

Australian Capital Territory

University of Canberra

DP0774082 A/Prof S Mahalingam; Dr PA Ryan; Prof BH Kay

Approved Project Title **The biology of arbovirus virulence and fitness in arthropod and vertebrate hosts in vivo**

2007 : \$110,000

2008 : \$105,000

2009 : \$100,000

Primary RFCD 2703 MICROBIOLOGY

Administering Organisation University of Canberra

Project Summary

In Australia, Ross River virus (RRV) represents significant concern to human health. Between 1992-2005 more than 50,000 notifications of RRV infection have been reported. While not fatal, the disease is responsible for morbidity in the community/individual that can have both social and economic costs. The project has several national benefits. It will help elucidate whether there is any association between RRV strain and increased risk of RRV transmission and/or occurrence of more severe cases of human disease. It will help develop technologies that can lead towards the identification of viral markers, which could provide new avenues in the design of novel antiviral strategies.

DP0770820 Prof WA Maher; Dr MJ Ellwood; Dr M Kelly

Approved Project Title **Southern Ocean nutrients and their links to climate change: insights from the isotope and elemental signature of diatoms and sponges**

2007 : \$140,000

2008 : \$139,000

2009 : \$111,000

Primary RFCD 2604 OCEANOGRAPHY

Administering Organisation University of Canberra

Project Summary

It is not possible to respond effectively to climate change and variability associated with increases in atmospheric carbon dioxide without understanding the role that marine phytoplankton play in the uptake and sequestering of carbon dioxide. The proposed research will lead to a greater understanding of how nutrients such as silica have limited phytoplankton growth, and ultimately the role the ocean plays in the sequestration of carbon dioxide over time. Such knowledge will benefit possible ocean-based carbon dioxide mitigation strategies, i.e. ocean fertilisation to stimulate ocean productivity and carbon dioxide drawdown.