

## **Whai Hua PGP Programme – New Dairy Products and Value Chains**

### **Summary Report for Q4 2013-14**

This programme seeks to develop immune enhancing dairy products and has completed its first year of work. Considerable progress has been made:

- Results indicate that the target compounds in bovine milk act in a similar way to their counterparts in human milk, binding with a wide range of bacteria. In vivo studies will be conducted during 2014-15.
- The natural production profiles of the target compounds have been shown to be repeatable within and between years. Protocols for selecting cow replacements have been developed and options for genetic improvement are being pursued.
- Alternative adjuvants used in immunisation trials have proved to be acceptable from an animal ethics and welfare perspective. Up-scaling trials that are necessary for ACVM approval will be conducted during 2014-15.
- Optimal processing specifications that retain functional activity have been determined, but retention of activity at commercial scale is still unsatisfactory. Further development of low heat processing is necessary.
- Marketing desk studies have been completed. Future work will determine the level of efficacy evidence that will be required to make product claims.