



This is a time of farewells and new beginnings. Our [Co-Director Professor Justin Hodgkiss](#) moves to a new full-time role as CEO and Chief Scientist of his start-up company [Advemto](#). Justin joined the Institute as a Principal Investigator in 2010 and became Deputy Director for Commercialisation and Industry Engagement in 2015, before taking up the Co-Directorship with Professor Nicola Gaston in 2018.

Farewelling Justin from the Co-Directorship

Many of you will know of Justin's work in ultrafast spectroscopy, researching solar cells and [melanin](#). In 2022 he co-founded [Advemto](#), a spectroscopy start-up developing tools to make ultrafast dynamics visible in new materials and in nature. Justin was awarded the [Maurice Wilkins Centre Prize for Chemical Science in 2019](#) from the New Zealand Institute of Chemistry (NZIC) and in 2024 was appointed a [Fellow of the Royal Society of New Zealand Te Apārangi](#).

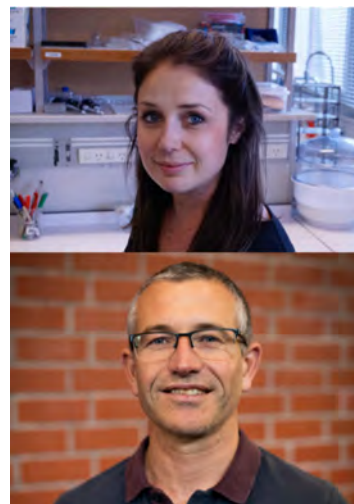


As Deputy Director for Commercialisation and Industry Engagement from 2015 to 2018, Justin initiated the student Future Learning Programme (which has now become our flagship PhD student training [Career and Relevant-to-Industry Skills Programme \(CRISP\)](#)) and the Alumni Business Scholarships. Justin and Nicola initiated the sustainability tech focus of the Institute's research when they took up the Co-Directorship in 2018, placing fundamental materials research firmly at the centre of the world's most urgent long-term challenges, developing the Institute's strengths to focus on sustainability. Justin stays on as an Emeritus Investigator with the Institute. We wish him all the best and we're very pleased he will remain part of our whānau going forward.

News and Updates

New Emeritus Investigators for 2025

Principal Investigator [Dr Laura Domigan](#) is moving to a new full-time role as Chief Scientist at her start-up company [Opo Bio](#) at the end of this year but will continue to be affiliated with the Institute as an Emeritus Investigator. [Professor Eric Le Ru](#) is also working more with his start-up, [Marama Labs](#), and will be moving to Emeritus Investigator status from 1 January 2025. We are grateful to both Laura and Eric for all their contributions to the Institute during their time as Investigators.



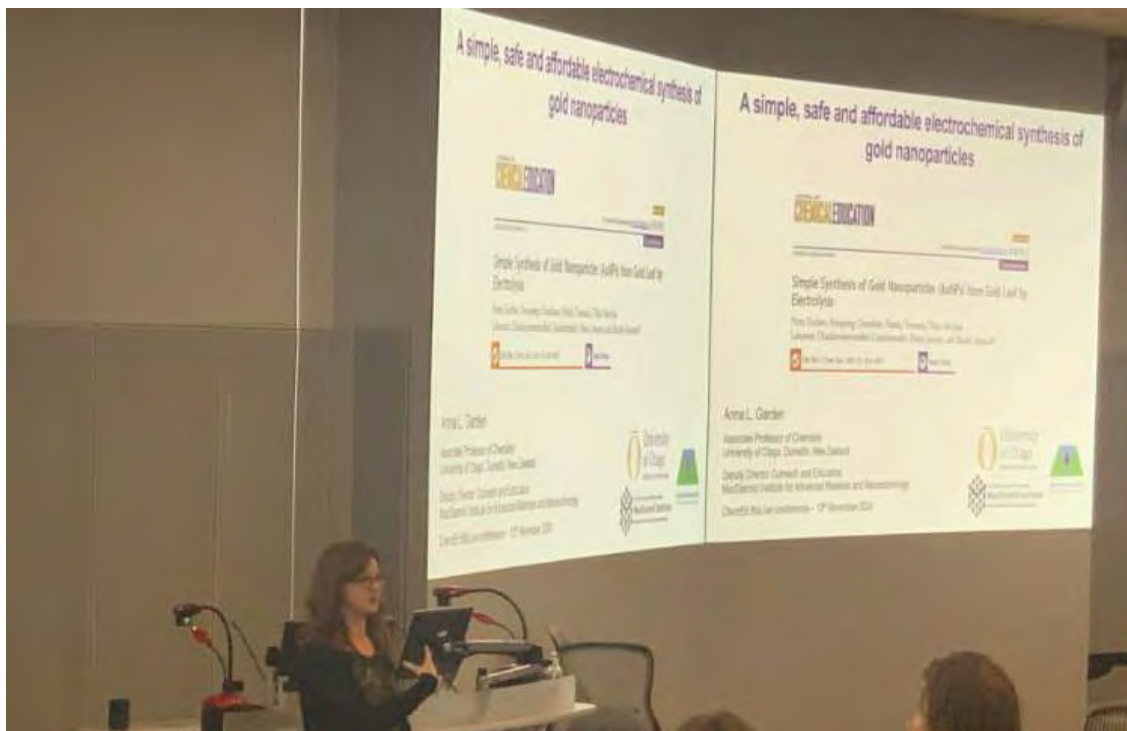
[Our affiliated start-up achieves first plasma](#)

Renewable energy start-up company [OpenStar Technologies](#) founded by alumnus [Dr Ratu Mataira](#) achieved its first plasma in November. First plasma is when a fusion device successfully generates and contains a superheated cloud of ionized gas, or plasma, which is the essential fuel needed to trigger a fusion reaction.



[Catching up with Chemistry teachers at ChemEd BioLive 2024](#)

[Deputy Director Associate Professor Anna Garden](#) joined this conference for teachers of Chemistry, Biology and Science at [Te Herenga Waka Victoria University of Wellington \(VUW\)](#) in November. Several teachers said the highlight of the conference was Anna's lab tour of some of our VUW-based sustainability tech labs.



Our biennial materials science conference kicks off in Ōtautahi Christchurch in February

[AMN11](#) is the eleventh in our series of biennial materials science conferences covering a broad variety of topics in nanotechnology and materials science. This year for the first time we're holding it in Ōtautahi Christchurch.



Professor Bawendi talk in Christchurch

Those of you in and around Ōtautahi Christchurch may be interested to hear Nobel Laureate Professor Moungi Bawendi who is giving a free public lecture at 7pm on Monday 10 February at Te Pae Christchurch Convention Centre. Please contact us at MacD-Admin@vuw.ac.nz if you would like to be sent full details and registration information once available.



MacDiarmid Institute annual symposium

The MacDiarmid Institute held its annual symposium in Pōneke Wellington on 18 November, with 165 students, early career researchers and investigators gathering from around Aotearoa New Zealand. The programme included panels

on commercialisation and mātauranga Māori, as well as updates and highlights across the Institute.



[Career and Relevant-to-Industry Skills Programme \(CRISP\)](#)

We held four CRISP sessions alongside the annual symposium in November, focusing on sustainability, investment and funding dynamics, outreach and te Tiriti o Waitangi. We also arranged site visits so that students could visit the labs at [OpenStar Technologies](#), [Hot Lime Labs](#), [Bspkl](#) and [Paihau-Robinson Research Institute](#).



And just to finish, here are a couple more of our ‘inspired 100’ entrepreneurs – our alumni working in the deep tech sector in New Zealand.

[Dr Stefanie Maslek](#) completed her PhD in chemistry at the [Waipapa Taumata Rau The University of Auckland](#) and is currently a Senior Scientist at [Ruminant BioTech](#), a company making a difference to climate change through technology that reduces methane emissions.



[Valentine Chan](#) completed his Master of Science in chemistry at [Te Kunenga ki Pūrehuro Massey University](#) and is currently Chief Scientific Officer at [Lanaco](#), which makes natural air filtration, in industries that desperately need sustainable solutions, such as home appliances and HVAC systems.



You can [read about the rest of ‘Our Inspired 100’ here.](#)

Recent Media

[Deputy Director and Principal Investigator Associate Professor Pauline Harris](#) has been in the media off the back of the recent Aerospace summit in Ōtautahi. She has been making a great case for the importance of Māori involvement when it comes to space. “It is all about respecting the land, air and space and the values that come with it,” she says.’ It is great to have her [fronting this space for the MacDiarmid Institute in the media](#) – as many of us will know, there are longstanding and quite profound connections between nanotechnology and materials research and the space industry, but Pauline’s training as an astrophysicist and her current work collaborating with NASA give her a really unique perspective on this!

[Pauline also joined Richard Easter to present at the Parliament Speaker's Science Forum in October](#). The event – Space! – focused on New Zealand's space industry, the burgeoning Māori aerospace industry, and the way in which countries collaborate for space research.

[Co-Director Professor Nicola Gaston](#) featured in a [Waipapa Taumata Rau University of Auckland opinion piece asking experts if a ‘brain drain’ is currently cause for concern](#).

Nicola also made contributions to commentary around the recently announced changes to the Marsden fund, including from the [Science Media Centre](#); [Radio NZ](#); [Nic Lawrence’s interview on Morning Report](#); [the NZAS on Morning Report](#); [her interview on Newstalk ZB](#); and [her opinion piece published in The Conversation](#).

Thank you for your support of and interest in the MacDiarmid Institute over 2024 – we wish you and your whānau a restful and safe holiday season.



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