Te Mana Tangata Whakawhanake
MacDiarmid Institute
Advanced Materials & Nanotechnology

Mānawatia a Matariki ma Puanga. At this time of Matariki, we celebrate Pleiades and Rigel, and reflect on the connections between our science and the values of Matariki.

News and Updates

[Three MacDiarmid Institute researchers named in prestigious UK science award]

[Professor Tom Bennett], [Professor Shane Telfer] and [Dr Matt Cowan] are part of a global science group announced as winners of the [prestigious 2025 UK Royal Society of Chemistry prize] for creating an entirely new type of glass. You can read more about [glass's new chemical cousin] here.

[International Year of Quantum Science and Technology]

In honour of the [International Year of Quantum Science and Technology], we pulled together a few of our [Sci Fi / Sci Fact] podcast episodes that relate to quantum science and technology. Listen in to our researchers talk to Bryan Crump about whether an idea from science fiction holds up to scientific scrutiny and would work in reality.

[New Zealand cleantech companies make an impact on the world stage]

With cleantech critical to both climate mitigation and economic growth, six New Zealand cleantech companies (including [OpenStar Technologies], [TasmanIon], [Nilo], [Cetogenix], [Mushroom Material], [Allegro Energy]), a Venture Capital firm and the MacDiarmid Institute visited Singapore in April to meet with investors and multinational partners.

'The world needs climate mitigation technologies like never before. Singapore offered a chance to connect with investors and global players who can help scale New Zealand cleantech into international supply chains and energy infrastructure'

Deputy Director for Commercialisation and Industry Engagement Associate Professor Natalie Plank

Alumna Dr Shalini Divya spoke with Greg Hurrell from BusinessDesk about TasmanIon and about joining other NZ start-up companies on the cleantech trek to Singapore in May.

Three groups of our Investigators have been awarded MBIE Smart Ideas grants.

Drs Jackson Miller, Simon Granville and Will Holmes-Hewett for their work towards an on-chip microwave circulator for scalable quantum computing, Professor Aaron Marshall and Associate Professor Steve Matthews for their work toward highly active low-cost electrodes, and Dr Shen Chong, Professor Grant Williams and alumna Dr Joe Schuyt for a project led by Mike Packer (Algavive Ltd.), alumna Dr Hellen Nalumaga on Solar Spectral Engineering for Energy Efficient and Enhanced Growth of High-Value Algae

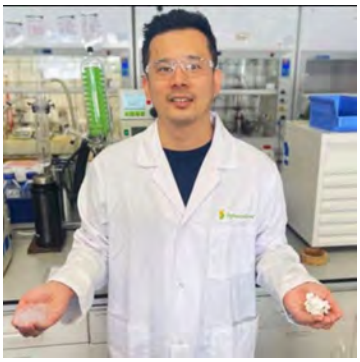
Epic Angels, the largest global female investor collective, invests in Opo Bio

Epic Angels has invested in start-up company Opo Bio (led by Emeritus Investigator Dr Laura Domigan and alumna Dr Olivia Ogilvie). Opo Bio has developed patented cell line manufacturing technology that serves the cultivated meat, collagen and medical industries.

Advemto selected for 2025 BioTools Innovator Programme

Emeritus Investigator Professor Justin Hodgkiss and his start-up Advemto have been selected for the 2025 BioTools Innovator cohort. BioTools Innovator (BTI) is the first accelerator focused exclusively on life science tools and diagnostics startups.

Former Institute Director Professor Richard Blaikie is retiring, so with sadness we farewell him from our Governance Board. Richard has been a part of the Institute since it was founded in 2002 (he was inaugural Deputy Director). He has been awarded an Honorary degree by the University of Otago and we wish him all the best for his future endeavours.



Turning research into reality

'His journey wasn't one of overnight success or massive research grants.' Read about the commercialisation journey of AUT-based Principal Investigator Dr Jack Chen and his start-up company Dot Ingredients, which is offering a sustainable alternative to conventional surfactants made from petrochemicals or palm oil.

We held two well-attended Techweek events in May:

In Auckland our Principal Investigators Associate Dean Research Faculty of Science Professor Geoff Wilmott, and Associate Dean Research Faculty of Engineering and Design, Associate Professor Jenny Malmström at the University of Auckland hosted *New momentum for publicly funded R&D*.

We then headed south to Dunedin where we held *Science driving commercial growth for advanced manufacturing*, opened by former Director, Professor Richard Blaikie and MC'd by Associate Professor Natalie Plank.

[Regulatory navigation - a starter pack for researchers]

We've developed a regulatory navigation starter-pack. It brings together real-world examples of regulation-related challenges faced by local startups.

You can [read about 'Our Inspired 100' here]

We continue to update this list of our 'Inspired One Hundred' alumni working in or supporting the deep tech sector in New Zealand. If you know of anyone (including yourself) who ought to be on it, or if you know of details that have changed, please let vanessa.young@vuw.ac.nz know.

Recent Media

Emeritus Investigator Professor Cather Simpson features in this article on Business Desk

Director Professor Nicola Gaston and Te Whai Ao - Dodd Walls Centre Director Professor Frédérique Vanholsbeeck wrote this piece for Newsroom

Nicola Gaston also wrote an article for The Conversation on the need for investment in order for Aotearoa New Zealand to innovate and compete.

Otago University chemistry PhD student Kieran Demote spoke with Jesse Mulligan about using chemistry to capture CO_2 and transform it into green fuels.

University of Auckland-based Associate Investigator Dr Shanghai Wei wrote this article for Newsroom addressing Li-ion battery fires.

Principal Investigator Professor Derek Kawiti's television show is currently airing, *The Drawing Board*, showcases a new wave of modern Māori Architecture that is sweeping across Aotearoa with some of the freshest up and coming talent at the helm.

Stuff's Lloyd Burr interviewed alumnus and OpenStar Technologies CEO Ratu Mataira on aiming to be the first in the world to achieve the holy grail of energy generation: nuclear fusion.

Associate Investigator and UC-based Professor Renwick Dobson and alumnus Dr Daniel Mak spoke to One News about their work on a project using human tears to develop a world first rapid home test for the detection of Alzheimer's disease

Nicola Gaston spoke with Mark Leishman on RNZ Nights about the state of science.

Opportunities

Chemistry Lecturer at AUT - Full-time fixed term. Closes 14 July.

Formulation Chemist at Cellora, Waikato - developing and optimising biological crop protection products. Closes 18 July.

Opportunity for a Senior Imaging Engineer at the University of Adelaide. Fixed term 36 months, closes 3 August.

Callaghan Innovation Career Grants are available. Interested alumni could contact one of our spin-out companies for opportunities. An R&D Career Grant provides funding towards six months' salary - up to $30K for a Masters graduate and up to $35K for a PhD graduate.

Venture Manager - Commercialisation at AUT Ventures. 9 month fixed term.

Tomra in Auckland is recruiting four roles in prototyping and R&D:
Senior Software Engineer
Software Engineer

Applications Engineer
Prototyping Engineer

Anything to share?

We'd love to celebrate your journey post-graduation. It helps us tell stories and paint pathways for secondary school students and others who are keen to see where science can lead them. If you would like to share with us your story or a recent discovery, achievement, media appearance etc. Contact us! We'll take care to only share where and how you'd like us to.

There are plenty of opportunities to stay connected with the MacDiarmid Institute whānau, by joining our LinkedIn Alumni Group in particular. We'd love to continue receiving feedback on this newsletter, and to hear if there's anything else MacDiarmid Institute -related that you'd like to be kept up to date on. Please also forward this newsletter to other alumni you know.

If you are a MacDiarmid Institute alumni and have been forwarded this email by someone else and would like to join our quarterly alumni newsletter mailing list (and also hear of opportunities in between newsletters, e.g. jobs, scholarships and updates on Techweek events etc.), please contact us.

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