

2022 TE PUIAKI WHAKAPĀ PŪTAIAO SCIENCE COMMUNICATION PRIZE

Pacific scientist and leading voice during Covid-19 pandemic wins Prime Minister's Science Communication Prize

Engaging respectfully and building trust and relationships with people and communities are important steps for addressing inequities and improving health outcomes for those communities, says the winner of the 2022 Prime Minister's Science Communication Prize, Associate Professor Dianne Sika-Paotonu.

A Pacific immunology and biomedical scientist, Dianne is an Associate Professor of Biomedical & Health Sciences-Immunology, and Associate Dean, Pacific, at the University of Otago, Wellington.

Significant health inequities exist for Pacific and Māori communities in Aotearoa New Zealand, with many of these disparities persisting over time, says Dianne. To address these inequities and help achieve better outcomes, health, scientific and medical workers and researchers must also connect and engage appropriately and constructively with Māori and Pacific peoples and communities, she says.

"All will benefit from communication and engagement efforts that are respectful and inclusive, she says.

"There is now increased awareness and acknowledgement of the need to better connect with these communities. It is important that interactions are two-way so that where trust has been lost with people we can help rebuild this."

Dianne says it's also important that more Pacific and Māori scientists, researchers and health professionals are given value as leaders and included and involved in decision making steps. "I'm encouraged by the increased understanding and recognition of this, and of the need for us to lead contributions that will generate solutions for our peoples, rather than having other people bringing their solutions to us."

Dianne was a leading voice during the Covid-19 pandemic explaining the technical aspects of immunology, vaccines, the SARS-CoV-2 virus and infectious diseases, giving more than 220 broadcast media interviews, and contributing to more than 1500 online and print media stories.

A member of Stuff's expert advisory panel for The Whole Truth: Covid-19 vaccination project to promote evidenced-based information about Covid-19, and The Whole Truth: Te Māramatanga series on public health topics that are prone to misinformation, she is also a prolific international presenter.

Dianne says clear, helpful, evidence-based and timely science communication is necessary to counter misinformation and disinformation. "It's important to understand your audience and its needs, provide useful and helpful information and communicate that appropriately."

Her nominator Professor Parry Guilford says Dianne stood out as a sensible and informed commentator during the pandemic, and was one of few Pacific voices qualified to speak in detail on the topic. "Her knowledge has always been expressed with grace and empathy for her audience. She is a highly effective communicator who takes her audience with her."

Breakthroughs in cancer and rheumatic fever research

Dianne gained a high public profile as a science communicator during the pandemic, and prior to this was known for her breakthrough work on rheumatic fever and cancer.

The disproportionately high rates of rheumatic fever and rheumatic heart disease within Pacific and Māori communities of Aotearoa New Zealand and the Pacific region, along with the painful drug injections currently needed for prevention, were Dianne's motivation to finding better, less painful solutions, and importantly involving Pacific and Māori communities in the process.

Left untreated, acute rheumatic fever can recur and lead to rheumatic heart disease, permanently damaging the heart. With no vaccine to prevent the Group A streptococcal bacteria (GAS) infections painful monthly penicillin injections are given to children and young people who end up with rheumatic fever, for at least 10 years, to prevent any further rheumatic fever and the development of rheumatic heart disease. Dianne's work involves developing a longer lasting and less painful penicillin to prevent GAS infections, and stope the development of rheumatic fever and rheumatic heart disease.

Dianne's research involves partnerships with Pacific researchers and collaborators across Oceania, Australia, and the United States, and connecting with peoples and groups from Pacific nations.

Professor Guilford says a critical part of the work was having empathetic engagement with the public in the Pacific region, which Dianne was able to do with clarity and humility. "This work also illustrates her ability to assemble large multidisciplinary teams from different cultures, and this has resulted in improved health outcomes in the Pacific region."

Giving back

Dianne was born in Aotearoa New Zealand after her parents immigrated from Tonga. She says through her upbringing and her faith, she feels compelled to give back and contribute to society.

"My parents gave up everything to ensure that my brother and I had opportunities that they never had, so I carry that sense of responsibility to give back. As a Pacific scientist it is very important for me to also be of service to Pacific communities in Aotearoa New Zealand and the Pacific Region."

She says communicating science is both about sharing her work in research, teaching and cultural settings as well as publicly, and listening to others to learn how scientists can do better.

In the research setting Dianne fosters student development in science, with a particular focus on Pacific and Māori students. She mentors, supervises and advises PhD and Masters students, and scholarship candidates, with her students winning more than 27 prizes and scholarships.

In the cultural setting, Dianne's science communication efforts have involved sharing knowledge and work with Pacific leaders, health professionals and researchers in Aotearoa New Zealand and the Pacific Region. Dianne has also led and hosted outreach events and activities that have included Pacific Fono and Talanoa gatherings to support engagement and appropriate communication with Pacific communities and with other groups. Dianne was also involved with the COVID-19 science communication response for Pacific communities in Aotearoa New Zealand and the Pacific Region.

Dianne is an experienced educator and communicator and in her current academic role, and teaches medical, postgraduate and undergraduate students at the University of Otago Wellington. Over the years, she has taught across the Immunology, Pharmacology, Pathophysiology, Pacific Health, Public Health, Medicine and Research specialty domains with a strong Immunological focus. She also

engages with intermediate, college and tertiary students and communicates her work at national and international scientific conferences.

Dianne will use the Prize to support students and young people in the health, education and research sectors to become the next generation of science communicators, and will continue to communicate science to the public and Pacific communities.

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Mō Te Puiaki About the Prize

TE PUIAKI WHAKAPĀ PŪTAIAO SCIENCE COMMUNICATION PRIZE

Awarded to a practising scientist who can demonstrate an interest, passion and aptitude for science communication and public engagement, or to a person who has developed expertise in public engagement and communication of complex scientific or technological information to the public.

This is one of five prizes awarded each year.

The Government of New Zealand introduced The Prime Minister's Science Prizes in 2009 as a way of raising the profile and prestige of science among New Zealanders, in Aotearoa and internationally.

www.pmscienceprizes.org.nz/