



## Canterbury Branch Royal Society of New Zealand Te Apārangi August 2024 Newsletter

Dear Member

We hope that winter is going well for you.

In this month's newsletter, more about the PM Science Winners talks in Christchurch, Timaru and other upcoming talks, a field trip in late October/ November. We now have on-line membership joining and payment, along with student grant reports and awards.

### The Prime Minister Science winners talk.

We branch co-hosted the first of two PM Science winners this month. Dr Samuel Mehr was the 2023 Te Puiaki Kaipūtaiao Maea, Prime Minister's MacDiarmid Emerging Scientist Prize winner, for his work on the cognitive science of how humans perceive and produce music, using cutting-edge tools and theories from disciplines as diverse as data science, evolutionary anthropology, psychology, linguistics, and music studies.

There was about 100 people at the Ara City Campus to enjoy his talk. Samuel explained how music was a basic function of human activity that spans all cultures, and how research shows that human, from all different cultures, seem to have the same experiences when engaged with music. Some photographs from the talk are below. Also, you can engage as a citizen scientist by engaging in the research by following this link <https://themusicalab.org/> and there may be an opportunity for a post-graduate student as they are looking for a student so if you or know someone who might be interested, get them to contact Samuel.



The next talk in Christchurch is



CANTERBURY  
BRANCH



## FINDING A GENETIC CAUSE FOR STOMACH CANCER IN A WHĀNAU NOW SAVES THOUSANDS OF LIVES CHRISTCHURCH

Royal Society Te Apārangi in partnership with the Prime Minister's Science Prizes Secretariat, the Canterbury Branch and the University of Otago Christchurch is delighted to offer a talk by Professor Parry Guilford FRSNZ and Associate Professor Karyn Paringatai, both from Ōtākou Whakaihu Waka | University of Otago.



At the start of May they won the [Prime Minister's Science Prize](#) which was awarded for an innovative partnership between members of the McLeod whānau and their community, cancer geneticists from the University of Otago, and clinicians from Tauranga Hospital. Together they identified a genetic mutation (in the CDH1 gene) which was causing members of the McLeod whānau to die from stomach cancer at a young age. The

researchers developed a genetic test which gives whānau members the ability to understand their risk of cancer and take life-saving action. Since then, the genetic test has enabled other families to discover that they also have a mutation in the CDH1 gene and have saved many hundreds of lives in Aotearoa New Zealand and thousands around the world.

This a truly a remarkable story and this research continues to deliver impact.

Christchurch: Thursday 19 September, 6:00pm – 7:00pm

University of Otago, 2 Riccarton Avenue

Rolleston Lecture Theatre – Ground Floor (attached to Christchurch hospital)

All warmly welcome. [Booking recommended. bit.ly/CDH1-C](https://bit.ly/CDH1-C)

Please tell or share the details of this talk to anyone, group or organisation that you think would be interested.

**The Timaru Prime Minister's Te Puiaki Pūtaiao Matua a Te Pirimia Science Prize 2023** talk by Professor Parry Guilford FRSNZ, from Ōtākou Whakaihu Waka | University of Otago is now scheduled for Wednesday September 18<sup>th</sup> at the Ara Timaru Campus. Wednesday 6:00pm on 18 September, Ara Institute, Block TG, 32 Arthur Street, Timaru. Bookings can be made at [bit.ly/CDH1](https://bit.ly/CDH1)



## Canterbury Westcoast School Science Fair

The Canterbury Westcoast School Science Fair will be held on

**When:** 21st- 22nd September 2024 (Sat 21st Judging (am) and public viewing (pm), Sunday 22nd Prize giving (11am) and Public Viewing (am)).

**Where:** University of Canterbury, fair held in the Ernest Rutherford Building, prize giving in Central Lecture Block.

We support this by providing prizes for this and many thanks to the members who volunteered as judges. If you still want to help judging in the morning of 21<sup>st</sup>, please email me [rwfagg@gmail.com](mailto:rwfagg@gmail.com)

## Students travel grants.

### Awarded.

Heather Sinclair-Wentworth \$1250

Ethan Bull \$1250

Quin Aicken-Davies \$1250

Ella Guy \$1250

## Reports from grant recipients.

**Kenny Ardouin**, PhD Candidate, Speech and Language Sciences, University of Canterbury

My name is Kenny Ardouin, and I am two years into my PhD study at the University of Canterbury which is piloting novel interventions intended to address unmet long-term quality of life needs for people born with Aotearoa's third most-common congenital difference, cleft lip and/or palate.

I would once again like to thank the committee for their financial support of my trip to attend the Appearance Matters 10 Conference in Bristol, UK from 10-13 June 2024, as well as to have the opportunity to make a lab visit to the Centre for Appearance Research at the University of the West of England. These opportunities were not only of great benefit to my PhD study, but also were a valuable opportunity for sharing the work that has arisen from my PhD, and networking with like-minded colleagues.

Thanks to the support from The Royal Society of New Zealand Canterbury Branch, I was able to present both a poster and an oral presentation at the conference, which is the world's leading conference for researchers, clinicians, and support organisations working with people with a visible difference. This year's conference attracted over 300 delegates from around the world. It was a privilege to be able to present our poster presentation on cleft team clinician perspectives in Aotearoa of the transition to adulthood for people with cleft, a key transition period for many of the clinical conditions represented at the conference. I also thoroughly enjoyed being able to share the research from our Aotearoa Cleft Camp pilot event in April this year – a 3-day youth camp for people with cleft aged 10-18 from across Aotearoa, with the delegates in my oral presentation.

Throughout the course of the conference, it struck me that while we all are working on different areas within visible difference (e.g. cleft and craniofacial, burns conditions, facial palsy, weight stigma etc.), there is a lot of applicability of research findings from one area to another, and that we perhaps don't collaborate as often as we could. Of particular interest was Dr Phillippa Diedrichs' keynote presentation about how to attract industry partners and successfully work in partnership with industry as she and her team had achieved with the Dove brand to change public perception of beauty ideals. Strategic partnerships with industry could help get our research to a wider audience – this feels most relevant with projects such as the Aotearoa cleft camp intervention which could benefit from an industry collaboration to increase its reach and make it sustainable in the longer term.

Another highlight of the AM10 Conference for me which has undoubtedly developed my confidence and presenting skills as a researcher was the opportunity to be on the Scientific Committee for this conference

and play a role in the selection of oral and poster presentations to be included in the programme. As part of this role, I had the opportunity to Chair one of the oral sessions – an excellent opportunity for my professional development and to deepen my understanding of the work happening within the broader visible difference realm.

Thank you again for the support to attend this valuable event. If anyone has any questions about our research, or would like to learn more, please don't hesitate to email me at [kenny.ardouin@pg.canterbury.ac.nz](mailto:kenny.ardouin@pg.canterbury.ac.nz) or visit [www.kennyardouin.com](http://www.kennyardouin.com).

**Abigail Schwartfeger** 3<sup>rd</sup> year PhD student at the University of Canterbury

On the 27<sup>th</sup> of July until the 2<sup>nd</sup> of August 2024, I attended the Gordon Research Conference and associated Gordon Research Seminar on Cell Death. This conference was held at a beautiful ski resort in Maine. I presented a talk at the seminar on the first weekend, and a poster the following week.

I am a 3<sup>rd</sup> year PhD student at the University of Canterbury with co-supervision at the University of Otago in Christchurch. My supervisors Dr Vanessa Morris, Dr Christoph Goebel, and Prof Mark Hampton work on understanding how oxidation is involved in disease.

My project aims to investigate how a cell death protein could be involved in mediating inflammatory diseases. Therefore, the conference was perfectly suited to my research. Going to this conference was extremely beneficial to my project as well as to my future career.

I got very encouraging and useful feedback both from my talk and poster which I aim to implement with further experiments and new techniques.

In addition, the plenary talks were given by researchers at the forefront of cell death research and inspired me to think about my project from new perspectives.

I initially knew no one at the conference, but by the end I had made many connections with students from across the world. Since all conference attendees stayed at the hotel, there were many opportunities at breakfast, morning tea, lunch, afternoon break, and dinner to network. I was able to get advice from those with academic or industry experience, and senior researchers as well as fellow PhD students.

A football match was held on the last day and travelling with senior researchers there meant that I obtained a wealth of information about how to apply for future post-doctoral positions and how to spot a good supervisor.

During the conference I was able to establish relationships with researchers from nearby institutes like the Walter and Eliza Hall Institute in Melbourne which have access to patient tissue samples, cell culture systems, and advanced microscopy techniques. This has the potential to greatly increase the impact of our research.

Without the generous support of RSNZ Canterbury, I would have been unable to attend such an influential conference.



## University Library member access

Don't forget once you have paid your branch sub and received a receipt you can join the Library at Lincoln or Canterbury Universities. Lincoln library has fee for the membership card of \$30.00 but is waiving the first 10 members who join the membership card fee. There are only a few free membership cards available, so if you want to join, please do soon or it will cost you \$30.00 for the card.

Each library provides similar access to their collection, borrowing time etc and restrictions to periodicals etc as set by the publisher's access rights. These can be explained to you on applying for a card.

## Branch Constitution

Don't forget the council is reviewing the constitution, adding section on digital storage of records, zoom meetings etc. If you have any thoughts regarding any changes you like to see, please let us know. We plan to have a revised Constitution ready for the Annual General Meeting next year.

## Newsletter software

We like to improve this newsletter, and it has been suggested that we find a software package to generate the newsletter. If you have any experience or know anyone who does in this can you tell us, what software you/they use etc.

## Branch Podcast

The branch own digital audio recorder, has arrived and had its first trial recording Dr Samuel Mehr talk. While we can't use his talk, due to pre-publishing research information, he agreed for us to test run everything.

Once we find a presenter/interviewer, we can interview our Student Grant winners, etc, to provide another platform to promote the branch.

## Online membership joining

Many thanks to Fiona and Amit, as we now have an on-line joining and payment for membership. They also set-up payment for donations. You can look at it by scanning the QR Code



or go to <https://www.royalsocietycanterbury.org.nz/>

We hope this will make it easier than the old paper system, but its up to us to make the branch attractive for someone to join. Also at the last council meeting, we agreed to add an events page to the website to promote our events, events which we support etc, so watch this space.

## Request from Nerd Nite Christchurch

Seeking speakers for Nerd Nite Christchurch! The event consists of 3 speakers who each give a 15-to-18-minute presentation on a 'nerdy' topic in a bar. It's an event that started in the US years ago, and groups pop up in cities around the world. Nerd Nite has been described as Discovery Channel meets Drunk History or

TED talks with beer. The goal is to be semi-educational, funny, and engaging (and if you can get away with it, a little cheeky as well). Email [nerdnitechch@gmail.com](mailto:nerdnitechch@gmail.com) if you're interested.

## IPCC webinar

New Zealand climate scientists are invited to attend a webinar to find out more about opportunities to participate in the Intergovernmental Panel on Climate Change (IPCC) Seventh Assessment cycle. The IPCC – the intergovernmental body tasked with advancing scientific knowledge about climate change - is inviting nominations for expert authors for its upcoming reports. Existing IPCC experience is not a requirement.

The online session at 11:00 am on Friday, September 6, will provide more information about the IPCC's role, processes and the opportunities. It will include a discussion with experts from the IPCC's Sixth Assessment cycle about their experiences, with time for questions and answers with MfE officials, previous authors, chapter scientists and reviewers.

To attend, please register here: [Microsoft Virtual Events Powered by Teams](#)

## Celebrating 100 years of New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa

The Canterbury Branch of the New Zealand Geographical Society is delighted to announce that Emeritus Professor Michael Roche will give a seminar on Tuesday 17 September at University of Canterbury, Rutherford Building Seminar room 263 to help us celebrate 100 years of the New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa.

Michael's talk is entitled, Checking, Correcting, and Changing Place Names: Origins and Early work of the Geographic Board or 'Mountaineers came to regard it with cynical tolerance'.

His presentation examines how anti-German sentiment during WWI prompted the establishment of an Honorary Geographic Board to review place names and considers the subsequent work of the Board up until 1946 when it was replaced under the New Zealand Geographic Board Act. Particular attention is given to the role of Canterbury and Otago mountaineers in applying new names and the difficulties this posed as well as to notable resistance to the Board's work, for example over Arthur's Pass.

Drinks and nibbles at 5pm with the talk starting at approximately 5.30pm.

## Link newsletter

<https://www.royalsociety.org.nz/fellows-and-members/link-news/2024/july/>

and don't forget you can subscribe to the RSNZ Te Apārangi weekly Alert newsletter shares events, news and opportunities for those interested in exploring and discovering knowledge or read past issues at

<https://www.royalsociety.org.nz/whats-happening/alert-newsletter/>

## Upcoming Branch talks, field trips and related activities

### Christchurch talks

#### September

**Prime Minister's Te Puiaki Pūtaiao Matua a Te Pirimia Science Prize 2023** talk by Professor Parry Guilford FRSNZ and Associate Professor Karyn Paringatai, Thursday 19th September Venue: University of Otago School of Medicine Christchurch Campus.

Rolleston Lecture Theatre; Riccarton Ave 6.00pm-7.30pm. [Booking recommended. bit.ly/CDH1-C](https://bit.ly/CDH1-C)

There will be refreshments after the talk.

#### October

Dr Kaitlyn Martin

Kaitlyn was selected by Royal Society Te Apārangi as one of 22 young New Zealanders to travel with the Antarctic Heritage Trust to an island in the South Atlantic Ocean in 2023.

Date: Wednesday 9<sup>th</sup> October

Time: TBD

Venue: TBD

#### November

Prof Ben Kennedy University of Canterbury, The Prime Minister's Te Puiaki Whakapā Pūtaiao Science Communicator 2023.

Ben will give a talk on his love of sharing his passion for volcanoes with children, why do volcanoes erupt and, (2) what are the best ways to learn and teach about planet Earth. His research is driven by trans-disciplinary and novel collaborations between Science, Education, Engineering and Arts.

Date: Tuesday 12<sup>th</sup> November

Time: TBD

Venue: TBD

### Timaru talks

#### September

Prime Minister's Te Puiaki Pūtaiao Matua a Te Pirimia Science Prize 2023 talk by Professor Parry Guilford FRSNZ Wednesday 18th September Venue Ara Institute, Block TG, 32 Arthur Street, Timaru .

**Book here:** <https://events.humanitix.com/finding-a-genetic-cause-for-stomach-cancer-in-a-whanau-now-saves-thousands-of-lives-timaru/tickets>

There will be refreshments after the talk.

## Upcoming field trips

We are arranging a visit to University of Canterbury Campus to learn about the restoration of the waterways that flow through the campus, past, present and into the future. We plan to have this in late October or early November. We will limit this to 20, so if you want to come, email [r.fagg@xtra.co.nz](mailto:r.fagg@xtra.co.nz)

And don't forget our CO2 monitor you can borrow. Contact us and we'll arrange for you to pick it up. A guide to recommended CO2 measurements can be found at <https://www.rnz.co.nz/news/in-depth/470690/whose-breath-are-you-breathing>.

All we ask in return is that you post your findings on either the branch Facebook page or twitter.

As you can read, the branch and council have a lot coming up in the next few months, as well as plans to launch a podcast, and work with other groups to bring exciting opportunities to Canterbury and of course our members. If you want to help us, please contact us, your input will be valued.

## From other branches and RSNZ Te Apārangi

### From Royal Society Te Apārangi

FALLING  
WALLS  
LAB  
AOTEAROA  
NEW ZEALAND

#### September 2024 - WELLINGTON & LIVESTREAM

11 September where [19 participants](#) from Aotearoa New Zealand and the Pacific Island Nations will pitch their innovative breakthrough idea for the chance to represent the region and compete at the Falling Walls Lab Global Finale in Berlin.

Participants will have **3 minutes** to showcase their innovative research, scientific idea, or evidence-based initiative, and how it could make a difference for society.

**Location:** The pitch presentations are being held in two sessions starting at 11.30am and 1.45pm on Wednesday, 11 September 2024 at the [Royal Society Te Apārangi](#), 11 Turnbull St, Thorndon, Wellington,

Come for one session or for the whole day!

Seating is limited so please [Register for in-person attendance](#).

**Livestream:** If you are unable to attend this event in Wellington, please [register for livestream](#) to join us online.

### Hawke's Bay Branch of the Royal Society of New Zealand

["Hawke's Bay Scientists on Air" radio broadcasts](#), which we support, now go to air each second Monday after the 10:00 am news.

"Talking About" is the Otago Institute's podcast series. It features topical conversations about anything and everything from the worlds of Arts, Sciences and Mātauranga Māori.

<https://oar.org.nz/oi-podcast/>



## Links to articles of interest

### bbc earth SCIENCE

#### How humans changed the world

The spectacular stories of how humans have transformed villages and dams, changing the world in a single generation.

 [People power](#)

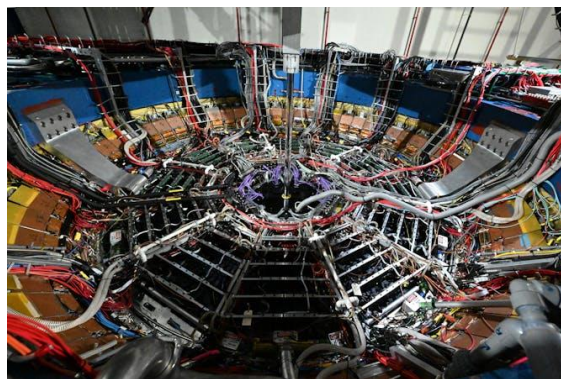


### From The Conversation

#### [Heaviest antimatter observation yet will fine-tune numbers for dark matter search](#)

Ulrik Egede, Monash University

Measurements of 16 'antihyperhydrogen' nuclei may help resolve mysteries of the universe's exotic matter.



#### [Remote seamounts in the southeast Pacific may be home to 20 new species](#)

A recent expedition to the intersection of two undersea mountain chains has revealed a new seamount and a rich world of deep-sea biodiversity.

[Read More](#)



You can keep updated by on the branch's Facebook page Canterbury RSNZ Branch or twitter @CanterburyRSNZ.

If have any suggestions for speakers, field trips ideas, or even contribute something in the newsletter please contact us and I am always willing to discuss anything regarding the branch with you.

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