



## Canterbury Branch Royal Society of New Zealand Te Apārangi

### May 2024 Newsletter

Dear Member

We hope you are all keeping warm and dry.

In this month's newsletter, we'll tell you about the 2 Prime Minister's Science Prize winners who will be giving talks in Christchurch and Timaru and what the council is planning around these, the access we now have from borrowing books etc from Lincoln University library and the field trip to the Bridge of Remembrance and don't forget about the **Café Scientifique** 22nd May, that the branch is sponsoring.

### Subscriptions.

Subscriptions are now due. You will be getting subscription notice soon, but if you like to pay now details are below. The branch set the 2024 fees as

**Ordinary, \$45**

**Retired \$35**

**Student, \$10**

all discountable by \$5 for prompt payment by **31 August 2024**

**Bank account** 02 0820 0601223 00

Please add name in the reference and sub-2024

### The Prime Minister Science winners talks.

The branch has been given 2 PM Science winners talks that were announced by the PM on 1<sup>st</sup> May.

They are for Christchurch Wednesday 14<sup>th</sup> August.

### TE PUIAKI KAIPŪTAIAO MAEA MACDIARMID EMERGING SCIENTIST PRIZE 2023

Dr Samuel Mehr has won the 2023 Te Puiaki Kaipūtaiao Maea, Prime Minister's MacDiarmid Emerging Scientist Prize, 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.

Samuel is a Rutherford Discovery Fellow based in the School of Psychology at Waipapa Taumata Rau | University of Auckland and is also a faculty member at the Child Study Center at Yale University in the United States of America.

“In my research, we study the psychology of music: why it is that humans make music and listen to music and are so motivated to participate in music globally across the lifespan,” Samuel explains.

But the puzzle for a developmental psychologist is why?

Here is a link to a YouTube clip about the research: <https://youtu.be/-vJ7Jygr1eg>

### **And for Timaru in September**

#### **Prime Minister’s Te Puiaki Pūtaiao Matua a Te Pirimia Science Prize 2023**

The Hereditary Diffuse Gastric Cancer Team led by Professor Parry Guilford FRSNZ, from Ōtākou Whakaihu Waka | University of Otago, in conjunction with Kimihauora Health and Research Clinic in Mount Maunganui.

This prize is awarded for the 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 whether they also have mutations in the CDH1 gene, and has saved many hundreds of lives in Aotearoa New Zealand and around the world.

For testing and surgery, the clinicians at Tauranga Hospital have embraced a Māori perspective of not only treating each patient, but their whole family and community. The project continues to deliver transformative impact, with multiple strands, and remains whānau-led in many aspects.

This enduring partnership began almost 30 years ago and serves as an exemplar of how to meet a community’s needs and how to uphold cultural values and data sovereignty within healthcare research.

Here is a link to a YouTube clip about the research: <https://youtu.be/6fu87naQkBs>

You will see on the sidebar, clips of all the other winners if you like to know about them.

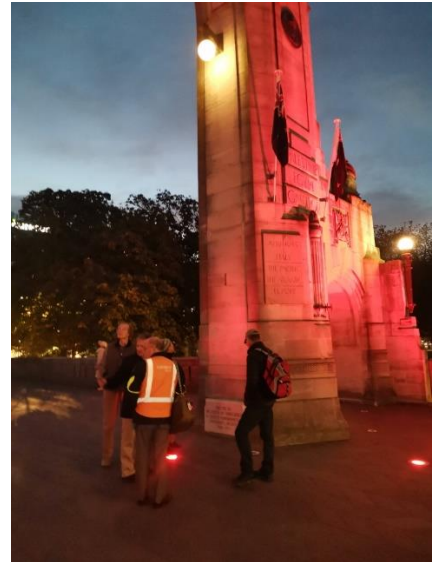
Now the council will be organising another series of talks, not related to these after these to capitalise on having these notable speakers, so if you can think of any topics or people, we could consider for this please let us know.

We plan to showcase the branch, to encourage people to join at these events, so if you like to be involved, please again let us know.

## Bridge of Remembrance field trip

About 6 members visited the Bridge of Remembrance just before ANZAC Day, with Dr Gerry Morrison, Head of Classics, University of Canterbury last month.

It was really interesting to hear the story behind the inscriptions, the symbols that decorate the bridge, and how it was decided that names were not to be placed on the bridge when it was built, yet two recent former Mayors have.



Photos from the Bridge of Remembrance

## Students travel grants.

### Awarded.

The branch at its May council meeting awarded 6 travel grants as recommended by the Grants Subcommittee. The recipients are:

Samantha Couper

4<sup>th</sup> Year Student Mechatronics Engineering, University of Canterbury  
12th IFAC Symposium on Biological and Medical Systems  
Villingen Schwenningen, Germany

Kate Truman

Ph.D Student Biological Data Science Lab School of Mathematics and Statistics, University of Canterbury  
Presentation Identifiability of the Fossilised Birth-Death Model  
Mathematical and Computational Evolutionary Biology 2024 Conference Montpellier, France

Jordan Hill

Ph.D Student Centre for Bioengineering, Mechanical Engineering Dept. University of Canterbury  
Oral presentations.  
20<sup>th</sup> International conference on Mechatronic, embedded Systems and Applications- Genova Italy

12<sup>th</sup> IFAC Symposium on Biological and Medical Systems- Villingen-Schwenningen Germany  
58<sup>th</sup> DGBMT Annual Conference on Biomedical Engineering Stuttgart Germany

Emma Steel

Ph.D Student School of Psychology, Speech and Hearing, University of Canterbury

Presentation- oral Improving work-related psychosocial risk management. A mixed methods evaluation of the factors influencing inspector's practice.

16<sup>th</sup> European Academy of Occupational Health Psychology Granada Spain

Christina McCabe

Ph.D Student School of Biological Sciences, University of Canterbury

Poster presentation- The Ecological benefits of giving rivers more room to move.

Nature Based Solutions conference- Oxford England

Peter Prentergast

Ph.D Student Biochemistry Dept, University of Canterbury

Presentation Poster-Exploring celiac disease and host-microbial interactions

International Celiac Disease Symposium Sheffield England

### Reports from grant recipients.

None have been received.

### Lincoln University Library member access

We have accepted the MOU with the Lincoln University Library and members can apply for a library card once they have paid their subscription.

Here are the conditions for a library card.

1. Members applying to the library should bring:
  - a. photo ID, and
  - b. their RSNZCB membership status and subscription receipt, which will be used to calculate their library expiry date.
2. Members will have the privileges of current Visitor members. This will include the privilege of borrowing from the library's physical collections, and access to a small subset of databases. Note that:
  - a. In the case of high demand items in the Short Loan collection, students have priority access.
  - b. Interlibrary loan services are not available for Visitors.
  - c. Loans are subject to early recall if requested by other borrowers or for short loan.
  - d. Database access is subject to change depending on publisher/vendor licences and technical limitations.
3. The normal Visitor membership fee will be waived, and Lincoln University Library will cover the costs of printing up to 10 library cards per year.
  - a. Beyond this number, new cards will be charged at the current rate. As of 2024, this is \$30.
  - b. Lincoln University Library will keep the President of the RSNZCB advised of user numbers.

As you can read, the library is waiving the first 10 members who join the membership card fee, so there is an incentive to pay your subscription and get your receipt.

## Upcoming Branch talks, field trips and related activities

### Christchurch talks

**Café Scientifique** Wednesday 22<sup>nd</sup> May, we are supporting another great a, Cafe Scientifique. Celebrate International Biodiversity Day with an amazing line-up of guest speakers at Foundation Café on the ground floor of Tūranga Library, 6.00-7.45 pm.

### Winner of the Prime Minister's MacDiarmid Emerging Scientist Prize winner.

Wednesday 14 August. Venue TBA

### Timaru talks

Prime Minister's Science Prize winner about September Venue TBA

### Upcoming field trips

We are working on a couple of new field trips for later in the year. more about this in the next newsletter.

And don't forget our CO2 monitor you can borrow. It's been in use regularly and don't forget to contact us and we 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.

### Change of email address

We note that xtra is going to be charging for their email service from the middle of the month. If you, like me are going to change email addresses can you please let us know by either contacting Fiona, the branch secretary [secretary@canterbury.rsnzbranch.org.nz](mailto:secretary@canterbury.rsnzbranch.org.nz) or me at [rwfagg@gmail.com](mailto:rwfagg@gmail.com) .

We don't want to lose contact with you as you are an important part of the branch.

### Link newsletter

The Royal Society Te Apārangī has resurrected the Link members newsletter, and as you know, branch members are automatically become Friends of the Royal Society Te Apārangī. If you don't know what benefits this brings click here to find out- <https://www.royalsociety.org.nz/join-us/friends/>

Back to the Link newsletter. We will place a link here for you to get the newsletter- <https://www.royalsociety.org.nz/fellows-and-members/link-news/2024/march/>  
<https://www.royalsociety.org.nz/fellows-and-members/link-news/2024/april/>

## From other branches and RSNZ Te Apārangi

### From Royal Society Te Apārangi



The [Marsden Fund Update](#) is a periodical magazine published annually that highlights the research and awardees of the fund. The Marsden Fund supports excellence in leading-edge research in New Zealand. It is administered by Royal Society Te Apārangi and funded by the New Zealand Government. Putanga (Issue) No. 59 covers some highlights of the innovative research and awardees in 2023.

[Read more](#)



### Applications open: Apply for the Science Teaching Leadership Programme

Applications for Term 1 2025 are now open!

The Science Teaching Leadership Programme provides opportunities for primary schools, secondary science departments and their nominated teachers to enhance the teaching of science within school communities.

[Learn more about what is involved in the Programme.](#)

[Tono mai and apply now!](#)

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

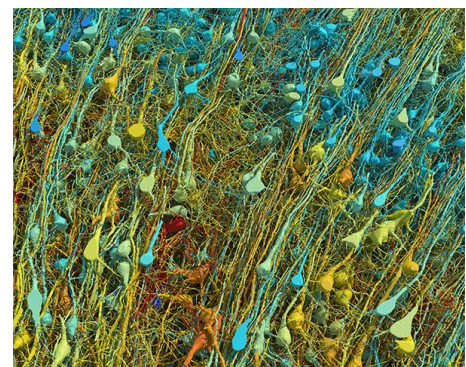
["Hawke's Bay Scientists on Air" radio broadcasts](#), which we support, now go to air each second Monday after the 10:00 am news.

### Links to articles of interest

#### [A millimetre of brain in spectacular detail](#)

Researchers have created an exquisitely detailed atlas of a tiny piece of one woman's brain, which had been removed during surgery to treat her epilepsy. The sample was cut into thousands of nanometre-thick slices and each was imaged with electron microscopes. [AI tools then classified different structures and cells, and created a 3D reconstruction of the sample.](#)

Nature | 4 min read



[As the Arctic tundra warms, soil microbes likely will ramp up CO2 production](#)

Experiments in mini greenhouses show how the tiny organisms lurking underground in a "sleepy biome" could be a contributor to climate change.

[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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