

Virtual Partners In Gene Mapping Knowledge Sharing

Scion researchers Phil Wilcox and Rod Ball only get to see colleagues in their project a couple of times a year. They're not being deliberately reclusive: the Virtual Institute of Statistical Genetics (VISG) was designed to be an online collaboration from day one.

Phil championed a successful 2007 FRST application allowing a group, made up from seven New Zealand Crown Research Institutes, universities and private companies, to create the institute.

Requiring massive computing power and data transfer services, the institute makes use of the recently developed NZ-wide computational infrastructure including BeSTGRID and the Kiwi Advanced Research Network (KAREN).

VISG, which formally came in to being in 2008, combines New Zealand's top bio-statisticians and geneticists to develop advanced methods for gene mapping across many economically important species. A major impetus for the institute was to capitalise on the scientific

investment that has resulted in massive DNA datasets for species important to New Zealand.

Given the size of New Zealand's statistical genetics and bioinformatics community, it made sense to pool the available talent to make a coordinated assault on some of the big issues that have potential for major payoffs for New Zealand biological industries. These include: statistical and computational methods to predict phenotypes from large datasets, such as whole genome dense marker maps; Bayesian multi-locus detection methods; and software and analytical methods to optimise experimental design for detecting gene effects in a range of species important to New Zealand.

Members of VISG at Scion include Phil Wilcox as Project Leader and Rod Ball as Lead Statistician. Elspeth McRae is on the project governance group that also includes many of the world's leading statisticians from North American and Australian institutions.

To see the new website, visit: www.visg.co.nz

