The New Zealand Association of Scientists Awards for 2018

The New Zealand Association of Scientists (NZAS) awarded its annual medals to New Zealand scientists for 2018, at a function held at the University of Auckland on Thursday 15 November. The ceremony followed the Society's annual conference

Associate Professor Craig Stevens, Co-President of the Association, noted that the awards seek to recognise and promote the recent past of both New Zealand science and our scientists. They also look to recognise future science leaders, and the importance of communicating what science is and does, now and in the future, to a range of audiences.

Four Medals are to be awarded.

- ***The Marsden Medal*** is awarded for a lifetime of outstanding service to the cause or profession of science, in recognition of service rendered to the cause or profession of science in the widest connotation of the phrase.
- ***The Shorland Medal*** is awarded in recognition of major and continued contribution to basic or applied research that has added significantly to scientific understanding or resulted in significant benefits to society.
- ***The Hill Tinsley Medal*** is awarded for outstanding fundamental or applied research in the physical, natural or social sciences published by a scientist under the age of 40, during the year of the award or the preceding three calendar years.
- ***The Cranwell Medal*** is made to a practising scientist for excellence in communicating science to the public in any area of science or technology.

Hill Tinsley Medal

Associate Professor Siân Halcrow, Department of Anatomy, University of Otago

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This year's Hill Tinsley Medal is awarded to Dr Siân Halcrow, who is an Associate Professor in the Department of Anatomy at the University of Otago. She is an outstanding and productive researcher, a trailblazer who has made fundamental contributions in her field of bioarchaeological science, focusing on the study of human remains in an archaeological context. Her research programmes are multi-disciplinary, cross-disciplinary and cross-cultural, involving both laboratory and field-based scientific research in a range of countries. Associate Professor Halcrow's studies in southeast Asia and South America investigating the adoption and intensification of agriculture have led to significant insights into the origins of human health, fertility and disease. Her work in prehistory is shedding light on previously understudied relationships, including those between maternal and infant health. Such analyses of stress and health in past populations are fundamental to increasing our understanding of human adaptation to environmental and societal changes.

Cranwell Medal

Dr Judith Bateup, Department of Microbiology and Immunology, University of Otago

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The 2018 Cranwell Medal is awarded to Dr Judith Bateup from the Department of Microbiology and Immunology at the University of Otago. Over two decades, Dr Bateup has built a hands-on and face-to-face science communication programme from scratch and with limited resources. She has exposed many thousands of students to a world they have not seen before and to the many ways that humans interact with microbes. Her resource packs for teachers have gone out to support biology teachers nationwide as well as teachers in the Cook Islands. Dr Bateup is also the convener of Hands-On at Otago, is on the organising committee of the International Science Festival, is a Schools Science Fair judge, and regularly speaks at conferences for scientists and science communicators. All of these activities are additional to her employment. Dr Bateup is a passionate advocate and effective practitioner of science communication in education at all levels.

Shorland Medal

Professor Jadranka Travas-Sejdic, University of Auckland; Principal Investigator, MacDiarmid Institute

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The 2018 Shorland Medal is awarded to Professor Jadranka Travas-Sejdic of the University of Auckland, and Principal Investigator of the MacDiarmid Institute. Professor Travas-Sejdic has made an outstanding contribution to the field of advanced polymeric and nanomaterials and their application in biomedicine

and bioelectronics, as well as sustained innovation and leadership in science and science translation. As the Director of the Polymer Electronics Research Centre at the School of Chemical Sciences, Jadranka has initiated and led programmes crossing chemistry, biology, medicine and engineering disciplines. Her research is highly multidisciplinary and collaborative, vibrant, creative and impactful, both nationally and internationally. Jadranka is a co-founder and the Executive Director of Spot-Check Technologies, a spin-off company based on her research in developing hand-held, cost-effective systems for the electrical detection of DNA, with applications including the detection of bacteria in water and of cancerous cells in human fluids. She leads the development of sensing materials suitable for industrially scalable fabrication of gene sensors in micro-array formats.

Marsden Medal: Joint Awardees

Professor John Montgomery, FRSNZ, School of Biological Sciences, University of Auckland

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Professor John Montgomery FRSNZ, from the University of Auckland, has made an outstanding and wide-ranging contribution to science. His research ranges from marine science to brain research, with key research themes including Antarctic fish biology, flow sensing in fish, bioacoustics, shark sensory biology, and cerebellar evolution. Professor Montgomery's strong contribution to the international research environment can be recognised through numerous high-profile publications, including papers in *Nature* and *Science* and a recent book on cerebellar evolution, as well as numerous national and international honours. The strength of his wider service to science is evident in his commitment to postgraduate supervision and mentorship, as well as to public outreach and engagement. For instance, he was the Director of the Leigh Marine Laboratory for 12 years, where he played a major role in engaging the public with marine science and garnering philanthropic support for the redevelopment of the laboratory. He was also integrally involved in the establishment of the Institute of Marine Science at the University of Auckland, for which he served as the Inaugural Director. Moreover, he has contributed to many other service roles, and he has been a Board Director of both the National Institute of Water and Atmospheric Research and AntarcticaNZ.

Professor Warren Tate, FRSNZ CNZM, Biochemistry Department, University of Otago

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Professor Warren Tate FRSNZ CNZM, of the Biochemistry Department, University of Otago, has a stellar national and worldwide reputation for his internationally recognised research discoveries in molecular biology and human disease, and his collaborative research. He is renowned for his national and global leadership and energy for developing science policy and protecting research investment. He has trained over 100 postgraduate students, many of whom have gone on themselves to have stellar research careers both in New Zealand and on the global stage in academia and industry. He has held many research-related leadership roles, nationally with the Health Research Council of New Zealand, the Science Board of the Ministry of Business, Innovation, and Employment, and the Maurice Wilkins Centre of Research Excellence, and internationally with the Human Frontiers of Science Organisation in Strasbourg, and the Asia Pacific International Molecular Biology Network. He has led and organised key 'first' international conferences in New Zealand. Professor Tate has presented and published extensively for both academic and community audiences.