Foreword

This general issue of *New Zealand Science Review* brings together a range of quite topical issues for our consideration.

Laura Bennet, Louise Nicholson and Alistair Gunn, of Auckland University's Faculty of Medical and Health Sciences, examine the increasing predominance of contract or 'temporary' staff in the biomedical sciences and explore some of the factors behind this transformation as well as its implication for research and academic performance. In addition to making specific recommendations for addressing the issue of contract staff and their role in high-quality research, the authors' review highlights a worrisome policy issue in that there would appear to be no systematic measurement of changes over time or of the extent of New Zealand's dependence on contract staff for tertiary research or teaching.

Landcare Research's Surinder Sagger and Massey University's Nanthi Bolan, Jarati Singh and Adele Blard address the economic and environmental impacts of increased nitrogen used in grazed pastures and its impact on atmospheric, terrestrial and aquatic environments. Their paper discusses the use of inhibitors to mitigate nitrogen losses, identifies gaps and limitations in existing New Zealand information, and suggests the main research needed for devising mitigation strategies with inhibitors.

In their paper, *Austronesian prehistory and Polynesian genetics: A molecular view of human migration across the Pacific,* Stephen Marshall, Adele Whyte, Frances Hamilton and Geoffrey Chambers present a range of findings from molecular genetic studies of Polynesian and New Zealand Māori populations and a 'synthetic total evidence theory' that they suggest can account for key elements of the migration into and settlement of Oceania. Data presented by the authors suggest that common ancestors of Polynesians and New Zealand Māori can be found among the Taiwanese Aboriginal population.

A grant from the New Zealand Lotteries Board has allowed Willie Smith of Auckland University's School of Geography and Environmental Science to record the professional career of Dr Royce Elliott, a former Deputy Director-General of the Ministry of Agriculture and Fisheries. In this account of one man's contribution to the wellbeing of New Zealand, Willie says '… New Zealand's export strength in agriculture and fisheries and other natural resource sectors is widely acknowledged as soundly based and increasingly dependent on informed scientific decision making. Royce Elliott's career illustrates just how recently such approaches have been formalised and perhaps goes at least part-way to explaining the continued "dynamic tension" in policy making evident in the ongoing debate over the role (and funding) of science and social science in decision making.'

In *Science dialogues: Talking about science*, Juliet Roper, Kay Weaver and Ted Zorn of the University of Waikato's Department of Management Communication explore how different dialogue formats contribute to enhancing the quality of public discussion about controversial science in New Zealand. Experimenting with small group dialogue, a 'citizen' dialogue, a public dialogue event, and an on-line dialogue, the results of the research, save for that of the computer-mediated format, bode well for the use of dialogue to create a more positive climate for public discussion about controversial science. As one lay participant commented 'One thing that's really worked is the face to face, the personal touch…just being able to talk with people, look them in the eye, and it's very much not that "us and them" forum. And food and socialising over food, just having conversations with each other has been helpful.'

Also in this issue of the *New Zealand Science Review* is the Association of Scientists' May 2005 discussion document, *There is a better way: Eight recommendations on the science system in New Zealand*. In this important document, NZAS indicates that while New Zealand produces much science that is world-class, in recent years the Association has become increasingly concerned about a range of systemic problems and their impact on both the nation's research effort and the morale and careers of its researchers. NZAS sees this document as a vehicle for clarifying its own position on the key science system issues and for promulgating its position widely within the research community, with Ministers, and with other senior decision-makers. Since the discussion document was finalised in May, meetings have been held with key decision makers. The outcome of these meetings and other feedback on opinions expressed in the document will be reported in the next issue of the *Review.*

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for the Council of the New Zealand
Association of Scientists