti-anxiety drugs and demonstrates the long-suspected link between neuroticism and the risk of developing anxiety. **This is a major step towards achieving a reliable diagnostic test for individuals with anxiety**, and a valuable means to develop questionnaires and other specific, and more objective, diagnostic tools.

**In 2018/19, Professor McNaughton's team used this biomarker to test their assumptions about the involvement of specific brain structures in the 'threat approach' system**, improving our understanding of the underlying causes of anxiety.

### Climate change and mental health

> *"Migration is an indirect impact of climate change. One estimate is that 75 million people from the Asia-Pacific region will be forced to migrate by 2050 because of it. Much of the health research done to date has largely focused on the physical health problems associated with climate change – the mental health impacts have only recently been recognised."*
> ***– Dr Jemaima Tiatia-Seath***

New Zealand could become a potential relocation destination for many Pacific peoples displaced from their homelands by rising sea levels and other climate-change related natural disasters.

In 2018/19, Dr Jemaima Tiatia-Seath received a Pacific Project grant from the HRC to **explore how New Zealand could ready its health system to best support the mental health needs of Pacific 'climate-change migrants'**. Her study will involve research sites in New Zealand, Niue and the Cook Islands.

*Dr Jemaima Tiatia-Seath*

"**Very few people in the Pacific region will be unaffected by climate change, particularly as half the population live within 1.5 kilometres of the ocean**. Rapid rises in sea level, more severe cyclones and floods, and changes to seasonal weather are all occurring in the Pacific and are attributed to climate change," says Dr Tiatia-Seath.

Dr Tiatia-Seath says Pacific peoples forced to relocate will likely be at **higher risk of negative mental health challenges due to the cultural loss and stress of climate-induced migration**.

An understanding of this issue in New Zealand's mental health sector is vital. Mental health services will need to cater to Pacific climate change migrants in culturally-inclusive ways and recognise the new challenges that migration and forced relocation will bring to the already visible barriers to mental health access for Pacific peoples.

Climate change is predicted to have a substantial negative effect on global mental health. **This study gives New Zealand the chance to get on the front-foot and prepare our health system for the mental health challenges that climate change will likely have on Pacific communities**.

## Providing the evidence needed to improve public delivery of health services

### Investment in research and capacity building

Over the past five years, we have invested in a large portfolio of research and career development aimed at improving the accessibility, cultural competency, cost-effectiveness and efficiency of health service delivery. **In 2018/19 alone, $17.5 million was invested in 31 contracts** that address

*New Zealand could become a potential relocation destination for many Pacific peoples displaced from their homelands by rising sea levels and other climate-change related natural disasters.*

health delivery through health services research; clinical trials of better or more effective diagnostics and treatments, or research training and career development for health professionals actively engaged in providing services.

We offer four career development awards that are specifically designed to **engage and connect health professionals with the research sector** and provide opportunities to gain research training and experience: the Clinical Research Training Fellowship; the Clinical Practitioner Fellowship; the Pacific Clinical Research Training Fellowship; and the Foxley Fellowship.

## Review of our funding mechanisms for health delivery research

We have dedicated funds aimed at providing the evidence needed to improve health delivery in New Zealand: the New Zealand Health Delivery Research Investment Stream (NZHD RIS) and Research Partnerships for New Zealand Health Delivery (RPNZHD). The **NZHD RIS focuses on research that will have an immediate impact on our health system** in terms of delivering greater efficiencies, improvements in treatments and services, or changes to policies. The **RPNZHD opportunities join research teams and service providers in the search for evidence, with**

**the service provider a part of the research team from the outset, and jointly investing in the outcome in partnership with the HRC**. These mechanisms are in addition to other investment through our main funding round and career development awards that also contribute a significant amount of health delivery research.

**In 2018/19, we decided to review these two funding tools and delay the call for proposals for 2020 by a few months.** The review will focus on the way these tools are working and lead to a new opportunity later in 2019 that will deliver better to the HRC's and our Ministers' goals for investment. The main issue has been with the lower number of successful applications for the NZHD RIS. RPNZHD is perceived to be working well, but the review will look at whether it should remain a separate mechanism. **We will work closely with the Ministry of Health and the Ministry of Business, Innovation and Employment on the redesign** because of the relevance to work that is underway on implementing the New Zealand Health Research Strategy and strengthening the clinical research environment and health services research.

The review of our funding mechanisms also includes how we partner with others to provide evidence to improve health delivery, and how best to target investment going forward. Over the past five years we have invested $11.6 m in research to improve health delivery in partnership with the Ministry of Health; PHARMAC; Breast Cancer Cure; and the Global Alliance for Chronic Diseases.

## Evidence to improve primary care

In 2018/19, the HRC and the Ministry of Health jointly awarded **$1.33 million to a two-year project to evaluate the effectiveness of primary care models in New Zealand**. This will be the first comprehensive evaluation of general practice models of care since primary health organisations were introduced in 2001. The research, led by Professor Nicolette Sheridan, will explore the complexities of access to care and continuity of care, as experienced by patients and whānau. The first outcomes of this research will be released in 12 months' time following an international review, with a final report due in July 2020.

## Translating evidence into practice

**We offer knowledge translation grants to Māori researchers and Pacific researchers** to aid in translation of findings that will be key in reducing disparities in health outcomes. In 2018, we awarded a knowledge translation grant to Siobhan Tu'akoi to **take a resource that she developed as part of her PhD research working with Rarotongan adolescents and translate it so it could be used by the Cook Islands Ministry of Health as a health promotion tool**. The resource, **'Nurturing Future Health Through Nutrition'**, currently benefits health professionals and mothers in New Zealand and **will now be used to guide community-led interventions in the Pacific**. The focus of Ms Tu'akoi's PhD research at the Liggins Institute was early-life environmental exposures and indicators of non-communicable disease risk at adolescence.

The New Zealand Health Research Strategy puts a strong focus on translating research findings into policy and practice, and tasks the Ministry of Health with leading Action 7: *Enable and embed translation across the health sector.* Over the past year, the HRC and MBIE have been working with the Ministry of Health to implement this action and the HRC is looking at what we can do differently to aid uptake of research going forward.

Nearly 10 years of HRC funding, including a Clinical Practitioner Research Fellowship and a Health Innovation Partnership Project co-funded by the Ministry of Health, supported emergency medicine clinician Dr Martin Than and his team at Canterbury District Health Board to develop and test **an accelerated diagnostic pathway (ADP) for patients with chest pain,** based on earlier blood tests in a targeted low-risk group of presenting patients.

ADP allows **early identification of those who are having a heart attack** and those whose symptoms are the result of less serious causes – such as stress. Initial translation of the ADP into practice at Christchurch Hospital was extremely successful, nearly **doubling the proportion of patients who could be discharged to outpatient care within 6 hours of arriving in the emergency department** (ED), significantly reducing worry and stress for those patients and pressure on health services. Researchers estimated a **cost-saving of $3 million for the Christchurch Hospital study, extrapolating to an annual saving of $9.5 million.**

Following the success in Christchurch Hospital, the Ministry of Health requested all EDs in New Zealand implement an ADP. **HRC and Ministry of Health partnership funding supported the team to evaluate the scale-up of the project to every urban hospital in New Zealand.** The success of the national roll-out led to a further Ministry of Health initiative to implement similar pathways into all **rural hospitals, primary care and acute care centres.**

Findings suggest that after implementation of ADPs in New Zealand, **patients spend approximately 165,000 hours less in hospital per year, and there has been a 10 per cent absolute increase in the number of patients discharged home from the ED within 6 hours.** Strong collaborative links have also been developed internationally with a growing number of hospitals adopting ADPs based on the New Zealand research success, including all Queensland and many other Australian EDs, the largest provider of EDs - Kaiser Permanente in the USA, two sites in Canada, three sites in Iran and one each in Singapore, Hong Kong, UK and Ireland.

**In 2018/19, we funded Dr Than to continue his important work, testing a 15-minute bedside blood test for heart attacks** to replace one that took 1 to 2 hours in a central laboratory. Use of this test could markedly shorten the time needed to reassure patients that they are not having a heart attack. The team will monitor implementation in 10 diverse hospitals throughout the country.

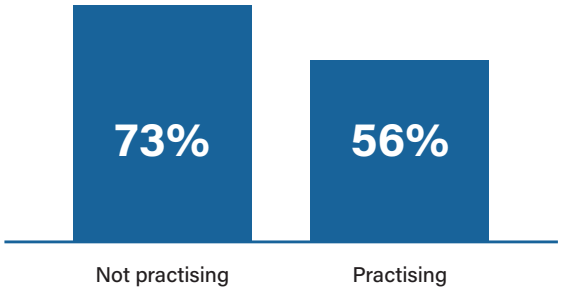
## Better, safer and culturally appropriate maternity services

**We are pooling resources with the Ministry of Health to jointly support evidence to improve maternity services**. Planning for this Partnership Programme initiative took place in early 2019 and it is scheduled for launch in the 2019/20 financial year.

Over the past decade, we have funded a series of studies led by Professor Beverly Lawton that address the stark disparities between Māori and non-Māori mothers and their newborn children, in terms of health outcomes, access to health services and mortality. These include a study of severe acute maternal morbidity events (SAMM). These 'near misses' are strongly associated with maternal mortality, stillbirth, and neonatal death and harm, particularly for Māori. Professor Lawton and her team found that **40 per cent of cases were potentially preventable** and most of these were due to clinical error. Her findings have informed reviews of the pregnancy and antenatal services by the Ministry of Health and District Health Boards. **The Ministry of Health translated the findings into practice with a $2 million investment for the introduction of a sustainable, nation-wide SAMM audit programme – led by the Health Quality and Safety Commission**.

While consulting in Te Wairoa for her research to improve infant and whānau health and wellbeing, Professor Lawton heard community concerns about the impact of methamphetamine (P) on the health of babies and young children. In 2019, we funded her to work with the Te Wairoa community on harm reduction strategies.

## Involving health professionals in research and translation




*Percentage of current HRC research contracts involving a health professional (2018/19 current contracts). Please note that the percentages do not add to 100 per cent because they relate to contracts, not health professionals.*

Through our 2019 awards **we supported 14 health professionals to undertake research training, with an investment of $4.74 million.** We offer Career Development Awards to support health professionals to obtain a PhD and support senior practitioners to consolidate and advance their research career. Our two New Zealand health delivery funds strongly incentivise the inclusion of health professionals or health provider organisations on the research team. HRC research contracts include a very high proportion of clinician investigators, with our most recent workforce survey showing that **over two-thirds of our research contracts involve a health professional.**

Our Beaven Medal recognises excellence in **translational health research** that has had **high impact on clinical practice and patient health**. **In 2018/19, the medal was awarded to Dr Colin McArthur.** The medal not only recognises the impact of Dr McArthur and his colleagues' work on patient care, but also in establishing the intensive care unit (ICU) as a place where much-needed research is making a difference.


Prior to 1994 and the formation of the Australia and New Zealand Intensive Care Society Clinical Trials Group (ANZICS CTG), clinical research was uncommon in New Zealand ICUs. That changed in 1996, when Dr McArthur joined this group and became the New Zealand lead on large-scale multi-centre trials across New Zealand, Australia and further afield.

The ANZICS CTG's first randomised controlled trial, published in *The Lancet* in 2000, investigated low-dose dopamine, a common treatment at the time for protection against kidney failure. **The trial found that low-dose dopamine did not influence the progression of acute kidney injury, and consequently the treatment was removed from guidelines and clinical practice in ICUs worldwide**.

From there, Dr McArthur and his colleagues at the ANZICS CTG gained their first major grant from the HRC and the Australian National Health and Medical Research Council to investigate whether the choice of resuscitation fluids for patients in ICUs affected survival. **Dr McArthur and colleagues have since gained HRC project funding for a host of trials that have been published and recognised internationally**, and in 2016 he was the first fulltime hospital clinician to successfully win an HRC-funded five-year programme grant.

## One health: connecting research fields to benefit our people, animals and environment

The HRC takes a broad definition of 'one health', including all the facets where the health and wellbeing of humans intersects with that of our animals and environment. This involves identification and amelioration of health threats arising from animal or environmental sources, but also garnering the vast array of skills, methodologies and data of researchers in allied areas and bringing their combined expertise to bear on important health issues.

One health is a relatively new focus for the HRC, and our growing portfolio of investments in 2018/19 includes, for example, research on the human impact of climate change and the transmission of infections between animals and humans.

### Climate change, extreme rainfall events and disease outbreaks

**In 2019, we funded a team** led by Dr Simon Hales **to study extreme rainfall events and waterborne infections and develop badly needed tools that can be used in early warning systems and national maps of community vulnerabili**ty – both now, and under future climate-change scenarios.

**In 2016, contaminated water led to an outbreak of Campylobacter infections in the town of Havelock North that affected nearly 40 per cent of the population**. Forty-five people were subsequently hospitalised, and the outbreak was thought to be a factor in three deaths.

**We responded by releasing an urgent call for proposals to provide answers**, at the request of the Ministry of Health. Funding was subsequently awarded to the multidisciplinary research team of Dr Nicholas Jones (Medical Officer of Health at Hawkes Bay District Health Board), to identify what was behind the outbreak. **The findings of this study informed the Government inquiry into the incident**, demonstrating that contaminated drinking water was the source of the campylobacter bacterium and that **it was most likely caused by sheep faeces entering the water bore after heavy rain inundated paddocks nearby**. As a result of the findings, changes have been made to the way that drinking water is sourced, tested and protected that will greatly reduce the likelihood of this happening again. Professor Michael Baker was part of the study team and has since called for New Zealanders to understand that the majority of our drinking water is clean and safe to drink and that the lessons learned from the Havelock North outbreak have made it even more so.

### Understanding how farming practices contribute to infections passing between animals and humans

**We are currently supporting a team, including vets, epidemiologists and a pathologist, to look at how changing farming practices are contributing to the transmission of two bacteria from animals to humans**. The two pathogens can cause severe illness, including diarrhoea, skin and bloodstream infections.

The study is **based in a dairy-farming community** and will look at the frequency of both bugs in cattle and humans, and the possible ways that they spread between animal and human 'hosts'. The team will build a mathematical model in which they can test the effect of interventions that may reduce the burden of these infections, particularly in young rural New Zealanders – and **reduce the transfer of antibiotic-resistant *Staphylococcus aureus* to humans**. The project is funded through a current Emerging Researcher First Grant to Dr Pippa Scott, an experienced vet and epidemiologist.

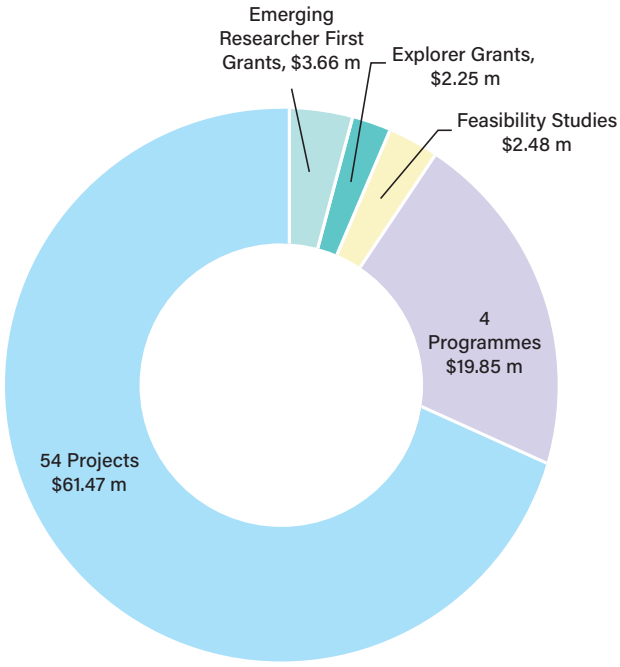
In 2018 we allocated funding to another vet, Dr Jackie Benschop, to investigate how we can address the increasing number of people contracting leptospirosis through contact with animal urine and contaminated water. Two thirds of those infected are hospitalised (91 in the first half of 2017, compared to 33 in the same period in 2016). Some continue to suffer ill effects long after infection. Initial work suggests that rodent sources and environmental pathways, such as flooding, are increasingly important in disease transmission.

## Focus 2: Fund excellent research with high potential for national and international impact

### Investment in excellent new research to generate future impact

In the past year **we invested $89.7 million in 98 contracts through our main annual funding round.** National and international experts and our assessing committees identified all these contracts as excellent research that is highly likely to make a positive difference to the health of New Zealanders.

The main funding round results were announced by the Hon Dr Megan Woods in June 2019. The newly funded Projects and Programmes received significant media attention, alerting researchers, policymakers, stakeholders and communities to the wealth of valuable evidence in the making.




*Investment in health research contracts through the HRC's main 2019 annual funding round.*

**The research we funded through our main round will provide impacts in the future, some within a couple of years, some perhaps not fully realised for decades.** Balancing the investment to provide a mix of long and short-term opportunities for impact is part of the funding process. In our main funding round, the balance of investment across the four Research Investment Streams in 2018/19 was:

Health and Wellbeing in New Zealand: $31.29 million; 27 contracts

Improving Outcomes for Acute and Chronic Conditions: $40.55 million; 51 contracts

New Zealand Health Delivery: $7.46 million, 12 contracts

Rangahau Hauora Māori: $10.40 million; 8 contracts

## Evidence in the making – highlights from Projects and Programmes funded in 2019

The four Programmes funded in 2019 will provide crucial evidence to inform treatment protocols and interventions in pregnancy and early childhood; pave the way for revolutionary new treatments for hypertension; provide the evidence needed to close smoking disparities; and trial Māori-led community initiatives to achieve better health equity for Māori.

The 54 Project contracts are addressing a wide range of important health issues, increasing engagement and connection, and building on previous findings to create impact. A few examples are provided below:

- **Reducing inequities and addressing the gap in Māori disability research:**
  - There is currently no accurate measure of the impact of disability on Māori, despite the high prevalence of 32 per cent, when adjusted for age. Using Kaupapa Māori methodologies to understand the perspectives of Māori with a disability, one team will develop culturally appropriate approaches to measuring disability.
  - Another team will focus on addressing the disparities in outcomes for Māori with injuries, collecting a wide range of data to 12 years' post injury.
- **Connecting across New Zealand to test cheaper technology for diabetes patients:** A multi-centre clinical trial will test a new insulin pump innovation that would give New Zealanders with type 1 diabetes much cheaper access to automated insulin delivery using open access technology.
- **Connecting across the globe for better health delivery:**
  - **A major, multinational clinical trial of antibiotic administration in intensive care units** will show if changing the way that they are administered helps to reduce the 6 million deaths per year world-wide due to infection-induced organ failure. This builds on evidence suggesting that continuous infusions are more effective than repeated dosing.
  - **A multinational trial of better, more cost-effective treatments for dialysis sufferers:** This trial will look at whether reducing phosphate levels in patients' blood improves cardiovascular health and reduces mortality.
- **Contributing to global research efforts on combating antimicrobial resistance:**
  - **Shoring-up the last line of defence:** The development of a new, highly potent carbapenem (a beta-lactam antibiotic) is underway. Carbapenems are the last line of defence in drug-resistant infections, but recently bacteria have evolved that can produce enzymes that inactivate them.
  - **Transdisciplinary research to develop a new class of antibiotic:** medicinal chemists, structural biologists and microbial geneticists are coming together to develop new antimicrobials targeting an essential enzyme for bacteria and using it as a scaffold for drug development.

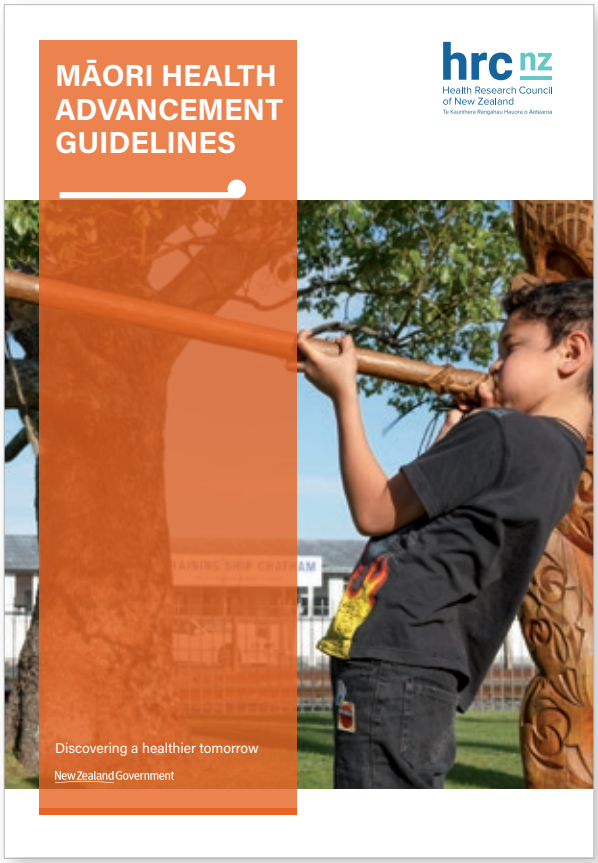
## Quantifying excellence and impact for better investments

### Making Māori Health Advancement a formal part of the investment process

Informing our goals and vision for excellent health research that benefits all New Zealanders is the *Te Tiriti o Waitangi*. **The New Zealand Health Research Strategy 2017–2027 states that all health research should incorporate *Te Tiriti o Waitangi* principles of partnership, participation, and protection**. The strategy also identifies four additional principles to achieve increased impact of government investment in health research: **research excellence; transparency; collaboration with Māori; and collaboration for impact**. In 2018/19, we have focused on ensuring that these principles are reflected in our investment processes, with the introduction of a **scored Māori Health Advancement criterion** that will initially apply to Programme applications in the 2020 round, expanding to include other proposal types in the 2021 round.

We believe that all health research in New Zealand has the opportunity to advance Māori by upholding and valuing Māori rights, worldviews and knowledge, tikanga Māori (Māori processes and protocol), and by addressing inequity.

In keeping with this, **we are introducing a transparent framework for the assessment of potential Māori Health Advancement in HRC funding applications**.

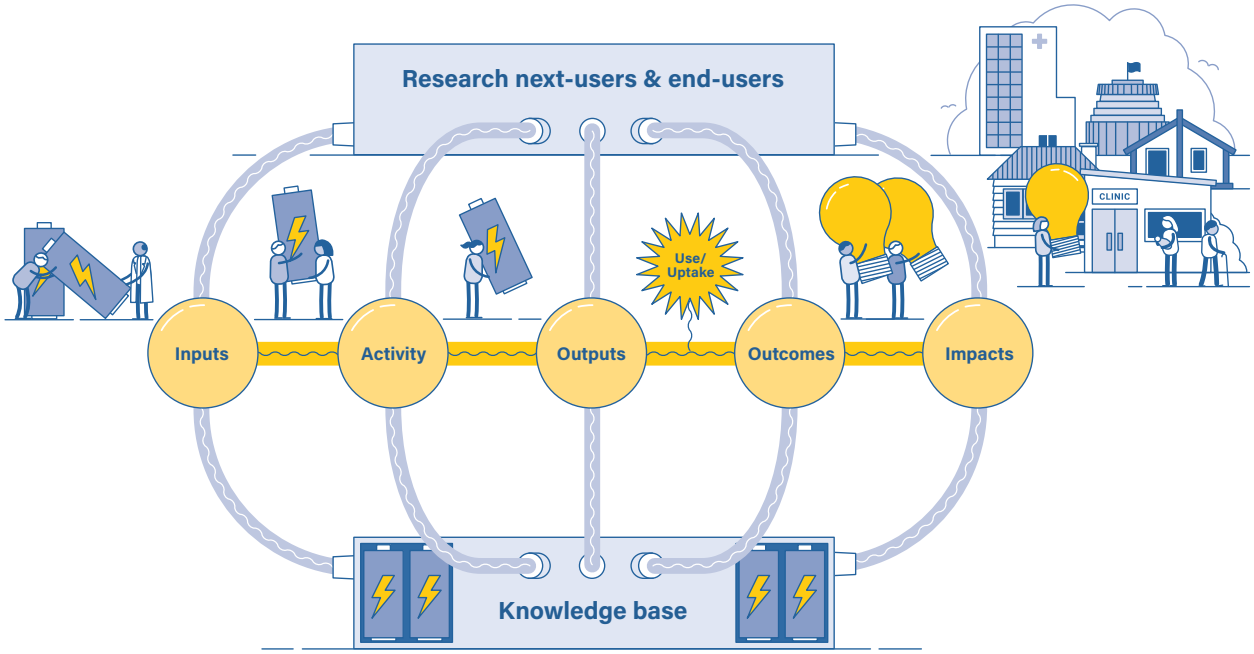



## Improving assessment of the potential impacts of health research

It is critical that we show benefit to New Zealand from our investment. Asking applicants from all disciplines to **think about potential impact from the planning stages of their research** may mean that they are better placed to create and respond to opportunities to **maximise the potential for impact *during* the research process**. This is one way we aim to increase the collective benefits and impacts from the portfolio of research that we fund.

For our 2019 main funding round, we introduced a research impact criterion to the assessment process, which included **a description of how the research might be used and the anticipated benefits for New Zealand,** and **an action plan** to maximise the use and benefits of the research. The criterion was only applied in the assessment of Projects and Programmes in the Health and Wellbeing in New Zealand and Improving Outcomes in Acute and Chronic Conditions Research Investment Streams. However, the criterion will apply to proposals submitted to all four of our investment streams in the 2020 funding round.

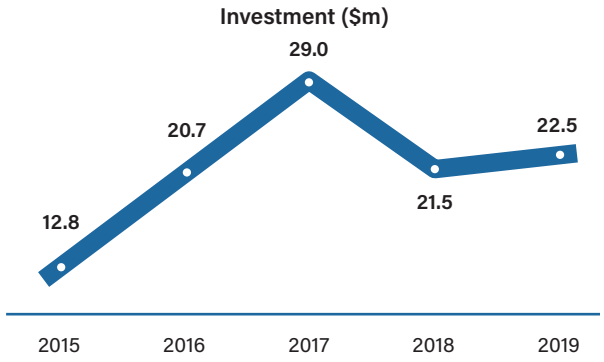
We define research impact as "the direct and indirect influence of excellent research on individuals, communities or society as a whole, including improvements to health and equity, and other social, economic, cultural or environmental benefits for Aotearoa/New Zealand". We have developed a **Pathway to Impact model**, which sets out a chain of linked steps to describe how impact can be generated from research inputs. When outlining their pathway to impact, applicants are encouraged to reference their line-of-sight to eventual impact but **focus on what is realistically achievable** within their sphere of influence.




The HRC's Pathway to Impact model

# Focus 3: Focus on achieving health equity

> *"Our Vision for the New Zealand health system is one where anyone can receive the health services they need – no matter who they are, or how much money they've got."*
>
> ***Hon Dr David Clark and Hon Dr Megan Woods – The HRC Letter of Expectations 2018/19***




***Investment in research and capability building relevant to improving health equity since 2014.***

We have always emphasised the importance of achieving health equity, however, **in 2014 we decided to significantly expand our efforts in this area. HRC researchers have responded strongly to the call and are continuing to make major efforts to change the way that they design and conduct their research to make the difference that is required**. We now have a growing portfolio of research addressing the myriad issues that contribute to New Zealand's health disparities.

We contribute to improving health equity in several different ways. Firstly, through research focused on health issues for which there are disparities in outcomes across New Zealand communities. This **includes targeting approximately 10 per cent of investment in our main funding round to research that is led by Māori**, for Māori, through our Rangahau Hauora Māori Research Investment Stream. We also target funding for Pacific-led research, with **funds reserved for Pacific Projects doubling to $2.4 million** in April 2019 for our 2020 funding round. Secondly, by **investing in an extensive career development programme for Māori health researchers** designed to engage Māori researchers and their communities in health research. Thirdly, by adopting the successful model used to build Māori research capacity and adapting it to **grow the Pacific health research workforce**.

Our policies and strategies look beyond specific health inequities to **focus on addressing the genesis of disparities by embracing diversity and promoting an inclusive society**. This ethos shapes both our career development initiatives and our Partnership Programme.


***Breakdown of five years of HRC research and career development grants contributing to improving health equity in New Zealand (2015 – 2019 contracts)***

## A growing portfolio of research addressing health equity

**Over the past five years, we have invested $106.4 million in 322 research and career development contracts that contribute to improving health equity.** Over that period **39 per cent of all contracts funded** fulfilled that goal, as a specified purpose of the research or through targeted capacity building. This does not include the many HRC contracts focused on health issues for which disparities exist and where the outcomes will benefit the New Zealanders that are most affected.

In addition to the **80 research contracts aimed at reducing disparities**, an additional **187 Career Development Awards were granted to emerging researchers** who chose to focus on improving health equity to launch their research careers – building future capacity and capability to address major issues and generating valuable knowledge. We also supported **seven prestigious fellowships** for future research leaders that had made addressing health inequities their focus. A further **48 grants were given to Māori active in their community,** and with no prior research training, to undertake practical research training on a large research project.

The successful candidates will collectively contribute a wealth of badly needed knowledge across some key areas, just some of which are listed below:

- A Feasibility Study for an intervention to **eliminate dormant tuberculosis (TB) infections in older Māori** and address the disproportionately high burden that Māori bear for this life-threatening infection, which is increasingly difficult to treat due to antimicrobial resistance. **Fifty per cent of the 300 new cases of TB diagnosed in New Zealand annually occur in Māori.**
- Evaluation of **a primary care screening tool for atrial fibrillation (AF) in Pacific peoples.** Pacific peoples have an increased risk of AF, which is **strongly associated with the risk of having a stroke.** Using blood pressure monitors that measure pulse variability can detect AF sooner and **improve stroke prevention.**
- A study of the inequities that exist in postoperative mortality between Māori and non-Māori to **identify the key system- and patient-level factors that contribute to Māori patients being 62 per cent more likely to die within 30 days of a surgical procedure** than non-Māori patients.
- Developing a **water safety programme** that will address the disproportionately high rates of Māori drowning and **contribute to Water Safety New Zealand's goal of zero drowning for Māori and all New Zealanders.** The national collective undertaking the study is comprised of Māori water safety practitioners, Māori researchers and three Māori communities.
- Identifying **Pacific adolescents most at risk of the harmful effects of sugar** (fructose) by testing how they absorb sugar from their gut. The high-fructose absorbers may be more at risk of obesity and the health consequences of this, and interventions can be targeted directly to them.

## Partnerships for equity

In 2018, we partnered with the Ministry of Social Development to fund high-quality research that will identify innovative approaches for case management services to help achieve **improved employment outcomes for people with health conditions or disabilities**. The research projects awarded were titled 'Support for gaining employment for people with a long-term condition' led by Dr Joanna Fadyl from the Auckland University of Technology and 'Development of cross-agency collaboration to improve employment outcomes' led by Ms Helen Locket from Te Pou o te Whakaaro in partnership with Work Counts and Synergia.

## HRC cultural audit

As we raise expectations for the research community, we must also ensure that we are demonstrating the same principles and commitment in the way that we operate and engage with Māori communities. **To help us review our performance and systems, we began an independent cultural audit in June 2019**. The Council is committed to addressing what comes out of this review and ensuring that our policies, systems and processes are appropriate to enable us to partner with Māori and deliver on our obligations and responsibilities under *Te Tiriti o Waitangi*.

## Building Pacific health research capacity and capability

Pacific peoples are experiencing major inequities in health outcomes in comparison to other New Zealanders. Building Pacific health knowledge, research paradigms and capacity to undertake Pacific-led research in partnership with Pacific communities is crucial to improving Pacific health and health services.

We announced **22 Pacific Career Development Awards worth $1.55 million** in 2018/19. These included: The Sir Thomas Davis Te Patu Kite Rangi Ariki Fellowship; the Pacific Clinical Research Training Fellowship; the Pacific Health research PhD Scholarships; the Pacific Health Research Master Scholarships; the Pacific Knowledge Translation Grant; and the Pacific Health Research Summer Studentships.

In 2018/19, we invested **$2.40 million in four Pacific Health Projects**, which are also key in increasing research capacity and advancing the careers of Pacific researchers.

# Focus 4: Support highly innovative and transformative research

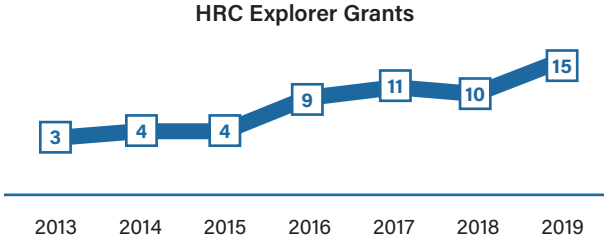
> *In our drive to create impact, we must not forget to fuel the innovation pipeline with the stuff that impact is ultimately made of – discoveries.*
>
> ***The HRC's Statement of Intent 2017–2021***

HRC-funded researchers are driving innovative solutions to our biggest health challenges. **Perhaps one of the greatest threats that we are currently facing is antimicrobial resistance.**

**We have been supporting Professor John Fraser at the University of Auckland to address antimicrobial resistance for decades, including his ground-breaking discovery of bacterial superantigens in the 1980s**. Superantigens are toxins released by the bacteria that promote a major inflammatory response in the body and contribute to life-threatening disease, such as toxic shock syndrome. Professor Fraser's work has focused on the superbug *Staphylococcus aureus*, which the World Health Organization has named a "bacteria of international concern" because it is now resistant to most common antibiotics and is the principal cause of hospital-acquired infections worldwide.

**Professor Fraser and his colleagues are now working to produce the world's first vaccine against *Streptococccus pyogenes*. Collaborating extensively with colleagues in 22 countries**, they have found 290 different genetic variants of the pathogen. This highlights the challenge of developing a vaccine that will be effective around the globe. From this work, they identified 15 promising vaccine antigen candidates. **Professor Fraser received funding for a new Project in the 2019 round to investigate *Staphylococcus* superantigen-like proteins as promising vaccine candidates for a single, inactive vaccine that will be tested in pre-clinical and future clinical trials**.

## Revolutionary ideas – our Explorer Grants




**The Explorer Grant has been recognised internationally for the novel approach** in which assessors are not given any details about the research team and must decide purely on the strength of the ideas and the science proposed. These are higher-risk, higher-return projects and in 2018/19 we funded 15 contracts[1] – the biggest round yet.

These 15 contracts show remarkable promise, including:

- **A new technology to routinely detect early stage cancer**, regardless of the cancer type.
- The development of **an indigenous psychology framework for Māori women** based on pūrākau (legends/stories) that will provide an alternative to current conceptualisations of mental health that are not serving Māori women well.
- **A radical new approach to treat tissue swelling in the critically ill**, which can contribute to multiple organ failure.
- A study of **the use of synthetic stem cells to treat cardiovascular disease**, negating the need for major and potentially life-threatening surgery.

Dr Benjamin Compton will use his 2019 Explorer Grant to bring us a major step closer to **a vaccine for drug addiction**. Scientists have been trying to create vaccines for treating drug addiction since the 1970s but so far trials in humans have had disappointing results. He will construct a synthetic vaccine that works in a completely different way. **The end-goal is to instruct the body's immune system to recognise a specific drug when it enters the bloodstream, and to treat it like a toxin.** Importantly, **this vaccine could be manufactured en-masse and at low cost**.

1 Please note that our KPI for this measure does not include the 2018/19 figures because it has been historically reported as contracts that commenced in the financial year, and not those for which funding was awarded.

# Key performance indicators for Driver 1

## Invest in research that meets the current and future needs of New Zealanders

### 1. *Establishment of national health research priorities*

***Actual 2018/19:*** Not measured

***Baseline 2017/18:*** We have worked with MBIE and the Ministry of Health to develop a national priority-setting process based on international best-practice and customised for our unique New Zealand environment. We have established an independent committee (appointed in April 2018) to take the work forward.

***Target 2018/19:*** Not measured

Not measured

***Target for 2020/21:***

We will have established national health research priorities, communicated these priorities to the wider health research sector and aligned our investment signals to clearly reflect them.

We are **on track** to meet our target:

We have completed the development work for the Prioritisation Framework and submitted the final version for approval by the cross-agency Steering Group overseeing the venture. The Steering Group recommend that the Ministers announce the framework in late 2019.

## Focus on achieving health equity

### 2. *Number of current HRC contracts with a focus on understanding and reducing inequity in health outcomes*[3]

***Actual 2018/19:*** 115

***Baseline 2017/18:*** 98

***Target 2018/19:*** 45-65

We have **achieved** our target

**Target for 2020/21:**

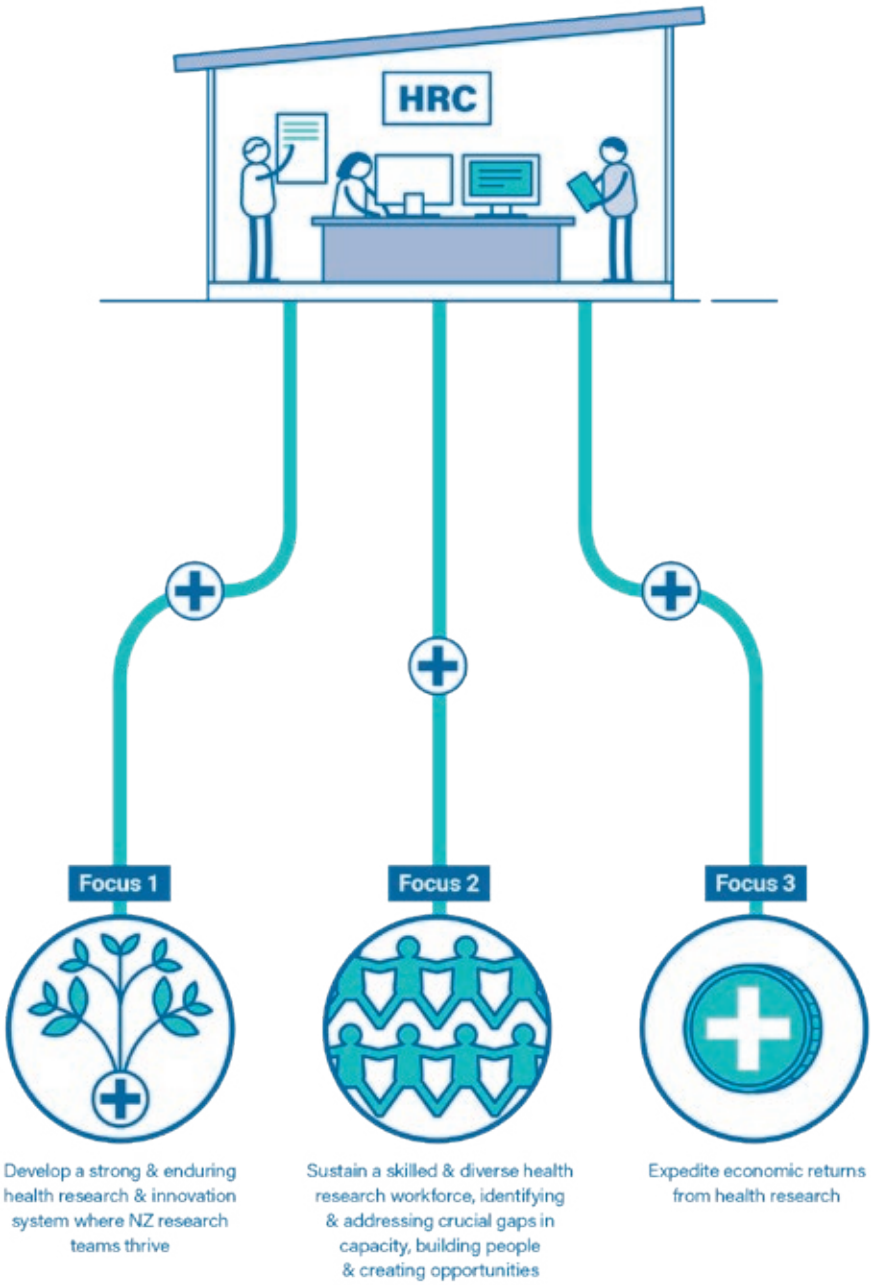
By 2021 we will have formed a cross-sectoral government partnership aimed at gaining the evidence required to effectively tackle inequity and its adverse health consequences.

We are **on track** to meet our target.

We have already developed two funding partnerships with the Ministry of Social Development, focusing on inequities in mental health and increasing the ability of people living with a disability to access employment opportunities.

3 Please note that this measure relates to current Projects and Programmes contracts only, so the results differ from the much larger analysis presented under Focus 3, which is based on all contracts funded in the past five years, including all career development awards.

# Driver 2:
# Stimulating growth



## What we set out to achieve

If we are successful, New Zealand will have a vibrant, co-ordinated health research system. We will have the skills and competencies needed to tackle all current and future health challenges and find the solutions that are right for all our people. Gaps in crucial capacity will be filled and future leaders will be ready and waiting to step forward when our current stars are ready to step back. The New Zealand economy will grow through gains from commercialisation of health innovations driven by our investment, and revenue saved from lower health costs incurred by New Zealanders who are healthier and contributing more as a result.

*Making a Difference: HRC Statement of Intent 2017–2021*

## Focus 1: Develop a strong and enduring health research and innovation system where NZ research teams thrive

### Connecting for better systems and infrastructure

Throughout 2018/19, we engaged in a broad range of activities that contributed to a strong, ethical and stable health research system. We worked closely with the Ministry of Business, Innovation and Employment (MBIE) and the Royal Society Te Apārangi, sharing data, funding calendars and processes to align what we do as much as possible for the benefit of the research community – and meeting quarterly to discuss developments and co-ordinate efforts.

A major focus of the work of our IT team over the past two years has been **preparation of HRC data for inclusion in MBIE's New Zealand Research Information System (NZRIS)**, so that it can become a shared resource. We were the first organisation to enter into a Memorandum of Understanding with MBIE to provide historical information into the system. **We are also playing a leadership role in this process by consulting with other research organisations as needed and are in the process of establishing an Auckland-based support structure for other organisations**. It is anticipated that the first release of information from NZRIS will be available in January 2020.

### Promoting diversity

We collaborate with partners at MBIE, the Royal Society Te Apārangi and other organisations to increase diversity in science. MBIE has established a cross-agency working group to investigate and address barriers to diversity, equity and inclusion in the research, science and innovation workforce, and develop an initiative to address these barriers in the New Zealand context. To support this work, we have two representatives participating on the working group. **Priority issues of immediate need within the workforce have been identified and include increasing the representation of, and opportunities for, women, Māori and Pacific peoples in science, technology, engineering and mathematics research careers**.

Internally, we make explicit effort to uphold equity, diversity and inclusion in our investment processes. In 2018/19, we reviewed female representation on our science assessing committees and monitored female success rates in our funded grants for the past seven years. Over this period, **female representation on our science assessing committees has increased from 35 per cent to almost 50 per cent**. A moderate increase in grants awarded to female researchers has been observed, from 7 per cent in 2012 to 18 per cent in 2019. However, this trend is not yet visible across all grant types. We will continue to monitor, review and revise our practices to increase equity, diversity and inclusion in our business.

## Supporting crucial capacity and capability through Independent Research Organisations

In 2014, we developed the **Independent Research Organisations (IRO) Capability Fund, allocating up to seven years of funding to four organisations of national significance**:

- Te Atawhai o Te Ao: Independent Māori Institute for Environment and Health
- Whakauae Research Services
- The Malaghan Institute of Medical Research
- The Medical Research Institute of New Zealand.

In June 2018, we provided MBIE with the results of our mid-term review of the IRO Capability Fund contracts. We also **approved funding for an additional three years to each of the four IROs, extending to June 2021. The total combined funding for the four IROs was $17.3 million.**

We are currently considering the options for reviewing the IRO Capability Fund mechanisms and will consult with MBIE to signal their intentions about continuing this fund.

## Protecting New Zealand longitudinal datasets that are a national and international resource

**We invest in longitudinal studies up to a value of $2 million per annum**. Currently, we are supporting four important longitudinal studies relevant to health in New Zealand: the Dunedin Multidisciplinary Study; the Christchurch Health and Development Study; Growing up in New Zealand, and the Pacific Islands Family Study.

**Over the past 10 years, we have invested $40.2 million in longitudinal research programmes**. We are currently awaiting the outcome of MBIE's National Databases and Collections review before consulting with the sector on a preferred model for investing in and managing longitudinal research.

## Fostering a strong clinical trials sector

We are involved in several activities to help strengthen the clinical trials environment nationally and improve connectivity internationally. **Our funding supports the Australian New Zealand Clinical Trials Registry (ANZCTR)**, a vital tool that enables registration of clinical trials and helps New Zealand fulfil its ethical and oversight responsibility for clinical trials conducted here. The HRC works closely with ANZCTR through membership of their advisory committee.

We recently supported ANZCTR in publishing the *Clinical Trials in New Zealand (2006–2015)* report, which ranks New Zealand within the top tier internationally for clinical trials per capita, with about 2,500 clinical trials conducted during the decade. These trials ranged from single-site New Zealand-only trials through to multinational mega-trials. **More than 50 per cent of trials in New Zealand were multinational**, and industry was involved in 55 per cent of registered clinical trials. The most frequently studied health issues were cancer, cardiovascular disease and respiratory diseases. We **alone have contributed more than $94 million to clinical trials in New Zealand within the timeframe captured in the report**.

**We have also been working with the Australian Clinical Trials Alliance (ACTA),** who have facilitated the involvement of some of our clinical trialists on their work programme called *Building the capacity, efficiency and effectiveness of clinical trials networks in Australia*. This recognises that the majority of networks in New Zealand and Australia are Australasian networks.

Together with MBIE, we are supporting the Ministry of Health in leading Action 6 of the New Zealand Health Research Strategy: Strengthen the clinical research environment and health services research. In 2019, we convened a round table discussion with other government agencies and leading clinicians about clinical trials networks and this has led to further workstreams.

### Ensuring that New Zealand health research is ethical and safe

We are committed to ensuring that all research involving human participants is based on good science, meets ethical standards, and complies with international best practice. We have four expert committees that contribute to the regulatory environment and play a key role in keeping New Zealand's health research ethical and safe.

### The HRC Ethics Committee

The HRC's statutory Ethics Committee **approves all the Health and Disability Ethics Committees (HDECs) in New Zealand; accredits all institutional ethics committees in New Zealand; provides second opinions on ethical issues,** when requested; and provides information and advice on health research issues to the research community via an annual newsletter – *Ethics Notes*.

Dr Monique Jonas, a senior lecturer in ethics at the University of Auckland and a member of the committee, wrote a comprehensive review of **ethics and the Integrated Data Infrastructure** in the August 2018 edition of *Ethics Notes*. **She cautioned researchers that even though the data is fully de-identified and out-of-scope for ethics review, they still need to ensure that their research proposal has been reviewed by their institutional ethics committee**.

The committee supported four students to work with a research team over their summer break on a current ethical issue in health research:

- Exploring issues around using **the Integrated Data Infrastructure** database for mental health research, a study of the international literature on ethics and linked databases/'big data' showed clear support from the public for secondary use of their data for the greater good.

- Medical students' views on **euthanasia and assisted dying** were canvassed to examine the polarised views of the public and the medical profession following the introduction of the **End of Life Choice Bill**. The study showed that medical students appear to become less likely to support assisted dying as they progress through their training.
- '**Pharmacogenomics and justice'** looked at how new technologies that use genetic characteristics of patient groups to target drug treatment risk increasing inequities.
- Addressing the dilemma of whether to use **financial incentives for research participants**, one student developed three 'decision-trees' for an online tool for researchers and ethics committees to use when requests are made to pay participants.

## The Data Monitoring Core Committee

The Data Monitoring Core Committee (DMCC) provides objective, independent monitoring of clinical trials in New Zealand. This year the DMCC monitored 12 clinical trials initiated by HRC researchers that focused on life-threatening disease or diseases which cause irreversible morbidity, where there were special concerns for patient safety; where the study investigators were inexperienced; or where the study integrity would be enhanced by the independence of the DMCC. For each trial that it agrees to monitor, the DMCC establishes a trial-specific Data Monitoring Committee, so twelve were established in 2018/19.

## The Standing Committee on Therapeutic Trials and Gene Technology Advisory Committee

Clinical trials that involve use of a new or an unregistered medicine require approval under Section 30 of the *Medicines Act, 1981,* on the recommendation of the HRC.

The HRC maintains two standing committees to undertake a scientific assessment and make recommendations to the Director-General of Health.

The **Standing Committee on Therapeutic Trials (SCOTT)** mainly reviews clinical trials sponsored by the pharmaceutical industry. During the past year, SCOTT reviewed 117 trial applications: 66 of these trials were approved without comment; 29 approved with comment; 18 were initially not approved pending further clarification; and 4 trial applications were not approved.

The Gene Technology Advisory Committee (GTAC) considers applications for trials involving the introduction of nucleic acids, genetically manipulated micro-organisms, or viruses or cells into human subjects. During the past year, GTAC considered 2 trial applications. One application has been recommended to the Ministry of Health for approval. The second application is still under review, pending clarification provided by the applicant.

# Focus 2: Sustain a skilled and diverse health research workforce, identifying and addressing crucial gaps in capacity, building people and creating opportunities

## Maintaining a large and diverse health research workforce

Through our annual funding rounds, career development and partnership programmes, **we maintain and build a large and diverse health research workforce of over 2000 research positions at any given time**. We regularly conduct studies of the workforce engaged on all current contracts, using the curriculum vitae of investigators to gain a host of valuable information, such as training, engagement in healthcare, postgraduate qualifications and research experience.

**Our success in funding excellent research that meets the needs of all New Zealanders is highly dependent on having a skilled health research workforce that can generate a knowledge base specific to New Zealand's needs – both now and in the future.** We offer a programme of Career Development Awards, each aimed at **addressing a gap in the health research workforce and building vital capacity**. All Career Development Awards are made after expert review of the potential and record of the applicants and their proposed research.

In 2018/19, we invested $10.4 million in 64 Career Development Awards. The infographic on page 32 shows the different awards that we offered in 2018/19, as well as the opportunities for researchers outside academia.

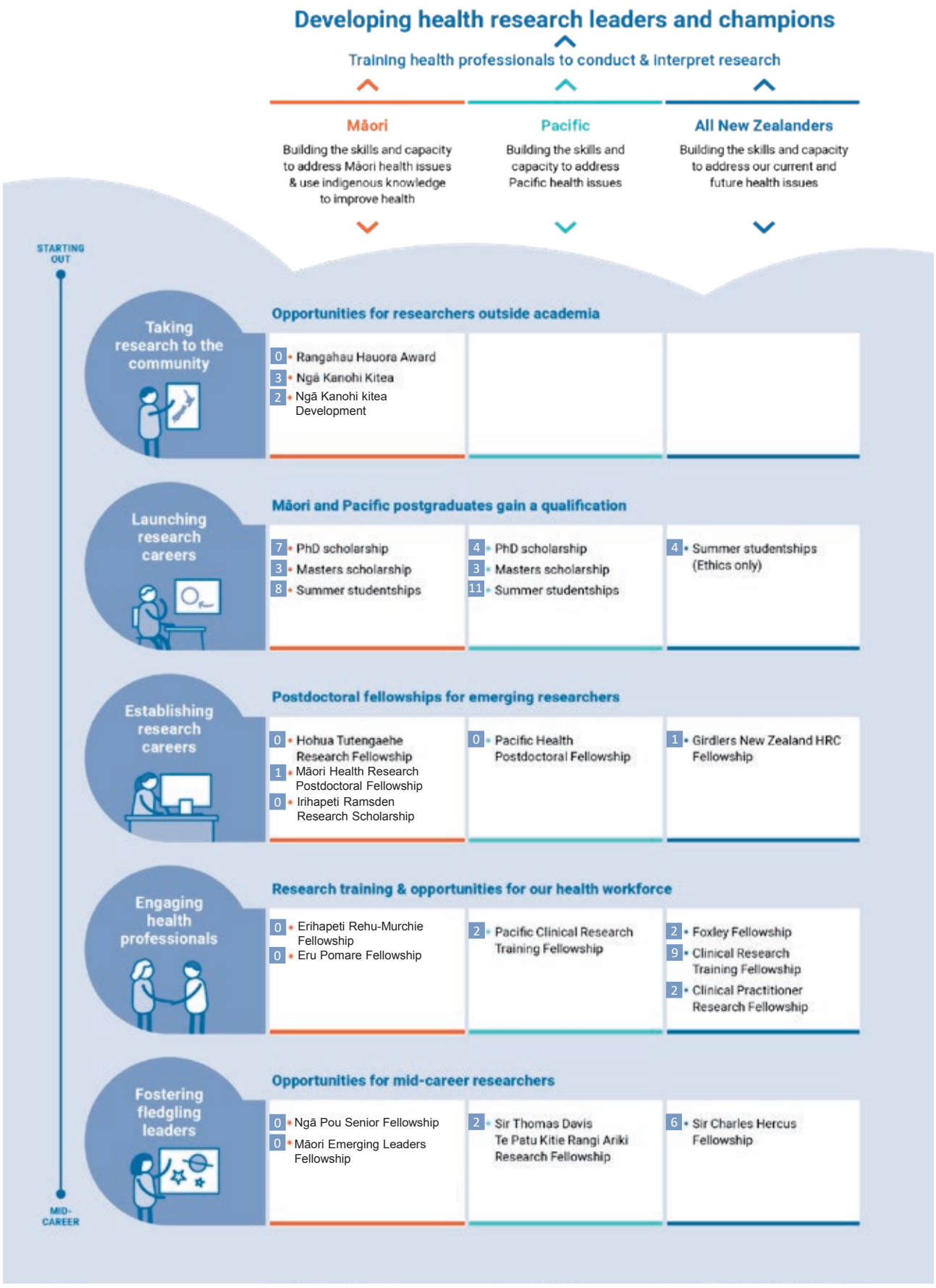
## Partnering with Māori to increase capacity to address Māori health issues and achieve Māori advancement

**Nineteen Māori researchers received an HRC Māori Health Research Career Development Award in 2018/19**. These awards are key to building capacity and capability within the Māori research workforce, and addressing issues that will improve Māori health and wellbeing and benefit New Zealand as a whole.

We also announced the results of the **Ngā Kanohi Kitea Full Project Grants.** These grants provide opportunities for iwi, hapū and other community groups to address community-identified health needs. This year, two projects were awarded with an investment value of $0.38 million.

*Members of Te Kotahi Research Institute*

## A breakdown of HRC Career Development Awards in 2018/19



Our **Te Tohu Rapuora award** was established to recognise the contribution to Māori health leadership of a single researcher, research team, or community group through a single piece of research, accumulated body of research, or life-time contribution. The inaugural 2018 award went to **Te Kotahi Research Institute at the University of Waikato** for showing leadership and commitment in advancing Māori health research, knowledge and wellbeing by working closing with iwi, hapu and other Māori health stakeholders.

## Developing future leaders

In 2018/19, we invested $3.61 million in nine contracts aimed at developing future health research leaders. Six prestigious Sir Charles Hercus Postdoctoral Fellowships were awarded to outstanding emerging researchers, maintaining the record high number of the previous two years.

Our **Pacific Health Sir Thomas Davis Te Patu Kite Rangi Ariki Research Fellowships** support emerging Pacific researchers who have demonstrated outstanding potential to develop into highly skilled researchers, and two were awarded in 2018/19.

## Ensuring that New Zealand has the skills and competencies to tackle current and future health challenges

In 2018/19, work on the Prioritisation Framework identified key workforce goals for the HRC, the Ministry of Health and MBIE to work together to address, including a focus on **communities experiencing health inequities** in the research workforce; **Māori, Pacific peoples and persons with disabilities;** increasing **opportunities for Pacific researchers in New Zealand to connect, partner and collaborate with those in the Pacific;** and building and sustaining the **clinical health research** workforce.

## Precision Driven Health and HRC Postdoctoral Fellowships

**Precision Driven Health** and the HRC have formed a joint funding initiative to provide Postdoctoral Fellowships that **foster the capacity to undertake data-driven precision health research. The Fellows will develop digital tools that give people the knowledge to better manage their health or the health of patients.** An objective of the fellowship is to identify and develop the best people to conduct high-quality research, **enhancing the links between research and practice, and encouraging collaboration across the health and commercial sectors**. In February 2019, Dr Rosie Dobson from the University of Auckland was awarded the fellowship, providing $205,823 for her study on enabling self-care through personalised mobile health.

# Focus 3: Identify and expedite economic returns from health research investment

## Smoothing the pathway to commercialisation for HRC-funded research and innovation

We are fortunate in New Zealand to have government and tertiary agencies that are skilled at realising the commercial benefits of health research and innovation. It is our role to support discoveries with the potential to generate health and economic gains for New Zealand. We are actively increasing system connectivity and coordination with these agencies to strengthen the early stages of the innovation pipeline and further support researchers to translate their discoveries into real-world health and economic benefits.

We have canvassed views on whether closer communication and connection between the HRC and these commercialisation/technology transfer agencies would benefit our researchers and the broader innovation sector. The response has been very positive. **In the past year, we have been working with KiwiNet and Return On Science (funded by MBIE and together called the Commercialisation Partner Network, CPN) and Technology Transfer Offices (TTOs) to initiate a pilot project designed to smooth the pathway to commercialisation for HRC-funded research**.

The HRC, KiwiNet and Return on Science have collectively developed a collaborative project plan that centres the pilot on 2018/19 HRC Explorer Grant projects. The pilot will identify a process to systematically identify projects/teams with commercial potential in the health innovation space and proactively refer them to TTOs and CPN. **The pilot also seeks to identify a process for the HRC to encourage researcher engagement with commercialisation as an important pathway to impact**.

**To date, 11 Explorer Grant projects have been identified as having commercial potential and been referred onto the CPN as part of the pilot**. We have also begun referring projects with commercial potential to TTOs, namely UniServices, Otago Innovation and VicLink, and **we are now working with these TTOs to collaboratively explore the pilot projects and process**.

Another benefit of this process is the establishment of a reporting mechanism between the HRC and the secondary agencies. This will give us far greater visibility and understanding of the life-cycle of the product or service in development, and its future impacts.

# Key performance indicators for Driver 2

## Sustain a skilled and diverse health research workforce, identifying and addressing crucial gaps in capacity, building people and creating opportunities.

### 1. *Percentage of recipients of an HRC Māori Career Development Award who have made a career progression[4] through an HRC-funded opportunity in the past five years*

***Actual 2018/19:*** 55%

***Baseline 2017/18:*** 53%

***Target 2018/19:*** Maintain

We have **achieved** our target

**Target for 2020/21:**

We will have completed an in-depth survey of all recipients of an HRC Māori Health Career Development opportunity since 1990, published our findings, and used what we have learned to improve and refine our Māori health career development programme.

We are **on track** to meet our target:

This work will form part of the initiatives undertaken under Action 2 of the New Zealand Health Research Strategy: Invest in research for healthy futures for Māori (point 4: Ensure the growth and ongoing development of the Māori health research workforce).

## Identify and expedite economic returns from health research

### 2. *Number of HRC contracts with commercial potential referred to secondary agencies*

***Actual 2018/19:*** 11

***Baseline 2017/18:*** Not measured

***Target 2018/19:*** 3

We have **achieved** our target

**Target for 2020/21:**

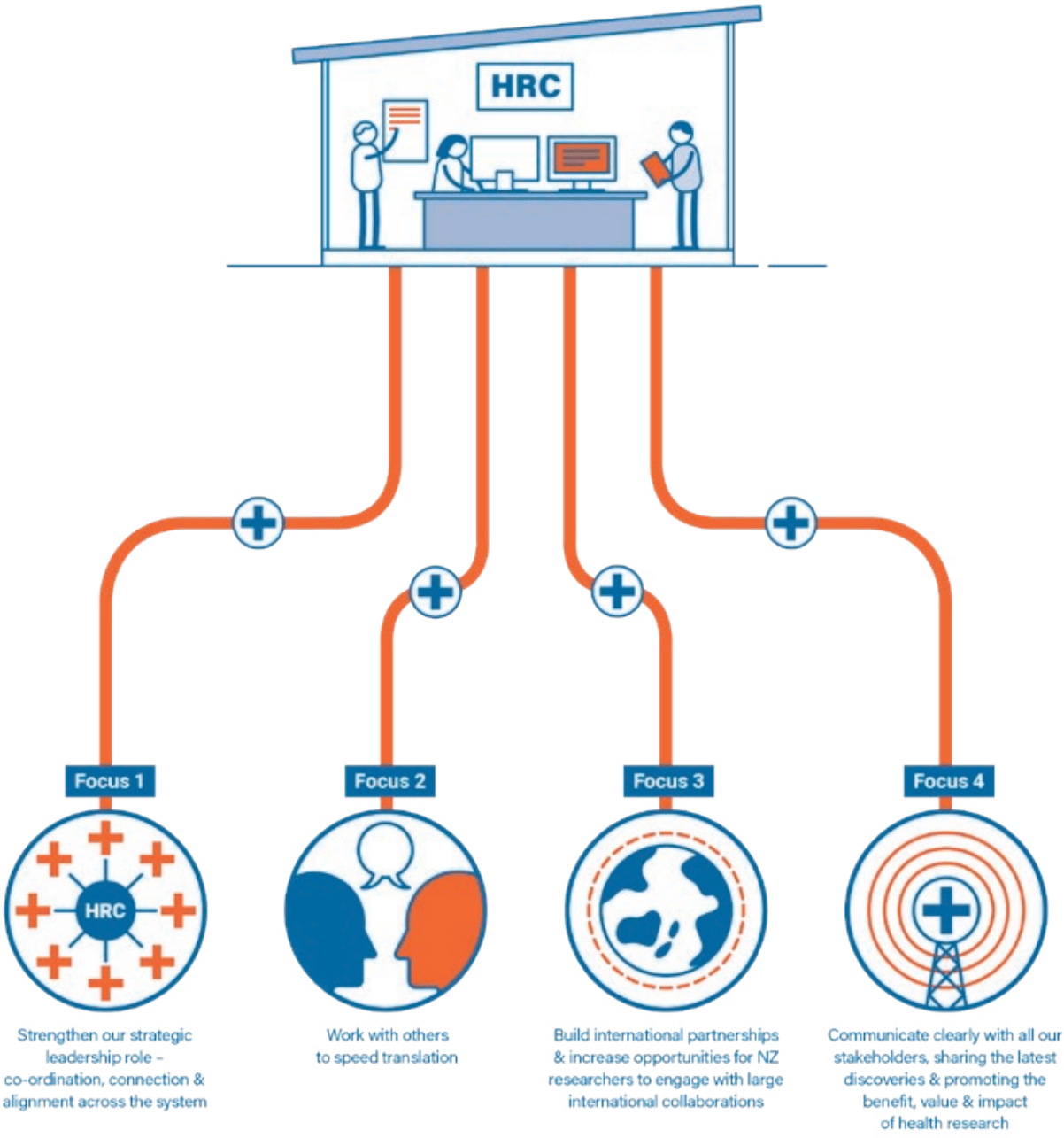
We will have devised a system for alerting commercialisation entities to discoveries with potential and have referred 5 – 10 HRC contracts through this system.

We have **already met** this target.

We have devised a system and have already exceeded the target for 2018/19 and 2021.

4 A career progression is defined as moving to the next level of our Career Development Awards scheme, such as from a Masters to a PhD scholarship, or attaining research funding after completing a Career Development Award. This progression may not be linear.

# Driver 3:
# Increasing engagement & connection



## What we set out to achieve

If we are successful, the many and varied organisations delivering to New Zealand's health research needs will be working towards addressing the same priority issues. We will become a united force with a shared vision supporting and facilitating common goals, rather than working in isolation. The flow of information between agencies will be continuous and efficient. We will have partnered across national agencies and government sectors to deliver crucial pieces of research that guide policy or provide urgent answers. Internationally, we will facilitate connections and garner valuable resources expertise and opportunities for our best and our brightest researchers. Communities will help to achieve our research agenda, engaging in research to an extent that has never happened before. The New Zealand public will understand the value and impact of what we do and take pride in our national health research achievements.

*Making a Difference: HRC Statement of Intent 2017–2021*


## Focus 1: Strengthen our strategic leadership role – coordination, connection and alignment across the system

### New Zealand's health research agencies work towards becoming a united force with a shared vision

#### Implementing the New Zealand Health Research Strategy (NZHRS)

This year **we completed the development of the New Zealand Health Research Prioritisation Framework** to guide the Government's investment in health research. In addition to this major undertaking, we have been advancing work on the other actions that we are leading and supporting the Ministry of Health and Ministry of Business, Innovation and Employment (MBIE) on advancing theirs.

## Focus 2: Work with others to speed translation

### System-wide approaches to health research and health delivery

Our work with the Ministry of Health and the Ministry of Business, Innovation and Employment to implement the New Zealand National Health Strategy is making a system-wide approach to health research a reality. The strategy actions have also led the three agencies to take a system-wide approach to research in health delivery.

In collaboration with MBIE, **we are now looking beyond business as usual and working to embed research in the health sector with new approaches**. It is expected that at least one of these initiatives will be announced in the coming year.

## Partnering and connecting across government, private and not-for-profit sectors

In 2018/19, we funded or approved seven research projects, one literature review and a research fellowship **through our Partnership Programme** for **a total investment of $3.2 million**. Five of these contracts were funded through our **Breast Cancer New Zealand Partnership with the Breast Cancer Foundation NZ and Breast Cancer Cure**.

Research from this partnership is already making a difference, with the discovery that **a cancer-related protein can be used to predict whether a breast cancer patient will benefit most from hormone therapy or chemotherapy**, enabling doctors to decide on the best treatment option for each patient.

Our biggest partnership is with the Ministry of Health, and in 2018/19 the HRC-Ministry of Health Partnership Governance Group refreshed its Joint Funding Agreement to streamline processes and allow the **active development of five research partnership initiatives for release across the next financial year**. These partnership initiatives will strengthen the health research workforce, engage health professionals in research, and enable and embed translation across the health sector. They are specifically designed to deliver against key actions under the New Zealand Health Research Strategy.

We also have active partnerships with PHARMAC, the Ministry of Social Development, Worksafe, the Catwalk Trust and the ACC.

## Focus 3: Build international partnerships and increase opportunities for New Zealand researchers to engage with large international collaborations

Our international programme is pivotal to building an environment in which New Zealand researchers can thrive. Working together across national boundaries allows researchers to overcome local barriers, such as limited funding, infrastructure or gaps in expertise, and gain from the exchange of methods and ideas. We currently have collaborative agreements with China and the European Union.

The HRC's international activities are supported through MBIE's Catalyst Fund. This also included support for New Zealand membership of the **Human Frontiers Science Program** in 2018/19. Management of the Human Frontiers Science Program transitioned from the HRC to the Royal Society Te Apārangi from 1 July 2019.

**The NZ-China Strategic Research Alliance** fund was established to develop collaboration opportunities through the creation and sharing of knowledge, insights, networks, and multi-institutional research and commercial partnerships. The three projects currently funded under this partnership include: new approaches to treating severe, acute pancreatitis to prevent the often fatal complications, led by Professor John Windsor of the University of Auckland; using Chinese medicine to treat tinnitus by targeting metabolic networks, led by Yiwen Zhang of the University of Otago; and the discovery of new drugs to treat liver cancer, led by Associate Professor Jeff Smaill of the University of Auckland.

In 2018/19, the HRC and the **National Natural Science Foundation of China** (NSFC) announced funding for one Project and three Emerging Researcher Grants through the **HRC-NSFC Biomedical Research Fund joint initiative** aimed at **establishing new or strengthening existing collaborations in biomedical sciences between Chinese and New Zealand researchers**. The HRC-NSFC Project funding awarded to Dr Robert Weinkove at the Malaghan Institute of Medical Research plays a vital role in enabling basic research to improve upon ground-breaking new technology to fight cancer by reprogramming the patient's own immune cells (CAR-T cell therapy) to increase the effectiveness for patients in the future.

The **e-ASIA Joint Research Program** is a coalition of national research funding institutions from **10 Association of Southeast Asian Nation countries and eight East Asia Summit participating countries**, including New Zealand, with membership through the HRC. The HRC and e-ASIA announced funding for research led by Professor Philip Hill at the Otago Global Health Institute to help improve the management of tuberculosis in Indonesia. This cooperative research project aims to conduct a randomised trial of a tailored intervention package to **increase notifications of tuberculosis** by private practitioners in Bandung, Indonesia.

The project will be conducted as a collaboration between researchers at the **University of Otago, the University of Padjadjaran (Indonesia) and Harvard University**. It builds on our established collaboration in Indonesia on research on private practitioners and tuberculosis.

# Focus 4: Communicate clearly with all our stakeholders, sharing the latest discoveries and promoting the benefit, value and impact of health research

Making research more visible, and sharing the benefits, relevance and value of HRC-funded research is the main aim of our communication strategy. We are putting time and effort into ensuring HRC-funded research and initiatives are widely shared and better understood. As a result, our media monitoring shows that in the year ended 30 June 2019, the HRC had the following levels of mentions:

- **508 in New Zealand news media** (only print and online measured)
- **911 in global media**
- **1,930 in social media**.
- Based on our potential reach, **the HRC had media coverage with an 'advertising value equivalence' of $1.43 million in New Zealand, and $2.69 million internationally**.

The announcement of our 2019 Programmes and Projects received significant media attention. At the time of writing, **our newly funded research had featured in more than 60 news articles online** (e.g. Stuff and *New Zealand Herald)*, as well as in radio interviews, TV news items and print articles. **The announcement had 15 global media mentions and was referenced over 300 times on social media.**

In the past year, our communications efforts have focused on bringing to life the vision of the New Zealand Health Research Strategy with examples of research excellence in action, especially that which addresses health inequities, priority health issues, and makes the leap from research lab or clinical trial through to clinical practice, services and policies.

Our communication pieces are divided into news and media releases of importance to the general public, and those which are targeted to key stakeholders (including researchers, research organisations, our Ministries, co-funders, clinicians, DHBs and NGOs). Both these audiences make up the next and end-users of health research findings, so we consider it our responsibility to share and showcase the research that matters to them, through the most effective channels, in the most engaging way.

HRC media releases on topical issues, such as climate change and mental health, medicinal cannabis usage, and racism in the health system, have generated widespread media interest and consistent coverage of our work throughout the year. **Continued interest from broadcasters, print and online media, and investigative journalists taking deeper dives into our featured topics, indicates good engagement with the research we're funding**.

In 2018/19, our researchers and the health sector were kept up to date through our *HRC Update* (an e-newsletter for the sector) and publications such as our *Statement of Performance Expectations*, our *Investment Impact Report* and our *Annual Report.* We also share targeted news and information on the HRC website and HRC and HRC Gateway (our research portal) as well as communicate directly with Research Offices, host organisations and specialist media to ensure important updates are shared widely.

Some of the key updates requiring frequent connection and engagement with stakeholders in the past year have included:

- Developing the national Prioritisation Framework for health research (in conjunction with the Ministry of Health and Ministry for Business, Innovation and Employment).
- Strengthening our Pathway to Impact model and sharing tips/guidance with researchers.
- Changing our New Zealand Health Delivery Research Investment Stream.

# Key performance indicators for Driver 3

## Work with others to speed translation

### 1. *Number of positions for practising health practitioners on current contracts*

***Actual 2018/19:*** 546 individuals holding 1006 positions

***Baseline 2017/18:*** 522 individuals holding 914 positions

***Target 2018/19:*** 300 – 400

We have **achieved** our target

**Target for 2020/21:**

We will provide details of at least five research contracts that have led to a change in practice as a result of involvement of a health practitioner in the research.

We are **on track** to meet our target:

We already have five examples of such research in the areas of intensive care and emergency medicine.

## Build international partnerships and increase opportunities for NZ researchers to engage with large international collaborations

### 2. *Negotiate a long-term research funding partnership between the Ministry of Health and the HRC*

***Actual 2018/19:*** We have worked with the Steering Group (the MoH-HRC Partnership Governance Group) to develop two funding initiatives for 2019/20 that address priorities identified through the New Zealand Health Research Strategy (NZHRS). These initiatives are expected to be announced in 2019/20.

***Baseline 2017/18:*** The HRC partnered with the Ministry of Health to provide up to $2m in funding for research to better support Māori and Pacific youth with mental health problems, including depression, anxiety, schizophrenia and bipolar - affective disorder.

***Target 2018/19:*** Work with the Steering Group to identify further areas that align with the priorities outlined as part of the on-going work to implement the NZHRS.

We have **achieved** our target

**Target for 2020/21:**

We will have established a joint research programme with the Ministry of Health in areas of strategic priority.

We are **on track** to meet our target.

The announcement of two new initiatives in 2019/20 will mean that our target for 2021 is met.

# Part 2:
# Statement of Service Performance

Our Statement of Performance Expectations for 2018/19 set out what should be delivered under each of the four Outputs through which we allocate funding, and the key performance measures that we are reporting on in this section. Under each Output, we provide the details of our actual performance against our forecast measures, followed by our detailed financial statements, prepared in accordance with good accounting practice.


In addition to the measures provided under each Output, we are required to report against performance measures in the Estimates of Appropriations as follows:

## Non-departmental Output: Health Research Fund

1. ***Number of public health intervention contracts tracked by the Health Research Council.***

***Actual 2018/19:*** 42

***Baseline 2017/18:*** 31

***Target 2018/19:*** 20

We have **achieved** our target

2. ***Percentage of new Health Research Council contracts focused on discovery/development for improved detection, screening, diagnosis and treatment.***

***Actual 2018/19:*** 26%

***Baseline 2017/18:*** 28%

***Target 2018/19:*** 18%

We have **achieved** our target

# Investments through Output 1: Health research contracts

## What we fund through this Output

We invest in health research contracts through contestable funding rounds and co-funding partnerships. This output covers the research contracted through our annual funding rounds of which we have one main round, closing in November, and a separate round for Explorer Grants. In 2018/19, we supported research with both long and short horizons, to build pathways to better health and wellbeing.

## How our investments under Output 1 contribute to our Key Decision Drivers

Health research contracted through this Output delivers to the following Drivers:

***Driver 1: Making a difference***

*Focus 1*: Invest in research that meets the current and future health needs of New Zealanders

*Focus 2:* Fund excellent research with high potential for national and international impact

*Focus 3:* Focus on achieving health equity

*Focus 4:* Support highly innovative and transformative research

***Driver 2: Stimulating growth***

*Focus 3:* Identify and expedite economic returns from research

## Income and expenditure in 2018/19 under Output 1: Health research contracts

| | Actual 2019 $(000) | Budget 2019 $(000) | Actual 2018 $(000) |
|---|---|---|---|
| Funding from Crown | 97,445 | 97,458 | 89,572 |
| Interest Received | 248 | 295 | 348 |
| Other | - | - | - |
| Total Revenue | 97,693 | 97,753 | 89,919 |
| Cost of Output | 98,679 | 98,940 | 93,965 |
| Surplus (Deficit) | (986) | (1,187) | (4,046) |

# Our key performance indicators for Output 1: Health research contracts

## Output 1: Health Research Contracts

### 1. *Number of contracts funded in the previous financial year that meet the HRC's definition of 'transformative'[5] research*

***Actual 2018/19:*** 10 (2018 contracts)

***Baseline 2017/18:*** 11 (2017 contracts)

***Target 2018/19:*** 8-10

We have **achieved** our target

### 2. *The average Science Assessing Committee score for funded Projects and Programme proposals is at least 70% of available score*

***Actual 2018/19:*** Projects: 82%, Programmes: 78%

***Baseline 2017/18:*** Projects:79%, Programmes:78%

***Target 2018/19:*** 70% For both Projects and Programmes

We have **achieved** our target

5 Research that promises extraordinary outcomes, such as: revolutionising entire disciplines; creating entirely new fields; or disrupting accepted theories and perspectives – in other words, those endeavours that have the potential to change the way we address challenges in health.

# Investments through Output 2: Career development contracts

## What we fund under this Output

We offer a programme of Career Development Awards, each aimed at addressing a gap in the health research workforce and building vital capacity. The programme is designed to build the Māori, Pacific and clinical workforce (which includes all allied health professionals) and foster the next generation of emerging leaders.

## How our investments under Output 2 contribute to our Key Decision Drivers

Career development contracts supported through this Output deliver to the following drivers:

***Driver 2: Stimulating growth***

*Focus 2:* Sustain a skilled and diverse health research workforce

## Income and expenditure in 2018/19 under Output 2: Career development research contracts

| | Actual 2019 $(000) | Budget 2019 $(000) | Actual 2018 $(000) |
|---|---|---|---|
| Funding from Crown | 9,890 | 9,897 | 7,051 |
| Interest Received | 79 | 181 | 134 |
| Other | - | - | - |
| Total Revenue | 9,968 | 10,079 | 7,186 |
| Cost of Output | 9,393 | 10,282 | 8,511 |
| Surplus (Deficit) | 575 | (204) | (1,325) |

# Our key performance indicators for Output 2: Career development contracts

## Output 2: Career development contracts

1. ***Number of current career development contracts awarded to practising clinicians***

***Actual 2018/19:*** 41

***Baseline 2017/18:*** 34

***Target 2018/19:*** Maintain

We have **achieved** our target

2. ***Number of Māori Health Research Scholarships awarded (including, Masters, PhD and postdoctoral awards)***

***Actual 2018/19:*** 10

***Baseline 2017/18:*** 13

***Target 2018/19:*** 8-14

We have **achieved** our target

3. ***Number of Pacific Health Research Scholarships awarded (including, Masters, PhD and postdoctoral awards)***

***Actual 2018/19:*** 12

***Baseline 2017/18:*** 17

***Target 2018/19:*** 6-12

We have **achieved** our target

# Investment through Output 3: Co-funding relationships

## What we fund under this Output

The HRC co-funds research through our Partnership Programme, which delivers research that meets the needs of policymakers and those involved in healthcare delivery.

Our partnership model allows us to pool our resources with those of our funding partners to increase the scale, utility and reach of the research that we fund. We can offer expertise and processes that are not available to many of our partners, meaning that the projects commissioned are more likely to be robustly designed and deliver value for the investment.

## How our investments under Output 3 contribute to our Key Decision Drivers

Health research contracted through this Output delivers to the following Drivers.

***Driver 1: Making a difference***

*Focus 1:* Invest in research that meets the current and future health needs of New Zealanders

*Focus 2:* Fund excellent research with high potential for national and international impact

*Focus 3:* Focus on achieving health equity

***Driver 3: Increasing engagement and connection***

*Focus 1:* Strengthen our strategic leadership role – coordination, connection and alignment across the system

*Focus 3:* Build international partnerships and increase opportunities for NZ researchers to engage with the international research community

## Income and expenditure in 2018/19 under Output 3: Co-funding relationships

| | Actual 2019 $(000) | Budget 2019 $(000) | Actual 2018 $(000) |
|---|---|---|---|
| Funding from Crown | 1,772 | 1,751 | 4,492 |
| Interest Received | 122 | 143 | 126 |
| Other | 638 | 252 | 490 |
| Total Revenue | 2,532 | 2,146 | 5,109 |
| Cost of Output | 4,032 | 3,340 | 3,314 |
| Surplus (Deficit) | (1,500) | (1,194) | 1,795 |

# Our key performance indicators for Output 3: Co-funding relationships

## Output 3: Co-funding relationships

1. ***Number of new funding agreements negotiated with government or non-government agencies to specifically address a health research priority developed as a result of the New Zealand Health Research Strategy***

***Actual 2018/19:*** 0

***Baseline 2017/18:*** Not relevant

***Target 2018/19:*** 1

We have **not achieved** our target

This work must align with The New Zealand Health Research Prioritisation Framework, which has yet to be signed-off by the Ministers. Delays in the development process beyond our control have meant that it could not be implemented in this financial year.

2. ***Number of New Zealand based researchers named on current contracts resulting from HRC commitments to international organisations and agreements***

***Actual 2018/19:*** 53

***Baseline 2017/18:*** New measure

***Target 2018/19:*** 18-30

We have **achieved** our target

# Investments through Output 4: Contribution to policy, regulatory and ethical frameworks

## What we fund under this Output

Under this output, the HRC undertakes regulatory activities and safety monitoring, and provides strategic advice on health research issues. These activities are provided primarily through the work of several HRC committees: the HRC Ethics Committee, the Gene Technology Advisory Committee (GTAC), the Standing Committee on Therapeutic Trials (SCOTT), and the Data Monitoring Core Committee (DMCC).

## Alignment with the HRC's Key Decision Drivers

Activities supported through this Output deliver to the following Driver:

***Driver 2: Stimulating growth***

*Focus 1:* Develop a strong and enduring health research & innovation system where NZ research teams thrive

### Income and expenditure in 2018/19 under Output 4: Contribution to policy, regulatory and ethical frameworks

| | Actual 2019 $(000) | Budget 2019 $(000) | Actual 2018 $(000) |
|---|---|---|---|
| Funding from Crown | 285 | 285 | 285 |
| Interest Received | - | - | - |
| Other | - | - | - |
| Total Revenue | 285 | 285 | 285 |
| Cost of Output | 247 | 371 | 303 |
| Surplus (Deficit) | 38 | (86) | (18) |

# Our key performance indicators for Output 4: Contribution to policy, regulatory and ethical frameworks

## Output 4: Contribution to policy, regulatory, and ethical frameworks

1. ***Number of Ethics Notes published to inform researchers of issues on ethics in health research***

***Actual 2018/19:*** 1

***Baseline 2017/18:*** 1

***Target 2018/19:*** 1

We have **achieved** our target

2. ***Number of Health and Disability Ethics Committees (HDECs) reviewed & approved by the HRC annually***

***Actual 2018/19:*** 4

***Baseline 2017/18:*** 4

***Target 2018/19:*** 4

We have **achieved** our target

# Part 3:
# Our team and organisation

Our key strength is our people. Our staff is diverse in every way and know and live our organisational values. We value our people and aim to provide a safe, flexible and fair working environment.

## Our team

Employee numbers have stayed relatively steady with **31.21 full-time equivalent staff** at the end June of 2019.

**A high proportion of our team have a PhD, some research training or a tertiary-level qualification**. Some have no tertiary education. All have skills, attributes and experience that the we highly value.

Our staff know and demonstrate **our company values of integrity, commitment, transparency and courage**.

## An accessible workplace

We ensure that our workplace is accessible for everyone. **We have engaged with an independent organisation (Be Accessible) and disabled academics, who provide feedback on how to facilitate the accessibility of our organisation as an employer of choice for disabled people**.

Where members of our team have specific health and disability needs, we address them, whether that means more flexible working hours or modifications to their workspace and equipment.

## Leadership and accountability

Our Chief Executive, **Professor Kath McPherson, resigned and stepped down in August 2019.** The Council has initiated the selection process for her successor and Dr Vernon Choy has been appointed as Acting Chief Executive. Professor McPherson will be available to provide support to the incoming Chief Executive.

Our Senior Leadership Team meet weekly to identify key areas of opportunity, issues of concern, and priority initiatives. Information about key activities and priorities is shared with all staff via their manager or our weekly internal e-newsletter.

Staff have opportunities to give feedback directly to the Chief Executive via a monthly meeting or one-on-one meetings. We also seek staff opinion regarding ideas for development, and feedback about the HRC as a place to work through our regular, anonymous 'Ask your team' surveys.

The Council sets goals, monitors performance, and plays a key role in ensuring accountability within the organisation. **Representation on the Council is diverse in relation to gender, background, and ethnicity.**

## Joining and leaving the HRC

**We follow Equal Employment Opportunities guidelines (EEO)**. Our emphasis is always on recruitment of the best person to do the job regardless of gender, nationality, disability or age. We receive human resources support from an approved external agency.

We have a comprehensive induction process, providing information on the organisation's policies, operations and support. Our core values are embedded into position descriptions and decision-making.

**We have high staff retention rates**. When staff do resign or retire, the reporting manager follows our policy designed to support the leaving staff member and address needs that arise for other staff, and the organisation.

## Working for us

**We offer flexible hours, glide time and opportunities for part-time employment** to facilitate return to work for people on parental leave, those with other commitments, or those recovering from illness or injury. Staff can also request to work from home in special circumstances.

Workflow is monitored by managers to ensure appropriate support is given to staff at times of high pressure. Where extra support is required, we pay for counselling through the **Employee Assistance Programme**.

We support staff to keep current and upskill through in-house and external training courses and attending conferences in their field of expertise. We allocate **each staff member a training and development budget to ensure this is equitable.**

Employees are encouraged to initiate and take part in team building opportunities. During the past 12 months, **most staff voluntarily participated in kitanga and te reo workshops** to enhance our engagement with Māori in the community.

We have a formalised annual performance review system to enable staff to reach their goals and objectives, identify new goals, and find opportunities for further development within the organisation.

We take part in regular national salary surveys to ensure salaries are benchmarked against a range of public and private organisations, and our **Remuneration Strategy** guides changes.

We have **'zero tolerance' for harassment or bullying**. We have an agreed set of values and principles by which staff

work and clear and transparent communication about new initiatives or change. Risk factors are proactively addressed, such as stress, and action is taken to put appropriate support in place. In cases of bullying or harassment, our **Harassment and Bullying policy** is followed and human resources expertise engaged.

**We have an active Health and Safety Committee that meets regularly to ensure a safe and healthy environment.** Each member of the committee has a specific responsibility, including a portfolio for 'health and wellbeing at work.' We encourage reporting of any issues of concern and a register of these is kept along with the committee's response or recommendation.

There is a review of health and safety at each Council meeting, and the **Risk Management and Assurance Committee**, **considers health and safety in detail**, including a comprehensive site visit each year.

## Permission to Act Disclosure of the Council — Crown Entities Act 2004 section 68(6)

| Interest/specified class of interest to which permission relates | Who gave permission to act and date | Permission to act | Conditions |
|---|---|---|---|
| Employment at the institution in the same department of a First Named Investigator *submitting an application for funding* | G Fraser, Chair, HRC Council<br>14 June 2006 | Remain in the room but not participate in the discussion | As long as minimum interest and not in an administrative role |
| Employment at the institution which is *the subject of an application for funding* | G Fraser, Chair, HRC Council<br>14 June 2006 | Take part in discussion relating to the matter | Comment on fact only |
| Employment at the institution which is *the subject of an application for funding* whose involvement is deemed to be helpful | G Fraser, Chair, HRC Council<br>14 June 2006 | Remain in the room and participate in the discussion but not in the decision | Particular situation noted in the minutes |

None of the permissions were amended or revoked.

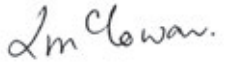
# Statement of responsibility

For the year ended 30 June 2019

In terms of the *Crown Entities Act 2004,* we hereby certify that:

- We have been responsible for the preparation of these financial statements and statement of service performance and the judgements used therein.
- We have been responsible for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of financial reporting.
- We are responsible for any end-of-year performance information provided by the Health Research Council of New Zealand under section 19A of the *Public Finance Act 1989.*
- We are of the opinion that these financial statements and statement of service performance fairly reflect the financial position and operations of this Crown Entity for the year ended 30 June 2019.

Dr Lester Levy, CNZM
Chair
18 October 2019



Professor Lesley McGowan, CNZM
Council member
18 October 2019

# Part 4:
# Financial Statements

| Statement of Comprehensive Revenue and Expense for the year ended 30 June 2019 | Note | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|---|
| **Revenue** | | | | |
| Revenue from the Crown | 2 | 109,392 | 109,390 | 101,400 |
| Interest revenue | | 448 | 618 | 609 |
| Other revenue | | 638 | 253 | 490 |
| **Total income** | | **110,478** | **110,261** | **102,499** |
| **Expense** | | | | |
| Research grant costs | 3 | 106,348 | 106,640 | 100,958 |
| **Operational costs** | | | | |
| Assessment and Council Committee costs | | 1,274 | 1,121 | 1,069 |
| Personnel costs | | 3,671 | 3,665 | 3,245 |
| Depreciation and amortisation expense | | 129 | 203 | 123 |
| Fees to Audit New Zealand for the audit of the financial statements | | 63 | 62 | 62 |
| Other costs | | 866 | 1,240 | 637 |
| **Total operational costs** | | **6,003** | **6,291** | **5,136** |
| **Total expenses** | | **112,351** | **112,931** | **106,094** |
| **Surplus/(Deficit)** | | **(1,873)** | **(2,670)** | **(3,595)** |
| Other comprehensive revenue and expense | | 0 | 0 | 0 |
| **Total comprehensive revenue and expense** | | **(1,873)** | **(2,670)** | **(3,595)** |

| Statement of Changes in Equity for the year ended 30 June 2019 | Note | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|---|
| Equity at the beginning of the year | | 11,022 | 11,762 | 14,617 |
| Total comprehensive revenue and expense for the year | | (1,873) | (2,670) | (3,595) |
| **Equity at the end of the year** | **5** | **9,149** | **9,092** | **11,022** |
| **Represented by** | | | | |
| Public equity | | 7,677 | 7,502 | 9,439 |
| Foxley Estate Reserve Fund | | 1,472 | 1,590 | 1,583 |
| **Total equity at 30 June** | **5** | **9,149** | **9,092** | **11,022** |

| Statement of Financial Position as at 30 June 2019 | Note | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|---|
| **Current assets** | | | | |
| Cash at bank | 4 | 828 | 436 | 1,136 |
| Short-term deposits | 4 | 10,763 | 6,996 | 10,942 |
| Funds held on behalf of – Other agencies | 4 | 18,537 | 17,660 | 19,618 |
| Funds held on behalf of – Foxley Estate | 4 | 1,434 | 1,590 | 1,683 |
| Receivables | | 380 | 402 | 1,632 |
| **Total current assets** | | **31,942** | **27,084** | **35,011** |
| **Non-current assets** | | | | |
| Property plant & equipment | | 139 | 292 | 217 |
| Intangible assets | | 13 | 1,002 | 45 |
| **Total non-current assets** | | **152** | **1,294** | **262** |
| **Total assets** | | **32,094** | **28,378** | **35,273** |
| **Current liabilities** | | | | |
| Payables | | 928 | 192 | 681 |
| Contract retentions | 3 | 2,980 | 1,000 | 2,151 |
| Employee entitlements | | 362 | 182 | 189 |
| Rental benefit in advance | | 21 | 23 | 21 |
| Unearned management fees | | 478 | 94 | 454 |
| Funds held on behalf of other agencies | 4 | 4,262 | 2,700 | 4,799 |
| **Total current liabilities** | | **9,031** | **4,191** | **8,295** |
| **Non-current liabilities** | | | | |
| Funds held on behalf of other agencies | 4 | 13,797 | 14,961 | 15,818 |
| Rental benefit in advance | | 117 | 134 | 138 |
| **Total non-current liabilities** | | **13,914** | **15,095** | **15,956** |
| **Total liabilities** | | **22,945** | **19,286** | **24,251** |
| **Net assets** | | **9,149** | **9,092** | **11,022** |
| **Equity** | | | | |
| Public equity | | 7,677 | 7,502 | 9,439 |
| Foxley Estate Reserve Fund | | 1,472 | 1,590 | 1,583 |
| **Total equity** | 5 | **9,149** | **9,092** | **11,022** |

| Statement of Cash Flow for the year ended 30 June 2019 | Note | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|---|
| **Cash flows from operating activities** | | | | |
| *Cash was provided from* | | | | |
| Receipts from the Crown | | 109,392 | 109,390 | 101,400 |
| Interest received | | 441 | 618 | 638 |
| Other revenue | | 374 | 247 | 653 |
| | | **110,207** | **110,255** | **102,691** |
| *Cash was applied to* | | | | |
| Payments to suppliers | | (106,959) | (109,128) | (103,280) |
| Payments to employees | | (3,500) | (3,571) | (3,218) |
| GST | | (309) | (30) | 93 |
| | | **(110,768)** | **(112,729)** | **(107,405)** |
| ***Net cash flow from operating activities*** | 11 | **(561)** | **(2,474)** | **(4,714)** |
| **Cash flows from Investing activities** | | | | |
| *Cash was provided from* | | | | |
| Funds held on behalf of other agencies | | 5,034 | 2,800 | 5,866 |
| Maturing term deposits | | 91,134 | 106,840 | 96,488 |
| | | **96,168** | **109,640** | **102,354** |
| *Cash was applied to* | | | | |
| Funds paid on behalf of other agencies | | (6,273) | (4,800) | (4,659) |
| Reinvestment of term deposits | | (89,623) | (101,242) | (93,341) |
| Purchase of property plant & equipment | | (19) | (1,236) | (46) |
| | | **(95,915)** | **(107,278)** | **(98,046)** |
| ***Net cash flow from investing activities*** | | **253** | **2,362** | **4,308** |
| ***Net increase (decrease) in cash held*** | | **(308)** | **(112)** | **(406)** |
| Cash at bank beginning of year | | 1,136 | 548 | 1,542 |
| **Cash at bank end of year** | | **828** | **436** | **1,136** |

The accompanying accounting policies and notes form part of these financial statements.

# Notes to the Financial Statements for the year ended 30 June 2019

## Note 1 - Statement of accounting policies

### Reporting entity

The Health Research Council of New Zealand (HRC) is a Crown entity as defined by the Crown Entities Act 2004 and is domiciled and operates in New Zealand. The relevant legislation governing the HRC's operations includes the Crown Entities Act 2004 and the Health Research Council Act 1990. The HRC's ultimate parent is the New Zealand Crown.

The HRC's primary objective is to benefit New Zealand through health research. The HRC does not operate to make a financial return. The HRC has designated itself as a public benefit entity (PBE) for financial reporting purposes. The financial statements for the HRC are for the year ended 30 June 2019 and were approved by Council on 18 October 2019.

### Basis of preparation

The financial statements have been prepared on a going concern basis, and the accounting policies have been applied consistently throughout the period.

### Standard early adopted

In line with the Financial Statements of the Government, the HRC has elected to early adopt PBE IFRS 9 Financial Instruments. PBE IFRS 9 replaces PBE IPSAS 29 Financial Instruments: Recognition and Measurement. Information about the adoption of PBE IFRS 9 is provided in Note 16.

### Standards issued and not yet effective and not early adopted

Standards and amendments, issued but not yet effective, that have not been early adopted are:

**Amendment to PBE IPSAS 2 Statement of Cash Flows**
An amendment to PBE IPSAS 2 Statement of Cash Flows requires entities to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. The amendment is effective for annual periods beginning or after 1 January 2021, with early application permitted. The HRC does not intend to early adopt the amendment.

**PBE IPSAS 34-38**
PBE IPSAS 34-38 replace the existing standards for interests in other entities (PBE IPSAS 6-8). These new standards are effective for the annual periods beginning on or after 1 January 2019. The HRC will apply these new standards on preparing the 30 June 2020 financial statements. No effect is expected as a result of this change.

**PBE IPSAS 41 Financial Instruments**
The XRB issued PBE IPSAS 41 Financial Instruments in March 2019. This standard supersedes PBE IFRS 9 Financial Instruments, which was issued as an interim standard. It is effective for reporting periods beginning on or after 1 January 2022. Although the HRC has not assessed the effect of the new standard, it does not expect any significant changes because the requirements are similar to PBE IFRS 9.

**PBE FRS 48 Performance Reporting**
PBE FRS 48 Performance Reporting replaces the service performance requirements of PBE IPSAS 1 and is effective for periods beginning on or after 1 January 2021. The HRC has not yet determined how application of PBE FRS 48 will affect its statement of performance.

### Statement of compliance

The financial statements of the HRC have been prepared in accordance with the requirements of the Crown Entities Act 2004, which includes the requirement to comply with generally accepted accounting practice in New Zealand (NZ GAAP). The financial statements have been prepared in accordance with Tier 1 PBE accounting standards. These financial statements comply with PBE accounting standards.

The HRC has carried out an assessment of the impact of PBE IFRS 9 Financial Instruments and has concluded that there is no practical impact on the financial statement of the HRC.

### Presentation currency and rounding

The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand dollars ($000).

## Summary of Significant Accounting Policies

Significant accounting policies are included under the note to which they relate. Significant accounting policies that do not relate to a specific note are outlined below.

### a) Property plant & equipment (PPE) and intangible assets (IA)

All property, plant and equipment (PP&E) and intangible assets (IA) are stated at cost less accumulated depreciation or amortisation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition and development of the items. Where an asset is acquired in a non-exchange transaction for nil or nominal consideration the asset is initially measured at its fair value. Subsequent

expenditure is capitalised only if it is probable that the future economic benefits associated with the expenditure will flow to the HRC and the cost can be measured reliably. All other repair, maintenance, and costs of day-to-day servicing are recognised in surplus or deficit as incurred. The costs of self-constructed assets are recognised as work in progress and not depreciated or amortised until the assets are operating in the manner intended, at which time they are transferred to PP&E or IA. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount of the asset and are reported net in the surplus or deficit.

Depreciation and amortisation are recognised in surplus or deficit and are calculated to write off the cost of items of PP&E and IA less their residual values using the straight-line method over their useful lives as follows. The assets' residual values and useful lives are reviewed, and adjusted prospectively, if appropriate, at the end of each reporting period.

| | | | |
|---|---|---|---|
| PP&E | Office and computer equipment | 3 to 5 years | 20–33% |
| PP&E | Leasehold improvements | 5 years | 20% |
| IA | Acquired computer software | 3 years | 33% |
| IA | Developed computer software | 5 years | 20% |

## b) Impairment of property, plant & equipment and intangible assets

The HRC only holds non-cash-generating assets as no assets are used to generate a commercial return. PP&E and IA held at cost that have a finite useful life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset carrying amount exceeds its recoverable service amount. The recoverable service amount is the higher of an asset's fair value less costs to sell and value in use. Value in use is determined using an approach based on either a depreciated replacement cost approach, restoration cost approach, or a service unit approach. The most appropriate approach used to measure value in use depends on the nature of the impairment and availability of information. If an asset's carrying amount exceeds its recoverable service amount, the asset is regarded as impaired and the carrying amount is written down to the recoverable amount. The total impairment loss is recognised in the surplus or deficit.

## c) Employee entitlements

**Short-term employee entitlements**
Employee benefits that are due to be settled within 12 months after the end of the period in which the employee renders the related service are measured based on accrued entitlements at current rates of pay. These include salaries and wages accrued up to balance date, annual leave earned but not yet taken at balance date, and sick leave.

**Long-term employee entitlements**
Employee benefits that are due to be settled beyond 12 months after the end of period in which the employee renders the related service, such as long service leave and retirement gratuities, have been calculated on an actuarial basis. The calculations are based on likely future entitlements accruing to staff, based on years of service, years to entitlement, the likelihood that staff will reach the point of entitlement, contractual entitlement information, and the present value of estimated future cash flows

**Presentation of employee entitlements**
Sick leave, annual leave and vested long service are classified as a current liability. Non-vested long service leave and retirement gratuities expected to be settled within 12 months of balance date are classified as a current liability.

**Contributions to defined contribution schemes**
Obligations for contributions to Kiwi Saver and the Government Superannuation Fund are accounted for as defined contribution superannuation schemes and are recognised as an expense in the surplus or deficit as incurred.

## d) Receivables

Short-term receivables are recorded at the amount due, less an allowance for credit losses. The HRC applies the simplified expected credit loss model of recognising lifetime expected credit losses for receivables. In measuring expected credit losses, short-term receivables have been assessed on a collective basis as they possess shared credit risk characteristics. They have been grouped based on the days past due. Short-term receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the debtor being in liquidation.

**Previous accounting policy for the impairment of receivables**
In the previous year, allowance for credit losses was based on the incurred loss model. An allowance for credit losses was recognised only when there was objective evidence that the amount due would not be fully collected.

## e) Payables

Short-term payables are recorded at the amount payable.

## f) Goods and services tax

All items in the financial statements are presented exclusive of GST, except for receivables and payables, which are presented on a GST-inclusive basis. Where GST is not recoverable as input tax, it is recognised as part of the related asset or expense.

## g) Income tax

The HRC is a public authority and consequently is exempt from the payment of income tax. Accordingly, no provision has been made for income tax.

## h) Budget figures

The budget figures are derived from the statement of performance expectations as approved by the Council at the beginning of the financial year. The budget figures have been prepared in accordance with NZ GAAP, using accounting policies that are consistent with those adopted by the Council in preparing these financial statements. Explanation of major variances against budget are provided in note 15.

## i) Cost allocation

The HRC has determined the cost of outputs using the cost allocation system outlined below. There have been no changes to the cost allocation methodology since the date of the last audited financial statements. Direct costs are those costs directly attributed to an output. Indirect costs are those costs that cannot be identified in an economically feasible manner with a specific output.

Direct costs are charged directly to outputs. Indirect costs are charged to outputs based on cost drivers and related activity or usage information. Depreciation is charged based on asset utilisation. Personnel costs are charged based on actual time incurred. Property and other premises costs, such as maintenance, are charged based on floor area occupied to produce each output. Other indirect costs are assigned to outputs based on the proportion of direct staff costs for each output.

## j) Critical accounting estimates and assumptions

In preparing these financial statements, the HRC has made estimates and assumptions concerning the future. These estimates and assumptions may differ from the subsequent actual results. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. There are no estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

## k) Critical judgements in applying accounting policies

Management has exercised the following critical judgments in applying accounting policies:

**Leases classification**

Determining whether a lease agreement is a finance, or an operating lease requires judgement as to whether the agreement transfers substantially all the risks and rewards of ownership to the HRC. Judgement is required on various aspects that include, but are not limited to, the fair value of the leased asset, the economic life of the leased asset, whether or not to include renewal options in the lease term and determining an appropriate discount rate to calculate the present value of the minimum lease payments. The HRC has determined no lease arrangements are finance leases.

**Research grant expenditure**

For purposes of making payments, the HRC applies judgement during the year when determining whether an appropriate level of progress and quality has been achieved. It also ensures that no other change events have occurred which might affect payment.

## Note 2 - Revenue from the Crown

| Non-exchange revenue | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|
| Ministry of Business, Innovation and Employment (MBIE) | 109,107 | 109,105 | 101,115 |
| Ministry of Health (MoH) | 285 | 285 | 285 |
| | **109,392** | **109,390** | **101,400** |

### Accounting Policy

The specific accounting policies for significant revenue items are explained below:

**Funding from the Crown**
The HRC is primarily funded from the Crown. This funding is restricted in its use for the purpose of the HRC meeting the objectives specified in its founding legislation and the scope of the relevant appropriations of the funder. The HRC considers there are no conditions attached to the funding and it is recognised as revenue at the point of entitlement. The fair value of revenue from the Crown has been determined to be equivalent to the amounts due in the funding arrangements.

**Grants received**
Grants are recognised as revenue when they become receivable unless there is an obligation in substance to return the funds if the conditions of the grant are not met. If there is such an obligation the grants are initially recorded as revenue received in advance and recognised as revenue when the conditions of the grant are satisfied.

**Interest revenue**
Interest revenue is recognised using the effective interest method.

**Provision of services**
Services provided to third parties on commercial terms are exchange transactions. Revenue from these services is recognised in proportion to the stage of completion at balance date.

### Restrictions attached to revenue from the Crown

The HRC has been provided with funding from the Crown for the specific purposes of the HRC as set out in its Crown Funding Agreement with MBIE and MoH. Apart from these general restrictions, there are no unfulfilled conditions or contingencies attached to government funding.

## Note 3 - Research grant costs

| | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|
| Research, Science and Innovation: Health Research Fund | 101,902 | 103,647 | 97,307 |
| Research, Science and Innovation: Vision Mātauranga Capability Fund | 3,588 | 2,207 | 2,447 |
| Research, Science and Innovation: Catalyst Fund | 858 | 786 | 1,204 |
| | **106,348** | **106,640** | **100,958** |

### Accounting policy

Expenditure is recognised as the obligations under the contract are performed. Provision is made for any retentions and disbursements held at the end of the contract pending a final research report.

**Contract retentions**
Contract retentions relate to amounts withheld equivalent to 1 month's funding for each year of the term of the health research contract until a contractor provides a final research report. The contract funding retention is recognised as a financial liability at the end of the contract term, until the funding withheld is paid when the final research report is completed and provided to the HRC.

**Disbursements**
Disbursements relate to amounts held for expenditure claims payable to career development applicants by the HRC upon the submission of an approved claim. Disbursements payable are recognised as a liability until the end of the contract.

### Critical judgements in applying accounting policies

For purposes of making payments, the HRC applies judgement during the year when determining whether an appropriate level of progress and quality has been achieved. It also ensures that no other change events have occurred which might affect payment.

## Note 4 – Cash and cash equivalents, short-term deposits and funds held on behalf of other agencies

### Accounting policy

Cash and cash equivalents include cash on hand, and deposits held on call with banks. The carrying value of short-term deposits which are invested with maturity dates of 4 months or less approximates their fair value.

While cash and cash equivalents at 30 June 2019 are subject to the expected credit loss requirements of PBE IFRS 9, no loss allowance has been recognised because the estimated loss for credit losses is immaterial.

**Interest rates**
In FY2019, the effective interest rates on deposited funds ranged from 2.4% pa to 3.4% pa.

**Funds held on behalf of other agencies**
Funds held on behalf of other agencies are the balance of funds held which have been contributed by the HRC and other parties. These funds are interest bearing. Where funds have been committed to research contracts, payment terms are dependent on the individual underlying contracts. Uncommitted funds are held with no payment terms. The release of those funds to research projects are approved jointly by the HRC and other parties.

Short-term funds held on behalf of other agencies are the contract payments to be made in the next 12 months. The balance of funds held on behalf of other agencies are treated as long-term liabilities

**Funds held on behalf of – Foxley Estate**
Funds held on behalf of the Foxley Estate are pursuant to an HRC resolution to hold the bequeathed funds to support the Foxley Fellowship from the interest earned by the fund.

# Note 5 - Equity

| | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|
| **Movements in equity** | | | |
| **Public equity** | | | |
| Balance 1 July | 9,439 | 10,079 | 12,988 |
| Surplus/(deficit) for the year | (1,873) | (2,670) | (3,595) |
| Transfer of net income from/(to) Foxley Reserve Fund | 111 | 94 | 46 |
| Balance 30 June | 7,677 | 7,503 | 9,439 |
| **Foxley Reserve Fund** | | | |
| Balance 1 July | 1,583 | 1,683 | 1,629 |
| Transfer (to)/from public equity | (111) | (94) | (46) |
| Balance 30 June | 1,472 | 1,589 | 1,583 |
| **Total equity at 30 June** | **9,149** | **9,092** | **11,022** |

## Accounting policy

Equity is measured as the difference between total assets and total liabilities. Equity is disaggregated and classified into the following components:

- Public Equity;
- Foxley Reserve Fund.

## Foxley Reserve Fund

The Foxley Estate Reserve Fund relates to the assets bequeathed to the HRC in 1998. The Council resolved to hold the bequest funds as the "Foxley Reserve Fund" and to support the Foxley Fellowship from the interest earned by the fund. Interest received on these assets is credited to the reserve. Grants made for research sabbaticals are charged against the reserve.

## Note 6 - Operating lease commitments

| | Actual 2019 $000 | Actual 2018 $000 |
|---|---|---|
| **Operating leases as lessee** | | |
| Not later than 1 year | 277 | 277 |
| Later than 1 year and not later than 5 years | 138 | 415 |
| Later than 5 years | - | - |
| **Total non-cancellable operating leases** | **415** | **692** |
| **Operating leases as lessor** | | |
| Not later than 1 year | 93 | 93 |
| Later than 1 year and not later than 5 years | 46 | 139 |
| Later than 5 years | - | - |
| **Total non-cancellable operating leases** | **139** | **232** |

### Accounting policy

An operating lease is a lease that does not transfer substantially all the risk and rewards incidental to ownership of an asset to the lessee. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term. Lease incentives received are recognised in the surplus or deficit as a reduction of rental expense over the lease term.

### Current lease arrangements

**Operating leases as lessee**
The HRC currently leases office premises. The lease payments recognised as an expense in the period totalled $276,711 (2018: $262,530). No restrictions are placed on the HRC by any of its leasing arrangements. As per the lease arrangement, reinstatement costs upon termination of the lease are at the discretion of the landlord. Reinstatement costs are the costs to reinstate the premises as they were at the commencement date.

**Operating leases as lessor**
Part of the office premises are sub-let to a tenant in the same building which the HRC occupies.

## Note 7 - Categories of financial assets and liabilities

| | Note | Actual 2019 $000 | Actual 2018 $000 |
|---|---|---|---|
| **Financial Assets measured at amortised cost (2018: Loans and receivables)** | | | |
| Cash and cash equivalents | 4 | 828 | 1,136 |
| Short-term deposits | 4 | 10,763 | 10,942 |
| Funds held on behalf of – Other agencies | 4 | 18,537 | 19,618 |
| Funds held on behalf of – Foxley Estate | 4 | 1,434 | 1,683 |
| Receivables | 1(d) | 379 | 1,632 |
| **Total financial assets measured at amortised cost** | | **31,941** | **35,011** |
| **Other financial liabilities measured at amortised cost** | | | |
| Payables | 1(e) | 928 | 681 |
| Contract retentions | 3 | 2,980 | 2,151 |
| Funds held on behalf of other agencies | 4 | 18,059 | 20,617 |
| **Total other financial liabilities** | | **21,967** | **23,449** |

# Note 8 - Financial Instruments Risk

## Market risk

**Fair value interest rate risk**
Fair value interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates. The HRC's exposure to fair value interest rate risk is limited to its short-term deposits which are held at fixed rates of interest. The HRC does not actively manage its exposure to fair value interest rate risk. The interest rates on the HRC's cash and cash equivalents are disclosed in note 4.

**Cash flow interest rate risk**
Cash flow interest rate risk is the risk that the cash flows from a financial instrument will fluctuate because of changes in market interest rates. The HRC's Investments are issued at fixed interest rates for fixed terms. The HRC is exposed to cash flow interest rate risk when investments mature and are reissued. The HRC does not actively manage its exposure to cash flow interest rate risk. The HRC currently has no variable interest rate investments.

**Currency risk**
Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in foreign exchange rates. The HRC does not enter into transactions in foreign currency and does not hold any assets or liabilities denominated in foreign currency. The HRC is not exposed to currency risk.

## Credit risk

Credit risk is the risk that a third party will default on its obligation to the HRC, causing the HRC to incur a loss. The HRC's maximum credit exposure for each class of financial instrument is represented by the total carrying amount of cash and cash equivalents and debtors. There is no collateral held as security or other credit enhancement in respect of these amounts. None of these financial instruments are past due or impaired. The HRC has no significant concentrations of credit risk, as it has a small number of credit customers and only invests funds with registered banks with a Standard and Poor's credit rating of at least AA-.

## Liquidity risk

Liquidity risk is the risk that the HRC will encounter difficulty raising liquid funds to meet commitments as they fall due. Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents and the availability of funding. The HRC's annual revenue from the Crown (note 2) is known at the start of each financial year. Commitments are controlled and limited to this known level and timing of revenue and available cash reserves. In the event that government funding is not continued, or the progress and or quality of research expected is not achieved, then the HRC may discontinue contracts at its discretion.

The table below analyses payables (not including employee entitlements) contract retentions, and funds held on behalf of other agencies into relevant maturity groupings based on the remaining period at balance date to the contractual maturity date.

| | Carrying Amount $000 | Contractual Cash flows $000 | Less than 6 Months $000 | 6 to 12 months $000 | More than 1 year $000 |
|---|---|---|---|---|---|
| **2019** | | | | | |
| Payables | 928 | 928 | 928 | 0 | 0 |
| Contract retentions | 2,980 | 2,980 | 2,980 | 0 | 0 |
| Funds held on behalf of other agencies | 18,059 | 18,059 | 2,597 | 1,665 | 13,797 |
| **Total** | **21,967** | **21,967** | **6,505** | **1,665** | **13,797** |
| **2018** | | | | | |
| Payables | 681 | 681 | 681 | 0 | 0 |
| Contract retentions | 2,151 | 2,151 | 2,151 | 0 | 0 |
| Funds held on behalf of other agencies | 20,617 | 20,617 | 2,468 | 2,331 | 15,818 |
| **Total** | **23,449** | **23,449** | **5,300** | **2,331** | **15,818** |

## Note 9 - Capital management

The HRC's capital is its equity, which comprises accumulated funds and other reserves. Equity is represented by net assets. The HRC is subject to the financial management and accountability provisions of the Crown Entities Act 2004, which impose restrictions in relation to borrowings, acquisition of securities, issuing guarantees and indemnities and the use of derivatives. The HRC manages its equity as a by-product of prudently managing revenues, expenses, assets, liabilities, investments, and general financial dealings to ensure the HRC effectively achieves its objectives and purpose, whilst remaining a going concern.

## Note 10 - Employee remuneration

| Employees receiving over $100,000 | Actual 2019 No. of Staff | Actual 2018 No. of Staff |
|---|---|---|
| 100,000 to 109,999 | 5 | 2 |
| 110,000 to 119,999 | 1 | 1 |
| 130,000 to 139,000 | 1 | |
| 170,000 to 179,999 | | 1 |
| 180,000 to 189,999 | 2 | 2 |
| 190,000 to 199,999 | 1 | |
| 330,000 to 339,999 | | 1 |
| 360,000 to 369,999 | 1 | |
| **Total Employees** | **11** | **7** |

| Councillors' fees | Appointed | Retired | Actual 2019 $ | Actual 2018 $ |
|---|---|---|---|---|
| Dr L Levy, CNZM | Jan 16 | Aug 22 | 24,000 | 24,000 |
| Professor L McCowan, ONZM | Feb 14 | Mar 19 | 12,000 | 12,000 |
| Professor A Mercer | Nov 12 | Aug 19 | 15,000 | 15,000 |
| Associate Professor S Pitama | Jun 15 | Aug 22 | 15,000 | 15,000 |
| Ms S Snively, ONZM | Dec 10 | Apr 19 | 10,000 | 12,000 |
| Professor J Douwes | Sep 15 | Aug 22 | 15,000 | 15,000 |
| Professor P Guilford | Oct 16 | Oct 19 | 12,000 | 12,000 |
| Dr W Barker | Jun 17 | Jun 20 | 12,455 | 13,000 |
| Dr M Faleafa | Jun 17 | Jun 20 | 12,000 | 13,000 |
| Mr T Norman | Jun 17 | Jun 20 | 12,000 | 13,000 |
| Dr A Dewes | May 19 | May 22 | 2,000 | |
| | | | **141,455** | **144,000** |

## Note 11 - Reconciliation of Operating surplus (deficit) to net cash flow from operating activities

| | Actual 2019 $000 | Budget 2019 $000 | Actual 2018 $000 |
|---|---|---|---|
| Surplus/(deficit) for year | (1,873) | (2,670) | (3,594) |
| Add non-cash items | | | |
| Depreciation and amortisation expense | 129 | 203 | 123 |
| Management fees earned | (272) | | |
| Rent recovered | (21) | 0 | (21) |
| Add/(deduct) movements in working capital items | | | |
| Receivable (increase)/decrease | 227 | 0 | (3) |
| Payables increase/(decrease) | 1,249 | (7) | (1,219) |
| **Net cash flow from operating activities** | **561** | **(2,474)** | **(4,714)** |

## Note 12 - Related party information

### The HRC is a Crown Entity.

Related party disclosures have not been made for transactions with related parties that are:

- Within a normal supplier or client/recipient relationship, and
- On terms and conditions no more or less favourable than those that it might be reasonable to expect the HRC would have adopted in dealing with the party at arm's length in the same circumstances.

Further, transactions with other government agencies are not disclosed as related party transactions when they are on normal terms and conditions consistent with the normal operating arrangements between government agencies.

### Key management personnel compensation

| | 2019 | 2018 |
|---|---|---|
| **Council members** | | |
| Remuneration - $000 | 142 | 144 |
| Full-time equivalent members | 0.74 | 0.81 |
| **Leadership team** | | |
| Remuneration - $000 | 920 | 889 |
| Full-time equivalent members | 4.00 | 4.00 |
| **Total key management personnel remuneration** | **1,062** | **1,033** |
| **Total full-time equivalent personnel** | **4.74** | **4.81** |

Key management personnel include all Council members, the chief executive, and members of the leadership team.

Cessation, termination payments or compensation paid to those who ceased employment during the year totalled $Nil, Staff Nil (2018: $Nil, Staff Nil)

## Note 13 - Contingencies

As at 30 June 2019, the HRC has no contingent assets or contingent liabilities (2018: Nil).

## Note 14 - Post balance date events

There have been no post balance date events that could impact the financial statements for the year ended 30 June 2019 (2018: Nil).

## Note 15 - Explanation of major variances against budget $000

### Statement of comprehensive revenue and expense

**Revenue**
Revenue was higher than budget driven by higher management fees $(385) offset by lower interest received from short-term deposits $(130).

**Expenditure**
Research grant expenditure was lower than budget $(291) or 0.3% driven by lower contestable research round expenditure $(1,723) offset by higher Vision Mātauranga Capability Fund expenditure $(1,381). Lower operational costs $(288) were driven by the slower than expected implementation of information technology improvements $(373) offset by higher assessing committee costs $(153).

### Statement of financial position

Current assets are higher than budget $(4,858) driven by higher levels of payables $(736), contract retentions $(1,980), a lower deficit $(797) and higher funds held on behalf of other agencies $(762).

### Statement of cash flow

Cash from operating activities were higher than budget $(1,913) driven by lower operating deficit $(797) and higher contract retentions $(1,980).

## Note 16 - Adoption of PBE IFRS 9 Financial Instruments

In accordance with the transitional provisions of PBE IFRS 9, the HRC has elected not to restate the information for previous years to comply with PBE IFRS 9. Adjustments arising from the early adoption of PBE IFRS 9 are recognised in opening equity at 1 July 2018. Accounting policies have been updated to comply with PBE IFRS 9. The main updates are:

**Note 1 Receivables:** This policy has been updated to reflect that the impairment of short-term receivables is now determined by applying an expected credit loss model.

**Note 4 Cash and Cash Equivalents, Short-term Deposits and Funds Held on Behalf of Other Agencies:** This policy has been updated to explain that a loss allowance for expected credit losses is recognised only if the estimated credit loss allowance is material.

On the date of initial application of PBE IFRS 9, being 1 July 2018, the classification of financial instruments under PBE IPSAS 29 and PBE IFRS 9 is as follows:

| | Measurement Category | | Carrying Amount | | |
|---|---|---|---|---|---|
| | Original PBE IPSAS 29 Category | New PBE IFRS 9 Category | Closing balance 30 June 2018 (PBE IPSAS 29) $000 | Adoption of PBE IFRS 9 Adjustment $000 | Opening balance 1 July 2018 (PBE IFRS 29) $000 |
| Cash at bank and on hand | Loans and receivables | Amortised cost | 1,136 | 0 | 1,136 |
| Receivables | Loans and receivables | Amortised cost | 1,632 | 0 | 1,632 |
| Short Term Deposits | Loans and receivables | Amortised cost | 10,942 | 0 | 10,942 |
| Funds held on behalf of – Other Agencies | Loans and receivables | Amortised cost | 19,618 | 0 | 19,618 |
| Funds held on behalf of – Foxley Estate | Loans and receivables | Amortised cost | 1,683 | 0 | 1,683 |
| **Total financial assets** | | | **35,011** | **0** | **35,011** |

The measurement categories and carrying amounts for financial liabilities have not changed between the closing 30 June 2018 and 1 July 2018 dates as a result of the transition to PBE IFRES 9.

## Note 17 - Compliance with Crown Entities Act 2004

Section 162 of the Crown Entities Act 2004 - Restrictions on Borrowing - States that "A Crown entity must not borrow from any person, or amend the terms of any borrowing, other than as provided in section 160".

Section 160 of the Crown Entities Act 2004 further provides that any borrowing may be given approval by the entity's responsible Minister and the Minister of Finance.

The HRC inadvertently breached these sections of the Crown Entities Act 2004 on two days in November 2018 by an unauthorised overdraft. The responsible Minister was advised of these events on 18 December 2018 and acknowledged these events the same day.

No additional costs were incurred as a result of these events.

# Statement of Resources as at 30 June 2019

## Operating resources

- Computer systems
- Photocopying machines
- Furniture and fittings

## Accommodation

The HRC is located at the 3rd floor of 110 Stanley Street, Auckland. The lease expires on 31 December 2020. Rights of renewal with two further terms of 3 years. The annual rental cost is $0.27m including operating costs.

## Staff resources

| | FTEs 2019 | FTEs 2018 |
|---|---|---|
| **Operational staff** | | |
| Chief executive | 1.0 | 1.0 |
| Senior managers | 3.0 | 3.0 |
| Manager Pacific health research | 1.0 | 1.0 |
| Manager Māori health research | 1.0 | 1.0 |
| Support staff | 27.8 | 24.5 |
| | **33.8** | **30.5** |
| **Research staff** | | |
| Senior research staff | | 1 |
| Other research staff | | 1 |
| | | **2** |

Note: An FTE is a full-time equivalent employee.

## Insurance cover in respect of Council members and employees

The HRC has the following Insurance Policies in place in respect of Council members and employees

1. An Employers' Liability Policy to cover any event in which the HRC becomes legally liable to pay costs in respect of all employees who sustain injury.
2. A Directors' and Officers' Liability Policy to cover any event in which Council members find themselves personally liable to third parties.
3. A Professional Indemnity Policy to help protect professional advice and service providing individuals from bearing the full cost of defending negligence claims by third parties, and damages awarded in such a civil lawsuit.

# Independent Auditor's Report

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

## To the readers of the Health Research Council of New Zealand's financial statements and performance information for the year ended 30 June 2019

The Auditor-General is the auditor of the Health Research Council of New Zealand (Health Research Council). The Auditor-General has appointed me, JR Smaill, using the staff and resources of Audit New Zealand, to carry out the audit of the financial statements and the performance information of the Health Research Council on his behalf.

## Opinion

We have audited:

- the financial statements of the Health Research Council on pages 54 to 69, that comprise the statement of financial position as at 30 June 2019, the statement of comprehensive revenue and expense, statement of changes in equity and statement of cash flow for the year ended on that date and the notes to the financial statements including a summary of significant accounting policies and other explanatory information; and
- the performance information of the Health Research Council on pages 26, 34, 39, and 42 to 46.

## In our opinion:

- the financial statements of the Health Research Council on pages 54 to 69:
  - present fairly, in all material respects:
    - its financial position as at 30 June 2019; and
- its financial performance and cash flows for the year then ended; and
- comply with generally accepted accounting practice in New Zealand in accordance with Public Benefit Entity accounting standards; and
- the performance information on pages 26, 34, 39, and 42 to 46:
  - presents fairly, in all material respects, the Health Research Council's performance for the year ended 30 June 2019, including:
    - for each class of reportable outputs:
      - its standards of delivery performance achieved as compared with forecasts included in the statement of performance expectations for the financial year; and
      - its actual revenue and output expenses as compared with the forecasts included in the statement of performance expectations for the financial year; and
    - what has been achieved with the appropriations; and
    - the actual expenses or capital expenditure incurred compared with the appropriated or forecast expenses or capital expenditure; and
  - complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 18 October 2019. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Council and our responsibilities relating to the financial statements and the performance information, we comment on other information, and we explain our independence.

## Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Responsibilities of the Council for the financial statements and the performance information

The Council is responsible on behalf of the Health Research Council for preparing financial statements and performance information that are fairly presented and comply with generally accepted accounting practice in New Zealand. The Council is responsible for such internal control as it determines is necessary to enable it to prepare financial statements and performance information that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the performance information, the Council is responsible on behalf of the Health Research Council for assessing the Health Research Council's ability to continue as a going concern. The Council is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless there is an intention to merge or to terminate the activities of the Health Research Council, or there is no realistic alternative but to do so.

The Council's responsibilities arise from the Crown Entities Act 2004, Health Research Council Act 1990 and the Public Finance Act 1989.

## Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the performance

information, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures, and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers, taken on the basis of these financial statements and the performance information.

For the budget information reported in the financial statements and the performance information, our procedures were limited to checking that the information agreed to the Health Research Council's statement of performance expectations.

We did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements and the performance information, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Health Research Council's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Council.
- We evaluate the appropriateness of the reported performance information within the Health Research Council's framework for reporting its performance.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Council and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Health Research Council's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the performance information or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Health Research Council to cease to continue as a going concern.
- We evaluate the overall presentation, structure and content of the financial statements and the performance information, including the disclosures, and whether the financial statements and the performance information represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Council regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

## Other information

The Council is responsible for the other information. The other information comprises the information included on pages 2 to 25, 27 to 33, 35 to 38, 40 to 41, 47 to 53 and 72 to 108, but does not include the financial statements and the performance information, and our auditor's report thereon.

Our opinion on the financial statements and the performance information does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the performance information, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the performance information or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## Independence

We are independent of the Health Research Council in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1 (Revised): Code of Ethics for Assurance Practitioners issued by the New Zealand Auditing and Assurance Standards Board.

Other than in our capacity as auditor, we have no relationship with, or interests, in the Health Research Council.

**JR Smaill**

Audit New Zealand
On behalf of the Auditor-General
Auckland, New Zealand

# Appendices

# Appendix 1: The HRC's functions under the Health Research Council Act 1990

a) To advise the Minister on national health research policy.

b) To administer funds granted to the Council for the purpose of implementing national health research policy.

c) To negotiate, once every 3 years, the bulk funding allocations that may be made to the Council by the Government for the funding of health research.

d) To foster the recruitment, education, training, and retention of those engaged in health research in New Zealand.

e) To initiate and support health research.

f) To encourage initiatives into health research by soliciting research proposals and applications, particularly in areas considered by the Council to have a high priority.

g) To consult, for the purpose of establishing priorities in relation to health research, with:

   (i) the Minister of Health;

   (ii) the Ministry of Health;

   (iii) District Health Boards;

   (iv) other persons who fund or produce research, whether in the public sector or the private sector, and

   (v) persons who have knowledge of health issues from the consumer perspective.

h) To promote and disseminate the results of health research in ways that will be most effective in encouraging their contribution to health science, health policy, and healthcare delivery.

i) To advertise actively for applications for grants to support proposals or personal awards in relation to health research.

j) To appoint the members of the Biomedical Research Committee, the Public Health Research Committee, the Māori Health Committee and the Ethics Committee.

k) To ensure the development and application of appropriate assessment standards by committees or subcommittees that assess health research proposals.

l) To administer any additional funds that may be made available to the Council from either public or private sources for the support of health research.

# Appendix 2: How the HRC is delivering to the New Zealand Health Strategy

# Appendix 3: MBIE's National Statement of Science Investment 2015-2025

## MBIE's National Statement of Science Investment 2015-2025 – how we build on the pillars of excellence and impact to bridge the gaps and support the vision

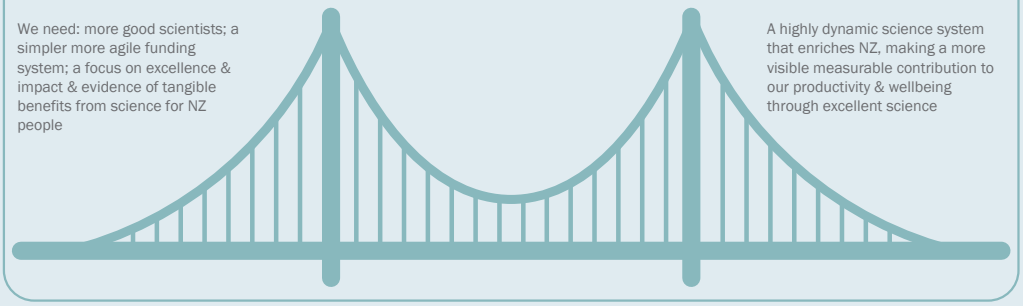
Showing the key components of MBIE's strategy (green text) in realising the vision for 2025, based on the pillars of impact and excellence, and the ways in which the HRC is working to bridge the gap (**black text**).

**Gaps to bridge in 2015**

We need: more good scientists; a simpler more agile funding system; a focus on excellence & impact & evidence of tangible benefits from science for NZ people

**Vision for 2025**

A highly dynamic science system that enriches NZ, making a more visible measurable contribution to our productivity & wellbeing through excellent science



### Excellence

**The best people**

The prestigious **Sir Charles Hercus Health Research Fellowship, builds future research leaders**

**A rigorous approach**

**Our investment processes involve over 700 national & international experts,** doing both external & internal review of applications

Health research funded by the HRC is highly cited internationally & our data suggest that the **HRC outperforms other NZ funding sectors in terms of the quality & impact of publications** arising from investments in the majority of fields

**Optimal results**

Our results contribute to improving the health of our country and our economy with **new diagnostics, pharmaceuticals & vaccines coming on stream & bringing the latest treatments to our people, as well as returns from commercialisation**

### Impact

**Improved population health & health status - especially for disadvantaged groups**

World-leading **indigenous health research capacity-building & funding processes,** only govt Pacific health research funding & career development programme in NZ, monitoring & oversight of HRC research relevant to Māori, Pacific peoples, older adults, children & youth, & people with disability. Dedicated investment for **large, diverse portfolio of research on health & wellbeing - with emphasis on prevention**

**Reduction in health maintenance costs**

**HRC-funded research highlights potential saving worth millions of dollars** for our health system. **bring researchers, clinicians & decision-makers together** through our Partnership Programme activities & our **dedicated funding for NZ health-delivery research**

**Early detection & mitigation of health risks**

Agile processes with **rapid resposnse funding for emerging health threats,** large portfolio of applied biomedical research on **biomarkers & diagnostics, major investment in prevention & early diagnosis of diabetes, cancer and heart disease.**

### Horizons of research activity

**Generate new ideas**

Our targeted-basic research **fuels NZ's innovation machine** with novel discoveries - with **Explorer Grants for transformational, high-risk research**

**Develop emerging ideas**

We have a track record of **supporting research over decades, resulting in new treatments for cancer & major breakthroughs** for cardiovascular disease patients & the understanding of dementia

**Leverage proven ideas**

Our investment feeds MBIE's health innovations portfolio with knowledge & **novel technologies for the global market, & adapts MBIE supported advance for direct applications in health.** We work with health decision-makers on vital **health technology**

# Appendix 4: Key focus of the HRC's Research Investment Streams and their relationship to the key decision drivers

## The four Research Investment Streams

### Health and Wellbeing

Understanding the human body and preventing disease

### Improving Outcomes for Acute and Chronic Conditions

Better diagnosis, treatment and end-of-life care

### New Zealand Health Delivery

Building a better, more efficient and cost-effective health system through research evidence

### Rangahau Hauora Māori

Addressing Māori health issues and building the capacity and capability of the Māori workforce

## The drivers and key focus areas that all four investment streams deliver to

### Driver 1: Making a difference

***Focus 1:*** Research that meets the current and future health needs of New Zealanders

***Focus 2:*** Fund excellent research with high potential for national and international impact

***Focus 3:*** Focus on achieving health equity

***Focus 4:*** Support highly innovative and transformative research

### Driver 2: Stimulating growth

***Focus 1:*** Identify and expedite economic returns from research

# Appendix 5. HRC contracts current as of 30 June, or expired in the financial year

## Health and Wellbeing in New Zealand

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/730 | Reproduction / fertility / sexual health | "Missing Women" in New Zealand: Exploring Gender Bias in Migrant Communities | $0.15 | Explorer Grant | Dr Rachel Simon-Kumar | The University of Auckland |
| 19/647 | Disability | Exploring medicinal cannabis use in New Zealand in a time of policy change | $0.25 | Emerging Researcher First Grant | Associate Professor Marta Rychert | Massey University |
| 18/738 | Alcohol/drugs and dependence | Towards personalised digital health services for preventable health conditions | $0.15 | Explorer Grant | Dr Melanie Tomintz | University of Canterbury |
| 18/710 | Wellness | "This is not an Intervention, It's a Movement!': reducing screen time in teens | $0.15 | Explorer Grant | Dr Samantha Marsh | The University of Auckland |
| 18/709 | Infectious disease | A universal scaffold for multivalent vaccine development | $0.15 | Explorer Grant | Dr Paul Young | The University of Auckland |
| 18/699 | Oncology / Cancer | Pinpointing Prostate Cancer: A Paradigm Shift in Diagnosis | $0.15 | Explorer Grant | Associate Professor Paul Harris | The University of Auckland |
| 18/672 | Nutrition | Dietary Interventions: Evidence & Translation (DIET) Programme | $4.90 | Programme | Professor Cliona Ni Mhurchu | The University of Auckland |
| 18/667 | Wellness | Enhancing Primary Health Care Services to Improve Health in Aotearoa/New Zealand | $4.80 | Programme | Professor Jacqueline Cumming | Research Trust of Victoria University of Wellington |
| 18/651 | Wellness | Working on Wellbeing with Young People | $0.25 | Emerging Researcher First Grant | Dr Octavia Calder Dawe | Massey University |
| 18/621 | CNS/Neurological Disorders | The Role of Sleep in Healthy Ageing and Living well with Dementia | $0.25 | Emerging Researcher First Grant | Dr Rosemary Gibson | Massey University |
| 18/613 | Disability | Caffeine prophylaxis to improve neurodevelopment in babies born late preterm | $0.25 | Feasibility Study | Dr Jane Alsweiler | The University of Auckland |
| 18/609 | Infectious disease | Towards elimination of tuberculosis in Maori through preventive treatment | $0.25 | Feasibility Study | Professor Philip Hill | University of Otago |
| 18/608 | Ageing | People with dementia and robots for independence | $0.25 | Feasibility Study | Professor Ngaire Kerse | The University of Auckland |
| 18/586 | Infectious disease | Exploring immunisation inequities among refugee children in New Zealand | $0.13 | Emerging Researcher First Grant | Dr Nadia Charania | Auckland University of Technology |
| 18/580 | Child development | Omega-3 for improvement of cardiometabolic outcomes following preterm birth | $0.25 | Emerging Researcher First Grant | Dr Rebecca Dyson | University of Otago |
| 18/579 | Ageing | Caring for our Wisdom Bearers: Pacific Matua (Elder) care | $0.60 | Project | Dr Siautu Alefaio | Massey University |
| 18/510 | Immune system / allergy | Molecular characterisation of dendritic cells during immune responses | $1.20 | Project | Professor Franca Ronchese | Malaghan Institute of Medical Research |
| 18/473 | Wellness | Integrating survey and intervention research for youth health gains | $1.19 | Project | Dr Theresa Fleming | Research Trust of Victoria University of Wellington |
| 18/414 | Injury – intentional and unintentional | Staying UpRight in Residential care | $1.40 | Project | Professor Ngaire Kerse | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 18/407 | Obstetrics complications / perinatal care | Nutrition and Brain Development in Moderate and Late Preterm Babies | $1.20 | Project | Professor Jane Harding | The University of Auckland |
| 18/397 | Cardio / cerebrovascular disease | Improving CVD Risk Prediction in Primary Care: novel Arterial Waveform method | $1.20 | Project | Professor Robert Scragg | The University of Auckland |
| 18/345 | Wellness | Predictors and impact of driving cessation on older adults and whānau/families | $1.20 | Project | Dr Rebecca Brookland | University of Otago |
| 18/245 | CNS/Neurological Disorders | Mechanisms of neural network metaplasticity via astrocytes | $1.18 | Project | Professor Cliff Abraham | University of Otago |
| 18/239 | Infectious disease | Emerging Sources and Pathways for Leptospirosis - a paradigm shift | $1.20 | Project | Dr Jackie Benschop | Massey University |
| 18/237 | Gambling | Smart phone delivered CBT for gambling related harm: An RCT | $1.20 | Project | Gayl Humphrey | The University of Auckland |
| 18/218 | Obesity | How has a 'water only' and 'healthy kai' school policy impacted on child obesity | $0.55 | Project | Dr Gerhard Sundborn | The University of Auckland |
| 18/079 | Infectious disease | Developing an optimal strategy for the rheumatic fever endgame | $1.20 | Project | Professor Michael Baker | University of Otago |
| 18/055 | Mental Health | Mental health and well-being of Pacific youth in higher education | $0.60 | Project | Associate Professor Faafetai Sopoaga | University of Otago |
| 18/023 | Mental health | Assessing mental health and wellbeing among high risk Pasifika youth in Aotearoa | $0.25 | Emerging Researcher First Grant | Dr Julia Ioane | Auckland University of Technology |
| 18/011 | Environmental Health | Are toxic moulds a real health hazard in New Zealand? | $1.19 | Project | Professor Julian Crane | University of Otago |
| 17/911 | Environmental Health | Havelock North Campylobacter Outbreak Study | $0.44 | Project | Dr Nicholas Jones | Hawke's Bay District Health Board |
| 17/655 | Alcohol / drugs and dependence | Changing our view of tobacco dependence: the monoamine oxidase inhibitor story | $0.15 | Explorer Grant | Dr Penelope Truman | Massey University |
| 17/652 | Gastrointestinal disease | Maternal bacteria to correct abnormal gut microbiota in babies born by C-section | $0.15 | Explorer Grant | Professor Wayne Cutfield | The University of Auckland |
| 17/611 | Occupational Health | Interventions to Reduce Occupational Disease (iROD) | $5.00 | Programme | Professor Jeroen Douwes | Massey University |
| 17/590 | Reproduction / fertility / sexual health | Omega-3 fats during obese pregnancy, for metabolic protection of the offspring | $0.25 | Emerging Researcher First Grant | Dr Benjamin Albert | The University of Auckland |
| 17/587 | Mental Health | The New Zealand Transgender Health Survey: Stigma and Protective Factors | $0.24 | Emerging Researcher First Grant | Dr Jaimie Veale | University of Waikato |
| 17/568 | Alcohol / drugs and dependence | Extending brief alcohol interventions using mobile technology | $0.23 | Emerging Researcher First Grant | Dr Damian Scarf | University of Otago |
| 17/566 | Nutrition | Optimising cognitive function: the role of dietary and lifestyle patterns | $0.25 | Emerging Researcher First Grant | Dr Kathryn Beck | Massey University |
| 17/548 | Mental Health | Improving the effectiveness of lifestyle change strategies | $0.25 | Emerging Researcher First Grant | Dr Simone Rodda | The University of Auckland |
| 17/494 | Health services - delivery | Pacific patient's perspectives of treatment of chronic conditions | $0.40 | Project | Dr Debbie Ryan | Pacific Perspectives |
| 17/479 | Child development | Non-Communicable Disease Risk in Rarotongan Adolescents | $0.11 | Pacific Health PhD | Miss Siobhan Tu'akoi | The University of Auckland |
| 17/478 | Diabetes | Differences in Fructose Uptake in Pacific Adolescents | $0.60 | Project | Dr Ofa Dewes | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 17/461 | Physical activity / exercise | Curriculum based high-intensity interval training for young adolescents | $0.19 | Feasibility Study | Dr Nigel Harris | Auckland University of Technology |
| 17/417 | Oncology / Cancer | Reducing delay and increasing access to early diagnosis for colorectal cancer | $1.20 | Project | Professor Ross Lawrenson | University of Waikato |
| 17/405 | Gastrointestinal disease | Integration of inflammatory signalling by TNF receptor associated factors | $1.19 | Project | Professor Catherine Day | University of Otago |
| 17/367 | Wellness | Integrated services to improve the health of Pacific peoples | $1.19 | Project | Professor Jacqueline Cumming | Victoria University of Wellington |
| 17/364 | Infectious disease | Evolution of an epidemic: emergence and adaptation of group B meningococci in NZ | $1.19 | Project | Dr Philip Carter | ESR Institute of Environmental Science & Research |
| 17/333 | Alcohol / drugs and dependence | Assessing and comparing national policy to reduce harmful use of alcohol | $0.87 | Project | Professor Sally Casswell | Massey University |
| 17/285 | Reproduction / fertility / sexual health | GnRH neuron Control of Ovulation | $1.17 | Project | Professor Allan Herbison | University of Otago |
| 17/282 | Vision / hearing / speech | Pacific Islands Families Study: Impact of hearing loss on Pacific youth | $1.20 | Project | Professor Janis Paterson | Auckland University of Technology |
| 17/250 | Respiratory disease / asthma | Child poverty: health consequences, costs, and policy interventions | $1.18 | Project | Dr Barry Milne | The University of Auckland |
| 17/240 | Endocrine disease | Mid-childhood outcomes of children born at risk of neonatal hypoglycaemia | $1.20 | Project | Professor Jane Harding | The University of Auckland |
| 17/236 | Reproduction / fertility / sexual health | Deciphering the Dendron for Fertility Control | $1.09 | Project | Professor Allan Herbison | University of Otago |
| 17/189 | Injury – intentional and unintentional | Curbing the tide of violence! Exploring a Pacific psychological faith-quotient | $0.15 | Emerging Researcher First Grant | Dr Siautu Alefaio | Massey University |
| 17/187 | Wellness | Sleep and well-being among Pacific children and adolescents | $0.58 | Project | Dr Rosalina Richards | University of Otago |
| 17/155 | Respiratory disease / asthma | Respiratory Health of Pacific Youth: Risk and Resilience Throughout Childhood | $1.18 | Project | Dr El-Shadan Tautolo | Auckland University of Technology |
| 17/154 | Mental Health | Pacific Islands Families: Cultural Resiliency and Vulnerability in Mental Health | $1.19 | Project | Dr El-Shadan Tautolo | Auckland University of Technology |
| 17/135 | Birth defects / congenital conditions | Environmental and genetic risk factors for cleft lip and palate | $1.20 | Project | Associate Professor John Thompson | The University of Auckland |
| 17/113 | Oncology / Cancer | Genetic modifiers of risk of familial breast and ovarian cancer | $1.14 | Project | Dr Logan Walker | University of Otago |
| 17/066 | Mental Health | The impact of racism on the future health of adults: a prospective cohort study | $0.82 | Project | Dr James Stanley | University of Otago |
| 16/682 | Physical activity / exercise | Designing Diagnostic and Rehabilitation Landscapes for the Disabled | $0.15 | Explorer Grant | Mr Bruno Marques | Research Trust of Victoria University of Wellington |
| 16/679 | Wellness | Intelligent Digital Environment for Wellbeing and Healthcare | $0.15 | Explorer Grant | Dr Richard Whiddett | Massey University |
| 16/656 | Obesity | Nutrition 2.0: Toward a food systems approach for public health nutrition | $0.15 | Explorer Grant | Professor Boyd Swinburn | The University of Auckland |
| 16/642 | Obesity | Using principles of the 'Slow Movement' to prevent obesity from birth | $0.15 | Explorer Grant | Dr Samantha Marsh | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 16/605 | Child development | Feeding preterm babies for life-long health | $5.00 | Programme | Professor Frank Bloomfield | The University of Auckland |
| 16/604 | Ageing | A lifecourse study on aging processes to inform early intervention strategies | $4.99 | Programme | Professor Richie Graham Poulton CNZM | University of Otago |
| 16/600 | Alcohol / drugs and dependence | The Christchurch Health and Development Study - Birth to 40 Years | $4.36 | Programme | Professor John Horwood | University of Otago |
| 16/551 | Health services - delivery | Utilizing a prognostic indicator to guide deprescribing in Aged Residential Care | $0.15 | Emerging Researcher First Grant | Dr Claire Heppenstall | University of Otago |
| 16/510 | Cardio / cerebrovascular disease | Disturbed energetics in heart failure: its association with t-tubule disruption | $0.11 | Emerging Researcher First Grant | Dr June-Chiew Han | The University of Auckland |
| 16/475 | Infectious disease | Zoonotic disease transmission in New Zealand rural communities | $0.15 | Emerging Researcher First Grant | Dr Pippa Scott | University of Otago |
| 16/443 | Cardio / cerebrovascular disease | BODE3: Modelling preventive interventions to improve health and social outcomes | $4.95 | Programme | Professor Tony Blakely | University of Otago |
| 16/402 | Obesity | Role of hypothalamic beta-catenin in body weight regulation | $1.20 | Project | Professor David Grattan | University of Otago |
| 16/351 | Occupational Health | Work-related risk factors for cardiovascular disease | $0.72 | Project | Professor Jeroen Douwes | Massey University |
| 16/329 | Obesity | Communities Fighting Sugar in Soft-drinks | $1.18 | Project | Dr Gerhard Sundborn | The University of Auckland |
| 16/294 | Child development | The Next Generation Studies | $1.20 | Project | Professor Bob Hancox | University of Otago |
| 16/289 | Ageing | Towards streetscapes promoting inclusive mobility, health and wellbeing for all | $1.19 | Project | Professor Shanthi Ameratunga | The University of Auckland |
| 16/206 | Environmental Health | Community water supplies: ensuring microbial safety for disease prevention | $1.06 | Project | Dr Liping Pang | ESR Institute of Environmental Science & Research |
| 16/185 | Health services - delivery | Exploring the development and impact of changes in community pharmacy services | $1.19 | Project | Professor Jacqueline Cumming | Research Trust of Victoria University of Wellington |
| 16/173 | Injury – intentional and unintentional | Creating safer workplaces: understanding our work related fatalities | $1.19 | Project | Dr Rebbecca Lilley | University of Otago |
| 16/149 | Alcohol / drugs and dependence | Supporting informed e-cigarette use: A mixed methods study | $1.20 | Project | Professor Janet Hoek | University of Otago |
| 16/148 | Reproduction / fertility / sexual health | Generating pulses with KNDy neurons | $1.12 | Project | Professor Allan Herbison | University of Otago |
| 16/096 | CNS / Neurological Disorders | Targeting the RFRP neuronal system to control stress and anxiety | $1.19 | Project | Professor Greg Anderson | University of Otago |
| 16/078 | Bone disease | Zoledronic acid and fracture prevention in early postmenopausal women | $0.96 | Project | Associate Professor Mark Bolland | The University of Auckland |
| 16/076 | Alcohol / drugs and dependence | A head-to-head trial of cytisine and varenicline for smoking cessation | $1.60 | Project | Associate Professor Natalie Walker | The University of Auckland |
| 16/066 | Alcohol / drugs and dependence | No smokers left behind: A trial of adaptive smoking cessation treatment | $1.20 | Project | Professor Christopher Bullen | The University of Auckland |
| 16/027 | Reproduction / fertility / sexual health | Timekeeping in the neural network controlling fertility | $1.07 | Project | Dr Richard Piet | University of Otago |

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|---|---|---|---|---|---|---|
| 16/017 | Dental / Oral health | Preventing Upper Respiratory Tract Infections in Infancy | $1.20 | Project | Professor Julian Crane | University of Otago |
| 16/010 | Infectious disease | New Generation Lipopeptide Antimicrobial Agents Using Patented CLipPA Technology | $1.20 | Project | Professor Margaret Brimble CNZM FRSNZ | The University of Auckland |
| 16/005 | Infectious disease | Understanding GAS pharyngitis and skin infections as causes of rheumatic fever | $1.20 | Project | Professor Michael Baker | University of Otago |
| 15/599 | Wellness | Citizen empowerment for creating healthy community environments in New Zealand | $0.15 | Explorer Grant | Dr Stefanie Vandevijvere | The University of Auckland |
| 15/540 | Public health – risk factor | Systematic review and meta-analyses on health effects of dietary carbohydrates | $0.15 | Emerging Researcher First Grant | Dr Lisa Te Morenga | University of Otago |
| 15/527 | Occupational Health | The effectiveness of a monitor & feedback device for changing postural behaviour | $0.15 | Emerging Researcher First Grant | Dr Daniel Ribeiro | University of Otago |
| 15/510 | Ageing | IL-1 signalling and developmental programming of offspring metabolic health | $0.29 | Emerging Researcher First Grant | Dr Clare Reynolds | The University of Auckland |
| 15/429 | Environmental Health | He Kainga Oranga:translating housing research to practice for children's health | $4.94 | Programme | Professor Dr Philippa Howden-Chapman | University of Otago |
| 15/410 | Ageing | Premature celebration? The late effects of early birth. | $0.15 | Emerging Researcher First Grant | Dr Max Berry | University of Otago |
| 15/273 | Obesity | The gut microbiome: a new pathway to obesity prevention and metabolic health | $1.20 | Project | Professor Bernhard Breier | Massey University |
| 15/265 | Dental / Oral health | Oral health from childhood to mid-life | $1.19 | Project | Associate Professor Jonathan Broadbent | University of Otago |
| 15/261 | Injury – intentional and unintentional | Older drivers, families and GPs: Navigating the path between mobility and safety | $1.19 | Project | Dr Rebecca Brookland | University of Otago |
| 15/260 | Disability | Enabling participation for children and young people with disabilities | $0.78 | Project | Professor Karen Witten | Massey University |
| 15/216 | Child development | Does preventing neonatal hypoglycaemia improve outcome at two years of age? | $1.60 | Project | Professor Jane Harding | The University of Auckland |
| 15/202 | Alcohol / drugs and dependence | The combined use of nicotine replacement therapy and e-cigarettes | $1.20 | Project | Associate Professor Natalie Walker | The University of Auckland |
| 15/172 | Infectious disease | TeeVax - a novel vaccine against group A streptococcus? | $1.12 | Project | Associate Professor Thomas Proft | The University of Auckland |
| 15/165 | Cardio / cerebrovascular disease | Aspirin harm benefit calculator to guide cardiovascular primary prevention | $0.63 | Project | Dr Vanessa Selak | The University of Auckland |
| 15/125 | Injury – intentional and unintentional | Safety on steps: a randomised controlled trial | $1.20 | Project | Associate Professor Michael Keall | University of Otago |
| 15/097 | Reproduction / fertility / sexual health | Probing novel pathways mediating Polycystic Ovarian Syndrome | $0.91 | Project | Associate Professor Rebecca Campbell | University of Otago |
| 15/072 | Alcohol / drugs and dependence | The New Zealand International Tobacco Control Project | $1.20 | Project | Professor Peter Edwards | University of Otago |

## Improving Outcomes of Acute and Chronic Conditions

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/791 | Lymphoedema | Identification and monitoring of lymphoedema | $0.15 | Explorer Grant | Dr Bartosz Nowak | University of Canterbury |
| 19/779 | Cardio / cerebrovascular disease | Synthetic Stem Cells – a New Area for Myocardial Infarction Treatment | $0.15 | Explorer Grant | Dr Xiaolin Cui | University of Otago |
| 19/777 | Oncology / Cancer | A novel device for early cancer detection | $0.15 | Explorer Grant | Professor Parry Guilford | University of Otago |
| 19/774 | Respiratory disease / asthma | Asthma - a test case for precision | $0.15 | Explorer Grant | Associate Professor Justin O'Sullivan | The University of Auckland |
| 19/771 | Oncology / Cancer | Transforming the paradigm of functional genome organisation | $0.15 | Explorer Grant | Dr Tracy Hale | Massey University |
| 19/768 | Alcohol / drugs and dependence | Investigating iNKT Cell-Based Vaccinology to Treat Drug Addiction | $0.15 | Explorer Grant | Dr Benjamin Compton | Research Trust of Victoria University of Wellington |
| 19/763 | Reproduction / fertility / sexual health | Development of a non-invasive diagnostic test for endometriosis | $0.15 | Explorer Grant | Dr Anna Ponnampalam | The University of Auckland |
| 19/750 | Immune system / allergy | Enabling NZ biomedical research with superior targeted cell ablation models | $0.15 | Explorer Grant | Professor David Ackerley | Research Trust of Victoria University of Wellington |
| 19/743 | General critical illness states | Rebalancing fluid distribution in critical illness | $0.15 | Explorer Grant | Associate Professor Anthony Phillips | The University of Auckland |
| 19/734 | Cardio / cerebrovascular disease | Next generation cardiac ultrasound: training echocardiography using MRI | $0.15 | Explorer Grant | Dr Sean Coffey | University of Otago |
| 19/701 | Cardio / cerebrovascular disease | Does energy deficiency compromise myofilament contractility in diabetes? | $0.15 | Explorer Grant | Dr Kenneth Tran | The University of Auckland |
| 19/696 | Infectious disease | Developing computational tools to design highly potent antibiotics | $0.15 | Explorer Grant | Dr Wanting Jiao | Research Trust of Victoria University of Wellington |
| 19/609 | Respiratory disease / asthma | Treatable traits for the management of asthma: a feasibility study | $0.24 | Feasibility Study | Dr James Fingleton | Medical Research Institute of New Zealand |
| 19/603 | Mortality | Hospital Operating Theatre Randomised OXygen trial (HOT-ROX) | $0.25 | Feasibility Study | Dr Paul Young | Medical Research Institute of New Zealand |
| 18/735 | Biomedical - psychology | Is there a 'fourth axis' of vesicular communication? | $0.15 | Explorer Grant | Associate Professor Anthony Phillips | The University of Auckland |
| 18/714 | Immune system / allergy | Using smallpox proteins to treat human inflammation | $0.15 | Explorer Grant | Professor Kurt Krause | University of Otago |
| 18/697 | CNS/Neurological Disorders | Developing and validating a novel site for mobile and unobtrusive EEG recording | $0.15 | Explorer Grant | Professor Neil McNaughton | University of Otago |
| 18/693 | Cardio / cerebrovascular disease | A unique cellular mechanism for diabetic heart disease? | $0.15 | Explorer Grant | Dr Chris Baldi | University of Otago |
| 18/691 | Vision / hearing / speech | Ocular laser bio-meter, fast and cheap early diagnosis of vision impairment | $0.15 | Explorer Grant | Dr Ehsan Vaghefi | The University of Auckland |
| 18/681 | Diabetes | Understanding genetic risk factors for metabolic disease in Maori and Pacific | $5.00 | Programme | Professor Peter Shepherd | The University of Auckland |
| 18/674A | Infectious disease | Targeting pathogen energetics to produce new antimicrobials | $1.00 | Project | Professor Gregory Cook | University of Otago |
| 18/673 | Gastrointestinal disease | Translational Advances in GI Surgical Recovery and Motility Disorders | $5.00 | Programme | Associate Professor Gregory O'Grady | The University of Auckland |
| 18/671 | Endocrine disease | Untangling PCOS: Understanding androgen excess and the female brain | $5.00 | Programme | Associate Professor Rebecca Campbell | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 18/654 | Mental Health | Social rhythms therapy for bipolar disorder in routine clinical practice | $0.25 | Feasibility Study | Professor Richard Porter | University of Otago |
| 18/643 | Oncology / Cancer | CRC Predict study - association of molecular subtypes and microbiome in CRC | $0.25 | Emerging Researcher First Grant | Dr Rachel Purcell | University of Otago |
| 18/637 | Cardio / cerebrovascular disease | Role of myoregulin in cardiovascular disease | $0.25 | Emerging Researcher First Grant | Dr Sarah Appleby | University of Otago |
| 18/636 | Cardio / cerebrovascular disease | Optimisation of pre-operative cardiovascular fitness: The heat vs. HIIT study | $0.25 | Emerging Researcher First Grant | Dr Kate Thomas | University of Otago |
| 18/632 | Oncology / Cancer | Lung Cancer Screening with Scent-Detection Dogs | $0.23 | Emerging Researcher First Grant | Dr Timothy Edwards | University of Waikato |
| 18/627 | Ageing | Can inflammation and aging modify the human epigenome? | $0.25 | Emerging Researcher First Grant | Dr Aaron Stevens | University of Otago |
| 18/623 | Infectious disease | Feasibility study of vitamin C therapy in community acquired pneumonia | $0.25 | Feasibility Study | Professor Stephen Chambers | University of Otago |
| 18/602 | Cardio / cerebrovascular disease | Automated over-ground gait rehabilitation in acute stroke: A Feasibility Study | $0.24 | Feasibility Study | Associate Professor Andrew McDaid | The University of Auckland |
| 18/596 | Rheumatology / arthritis | Anti-depressants for osteoarthritis pain: Can we predict treatment efficacy? | $0.25 | Emerging Researcher First Grant | Dr David Rice | Waitemata District Health Board |
| 18/593 | Injury – intentional and unintentional | STRIDE - Steroids To Reduce the Impact on DElirium study | $0.25 | Feasibility Study | Dr Michal Kluger | Waitemata District Health Board |
| 18/590 | Ageing | Is a dementia prevalence study feasible in NZ? | $0.25 | Feasibility Study | Dr Sarah Cullum | The University of Auckland |
| 18/585 | Oncology / Cancer | Circulating RNA as diagnostic and prognostic biomarkers in colorectal cancer | $0.25 | Emerging Researcher First Grant | Dr Kirsty Danielson | University of Otago |
| 18/532 | Infectious disease | Repurposing the anthelmentic niclosamide to combat Gram negative superbugs | $1.20 | Project | Professor David Ackerley | Research Trust of Victoria University of Wellington |
| 18/513 | Physical activity / exercise | Rugby Fans in Training: A Randomised controlled trial | $1.20 | Project | Professor Ralph Maddison | The University of Auckland |
| 18/506 | Cardio / cerebrovascular disease | Dietary Sodium Reduction to Improve Heart Failure Outcomes: The SODIUM-HF study | $1.40 | Project | Professor Richard Troughton | University of Otago |
| 18/408 | Obstetrics complications / perinatal care | Placental extracellular vesicles, controllers of the maternal vasculature | $1.20 | Project | Professor Larry Chamley | The University of Auckland |
| 18/400 | Cardio / cerebrovascular disease | Nanoscale fibrosis and loss of contractility in the failing human heart | $1.18 | Project | Dr David Crossman | The University of Auckland |
| 18/382 | CNS/Neurological Disorders | Identifying the first signs of dementia in humans | $0.89 | Project | Professor Maurice Curtis | The University of Auckland |
| 18/323 | Oncology / Cancer | Reducing Oxaliplatin Toxicity: A Randomised Dose-Finding Proof-of-Concept Trial | $1.20 | Project | Professor Mark McKeage | The University of Auckland |
| 18/300 | Oncology / Cancer | Banishing tumour hypoxia to render cancer immunotherapy curative | $1.20 | Project | Associate Professor Adam Patterson | The University of Auckland |
| 18/272 | Oncology / Cancer | A new combination therapy for cancer | $1.17 | Project | Professor Peter Shepherd | The University of Auckland |
| 18/233 | Oncology / Cancer | More gain, less pain from chemoradiation for rectal cancer by adding simvastatin | $1.40 | Project | Associate Professor Michael Jameson | The University of Auckland |
| 18/232 | Cardio / cerebrovascular disease | A Novel Target for the Control of Arrhythmias | $1.13 | Project | Associate Professor Peter Jones | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 18/225 | Obstetrics complications / perinatal care | Look before we leap: strategies for treating mild neonatal encephalopathy | $1.19 | Project | Dr Joanne Davidson | The University of Auckland |
| 18/219 | Cardio / cerebrovascular disease | Naturally Occurring Peptaibols: "Magic Bullets" for Targeting Breast Cancer | $1.20 | Project | Professor Margaret Brimble DNZM FRSNZ | The University of Auckland |
| 18/207 | Cardio / cerebrovascular disease | Targeting new receptors for lipoprotein(a) | $1.19 | Project | Professor Sally McCormick | University of Otago |
| 18/193 | Mental Health | Pharmacological brain-imaging of novel rapid antidepressant medicines | $1.19 | Project | Associate Professor Suresh Muthukumaraswamy | The University of Auckland |
| 18/189 | Cardio / cerebrovascular disease | Targeting chemoreceptors in hypertension: a large animal pre-clinical trial | $1.19 | Project | Dr Rohit Ramchandra | The University of Auckland |
| 18/183 | Obstetrics complications / perinatal care | New horizons for preterm brain protection: exploiting endogenous neuroprotection | $1.19 | Project | Associate Professor Mhoyra Fraser | The University of Auckland |
| 18/156 | Biomedical – pharmaceuticals / treatments | Towards a New Penicillin for Rheumatic Fever - the BPG Pharmacokinetic Study | $0.25 | Emerging Researcher First Grant | Dr Dianne Sika-Paotonu | University of Otago |
| 18/152 | Mental Health | Treating cognitive impairment in severe depression | $1.15 | Project | Professor Richard Porter | University of Otago |
| 18/151 | Rheumatology / arthritis | Is prophylaxis required with start-low go slow dosing of allopurinol in gout? | $1.42 | Project | Professor Lisa Stamp | University of Otago |
| 18/150 | Oncology / Cancer | Understanding regulation of the polycomb-repressive deubiquitinase in malignancy | $1.19 | Project | Dr Peter Mace | University of Otago |
| 18/147 | Cardio / cerebrovascular disease | Reducing fatigue after stroke: A randomised controlled trial | $1.18 | Project | Dr Kelly Jones | Auckland University of Technology |
| 18/144 | Oncology / Cancer | Epigenomic profiling to predict patient response to melanoma immunotherapy | $1.20 | Project | Professor Michael Eccles | University of Otago |
| 18/063 | CNS/Neurological Disorders | Development of novel remyelination treatments for Multiple Sclerosis | $1.17 | Project | Dr Bronwyn Kivell | Research Trust of Victoria University of Wellington |
| 17/661 | Dental / Oral health | 'No Drill, No Fill' – a novel substitute to regrow teeth | $0.15 | Explorer Grant | Dr Azam Ali | University of Otago |
| 17/649 | Chemical sciences | Developing the holy grail of bioprinting: vascularization | $0.15 | Explorer Grant | Dr Jaydee Cabral | University of Otago |
| 17/632 | Reproduction / fertility / sexual health | Linking viruses that call uterus home and unexplained female infertility | $0.15 | Explorer Grant | Dr Anna Ponnampalam | The University of Auckland |
| 17/625 | Bioengineering | Towards bone regeneration by developing electroactive hybrid materials | $0.15 | Explorer Grant | Dr Leandro Bolzoni | University of Waikato |
| 17/624 | Obstetrics complications / perinatal care | Transforming women's pelvic floor health. | $0.15 | Explorer Grant | Dr Jennifer Kruger | The University of Auckland |
| 17/622 | Oncology / Cancer | A proton switch for T cell migration and activation | $0.15 | Explorer Grant | Associate Professor Alexander McLellan | University of Otago |
| 17/616 | Infectious disease | Real time in situ antibiotic sensitivity testing | $0.15 | Explorer Grant | Professor Sarah Hook | University of Otago |
| 17/614 | Respiratory disease / asthma | Prevention of Asthma | $4.99 | Programme | Professor Stuart Dalziel | Auckland DHB Charitable Trust |
| 17/610 | Oncology / Cancer | Reducing the burden of gastric cancer in New Zealand | $4.97 | Programme | Professor Parry Guilford | University of Otago |
| 17/608 | Cardio / cerebrovascular disease | Biomechanics in Heart Disease | $4.96 | Programme | Professor Martyn Nash | The University of Auckland |
| 17/601 | Obstetrics complications / perinatal care | Pathogenesis, detection and treatment of perinatal brain injury | $4.92 | Programme | Professor Alistair Gunn | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 17/586 | Oncology / Cancer | IMPACT-ful resistance mechanism of cancer cells | $0.25 | Emerging Researcher First Grant | Dr Petr Tomek | The University of Auckland |
| 17/582 | Child development | Functional Behavioural Sandman: Treating Sleep Disturbance in Children with ASD | $0.16 | Emerging Researcher First Grant | Dr Laurie McLay | University of Canterbury |
| 17/571 | Diabetes | Deciphering the metabolic function of igf2 derived peptide hormones. | $0.23 | Emerging Researcher First Grant | Dr Kate Lee | The University of Auckland |
| 17/562 | Cardio / cerebrovascular disease | Improving risk assessment for worsening kidney function in heart failure | $0.17 | Emerging Researcher First Grant | Dr Moritz Lassé | University of Otago |
| 17/561 | Gastrointestinal disease | Activation to recovery mapping to predict gastric dysrhythmias | $0.25 | Emerging Researcher First Grant | Dr Niranchan Paskaranandavadivel | The University of Auckland |
| 17/558 | Gastrointestinal disease | Development of targeted gastric ablation as a novel gastrointestinal therapy | $0.25 | Emerging Researcher First Grant | Dr Timothy Angeli | The University of Auckland |
| 17/542 | Diabetes | Preventing progression from pre-diabetes to Type 2 Diabetes in New Zealanders | $0.25 | Feasibility Study | Associate Professor Jeremy Krebs | University of Otago |
| 17/538 | Alcohol / drugs and dependence | Feasibility of a smartphone-based support system for hazardous drinkers | $0.19 | Feasibility Study | Associate Professor Natalie Walker | The University of Auckland |
| 17/536 | Physical activity / exercise | The effectiveness of tailored rehabilitation versus standard exercise programme | $0.21 | Feasibility Study | Dr Daniel Ribeiro | University of Otago |
| 17/533 | Diabetes | Feasibility of a mobile game to improve diabetes self-management in young people | $0.25 | Feasibility Study | Professor Ralph Maddison | The University of Auckland |
| 17/531 | Mental Health | Sensory modulation for anxiety in primary health care: A feasibility study | $0.16 | Feasibility Study | Dr Daniel Sutton | Auckland University of Technology |
| 17/529 | Diabetes | Effects of Helicobacter pylori in pre-diabetes and type 2 diabetes | $0.25 | Feasibility Study | Dr Stephen Inns | University of Otago |
| 17/522 | Cardio / cerebrovascular disease | Mindfulness training for people after stroke: A feasibility study | $0.25 | Feasibility Study | Professor Richard Siegert | Auckland University of Technology |
| 17/521 | Respiratory disease / asthma | Taking charge of COPD: A low-cost self-management intervention | $0.25 | Feasibility Study | Associate Professor William Levack | University of Otago |
| 17/425 | Renal disease / urology | Kidney organoids: Modelling kidney injury and preclinical drug testing | $1.18 | Project | Associate Professor Alan Davidson | The University of Auckland |
| 17/414 | Renal disease / urology | The BEST-Fluids study: Better Evidence for Selecting Transplant Fluids | $0.55 | Project | Dr Michael Collins | Auckland DHB Charitable Trust |
| 17/402 | Cardio / cerebrovascular disease | An epigenome-wide study for coronary artery disease | $1.14 | Project | Professor Greg Jones | University of Otago |
| 17/372 | Infectious disease | Unmasking genes for antibiotic resistance in a superbug | $1.15 | Project | Professor Iain Lamont | University of Otago |
| 17/298 | Obesity | Targeting the ERp44-adiponectin interaction for diabesity treatment | $1.19 | Project | Associate Professor Alok Mitra | The University of Auckland |
| 17/294 | Rheumatology / arthritis | Targeting crystal-driven macrophage activation to suppress gouty inflammation | $1.19 | Project | Dr Christopher Hall | The University of Auckland |
| 17/290 | Oncology / Cancer | Development of a novel and specific inhibitor of CSF1R for cancer therapy | $1.20 | Project | Professor William Denny | The University of Auckland |
| 17/288 | Birth defects / congenital conditions | Defining human specific genetic variants in brain developmental disorders | $1.20 | Project | Professor Stephen Robertson | University of Otago |
| 17/284 | CNS/Neurological Disorders | Implantable light stimulator to treat Parkinson's disease. | $1.19 | Project | Dr Louise Parr-Brownlie | University of Otago |
| 17/271 | Cardio / cerebrovascular disease | Reducing Heart Failure Readmission: The IMPERATIVE-HF Study | $0.71 | Project | Professor Richard Troughton | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 17/255 | Oncology / Cancer | Development of an optimal hypoxia-selective cytotoxin for clinical use | $1.19 | Project | Associate Professor Adam Patterson | The University of Auckland |
| 17/234 | Cardio / cerebrovascular disease | Left Ventricular Remodelling in the Multi-Ethnic Study of Atherosclerosis | $1.19 | Project | Professor Alistair Young | The University of Auckland |
| 17/232 | Infectious disease | A vaccine to limit the severity of staphylococcal infections | $1.05 | Project | Professor John Fraser | The University of Auckland |
| 17/230 | Oncology / Cancer | Can pre-screening reduce the risk of life-threatening fluoropyrimidine toxicity? | $1.19 | Project | Associate Professor Nuala Helsby | The University of Auckland |
| 17/226 | Cardio / cerebrovascular disease | Are treatments for COPD increasing the risk of acute coronary syndrome? | $0.84 | Project | Dr Lianne Parkin | University of Otago |
| 17/222 | Oncology / Cancer | The molecular pathological epidemiology of NHL | $0.49 | Project | Associate Professor Brian Cox | University of Otago |
| 17/204 | Renal disease / urology | Timing of initiation of renal support in acute kidney injury (STARRT-AKI) | $1.19 | Project | Dr Shay McGuinness | Medical Research Institute of New Zealand |
| 17/194A | Mental Health | Effectiveness of Ūloa model | $0.15 | Emerging Researcher First Grant | Dr Sione Vaka | Auckland University of Technology |
| 17/194 | Mental Health | Effectiveness of Ūloa model | $0.15 | Emerging Researcher First Grant | Dr Sione Vaka | Massey University |
| 17/100 | Mental Health | Understanding the role of insulin in promoting fatty liver disease | $1.18 | Project | Dr Troy Merry | The University of Auckland |
| 17/099 | Ageing | Targeting PI3K to promote healthy ageing | $1.19 | Project | Dr Troy Merry | The University of Auckland |
| 17/082 | Infectious disease | Role of host exocytosis in infection of human cells by Listeria monocytogenes | $0.93 | Project | Associate Professor Keith Ireton | University of Otago |
| 17/076 | Obstetrics complications / perinatal care | Targeting IGF-1 Signalling For Repair of Preterm Brain Dysmaturation | $1.16 | Project | Dr Justin Dean | The University of Auckland |
| 17/052 | CNS/Neurological Disorders | Targetting a zinc link in the treatment of Autism Spectrum Disorders | $1.17 | Project | Associate Professor Johanna Montgomery | The University of Auckland |
| 16/680 | Cardio / cerebrovascular disease | A Novel Nanosensor array for Heart Failure diagnosis | $0.15 | Explorer Grant | Dr Patrick Gladding | Waitemata District Health Board |
| 16/670 | CNS/Neurological Disorders | Can we rehabilitate a reflex? A treatment protocol for the cough reflex | $0.15 | Explorer Grant | Dr Phoebe Macrae | University of Canterbury |
| 16/654 | Vision / hearing / speech | One cell, two phenotypes: capturing pluripotency for tisse repair | $0.15 | Explorer Grant | Professor Trevor Sherwin | The University of Auckland |
| 16/646 | Biomedical – pharmaceuticals / treatments | Preclinical development of non-addictive pain medications | $0.15 | Explorer Grant | Dr Bronwyn Kivell | Research Trust of Victoria University of Wellington |
| 16/631 | Infectious disease | Platform Trial Optimising Interventions in Severe Community Acquired Pneumonia | $4.81 | Programme | Dr Colin McArthur | Medical Research Institute of New Zealand |
| 16/617 | Oncology / Cancer | Chromatin Nanofibre As A Therapeutic Cancer Vaccine | $0.15 | Explorer Grant | Dr Jeong Park | Massey University |
| 16/609 | Cardio / cerebrovascular disease | Vascular risk Informatics using Epidemiology & the Web 2020 (VIEW2020) | $4.98 | Programme | Professor Rodney Jackson | The University of Auckland |
| 16/608 | CNS/Neurological Disorders | Vascular and inflammatory mediators of neurodegeneration | $5.00 | Programme | Professor Michael Dragunow | The University of Auckland |
| 16/597 | CNS/Neurological Disorders | Harnessing brain mechanisms to tackle Alzheimer's Disease | $4.93 | Programme | Professor Cliff Abraham | University of Otago |
| 16/595 | Gastrointestinal disease | Improving gut microbiota in IBD patients using enteral nutrition and curcumin | $0.24 | Emerging Researcher First Grant | Dr Paul Blatchford | The New Zealand Institute for Plant & Food Research |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 16/559 | CNS/Neurological Disorders | Lost in Translation: Translation Dysregulation and Parkinson's Disease | $0.12 | Emerging Researcher First Grant | Dr Ivanhoe Leung | The University of Auckland |
| 16/537 | Diabetes | The Consequences of Type 2 Diabetes on the Cardiovascular Effects of Aging | $0.15 | Emerging Researcher First Grant | Dr Graeme Carrick-Ranson | The University of Auckland |
| 16/534 | Respiratory disease / asthma | Beta-blockers in COPD: Feasibility of an RCT in Stable patients | $0.15 | Feasibility Study | Professor Bob Hancox | University of Otago |
| 16/511 | Diabetes | Corneal nerve microstructural changes in diabetes | $0.15 | Emerging Researcher First Grant | Dr Stuti Misra | The University of Auckland |
| 16/505 | Vision / hearing / speech | The transition zone as corneal endothelial transplants | $0.15 | Emerging Researcher First Grant | Dr Jie Zhang | The University of Auckland |
| 16/488 | Biomedical – pharmaceuticals / treatments | Paracetamol therapy in critical illness | $0.15 | Feasibility Study | Dr Paul Young | Medical Research Institute of New Zealand |
| 16/434 | Oncology / Cancer | Oral Cavity Squamous Cell Carcinomas: Cancer Stem Cells and the Role of the RAS | $0.15 | Emerging Researcher First Grant | Dr Tinte Itinteang | Gillies McIndoe Research Institute |
| 16/430 | CNS/Neurological Disorders | The epigenome is compromised in Huntingtonâ€™s disease | $0.15 | Emerging Researcher First Grant | Dr Pritika Narayan | The University of Auckland |
| 16/391 | Oncology / Cancer | Intercellular mitochondrial transfer in glioblastoma | $1.10 | Project | Professor Michael Berridge | Malaghan Institute of Medical Research |
| 16/385 | Cardio / cerebrovascular disease | Targeting human atrial microstructure: The key to resolving atrial fibrillation | $1.18 | Project | Dr Jichao Zhao | The University of Auckland |
| 16/361 | Infectious disease | Repurposing Amiloride Derivatives as New Agents for Drug-Resistant Tuberculosis | $1.19 | Project | Professor Gregory Cook | University of Otago |
| 16/341 | Oncology / Cancer | Potentiation of targeted cancer therapies by statins | $1.17 | Project | Professor Peter Shepherd | The University of Auckland |
| 16/331 | Oncology / Cancer | Proliferating Tumour-Associated Macrophages in human cancers | $1.17 | Project | Professor Rod Dunbar | The University of Auckland |
| 16/314 | Oncology / Cancer | Targeting cancer vaccines to human dendritic cells via CD301 | $1.19 | Project | Professor Rod Dunbar | The University of Auckland |
| 16/300 | Diabetes | Fructose & the heart: targeting novel mechanisms of diabetic cardiomyopathy | $1.17 | Project | Dr Kimberley Mellor | The University of Auckland |
| 16/279 | Gastrointestinal disease | Translational Advances in Faecal Incontinence and Anterior Resection Syndrome | $1.19 | Project | Associate Professor Gregory O'Grady | The University of Auckland |
| 16/267 | Respiratory disease / asthma | Smoking relapse prevention in COPD patients | $1.20 | Project | Associate Professor Natalie Walker | The University of Auckland |
| 16/242 | Cardio / cerebrovascular disease | Reducing the Burden of Atrial Fibrillation | $1.09 | Project | Professor Richard Troughton | University of Otago |
| 16/236 | Gastrointestinal disease | Targeting toxic gut lymph to treat acute disease | $1.18 | Project | Professor John Windsor | The University of Auckland |
| 16/232 | Infectious disease | Structure-directed discovery of next-generation antifungals | $1.20 | Project | Associate Professor Brian Monk | University of Otago |
| 16/231 | Gastrointestinal disease | Establishing drainage of thoracic duct lymph for longitudinal clinical studies | $1.16 | Project | Professor John Windsor | The University of Auckland |
| 16/226 | Biomedical – pharmaceuticals / treatments | Genomic analysis of adverse drug reactions | $1.19 | Project | Professor Martin Kennedy | University of Otago |
| 16/172 | Infectious disease | Biodiscovery and biosynthesis of new drug candidates | $1.20 | Project | Professor David Ackerley | Research Trust of Victoria University of Wellington |
| 16/165 | Child development | Effect of early childhood ear infections on language, cognition and behaviour | $1.19 | Project | Professor Cameron Grant | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 16/155 | Cardio / cerebrovascular disease | Physiological pacing to improve cardiac output in heart failure | $1.12 | Project | Dr Rohit Ramchandra | The University of Auckland |
| 16/135 | Cardio / cerebrovascular disease | Keramatrix4VLU: a trial of wool-derived keratin dressings for venous ulcers | $1.20 | Project | Professor Andrew Jull | The University of Auckland |
| 16/120 | Oncology / Cancer | Novel radiosensitisers for head and neck cancer | $1.20 | Project | Associate Professor Michael Hay | The University of Auckland |
| 16/011 | Cardio / cerebrovascular disease | Novel biomarker for Acute Coronary Syndromes | $1.16 | Project | Associate Professor Chris Pemberton | University of Otago |
| 16/009 | Intensive care | The PLUS trial: PLasmalyte versUs Saline for intravenous fluid therapy in ICU | $1.39 | Project | Dr Paul Young | Medical Research Institute of New Zealand |
| 15/623 | Rheumatology / arthritis | Discovering novel pathways for gout via functional genetics | $0.15 | Explorer Grant | Associate Professor Julia Horsfield | University of Otago |
| 15/607 | Health services - clinical | Cyclic voltammetry of the critically ill: a new window on disease status | $0.15 | Explorer Grant | Associate Professor Anthony Phillips | The University of Auckland |
| 15/576 | Bone disease | Mechanisms and Management of Musculoskeletal Disease | $5.00 | Programme | Ian Reid | The University of Auckland |
| 15/573 | Respiratory disease / asthma | RCT of an ICS/LABA reliever therapy regimen in mild asthma | $4.98 | Programme | Professor Richard Beasley | Medical Research Institute of New Zealand |
| 15/517 | Infectious disease | Mucosal associated invariant T cells: mechanisms of bacterial control in humans | $0.30 | Emerging Researcher First Grant | Dr James Ussher | University of Otago |
| 15/500 | Oncology / Cancer | p53 and variants in inflammatory disease and cancer | $4.90 | Programme | Professor Antony Braithwaite | University of Otago |
| 15/491 | Ageing | Developing a diagnostic tool for myelodysplastic syndrome | $0.14 | Emerging Researcher First Grant | Dr Euan Rodger | University of Otago |
| 15/485 | CNS/Neurological Disorders | The Nose Knows the Way: An Intranasal Approach to Treat Drug-resistant Epilepsy | $0.14 | Emerging Researcher First Grant | Dr Shakila Rizwan | University of Otago |
| 15/483 | Ageing | Growth Factors Delivery System for Bone Regeneration and Vascularisation | $0.15 | Emerging Researcher First Grant | Dr Khoon Lim | University of Otago |
| 15/479 | Infectious disease | Neutrophil oxidants in infection and inflammation | $4.83 | Programme | Professor Anthony Kettle | University of Otago |
| 15/477 | Infectious disease | Formulation of anti-tuberculosis drugs for high dose pulmonary delivery | $0.14 | Emerging Researcher First Grant | Dr Shyamal Das | University of Otago |
| 15/400 | Respiratory disease / asthma | Anti-inflammatory effects of oral and transdermal clonidine in bronchiectasis | $0.15 | Feasibility Study | Associate Professor Conroy Wong | Middlemore Clinical Trials |
| 15/347 | Oncology / Cancer | Role of the Trib1 pseudokinase in breast cancer pathology | $1.13 | Project | Dr Peter Mace | University of Otago |
| 15/333 | Respiratory disease / asthma | Oxidative Stress in Cystic Fibrosis | $0.80 | Project | Professor Anthony Kettle | University of Otago |
| 15/331 | Diabetes | CaMKII inhibition as a novel therapy for diabetic cardiomyopathy | $1.05 | Project | Dr Jeffrey Erickson | University of Otago |
| 15/311 | Respiratory disease / asthma | Persistent airflow limitation and the airway microbiome in childhood asthma | $1.20 | Project | Professor Jeroen Douwes | Massey University |
| 15/299 | Oncology / Cancer | Mitochondrial injury and inter-cellular mitochondrial transfer | $1.04 | Project | Dr Melanie-Jane McConnell | Victoria University of Wellington |
| 15/263 | Rheumatology / arthritis | The impact and management of rising osteoarthritis burden | $1.20 | Project | Professor J. Abbott | University of Otago |
| 15/247 | Oncology / Cancer | The chemoprevention and treatment of diffuse gastric cancer | $1.19 | Project | Professor Parry Guilford | University of Otago |
| 15/244 | Respiratory disease / asthma | Carrageenan for the reduction of asthma exacerbations in adults | $1.20 | Project | Professor Julian Crane | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 15/229 | Oncology / Cancer | Investigating a Novel Drug Target in Acute Myeloid Leukaemia | $1.15 | Project | Associate Professor Julia Horsfield | University of Otago |
| 15/209 | Obstetrics complications / perinatal care | A healthy life starts with a bio-energetically healthy placenta | $1.19 | Project | Professor Larry Chamley | The University of Auckland |
| 15/186 | Injury – intentional and unintentional | Prehospital injury deaths: preventability, service accessibility and equity | $0.60 | Project | Associate Professor Bridget Kool | The University of Auckland |
| 15/141 | Nutrition | TARGET (The Augmented versus Routine approach to Giving Energy Trial) | $1.20 | Project | Dr Paul Young | Medical Research Institute of New Zealand |
| 15/103 | CNS/Neurological Disorders | Cellular Reprogramming: A Unique Approach to Understanding Huntington's Disease. | $1.19 | Project | Associate Professor Bronwen Connor | The University of Auckland |
| 15/086 | Cardio / cerebrovascular disease | Hypertension after stroke - therapeutic or pathological? | $1.06 | Project | Dr Fiona McBryde | The University of Auckland |
| 15/070 | CNS/Neurological Disorders | Gene discovery in epilepsy: the building block of precision medicine | $1.20 | Project | Associate Professor Lynette Sadleir | University of Otago |
| 15/057 | Renal disease / urology | The role of the Pax-Notch pathway in kidney disease | $1.07 | Project | Associate Professor Alan Davidson | The University of Auckland |
| 14/810 | Infectious disease | Evolution in Action: a novel model for studying pathogen adaptation in vivo | $0.15 | Explorer Grant | Dr Siouxsie Wiles | The University of Auckland |
| 14/584 | Child development | Neurodevelopmental Outcomes of Children Exposed to Methadone during Pregnancy | $0.15 | Emerging Researcher First Grant | Dr Jacqueline Henderson | University of Canterbury |
| 14/557 | Vision / hearing / speech | Digital design of therapies to combat age related nuclear cataracts | $0.14 | Emerging Researcher First Grant | Dr Ehsan Vaghefi | The University of Auckland |
| 14/538 | Oncology / Cancer | Biomarker-guided drug targeting of the tumour microenvironment in radiotherapy | $4.92 | Programme | Professor William Wilson | The University of Auckland |
| 14/527 | Rheumatology / arthritis | Urate and gout: genetic control, environmental and drug interactions | $5.00 | Programme | Professor Tony Merriman | University of Otago |
| 14/521 | Cardio / cerebrovascular disease | HEART FAILURE: markers and management | $4.98 | Programme | Professor Mark Richards | University of Otago |
| 14/474 | Respiratory disease / asthma | Non-inflammatory mechanisms in asthma | $1.20 | Project | Professor Jeroen Douwes | Massey University |
| 14/440 | CNS/Neurological Disorders | Genetics, brain imaging, and cognitive decline in Parkinson's disease | $1.18 | Project | Professor Tim Anderson | University of Otago |
| 14/429 | CNS/Neurological Disorders | Incidence Study of Status Epilepticus in the Greater Auckland Region | $0.67 | Project | Dr Peter Bergin | Auckland DHB Charitable Trust |
| 14/368 | Cardio / cerebrovascular disease | Restoring HDL levels | $1.04 | Project | Professor Sally McCormick | University of Otago |
| 14/281 | Vision / hearing / speech | Delivering lens anti-oxidants: a strategy to develop anti-cataract therapies | $1.20 | Project | Professor Paul Donaldson | The University of Auckland |
| 14/276 | Birth defects / congenital conditions | Degradable metallic mini-plate and screw system for craniofacial osteosynthesis | $0.69 | Project | Dr Mark Staiger | University of Canterbury |
| 14/219 | Immune system / allergy | A role for p53 isoforms in inflammatory disease | $1.18 | Project | Professor Antony Braithwaite | University of Otago |
| 14/174 | Obstetrics complications / perinatal care | ProViDe RCT: does better early nutrition in preterm babies improve development? | $1.19 | Project | Professor Frank Bloomfield | The University of Auckland |
| 14/168 | Birth defects / congenital conditions | Improving hydrocephalus management through an implantable device | $1.19 | Project | Professor Simon Malpas | The University of Auckland |
| 14/158 | Gastrointestinal disease | Mechanisms of Gastric Dysmotility: Advances from Cell to Clinic | $1.19 | Project | Associate Professor Leo Cheng | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 14/153 | Obstetrics complications / perinatal care | Antenatal magnesium sulphate: mechanisms of fetal neuroprotection | $1.20 | Project | Professor Caroline Crowther | The University of Auckland |
| 14/152 | Rheumatology / arthritis | A randomised controlled trial of nortriptyline in knee osteoarthritis | $1.19 | Project | Dr Ben Hudson | University of Otago |
| 14/136 | Cardio / cerebrovascular disease | Individualised neuromodulation for motor recovery after stroke | $1.18 | Project | Professor Winston Byblow | The University of Auckland |
| 14/129 | Mental health | Clinical translation of an anxiety process biomarker | $1.04 | Project | Professor Dr Neil McNaughton | University of Otago |
| 14/117 | Renal disease / urology | CKD-FIX: trial of xanthine oxidase inhibition to slow kidney disease progression | $0.99 | Project | Dr Janak de Zoysa | Waitemata District Health Board |
| 14/115 | Intensive care | Early goal-directed sedation in mechanically ventilated intensive care patients | $1.12 | Project | Dr Colin McArthur | Auckland DHB Charitable Trust |
| 13/779 | Cardio / cerebrovascular disease | Mapping determinants of arrhythmia in structural heart disease | $4.99 | Programme | Professor Peter Hunter | The University of Auckland |
| 13/774 | Immune system / allergy | Exploiting the therapeutic potential of viruses | $4.94 | Programme | Professor Andrew Mercer | University of Otago |
| 13/763 | Oncology / Cancer | Rational design of kinase inhibitors to target cancer | $4.92 | Programme | Professor William Denny | The University of Auckland |
| 13/213 | Intensive care | PulMoDS: Pulmonary Model-based Decision Support to Optimise ARDS/ALI Care | $0.66 | Project | Professor Geoff Chase | University of Canterbury |
| 13/177 | Respiratory disease / asthma | Can Azithromycin Prevent Bronchiectasis in Infants with Cystic Fibrosis? | $0.71 | Project | Associate Professor Catherine Byrnes | The University of Auckland |
| 13/152 | Vision / hearing / speech | Imaging the Labyrinthine-Blood Barrier in Meniere's disease | $0.97 | Project | Professor Peter Thorne | The University of Auckland |
| 12/529 | Oncology / Cancer | Molecular and hypoxia biomarkers of sensitivity to new nitroCBI anticancer drugs | $1.19 | Project | Dr Frederik Pruijn | The University of Auckland |
| 12/308 | Surgery | The Influence of Anaesthetic Depth on Patient Outcome after Major Surgery | $1.20 | Project | Associate Professor Timothy Short | Auckland DHB Charitable Trust |

## Research for New Zealand Health Delivery

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/741 | Gastrointestinal disease | The 'Surgical Canary' : A Rapid Detector of Anastomotic Leaks | $0.15 | Explorer Grant | Associate Professor Gregory O'Grady | The University of Auckland |
| 18/739 | Health services - delivery | EngageBOT: exploring chatbots for supporting patient engagement | $0.15 | Explorer Grant | Gayl Humphrey | The University of Auckland |
| 18/656 | Oncology / Cancer | Prophylactic InCisional Antibiotics in Skin Surgery (PICASSo trial) feasibility | $0.25 | Feasibility Study | Dr Jon Mathy | Middlemore Clinical Trials |
| 18/486 | Injury – intentional and unintentional | How safe are our emergency departments? A national prospective cohort study | $1.20 | Project | Professor Stuart Dalziel | Auckland DHB Charitable Trust |
| 18/465 | Injury – intentional and unintentional | Evaluating the impact of prehospital care on mortality following major trauma | $1.10 | Project | Associate Professor Bridget Kool | The University of Auckland |
| 18/442 | Rheumatology / arthritis | The primary care management and impact of osteoarthritis: learning from big data | $1.20 | Project | Professor J. Abbott | University of Otago |
| 18/311 | Dental / Oral health | Evaluating a sustainable model of peer mentoring in traumatic brain injury | $1.19 | Project | Associate Professor Nicola Kayes | Auckland University of Technology |
| 18/254 | Other | Co-creating a digital self-help intervention for people with persistent pain | $1.20 | Project | Professor Leigh Hale | University of Otago |
| 18/138 | Other | Do regional DHB groupings improve service integration and health outcomes? | $0.80 | Project | Professor Timothy Stokes | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 18/134 | Mental Health | Randomised controlled trial of prescription charges | $1.03 | Project | Professor Pauline Norris | University of Otago |
| 17/657 | Health services - delivery | Developing an innovative performance measurement framework for health care | $0.15 | Explorer Grant | Professor Nigel Grigg | Massey University |
| 17/585 | Vision / hearing / speech | Aniseikonia as a potential barrier to neural plasticity: Does Image Size Matter | $0.25 | Emerging Researcher First Grant | Dr Joanna Black | The University of Auckland |
| 17/438 | Oncology / Cancer | Improving early access to lung cancer diagnosis for Maori and Rural Communities | $1.19 | Project | Professor Ross Lawrenson | University of Waikato |
| 17/391 | Birth defects / congenital conditions | Reducing inequity through timely detection of critical congenital heart disease | $1.18 | Project | Professor Frank Bloomfield | The University of Auckland |
| 17/363 | Ageing | Using the InterRAI to improve identification and management of frailty | $1.17 | Project | Dr Hamish Jamieson | University of Otago |
| 17/330 | Surgery | Development and application of a risk prediction tool for emergency laparotomy | $1.18 | Project | Professor Andrew Hill | The University of Auckland |
| 17/323 | Infectious disease | Bacteraemia Antibiotic Length Actually Needed for Clinical Effectiveness-BALANCE | $1.19 | Project | Dr Colin McArthur | Medical Research Institute of New Zealand |
| 17/233 | Diabetes | Community Exercise for long-term management of diabetes and multimorbidity | $1.18 | Project | Professor Leigh Hale | University of Otago |
| 17/164 | Vision / hearing / speech | Randomized controlled trial of hearing aids to improve cognition in older NZers | $1.15 | Project | Associate Professor Grant Searchfield | The University of Auckland |
| 17/037 | Cardio / cerebrovascular disease | Geographic and Ethnic inequities in stroke outcomes | $1.20 | Project | Associate Professor Annemarei Ranta | University of Otago |
| 16/815 | Reproduction / fertility / sexual health | Funding pharmacist-delivered vaccination of pregnant women: effect on uptake | $0.11 | Project JRP | Dr Natalie Gauld | The University of Auckland |
| 16/813 | Ageing | Supportive Hospice Aged Residential Care Exchange: An Evaluation | $0.08 | Project JRP | Dr Rosemary Frey | Auckland UniServices |
| 16/811 | Biomedical – diagnostics | Translating ultrasound imaging of swallowing to clinical dysphagia diagnosis | $0.20 | Project JRP | Professor Maggie-Lee Huckabee | University of Canterbury |
| 16/807 | Obstetrics complications / perinatal care | Outpatient balloon induction of labour versus inpatient prostaglandins; an RCT | $0.20 | Project JRP | Dr Michelle Wise | Auckland DHB Charitable Trust |
| 16/521 | Vision / hearing / speech | Improving children's vision screening: Are Lea symbols a better option? | $0.14 | Emerging Researcher First Grant | Associate Professor Nicola Anstice | The University of Auckland |
| 16/425 | Cardio / cerebrovascular disease | Pragmatic Clinical Trial of Sodium Lowering in Dialysate | $1.20 | Project | Associate Professor Mark Marshall | Middlemore Clinical Trials |
| 16/405 | Mortality | Self-sampling for HPV screening: a community trial | $1.20 | Project | Professor John Potter | Massey University |
| 16/387 | Injury – intentional and unintentional | Pre-hospital Anti-fibrinolytics for Traumatic Coagulopathy and Haemorrhage | $0.94 | Project | Dr Colin McArthur | Medical Research Institute of New Zealand |
| 16/353 | Cardio / cerebrovascular disease | Transfusion Requirements in patients for Cardiac Surgery - TRiCS III | $1.20 | Project | Dr Shay McGuinness | Medical Research Institute of New Zealand |
| 16/344 | Diabetes | What predicts regression from prediabetes to normal glucose regulation? | $1.11 | Project | Dr Kirsten Coppell | University of Otago |
| 16/330 | Cardio / cerebrovascular disease | Improving outcomes of patients with atrial fibrillation in primary care | $1.20 | Project | Professor Dr Ralph Stewart | Auckland District Health Board |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 16/229 | Alcohol / drugs and dependence | Me Mutu Kai Paipa - Improving the Provision of Cessation to NZ Smokers | $0.58 | Project | Professor Christopher Cunningham | Massey University |
| 16/133 | Occupational health | Implementing a science-based approach for fatigue risk management in nursing | $0.89 | Project | Professor Philippa Gander ONZM | Massey University |
| 16/014 | Intensive care | ICU-ROX: An ICU RCT of conservative vs. standard OXygen therapy | $1.40 | Project | Dr Paul Young | Medical Research Institute of New Zealand |
| 15/667 | Cardio / cerebrovascular disease | Text4Heart: Improving adherence in people with heart disease | $0.20 | Project JRP | Professor Ralph Maddison | Auckland UniServices |
| 15/649 | Gastrointestinal disease | Stress ulcer prophylaxis in the Intensive Care Unit | $0.20 | Project JRP | Dr Paul Young | Medical Research Institute of New Zealand |
| 15/352 | Liver disease | Molecular predictors of liver cancer in Maori with chronic hepatitis B | $0.53 | Project | Professor Edward Gane | Auckland District Health Board |
| 15/297 | Cardio / cerebrovascular disease | Self-directed rehabilitation RCT after stroke: a practical, low cost programme | $1.20 | Project | Dr Harry McNaughton | Medical Research Institute of New Zealand |
| 15/087 | Oncology / Cancer | Lung cancer genetic testing in New Zealand | $1.18 | Project | Professor Mark McKeage | The University of Auckland |
| 14/484A | Oncology / Cancer | How to improve outcomes for women with breast cancer in New Zealand | $0.78 | Project | Professor Ross Lawrenson | University of Waikato |
| 14/160 | Birth defects / congenital conditions | Quality of care and outcomes in children with cleft lip and/or palate | $1.01 | Project | Associate Professor John Thompson | The University of Auckland |
| 13/285 | CNS/Neurological Disorders | Living well with a long term neurological condition | $1.20 | Project | Dr Suzie Mudge | Auckland University of Technology |
| 13/143 | Oncology / Cancer | The conservative management of young women with CIN2 | $1.20 | Project | Associate Professor Peter Sykes | University of Otago |

## Rangahau Hauora Māori

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/792 | Mental health | Interpretation of anomalous experiences: Implications for wāhine Māori | $0.15 | Explorer Grant | Dr Natasha Tassell-Matamua | Massey University |
| 18/652 | Other | Bridging rongoā Māori healing and medical health treatment collaboration | $0.22 | Feasibility Study | Associate Professor Jonathan Koea | Waitemata District Health Board |
| 18/489 | Other | Te Hao Nui | $1.20 | Project | Mr Andrew Sporle | McDonald Sporle Ltd |
| 18/474 | Occupational Health | Te whakahaumaru taiao: safe environments for Māori medical practitioners | $0.99 | Project | Dr Donna Cormack | The University of Auckland |
| 18/471 | Mental health | Revealing the Realities of Racism for Rangatahi in Aotearoa - R4Aotearoa | $1.20 | Project | Dr Sarah-Jane Paine | The University of Auckland |
| 18/127 | Mental Health | Pathways to First Episode Psychosis and Outcomes In Maori | $0.62 | Project | Dr Cameron Lacey | University of Otago |
| 18/037 | Mental health | Under the knife: Why are Māori more likely to die shortly after surgery? | $0.52 | Project | Dr Jason Gurney | University of Otago |
| 17/659 | Nutrition | Transforming nutrition and food security in New Zealand: enabling communities | $0.15 | Explorer Grant | Dr Geoffrey Kira | Massey University |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 17/441 | Family / whanau | Does a Whanau Ora approach improve outcomes for hospitalised tamariki? | $0.93 | Project | Dr Nina Scott | Waikato District Health Board |
| 17/315 | Wellness | Harnessing the spark of life: Maximising whānau contributors to rangatahi wellbeing | $1.20 | Project | Dr Terryann Clark | The University of Auckland |
| 17/309 | Mortality | Pae Herenga: An investigation of Māori whānau end of life cultural care customs | $1.20 | Project | Dr Tess Moeke-Maxwell | The University of Auckland |
| 17/251 | Health services - delivery | Examining Emergency Department Inequities (EEDI): do they exist? | $0.90 | Project | Dr Elana Curtis | The University of Auckland |
| 17/193A | Oncology / Cancer | He Tapu te whare tangata | $1.13 | Project | Professor Beverley Lawton | Research Trust of Victoria University of Wellington |
| 17/060 | Health services - delivery | D3: Data, Decision-making & Development: Using Data to Improve Health Outcomes | $1.20 | Project | Dr Amohia Boulton | Whakauae Research Services |
| 16/587 | Child development | Te Kura Mai i Tawhiti | $0.15 | Feasibility Study | Dr Mihi Ratima | Te Pou Tiringa Incorporated |
| 16/518 | Reproduction / fertility / sexual health | Māori experiences of antenatal care in Tamaki Makaurau | $0.15 | Emerging Researcher First Grant | Dr Anneka Anderson | The University of Auckland |
| 16/444A | Child development | Whānau Manaaki | $3.60 | Programme | Professor Beverley Lawton | Research Trust of Victoria University of Wellington |
| 16/415 | Oncology / Cancer | Cancer support programmes for Māori whānau | $1.04 | Project | Dr Lis Ellison-Loschmann | Massey University |
| 16/346 | Mental health | He Oranga Ngākau: Māori and Trauma Informed Care | $1.19 | Project | Dr Leonie Pihama | University of Waikato |
| 16/338 | Mental health | Māori and Bipolar Disorder | $1.18 | Project | Dr Cameron Lacey | University of Otago |
| 16/268 | Wellness | Honour Project Aotearoa | $1.19 | Project | Dr Leonie Pihama | University of Waikato |
| 16/089 | Ageing | A Māori approach to the assessment and management of dementia | $1.06 | Project | Dr Margaret Dudley | The University of Auckland |
| 16/088 | Alcohol / drugs and dependence | Te Ara Auahi Kore | $1.19 | Project | Mr Andrew Waa | University of Otago |
| 15/315 | Respiratory disease / asthma | Whakapai e te Ara HÃ¤: A health literacy approach to Tamariki Asthma | $1.20 | Project | Dr Tristram Ingham | University of Otago |
| 15/153 | Wellness | Te whakahawea tangata: decoding discimination | $0.33 | Project | Dr Donna Cormack | University of Otago |
| 14/845 | Metabolic Disease | Nga Puna Hauora | $0.13 | NKK Project | Mr Garry Watson | Te Rangatahi o te Whenua Trust |
| 14/608 | Injury – intentional and unintentional | Maori Disability Outcomes: Pathways and experiences after injury | $0.15 | Emerging Researcher First Grant | Dr Emma Wyeth | University of Otago |
| 14/373 | CNS/Neurological Disorders | Augmenting neuroplasticity in the Huntington's disease brain | $1.19 | Project | Dr Melanie Cheung | The University of Auckland |
| 13/394a | Mortality | Preventable Maori Mortality | $0.09 | Project | Mr Andrew Sporle | McDonald Sporle Ltd |
| 13/099 | Respiratory disease / asthma | He Kura: Asthma Support for Maori Tamariki at School | $1.20 | Project | Mrs Bernadette Jones | University of Otago |

## Research Contracts Not Classified by Research Investment Stream

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/710 | Health ethics | Pharmacogenomics and justice: The implications of PGx advances in NZ | $0.006 | Ethics Summer Studentships | Mr. Omar Shahin | University of Otago |
| 19/709 | Health ethics | Examining medical student's views on euthanasia and assisted dying | $0.006 | Ethics Summer Studentships | Mr. Luke Nie | University of Otago |
| 19/708 | Health ethics | An ethical decision-tree for the use of vouchers in qualitative health research | $0.006 | Ethics Summer Studentships | Ms. Georgia Nicholls | University of Waikato |
| 19/707 | Health ethics | Ethical implications of using the IDI database for mental health research | $0.006 | Ethics Summer Studentships | Ms. Noor Aljawahiri | The University of Auckland |
| 19/585 | Wellness | Compilation of Pacific Social Work Resource | $0.005 | Pacific Health Summer Studentship | Dr Fati Tapu | Massey University |
| 19/583 | Reproduction / fertility / sexual health | Rights-based approaches to Māori health: A Kaupapa Māori review | $0.005 | Māori Health Summer Studentship | Te Aomarama Anderson | Te Puawai Tapu Trust |
| 19/582 | Reproduction / fertility / sexual health | Māori women and abortion: A Kaupapa Māori review | $0.005 | Māori Health Summer Studentship | Rebekah Laurence | Te Puawai Tapu Trust |
| 19/580 | Rheumatology / arthritis | Pharmacokinetics of Benzathine Penicillin G in children and young people in NZ | $0.005 | Māori Health Summer Studentship | Esther Pinfold | University of Otago |
| 19/577 | Infectious disease | Kids'Cam | $0.005 | Pacific Health Summer Studentship | Fuakava Tanginoa | University of Otago |
| 19/533 | Dental / Oral health | Can health promotion programs in schools reduce dental caries | $0.005 | Pacific Health Summer Studentship | Miriam Sundborn | Auckland Univesity of Technology |
| 19/497 | Oncology / Cancer | The applicability of ctDNA as a tool for early cancer detection | $0.005 | Pacific Health Summer Studentship | Adam Faatoese | University of Otago |
| 19/486 | Mental health | Tāne Ora Alliance - Emerging Approaches to Health Gains for Māori Men | $0.13 | Māori Health PhD Scholarship | Luke Rowe | Massey University |
| 19/472 | Child development | Health-related policies in schools in the Cook Islands | $0.13 | Pacific Health PhD Scholarship | Heimata Herman | The University of Auckland |
| 19/470 | Nutrition | Mobilizing adolescents to drive health improvements in the Glen Innes community | $0.13 | Pacific Health PhD Scholarship | Alvina Pauuvale | The University of Auckland |
| 19/430 | Mental health (including sleep disorders) | Redefining the social construct of depression through Samoan views | $0.005 | Pacific Health Summer Studentship | Leueta Mulipola | The University of Auckland |
| 19/418 | Wellness | Qualitative analysis of Māori patients' primary health care experiences | $0.005 | Award Maori Health Summer Studentship | Ellie Baxter | University of Otago |
| 19/351 | Nutrition | Vitamin and mineral supplements among Pacific People | $0.005 | Pacific Health Summer Studentship | Meleseini Manukia | Health Research Council of New Zealand |
| 19/341 | Mental health (including sleep disorders) | Māori rangatahi suicide - informant perspectives on determinants and solutions | $0.005 | Award Maori Health Summer Studentship | Zaine Akuhata-Huntington | University of Otago |
| 19/332 | Diabetes | Reducing the burden of Metabolic disease in Maori | $0.28 | Māori Health Postdoctoral Fellowship | Dr Megan Leask | University of Otago |
| 19/320 | Wellness | Tane Māori access to and perceptions of primary care | $0.005 | Award Maori Health Summer Studentship | Manurereau Te Maunga-A-Rongo Allen | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/318 | Obesity | Optimising preschool obesity intervention: the Whānau Pakari preschool project | $0.026 | Māori Health Masters Scholarship | Tami Cave | The University of Auckland |
| 19/311 | Rheumatology / arthritis | What are the reformulation preferences of children and young people receiving regular BPG injections | $0.005 | Pacific Health Summer Studentship | Bridie Laing | University of Otago |
| 19/309 | Immune system / allergy | Longitudinal quantification of unique Escherichia coli strains | $0.005 | Pacific Health Summer Studentship | Jordan Taylor | University of Otago |
| 19/307 | Rheumatology / arthritis | The Immunogenetics of Rheumatic Fever and Rheumatic Heart Disease | $0.005 | Pacific Health Summer Studentship | Toni Anitelea | University of Otago |
| 19/306 | Diabetes | Systematic Review and Clinical Audit of Non-Communicable Diseases in Rarotonga | $0.005 | Pacific Health Summer Studentship | Machaela Tepai | The University of Auckland |
| 19/294 | Cardio / cerebrovascular disease | Is elevated cardiac fibrosis in Pacific patients associated with reduced klotho? | $0.03 | Pacific Health Masters Scholarship | Tumanu Futi | University of Otago |
| 19/291 | Wellness | Tairāwhiti waka, Tairāwhiti tāngata - Examining Tairāwhiti voyaging philosophies | $0.14 | Māori Health PhD Scholarship | Ngahuia Mita | University of Otago |
| 19/284 | Cardio / cerebrovascular disease | Te Tino Rangatiratanga o te Mate Ikura Roro | $0.025 | Māori Health Masters Scholarship | TeWhaawhai Taki | The University of Auckland |
| 19/276 | Oncology / Cancer | The anti-cancer properties of traditional remedies | $0.005 | Pacific Health Summer Studentship | Oprah Pupi | University of Otago |
| 19/247 | Historical trauma | Ka Ora - Exploring the Healing Potential of Birth | $0.13 | Māori Health PhD Scholarship | Marnie Reinfelds | The University of Auckland |
| 19/244 | Reproduction/ fertility/sexual health | Sexting and NZ born Niuean adolescent females | $0.005 | Award Pacific Knowledge Translation | Amio Ikihele | Independent Researcher |
| 19/209 | Health equity | Racial and ethnic bias among registered nurses | $0.13 | Māori Health PhD Scholarship | Sonia Hawkins | The University of Auckland |
| 19/195 | Cardio / cerebrovascular disease | An mHealth approach: Reducing CVD risk among Pacific people living in NZ | $0.13 | Pacific Health PhD Scholarship | Amio Ikihele | The University of Auckland |
| 19/194 | Mental Health | Nga kaiwhakaako, whakapakari tinana me te hauora hinengaro | $0.11 | Māori Health PhD Scholarship | Emerald Muriwai | The University of Auckland |
| 19/193 | Ageing | Deglutition (Swallowing) in Advanced Age | $0.075 | Māori Health PhD Scholarship | Marie Jardine | The University of Auckland |
| 19/191 | Mortality | Staying at home: A Qualitative Descriptive study on Pacific palliative care | $0.03 | Pacific Health Masters | Amy Henry | University of Otago |
| 19/169 | Reproductive system and disorders | The impact of micro-environment composition on oocyte developmental competency | $0.11 | Māori Health PhD Scholarship | Matire Ward | Research Trust of Victoria University of Wellington |
| 19/145 | Diabetes | Food and diabetes:the underlying factors that determine food practices of Tongan | $0.22 | Pacific Health Clinical Training Fellowship | Soana Muimuiheata | Auckland University of Technology |
| 19/140 | Respiratory disease / asthma | Knowledge translation bronchiolitis study | $0.20 | Clinical Research Training Fellowship | Libby Haskell | Auckland DHB Charitable Trust |
| 19/139 | Oncology / Cancer | Development of Chimeric antigen receptor (CAR) T-Cell therapy in New Zealand | $0.80 | Clinical Practitioner Research Fellowship | Dr Robert Weinkove | Malaghan Institute of Medical Research |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/135 | Bone disease | 3D Bioassembly of Functional Bone Grafts: A Lego Approach | $0.49 | Sir Charles Hercus Fellowship | Dr Khoon Lim | University of Otago |
| 19/134 | Cultural Competence | Cultural Competence and Equity focussed activities in Primary Care | $0.22 | Foxley Fellowship | Dr Rawiri Keenan | University of Waikato |
| 19/132 | Dental/oral disease | An environmental scan of Indigenous oral health providers | $0.005 | Award Maori Health Summer Studentship | Maia Tapsell | University of Otago |
| 19/128 | Multimorbidity | Exploring Maori health provider workers perspectives of medication challenges | $0.005 | Award Maori Health Summer Studentship | Kathryn Hippolite | University of Otago |
| 19/125 | Obstetrics complications / perinatal care | Long-term pan-sector outcomes for New Zealand's NICU graduates | $0.31 | Clinical Research Training Fellowship | Dr Benjamin McConchie | University of Otago |
| 19/124 | Infectious disease | The use of WGS to describe the molecular epidemiology of TB in NZ | $0.26 | Clinical Research Training Fellowship | Dr Veronica Playle | The University of Auckland |
| 19/123 | Oncology / Cancer | Enhancement of T cells for use in adoptive immunotherapy protocols | $0.002 | Pacific Health PhD Scholarship | Chris Puliuvea | The University of Auckland |
| 19/110 | Nutrition | Advancing opportunities for big dietary data in New Zealand | $0.44 | Sir Charles Hercus Fellowship | Dr Kathryn Bradbury | The University of Auckland |
| 19/107 | Alcohol / drugs and dependence | Alcohol's harm to others: impacts on children of problem/heavy drinkers | $0.50 | Sir Charles Hercus Fellowship | Dr Taisia Huckle | Massey University |
| 19/094 | Endocrine disease | Development of trials with novel designs | $0.76 | Clinical Practitioner Research Fellowship | Associate Professor Mark Bolland | Auckland DHB Charitable Trust |
| 19/082 | Mental Health | Enhancing Long-Term Recovery in Mood Disorders | $0.43 | Sir Charles Hercus Fellowship | Dr Katie Douglas | University of Otago |
| 19/081 | Gastrointestinal disease | Refining prognostic accuracy in colorectal cancer patients | $0.29 | Clinical Research Training Fellowship | Dr Janet Rhodes | University of Otago |
| 19/078 | Cardio / cerebrovascular disease | Optimal Medication Therapy in Indigenous Populations and specifically in Māori. | $0.29 | Clinical Research Training Fellowship | Leanne Te Karu | The University of Auckland |
| 19/053 | Child development | The neurobiology of maternal care; understanding the critical role of prolactin | $0.50 | Sir Charles Hercus Fellowship | Dr Rosemary Brown | University of Otago |
| 19/038 | Respiratory disease / asthma | Caffeine for the prevention of intermittent hypoxaemia in late preterm neonates | $0.32 | Clinical Research Training Fellowship | Elizabeth Oliphant | The University of Auckland |
| 19/026 | Oncology / Cancer | The applicability of ctDNA as a Diagnostic tool for early Cancer Detection | $0.20 | Sir Thomas Davis Te Patu Kite Rangi Ariki Health Research Fellowship | Dr Dianne Sika-Paotonu | University of Otago |
| 19/019 | General health status | Racism and Māori health: translating research knowledge into policy action | $0.13 | Foxley Fellowship | Natalie Talamaivao | University of Otago |
| 19/017 | Respiratory disease / asthma | Māori experience of using CPAP treatment for OSA | $0.03 | Māori Health Masters Scholarship | Nicola Canter-Burgoyne | Massey University |
| 19/016 | Obesity | Te Maramataka - Improving oranga through environmental mātauranga | $0.009 | Māori Health Development Grant | Dr Isaac Warbrick | Auckland University of Technology |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 19/012 | Cardio / cerebrovascular disease | Patient reported outcomes after cardiac surgery: advanced cardiac imaging study. | $0.32 | Clinical Research Training Fellowship | Dr Mohammed Moharram | University of Otago |
| 19/008 | Renal disease / urology | Prevalence Chronic Kidney Disease in Samoan residents in New Zealand and Samoa | $0.32 | Pacific Health Clinical Training Fellowship | Professor Malama Tafunai | University of Otago |
| 19/007 | CNS/ Neurological Disorders | Delivering neurotrophic growth factors to stimulate and orient axonal outgrowth | $0.50 | Sir Charles Hercus Fellowship | Associate Professor Darren Svirskis | The University of Auckland |
| 19/004 | Surgical disease | Improving Pain After Haemorrhoidectomy | $0.21 | Clinical Research Training Fellowship | Dr Weisi Xia | The University of Auckland |
| 19/003 | Respiratory disease / asthma | Effects of antipyretics on respiratory disease and eczema in infancy | $0.32 | Clinical Research Training Fellowship | Dr Eunicia Tan | The University of Auckland |
| 19/002 | Injury – intentional and unintentional | Improving road safety and health: Understanding kava's impact on driver fitness | $0.28 | Sir Thomas Davis Te Patu Kite Rangi Ariki Health Research Fellowship | Dr Apo Aporosa | University of Waikato |
| 18/829 | Respiratory disease / asthma | Randomised trial of an intervention to increase tuberculosis notifications | $0.45 | Joint Research Partnership Project | Professor Philip Hill | University of Otago |
| 18/821 | Mental Health | Development of cross-agency collaboration to improve employment outcomes | $0.47 | Joint Research Partnership Project | Dr Helen Lockett | Te Pou Limited |
| 18/804 | Disability | Support for gaining employment for people with a long-term condition | $0.32 | Joint Research Partnership Project | Dr Joanna Fadyl | Auckland University of Technology |
| 18/800 | Injury – intentional and unintentional | Taurite Tū- Development of Falls Prevention exercise programme for Māori | $0.18 | Ngā Kanohi Kitea Project | Katrina Bryant | Te Runanga o Otakou |
| 18/799 | Skin disease | He iti kahikatoa pakaru rikiriki te totara: Kānuka drug discovery | $0.10 | Ngā Kanohi Kitea Project | Bella Paenga | Hikurangi Bioactives Limited Partnership |
| 18/796 | Wellness | Koeke a ko ake nei towards intergenerational positive aging for Ngati Pikiao | $0.20 | Ngā Kanohi Kitea Project | Waitiahoaho Emery | Ngati Pikiao Iwi Trust |
| 18/794 | Wellness | Whāia te Manaaki: manaakitanga and hauora for Te Atiawa ki Whakarongotai | $0.20 | Ngā Kanohi Kitea Project | Kiri Parata | Atiawa ki Whakarongotai Charitable Trust Board |
| 18/788 | Other | Evidence to guide investment in a model of primary care for all | $1.30 | Joint Research Partnership Project | Professor Nicolette Sheridan | Massey University |
| 18/776 | Rheumatology / arthritis | A decision aid to incorporate patient preferences into biologic therapies | $0.21 | Joint Research Partnership Project | Professor Carlo Marra | University of Otago |
| 18/773 | Infectious disease | Pertussis Immunisation in Pregnancy--Infant Outcomes | $0.21 | Joint Research Partnership Project | Dr Helen Petousis-Harris | The University of Auckland |
| 18/766 | Oncology / Cancer | Gaps in the provision of radiotherapy for early breast cancer | $0.065 | Joint Research Partnership Project | Dr Karen Bartholomew | Waitemata District Health Board |
| 18/765 | Oncology / Cancer | Analysis of DCIS data in the National Breast Cancer Register | $0.12 | Joint Research Partnership Project | Dr Annette Lasham | The University of Auckland |
| 18/764 | Oncology / Cancer | Spatial variability in breast cancer incidence, care and outcomes | $0.20 | Joint Research Partnership Project | Dr Sandar Tin Tin | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 18/756 | Oncology / Cancer | Preventing breast cancer metastasis with conjugate vaccines targeting human HER2 | $0.25 | Joint Research Partnership Project | Dr Robert Weinkove | Malaghan Institute of Medical Research |
| 18/753 | Oncology / Cancer | Investigating Fn14 as a driver of breast cancer metastasis | $0.13 | Joint Research Partnership Project | Dr Heather Cunliffe | University of Otago |
| 18/750 | Oncology / Cancer | Targeting HIF-1 in Triple Negative Breast Cancer using glutaminase inhibitors | $0.24 | Joint Research Partnership Project | Dr Dean Singleton | The University of Auckland |
| 18/742 | Oncology / Cancer | Targeting breast cancer metastasis with heparan sulfate mimetics | $0.10 | Joint Research Partnership Project | Professor John Miller | Research Trust of Victoria University of Wellington |
| 18/664 | Child development | Rangahau Ara Oranga | $0.50 | Māori Health Emerging Leader Fellowship | Dr Reremoana Theodore | University of Otago |
| 18/588 | Oncology / Cancer | Improving the quantity and quality of life for Māori with cancer | $0.50 | Māori Health Emerging Leader Fellowship | Dr Jason Gurney | University of Otago |
| 18/571 | Wellness | Privilege and Health Inequity, the role for Mātauranga Māori | $0.35 | Award Hohua Tutengaehe Fellowship | Dr Belinda Borell | Massey University |
| 18/566 | Obesity | Pasifika Medicinal Plants: Elucidating the Science Behind the Tradition | $0.35 | Pacific Health Postdoc Fellowship | Dr Victoria Woolner | Research Trust of Victoria University of Wellington |
| 18/564 | Mental health | Deliberate Self Harm among Pacific | $0.01 | Award Pacific Knowledge Translation | Ms Synthia Dash | The University of Auckland |
| 18/536 | Health services - delivery | The effect of discrimination on health outcomes for Pacific people | $0.03 | Pacific Health Masters | Ms Sarah Kapeli | The University of Auckland |
| 18/491 | Mental health | Whakapiki wairua: Study of a Maori mindfulness intervention in a Wharekura | $0.49 | Award Maori Health Postdoc Fellow | Dr Marama McDonald | University of Waikato |
| 18/469 | Diabetes | Co-designing a community-based intervention programme for prediabetes | $0.13 | Pacific Health PhD Scholarship | Mrs Veisinia Pulu-Lakai | Massey University |
| 18/373 | Vision / hearing / speech | Using pluripotent stem cells to determine the cellular basis of hearing loss | $0.08 | Award Maori PhD Scholarship | Miss Blaise Forrester-Gauntlett | University of Waikato |
| 18/352 | Impairment | Hearing Health in Samoan and Tokelauan Populations | $0.03 | Pacific Health Masters | Latasi Koro | The University of Auckland |
| 18/338 | CNS/neurological | CHOCS and TOFU Projects: Ophthalmic Changes in Diabetes | $0.17 | Pacific Health Clinical Training Fellow | Dr James Slater | The University of Auckland |
| 18/293 | Family / whanau | The foster care-giving relationship with new-borns who have feeding difficulties | $0.03 | Award Maori Master Scholarship | Mrs Nari Hann | Massey University |
| 18/280 | Aging | Fractures and Falls Among Older Adults in New Zealand | $0.13 | Pacific Health PhD | Samuela Ofanoa | The University of Auckland |
| 18/262 | Health ethics | Whānau consent: an expression of indigenous rights | $0.13 | Award Maori PhD Scholarship | Ms Hannah Burgess | The University of Auckland |
| 18/258 | Cardiovascular/ cerebrovascular disease | Evaluation of a new screening tool for atrial fibrillation in Pacific people | $0.29 | Pacific Health Davis Award | Dr John Sluyter | The University of Auckland |
| 18/209 | Nutrition | Effects of artificial sweetener in the maternal diet on offspring fertility | $0.12 | Award Maori PhD Scholarship | Pania Bridge-Comer | The University of Auckland |
| 18/201 | Infectious disease | Does inhibition of quorum sensing increase antibiotic resistance spread? | $0.13 | Award Maori PhD Scholarship | Mr Howard Maxwell | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 18/179 | Physical activity/ exercise | The Effectiveness of Circuit Based Exercise in Cook Islands Communities | $0.13 | Pacific Health PhD | Troy Ruhe | University of Otago |
| 18/114 | Immune system / allergy | Impact of Microenvironment on Dendritic Cell Function | $0.50 | Award Sir Charles Hercus Fellowship | Dr Lisa Connor | Victoria University of Wellington |
| 18/113 | Respiratory disease / asthma | The role of a sublingual bacterial vaccine in adult bronchiectasis patients. | $0.32 | Award Clinical Research Training Fellow | Dr William Good | The University of Auckland |
| 18/111 | Health services - delivery | Process evaluation of trials: maximising the potential for implementation | $0.50 | Award Sir Charles Hercus Fellowship | Dr Daniel Ribeiro | University of Otago |
| 18/1038 | Reproduction / fertility / sexual health | Young Māori women & LARC: Identifying barriers to access in primary health care | $0.01 | Ngā Kanohi Kitea Development Grant | Dr Jane Green | Te Puawai Tapu Trust |
| 18/1035 | Other | He Maunga Pakohe Rautaki Hauora | $0.01 | Ngā Kanohi Kitea Development Grant | Mrs Victoria Thorn | Kaikaiawaro Charitable Trust |
| 18/1030 | Other | Enabling self-care through personalised mHealth | $0.21 | Joint Research Partnership Project | Dr Rosie Dobson | The University of Auckland |
| 18/1005 | Other | Independent Research Organisation Funding | $2.84 | Independent Research Organisation Fund | Dr Cherryl Smith | Te Atawhai o te Ao: Independent Maori Institute for Environment & Health |
| 18/1004 | Other | Independent Research Organisation Funding | $2.10 | Independent Research Organisation Fund | Dr Amohia Boulton | Whakauae Research Services |
| 18/1003 | Other | Independent Research Organisation Funding | $10.68 | Independent Research Organisation Fund | Professor Graham Le Gros CNZM | Malaghan Institute of Medical Research |
| 18/1002 | Other | Independent Research Organisation Funding | $1.70 | Independent Research Organisation Fund | Professor Richard Beasley | Medical Research Institute of New Zealand |
| 18/095 | Oncology / Cancer | The prognostic significance of immune cell infiltrates in meningioma | $0.24 | Clinical Research Training Fellowship | Dr Clinton Turner | Auckland DHB Charitable Trust |
| 18/086 | Child development | Optimising Parent-Child Interaction Therapy for childhood conduct problems | $0.14 | Award Foxley | Dr Melanie Woodfield | Auckland DHB Charitable Trust |
| 18/073 | Gastrointestinal disease | Developing a Gut Dysfunction Scoring Tool in Critical Illness | $0.32 | Award Clinical Research Training Fellow | Ms Varsha Asrani | The University of Auckland |
| 18/056 | Obstetrics complications / perinatal care | Long term outcomes of children born at risk of neonatal hypoglycaemia | $0.25 | Award Clinical Research Training Fellow | Dr Rebecca Griffith | The University of Auckland |
| 18/048 | CNS/ Neurological Disorders | Genetic characterisation of the epileptic encephalopathies | $0.32 | Award Clinical Research Training Fellow | Dr Gemma Poke | University of Otago |
| 18/046 | Mental health | Management of psychological factors after mild traumatic brain injury | $0.41 | Award Practitioner Research Fellowship | Dr Deborah Snell | Canterbury District Health Board |
| 18/041 | Surgery - emergency | Development and application of a risk prediction tool for emergency laparotomy | $0.20 | Award Clinical Research Training Fellow | Dr Ahmed Barazanchi | The University of Auckland |

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|---|---|---|---|---|---|---|
| 18/031 | Health services - delivery | Improving Patient Safety in New Zealand General Practice | $0.32 | Award Clinical Research Training Fellow | Dr Sharon Leitch | University of Otago |
| 18/027 | Reproduction / fertility / sexual health | Bi-modal anti-MÃ¼llerian hormone signalling in the ovary. | $0.50 | Award Sir Charles Hercus Fellowship | Dr Michael Pankhurst | University of Otago |
| 18/026 | Orthopaedics | Designing and using animal models to improve tendon healing | $0.31 | Award Clinical Research Training Fellow | Dr Mark Zhu | The University of Auckland |
| 18/024 | Infectious disease | Combatting Tuberculosis at Local and International Frontlines | $0.50 | Award Sir Charles Hercus Fellowship | Dr Htin Lin Aung | University of Otago |
| 18/013 | Surgery | Perioperative Local Anaesthetic | $0.21 | Award Clinical Research Training Fellow | Dr Wiremu MacFater | The University of Auckland |
| 18/006 | Cardio / cerebrovascular disease | Big Data - Creating New Insights into Heart Failure | $0.50 | Award Sir Charles Hercus Fellowship | Dr Hamish Jamieson | University of Otago |
| 18/003 | Reproductive system and disorders | Pacific Women Navigating Colposcopy Services | $0.05 | Pacific Health PhD | Georgina McPherson | Auckland University of Technology |
| 17/719 | Mental Health | Indigenous Solutions: Enabling Māori & Pacific mental health resilience | $0.79 | Global Alliance for Chronic Diseases Project | Dr Kahu McClintock | Te Rau Ora |
| 17/707 | Mental Health | Pathways to First Episode Psychosis and Outcomes In Maori | $0.54 | Global Alliance for Chronic Diseases Project | Dr Cameron Lacey | University of Otago |
| 17/705 | Mental Health | Primary care e-screening for mental health among TeTai Tokerau youth | $0.62 | Global Alliance for Chronic Diseases Project | Professor Felicity Goodyear-Smith | Auckland UniServices |
| 17/678 | Infectious disease | Genetic and Molecular Basis of Drug Resistance and Drug Action in Vivax Malaria | $0.45 | Project JRP | Dr Bruce Russell | University of Otago |
| 17/672 | Oncology / Cancer | The potential of immunotherapy as a treatment for ER+ve breast cancer | $0.20 | Joint Research Partnership Project | Dr Anita Dunbier | University of Otago |
| 17/671 | Oncology / Cancer | Development of inhibitors of PC-PLC as anticancer therapeutics | $0.20 | Joint Research Partnership Project | Associate Professor David Barker | The University of Auckland |
| 17/669 | Oncology / Cancer | Targeting growth hormone signal transduction in breast cancer | $0.20 | Joint Research Partnership Project | Dr Jo Perry | The University of Auckland |
| 17/641 | Obesity | Prevention of Childhood Obesity through sugar reduction | $0.04 | International Relationship Fund | Dr Gerhard Sundborn | The University of Auckland |
| 17/640 | Obesity | Technology enabled behaviour change to reduce childhood obesity | $0.05 | International Relationship Fund | Associate Professor Robyn Whittaker | The University of Auckland |
| 17/638 | Obesity | Indigenous approaches to reducing childhood obesity | $0.04 | International Relationship Fund | Professor Boyd Swinburn | The University of Auckland |
| 17/630 | Obesity | An international collaboration to reduce infant obesity in high risk groups | $0.06 | International Relationship Fund | Professor Rachael Taylor | University of Otago |
| 17/596 | Vision / hearing / speech | Using Chinese medicine to treat tinnitus: targeting metabolic networks | $0.40 | International Relationship Fund | Dr Yiwen Zheng | University of Otago |
| 17/515 | Wellness | Attitudes, knowledge, behaviors and health in Rarotongan Adolescents | $0.02 | Pacific Health Masters | Mayor Pokino | The University of Auckland |

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|---|---|---|---|---|---|---|
| 17/497 | Health services - delivery | Senior nurses understanding of health equity. | $0.02 | Award Maori Master Scholarship | Mrs Sonia Hawkins | The University of Auckland |
| 17/496 | Child development | Key influences for bed sharing and the relationship with SUDI | $0.11 | Award Maori PhD Scholarship | Mrs Melanie MacFarlane | The University of Auckland |
| 17/495 | Wellness | Indigenous approaches to family restoration and wellbeing | $0.064 | Pacific Health PhD | Sesimani Havea | Massey University |
| 17/492 | Reproduction / fertility / sexual health | Becoming sexual beings: Māori recommendations for sexual violence prevention | $0.45 | Award Maori Health Postdoc Fellow | Dr Jade Le Grice | The University of Auckland |
| 17/487 | Diabetes | Te reo tipu - a bittersweet quest for new anti-diabetic agents in rongoā rākau | $0.50 | Award Maori Health Postdoc Fellow | Dr Jonni Koia | University of Waikato |
| 17/481 | Mental health (including sleep disorders) | 'Run it Straight!' - Pasifika Men, Mental Wellbeing and Elite Sports | $0.11 | Pacific Health PhD | Caleb Marsters | The University of Auckland |
| 17/479 | Obesity | Non-Communicable Disease Risk in Rarotongan Adolescents | $0.11 | Pacific Health PhD | Siobhan Tu'akoi | The University of Auckland |
| 17/472 | Other | Pacific Island Peoples Experiences of Bariatric Surgery Health Care Engagement | $0.32 | Pacific Health Postdoc Fellowship | Dr Tamasin Taylor | Auckland University of Technology |
| 17/466 | Mental health | Health implications from education for Pasifika people and their families. | $0.38 | Pacific Health Postdoc Fellowship | Dr Jesse Kokaua | University of Otago |
| 17/465 | Diabetes | Text Messaging Support for Tongan people with prediabetes | $0.11 | Pacific Health PhD | Miss Julienne Faletau | The University of Auckland |
| 17/458 | Obesity | To investigate health-related behaviours of Rarotongan adolescents | $0.02 | Pacific Health Masters | Miss Heimata Herman | |
| 17/453 | Health ethics | Genetics in iwi health: A journey to understanding. | $0.47 | Award Maori Health Postdoc Fellow | Dr Julia Wilson | University of Otago |
| 17/342 | Family / whanau | Tūhono Māori: Promoting secure whānau relationships for traumatised mokopuna | $0.49 | Award Maori Health Postdoc Fellow | Dr Alayne Mikahere-Hall | Auckland University of Technology |
| 17/265 | Infectious disease | The Epidemiology of Respiratory Syncytial Virus (RSV) in New Zealand Children | $0.1 | Pacific Health PhD | Ms Namrata Prasad | The University of Auckland |
| 17/210 | Alcohol / drugs and dependence | Taiohe and whānau entering acute mental health with alcohol and drug issues | $0.11 | Award Maori PhD Scholarship | Ms Debra Gerrard | Auckland University of Technology |
| 17/161 | Intensive care | Knowledge Translation in the management of oxygen therapy in Intensive Care | $0.25 | Award Clinical Research Training Fellow | Mrs Diane Mackle | Medical Research Institute of New Zealand |
| 17/148 | Intensive care | To Suction or Not to Suction - that is the question | $0.24 | Award Clinical Research Training Fellow | Ms Eileen Gilder | Auckland DHB Charitable Trust |
| 17/141 | Cardio / cerebrovascular disease | Improving Outcomes after Cardiothoracic Surgery | $0.85 | Award Practitioner Research Fellowship | Dr Shay McGuinness | Auckland DHB Charitable Trust |
| 17/134 | Health services - delivery | Medicine Optimisation in Older Adults in Primary Care-Multidisciplinary Approach | $0.24 | Award Clinical Research Training Fellow | Ms Joanna Hikaka | The University of Auckland |
| 17/114 | Mental health (including sleep disorders) | Depression in young Samoan females: The views of mental health service providers | $0.02 | Pacific Health Masters | Sarah McLean | The University of Auckland |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 17/103 | CNS/ Neurological Disorders | Naturally biased? Exploring neuropeptide signal pathway bias in pain. | $0.50 | Award Sir Charles Hercus Fellowship | Dr Christopher Walker | The University of Auckland |
| 17/086 | Child development | Korero mai: taitamariki Maori development of healthy relationships | $0.25 | Award Clinical Research Training Fellow | Ms Terry Dobbs | Auckland University of Technology |
| 17/058 | Infectious disease | Novel metabolic processes to target persistent tuberculosis | $0.50 | Award Sir Charles Hercus Fellowship | Dr Ghader Bashiri | The University of Auckland |
| 17/050 | Bone disease | Novel osteoprogenitor cell populations involved in bone healing | $0.50 | Award Sir Charles Hercus Fellowship | Dr Brya Matthews | The University of Auckland |
| 17/039 | CNS/ Neurological Disorders | Dementia and Parkinson's disease: Tau pathology and cerebrovascular health | $0.50 | Award Sir Charles Hercus Fellowship | Dr Tracy Melzer | University of Otago |
| 17/035 | Gastrointestinal disease | The rectosigmoid brake and its utility as a neuromodulation target | $0.25 | Award Clinical Research Training Fellow | Dr Anthony Lin | The University of Auckland |
| 17/018 | Ageing | Improving outcomes for support workers in aged care | $0.25 | Award Clinical Research Training Fellow | Mr Karol Czuba | Auckland University of Technology |
| 17/016 | Oncology / Cancer | The effects of comorbidity on breast cancer care and outcomes | $0.17 | Award Clinical Research Training Fellow | Dr Melissa Edwards | The University of Auckland |
| 17/013 | Environmental Health | Impact of built environment interventions on children's physical activity | $0.44 | Award Sir Charles Hercus Fellowship | Associate Professor Melody Smith | The University of Auckland |
| 17/011 | Intensive care | Prevention and treatment of fever in the ICU | $0.72 | Award Practitioner Research Fellowship | Dr Paul Young | Capital and Coast District Health Board |
| 17/009 | Obesity | Deciphering gender and ethnic disparity in obesity and cardiometabolic disease. | $0.50 | Award Sir Charles Hercus Fellowship | Dr Jennifer Miles-Chan | The University of Auckland |
| 17/007 | Nutrition | Impact of sugar-sweetened beverage taxation in the Pacific | $0.25 | Award Clinical Research Training Fellow | Dr Andrea Teng | University of Otago |
| 17/001 | Health services - delivery | Mahi Ngātahi - Culturally responsive ways of working together | $0.11 | Award Maori PhD Scholarship | Ms Zoe Tipa | Auckland University of Technology |
| 16/785 | Wellness | WellConnectedNZ – Improving individuals' health by strengthening community connectedness – a proof of concept initiative | $1.13 | Joint Research Partnership Project | Dr Michael Epton | Canterbury District Health Board |
| 16/780 | Diabetes | Improving metformin adherence and persistence in people with type 2 diabetes | $0.21 | Joint Research Partnership Project | Associate Professor Lianne Parkin | University of Otago |
| 16/736 | Diabetes | Mana Tū: a whānau ora approach to long term conditions | $2.38 | Joint Research Partnership Project | Dr Matire Harwood | National Hauora Coalition |
| 16/726 | Diabetes | Innovative management of diabetes with a comprehensive digital health programme | $1.59 | Joint Research Partnership Project | Professor Diana Sarfati | University of Otago |
| 16/724 | Diabetes | Preventing type 2 diabetes with Probiotics and Prebiotics (PDP2) | $1.80 | Joint Research Partnership Project | Professor Jeremy Krebs | University of Otago |
| 16/713 | Diabetes | The Pasifika Prediabetes Youth Empowerment Programme (PPYEP) | $1.00 | Joint Research Partnership Project | Dr Tupa'ilevaililigi Ridvan Firestone | Massey University |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 16/704 | Child development | He Puna Reo He Puna Oranga Whānau: Impact of urban Puna Reo on health & wellbeing | $0.19 | NKK Project | Ms Toni Roberts | Te Puna Reo o Nga Kakano Charitable Trust |
| 16/703 | Environmental Health | Te Ohu Mo Papatuanuku: Contaminated Site Toolkit for Community Use | $0.20 | NKK Project | Ms Tracey Godfery | Te Runanga o Ngati Awa |
| 16/697 | Infectious disease | Collaborative fever etiology research in South East Asia | $0.45 | Project JRP | Professor John Crump | University of Otago |
| 16/688 | Oncology / Cancer | Targeting HP1 regulated pathways to suppress breast cell invasion | $0.20 | Joint Research Partnership Project | Dr Tracy Hale | Massey University |
| 16/690 | Oncology / Cancer | Using CRISPR-Cas9 to predict sensitivity to trastuzumab emtansine | $0.14 | Joint Research Partnership Project | Dr Francis Hunter | The University of Auckland |
| 16/623 | Gastrointestinal disease | Reducing gut dysfunction and organ dysfunction in severe acute pancreatitis | $0.40 | International Relationship Fund | Professor John Windsor | The University of Auckland |
| 16/586 | Wellness | Whakarauora Hapori | $0.48 | Award Maori Health Postdoc. Fellow | Dr Ruakere Hond | Te Pou Tiringa Incorporated |
| 16/555 | Health services - delivery | Ambulatory sensitive hospitalisations of Pacific children in New Zealand; the parents' perspectives | $0.11 | Pacific Health PhD | Mrs Ellaine Ete Rasch | Victoria University of Wellington |
| 16/550 | CNS/neurological | Development of a Neural Interface for Prosthetics | $0.11 | Award Maori PhD Scholarship | Mr Mahonri Owen | University of Waikato |
| 16/541 | Environmental health | Kia Maanu, Kia Ora: Examining Māori Water Safety | $0.08 | Award Maori PhD Scholarship | Dr Chanel Phillips | University of Otago |
| 16/516 | Gambling | Exploring the perceptions and experiences of Tongan males towards gambling in NZ | $0.11 | Pacific Health PhD Scholarship | Mr Edmond Fehoko | Auckland University of Technology |
| 16/508 | Ageing | Improving the uptake of hearing health services in older Pasifika people | $0.29 | Pacific Health Postdoc Fellowship | Dr Ravi Reddy | The University of Auckland |
| 16/491 | Reproduction/ fertility/sexual health | Investigating customary Māori philosophies regarding the whare tangata (womb) | $0.11 | Award Maori PhD Scholarship | Ms Ngahuia Murphy | University of Waikato |
| 16/477 | Alcohol/drugs of dependence | Maraea - supportive solutions for indigenous children who misuse substances | $0.54 | Award Maori Health Postdoc. Fellow | Dr Lisa Chant | Auckland University of Technology |
| 16/468 | Mental health | Pacific peoples experience of mental disorder and mental health services | $0.02 | Pacific Health Masters | Mrs Acelini Hakopa | University of Otago |
| 16/462 | Injury – intentional and unintentional | Kava drink-driving: Driver safety and injury minimisation to improve health | $0.23 | Pacific Health Postdoc Fellowship | Dr Apo Aporosa | University of Waikato |
| 16/453 | Injury – intentional and unintentional | Koi Te Mata Punenga | $0.30 | Award Nga Pou Senior Fellowship | Dr Leonie Pihama | University of Waikato |
| 16/452 | Infectious disease | Inflammation or infection? The role of biomarkers after colon surgery | $0.17 | Pacific Health Clinical Training Fellow | Dr Bruce Su'a | The University of Auckland |
| 16/450 | Aging | A Qualitative Investigation of Experiences of Aged Residential Care by Māori | $0.1 | Award Maori PhD Scholarship | Ms Karen Keelan | University of Otago |
| 16/449 | Other | Optimising Post-Operative Pain Relief Following Abdominal Surgery | $0.11 | Award Maori PhD Scholarship | Dr Jamie-Lee Rahiri | The University of Auckland |
| 16/440 | Wellness | Taiora Taimau | $0.30 | Award Nga Pou Senior Fellowship | Dr Mihi Ratima | Te Pou Tiringa Incorporated |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 16/125 | Respiratory disease / asthma | High flow nasal cannulae therapy in COPD and Heart Failure | $0.25 | Award Clinical Research Training Fellow | Dr Steven McKinstry | Medical Research Institute of New Zealand |
| 16/083 | Child development | IL-1 signalling and developmental programming of offspring metabolic health | $0.41 | Award Sir Charles Hercus Fellowship | Dr Clare Reynolds | The University of Auckland |
| 16/072 | Reproduction / fertility / sexual health | Prescription Medicine Use in Pregnancy | $0.25 | Award Clinical Research Training Fellow | Dr Sarah Donald | University of Otago |
| 16/065 | Respiratory disease / asthma | A model of care for Māori and Pacific People with chronic airways disease | $0.24 | Award Clinical Research Training Fellow | Dr Sandra Hotu | The University of Auckland |
| 16/058 | Health services – knowledge resources | Ethnic differences in energy metabolism among New Zealanders | $0.25 | Award Clinical Research Training Fellow | Dr Patricia Whitfield | University of Otago |
| 16/054 | Oncology / Cancer | Predicting brain tumour prognosis from cell immortality pathways. | $0.50 | Award Sir Charles Hercus Fellowship | Dr Tania Slatter | University of Otago |
| 16/045 | Health services - clinical | Serotonin agonists to prevent post-operative ileus after abdominal surgery | $0.25 | Award Clinical Research Training Fellow | Dr Tony Milne | The University of Auckland |
| 16/043 | Child development | Can placental stem cells be used to improve fetal outcomes? | $0.50 | Award Sir Charles Hercus Fellowship | Dr Joanna James | The University of Auckland |
| 16/037 | Infectious disease | Vitamin C requirement and mechanisms of action in severe infection | $0.50 | Award Sir Charles Hercus Fellowship | Associate Professor Anitra Carr | University of Otago |
| 16/034 | CNS/ Neurological Disorders | Taking Charge After Stroke (TACAS) | $0.25 | Award Clinical Research Training Fellow | Dr Vivian Fu | Medical Research Institute of New Zealand |
| 16/022 | Rheumatology / arthritis | Osteoarthritis: a case of cellular mismanagement? | $0.50 | Award Sir Charles Hercus Fellowship | Dr Raewyn Poulsen | The University of Auckland |
| 16/003 | Child development | Extending the window of opportunity for saving babies brains | $0.50 | Award Sir Charles Hercus Fellowship | Dr Joanne Davidson | The University of Auckland |
| 15/696 | Oncology / Cancer | When is enough, enough? Margins of excision after breast conservation for BCa. | $0.20 | Joint Research Partnership Project | Associate Professor Ian Campbell | The University of Auckland |
| 15/688 | Injury (intentional and unintentional) | Kokiritia te Ora: Promoting Vitality, Enhancing Belonging for Ngatiwai Tamariki | $0.2 | NKK Project | Mr. Wi Pirihi | Ngatiwai Education |
| 15/681 | Mental Health | Te Ara Ririki | $0.17 | NKK Project | Ms Ngaropi Cameron | Tu Tama Wahine o Taranaki |
| 15/678 | Wellness | Association between Maori cultural identity and health | $0.19 | Ngā Kanohi Kitea Project | Mrs Teresa Kirkwood | Ngati Tamaoho Trust |
| 15/642 | Oncology / Cancer | Understanding the role of aspirin in breast cancer treatment | $0.2 | Joint Research Partnership Project | Dr Anita Dunbier | University of Otago |
| 15/476 | Other | Towards medical education that addresses Indigneous rights to health | $0.057 | Award Maori PhD Scholarship | Ms Anna Fay | The University of Auckland |
| 15/471 | Reproduction / fertility / sexual health | Iho - a cord between two worlds. Traditional Maori Birthing Practices. | $0.08 | Award Maori PhD Scholarship | Ms Kelly Tikao | University of Canterbury |
| 15/460 | Obesity | Pasifika solutions to reduce sugary drink consumption | $0.30 | Pacific Health Davis Award | Dr Gerhard Sundborn | The University of Auckland |
| 15/454 | Rheumatology / arthritis | Lipid profiles as a risk factor for metabolic disease in Polynesians | $0.11 | Pacific Health PhD | Miss Jaye Moors | University of Otago |

| HRC Ref | Focus Area | Proposal Title | $m | Contract Type | Lead Researcher | Host Organisation |
|---|---|---|---|---|---|---|
| 15/447 | Child development | Developing a Pacific Youth Health Model | $0.11 | Pacific Health PhD | Ms Hana Tuisano | Massey University |
| 15/446 | Oncology / Cancer | Teaching immune cells old tricks: an innovative strategy for treating Cancer | $0.39 | Award Maori Health Postdoc Fellow | Dr Kimiora Henare | The University of Auckland |
| 15/428 | Other | A kaupapa Maori feasibility study to improve type 2 diabetes in Whangaroa | $0.34 | Award Maori Health Postdoc. Fellow | Dr Jennifer Reid | The University of Auckland |
| 15/426 | Other | Maori participation in traditional Maori health practices | $0.11 | Award Maori PhD Scholarship | Ms Erena Wikaire | The University of Auckland |
| 15/413 | Health services - delivery | 'Created Equal': Investigating health system perspectives of disparities | $0.07 | Award Maori PhD Scholarship | Mrs Tania Huria | University of Otago |
| 15/403 | Wellness | Food availability for Maori children - A rights based approach | $0.12 | Award Maori PhD Scholarship | Ms Christina McKerchar | University of Otago |
| 15/397 | Wellness | Pacific students' health, wellbeing & success in higher education | $0.1 | Pacific Health PhD | Associate Professor Faafetai Sopoaga | University of Otago |
| 15/081 | Respiratory disease / asthma | Registry based clinical trials | $0.80 | Award Practitioner Research Fellowship | Professor Dr Ralph Stewart | Auckland District Health Board |
| 15/035 | Diabetes | New insights into pancreatogenic diabetes | $0.50 | Award Sir Charles Hercus Fellowship | Associate Professor Max Petrov | The University of Auckland |
| 15/030 | Other | Towards the treatment of toxic thoracic lymph in critical illness | $0.25 | Clinical Research Training Fellowship | Dr Alistair Escott | The University of Auckland |
| 15/019 | Biomedical - psychology | Chronic stress induced adaptations in hypothalamic brain circuits | $0.49 | Award Sir Charles Hercus Fellowship | Dr Karl Iremonger | University of Otago |
| 15/008 | Obesity | Better Outcomes after Bariatric Surgery: The BOBS Study | $0.17 | Clinical Research Training Fellowship | Dr Melanie Lauti | The University of Auckland |
| 14/512 | Cardio / cerebrovascular disease | Samoan peoples' experiences of CVD pathways of care | $0.11 | Pacific Health PhD | Victoria Lesatele | Massey University |
| 14/081 | CNS/ Neurological Disorders | A kaupapa Maori intervention for stroke-related communication disorders | $0.37 | Award Maori Health Postdoc Fellow | Dr Karen Brewer | The University of Auckland |
| 14/064 | Mental health | Cook Island youth views toward positive mental wellbeing and suicide prevention. | $0.11 | Pacific Health PhD | Miss Eliza Puna | The University of Auckland |
| 14/052 | Oncology / Cancer | Testicular cancer in Maori men: what is driving the disparity? | $0.36 | Award Maori Health Postdoc Fellow | Dr Jason Gurney | University of Otago |
| 14/047 | CNS/ Neurological Disorders | Use of EpiNet platform for clinical trials & epidemiological studies in epilepsy | $0.91 | Award Practitioner Research Fellowship | Dr Peter Bergin | Auckland DHB Charitable Trust |
| 14/031A | Oncology / Cancer | Diet and risk of colorectal cancer in UK Biobank | $0.08 | Award Girdler's | Dr Kathryn Bradbury | The University of Auckland |
| 14/016 | Child development | Pathways to healthy development in New Zealand preschool children | $0.25 | Award Clinical Research Training Fellow | Dr Cordelia Russell | The University of Auckland |
| 14/015 | Vision / hearing / speech | Spatially-resolved metabolomics of cataractogenesis | $0.50 | Award Sir Charles Hercus Fellowship | Dr Angus Grey | The University of Auckland |
| 14/010 | Cardio / cerebrovascular disease | Can we predict CVD risk population-wide using only routinely collected data? | $0.17 | Award Clinical Research Training Fellow | Dr Suneela Mehta | The University of Auckland |

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|---|---|---|---|---|---|---|
| 14/002 | Vision / hearing / speech | A novel biosynthetic tissue substitute for transplantation | $0.50 | Award Practitioner Research Fellowship | Professor Dipika Patel | The University of Auckland |
| 13/590 | Cardio / cerebrovascular disease | Kaupapa Maori Evaluation of a Health Literacy-Appropriate CVD Intervention | $0.11 | Award Maori PhD Scholarship | Dr Teah Carlson | Massey University |
| 13/575 | Oncology / Cancer | Taku aroha ki nga tai e ngunguru e ra:Transforming Maori health cancer workforce | $0.11 | Award Maori PhD Scholarship | Ms Monica Koia | Massey University |
| 13/049 | Oncology / Cancer | Switching off tumour-promoting immune cells to develop novel cancer therapies | $0.50 | Award Sir Charles Hercus Fellowship | Associate Professor Bridget Stocker | Research Trust of Victoria University of Wellington |
| 13/014 | Cardio / cerebrovascular disease | Brainstem Hypoperfusion as a Causative Mechanism for Neurogenic Hypertension | $0.50 | Award Sir Charles Hercus Fellowship | Dr Fiona McBryde | The University of Auckland |
| 12/850 | Aging | Implementing Models of Primary Healthcare for Older Adults with Complex Needs | $1.2 | Joint Research Partnership Project | Associate Professor Timothy Kenealy | The University of Auckland |

# Appendix 6. Glossary of Abbreviations and Terms

| Abbreviation and Term | |
|---|---|
| ACC | Accident Compensation Corporation |
| ACTA | Australian Clinical Trials Alliance |
| ANZCTR | Australian New Zealand Clinical Trials Registry |
| Beaven Medal | Recognises excellence in translational health research that has had high impact on clinical practice and patient health |
| CPN | Commercialisation Partner Network |
| DHB | District Health Board |
| DMCC | Data Monitoring Core Committee |
| EU | European Union |
| GACD | Global Alliance for Chronic Diseases |
| GTAC | Gene Technology Advisory Committee |
| HDEC | Health and Disability Ethics Committee |
| HRC | Health Research Council of New Zealand |
| HRCEC | HRC Ethics Committee |
| HWNZ | Health and Wellbeing in New Zealand Research Investment Stream |
| IHRAC | International Health Research Advisory Committee |
| IOACC | Improving Outcomes for Acute and Chronic Conditions Research Investment Stream |
| IRO | Independent Research Organisation |
| Key Decision Drivers | Goals of the HRC because they drive everything we do |
| MBIE | Ministry of Business, Innovation and Employment |
| MoH | Ministry of Health |
| MSD | Ministry of Social Development |
| NGO | Non-Government Organisation |
| NIMH | National Institute of Mental Health in the USA |
| NKK | Ngā Kanohi Kitea |
| NZHD | New Zealand Health Delivery |
| NZHRS | New Zealand Health Research Strategy |
| NZRIS | New Zealand Research Information System |
| Outcomes | The benefits that our Impacts will ultimately bring for New Zealand society. These are not directly measurable and so we track our progress through surrogate measures against our Impacts |
| Output | The government allocation from which our funding is drawn – each output provides funding for a specific purpose. The HRC receives funding from four different funding Outputs |
| PHARMAC | Pharmaceutical Management Agency |
| Prioritisation Framework | New Zealand Health Research Prioritisation Framework, which is a key tool in our efforts to ensure that every dollar invested is addressing issues that matter most to New Zealanders |
| Research impact | The direct and indirect influence of excellent research on individuals, communities or society as a whole, including improvements to health and equity, and other social, economic, cultural or environmental benefits for Aotearoa/New Zealand |
| RHM | Rangahau Hauora Māori Research Investment Stream |
| RIS | Research Investment Streams - we have four RIS that collectively reflect the full spectrum of possible health research activities in New Zealand that HRC may support. We use these streams to signal our priorities to the research community |
| RPNZHD | Research Partnerships for New Zealand Health Delivery |
| SCHPF | Sir Charles Hercus Postdoctoral Fellowships |
| SCOTT | Standing Committee on Therapeutic Trials |
| Te Tohu Rapuora award | To recognise the contribution to Māori health leadership of a single researcher, research team, or community group through a single piece of research, accumulated body of research, or life-time contribution |
| TTO | Technology Transfer Office |

*We invest in excellent health research that addresses the health needs of all New Zealanders.*




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