



Shot in the arm for Type 1 diabetes prevention in Australia

Last weekend, the Federal Government committed \$6.5 million over the next five years for the Diabetes Vaccine Development Centre (DVDC) to continue its work.

Established in 2003 by Australia's National Health and Medical Research Council (NHMRC) and the Juvenile Diabetes Research Foundation International (JDRF), DVDC is now based at Sydney's Garvan Institute of Medical Research.

DVDC is searching for ways to prevent the development of Type 1 diabetes, including vaccination and immunotherapy, and to preserve insulin-producing cells from the early stages of disease.

Type 1 diabetes is an autoimmune disease, where the body attacks its own insulin producing cells. It is very serious, with a sudden and dramatic onset usually in childhood or adolescence, that forces people to maintain a blood glucose monitoring and insulin-injecting regimen for the rest of their lives.

Around 140,000 Australians have Type 1 diabetes, with 6 new cases every day. People with this kind of diabetes must have up to 6 insulin injections or receive a continuous infusion of insulin through a pump every single day, just to stay alive. The disease can lead to complications like kidney failure, amputation and blindness if not managed properly.

DVDC CEO Rowena Tucker has been working hard to extend and consolidate a number of clinical research projects and to co-ordinate a network of ten clinical trial sites across Australia and New Zealand.

“Obviously, we were delighted to receive the news about the commitment of funds,” said Ms Tucker. “We will now be able to continue our various diabetes studies and clinical trials with certainty.”

“One of the projects DVDC supports, based at Garvan, involves a therapy that targets an arm of the immune system. With promising results in mice, researchers may have identified a way of preventing onset of the disease – in other words, preventing the body from attacking its own insulin-producing cells in the first place. We would very much like to see this work move from the lab to a clinical application.”

Chairman of DVDC, Garvan's Professor Don Chisholm, believes that the \$6.5 million that will be spent to try and prevent the disease will eventually save many times that amount in health costs. “If you even manage to save 10% of the insulin-producing cells in the pancreas, you will be preventing a lot of the difficulty in blood sugar control,” he said.

“You will especially reduce dangerous hypoglycaemic, or low blood sugar, reactions that are the most worrying thing for people with Type 1 diabetes. These episodes can come on very quickly and can be fatal.”

Type 1 diabetes advocacy and funding body JDRF applauds the funding, emphasising that it is a significant step towards continuing the growth of Australian Type 1 diabetes research capacity and advancement. CEO Mike Wilson believes that the \$6.5 million grant from the NHMRC, in addition to the \$5 million committed by JDRF last year, will further develop much needed clinical trial opportunities.

“Clinical trials are a smart investment for Australia. Not only will this funding open up patient access to potentially life-saving new therapies for people with Type 1 diabetes, it provides reassurance that our world-renowned scientific community will be supported when translating research into real clinical outcomes,” said Mike Wilson.

“Australia has one of the highest rates of Type 1 diabetes in the world and the rate of new cases in Australian children is rising by 3% every year. The situation is urgent.”

To find out how you can support research into diabetes please visit www.diabetesresearchfoundation.asn.au