



November 9th, 2005

## MEDIA STATEMENT

### **WA PART OF INTERNATIONAL DIABETES PROBE**

WA researchers are aiding the battle to beat Type 1 diabetes, taking part in a major international study that's helping scientists crack the genetic causes of the disease.

The research was conducted by the international Type 1 Diabetes Genetics Consortium, funded by the US National Institutes of Health, and is published in the prestigious journal, *Diabetes*.

The study is one of the largest-ever linking existing and new health data for a common disease.

Grant Morahan, the Diabetes Research Foundation's Professor of Diabetes Research, based at the Western Australian Institute for Medical Research, said the study brought together the genetic information of more than fourteen hundred families across the globe, including families from Australia.

The study linked four data sets, three previously published genome scans and one new genome scan of 254 families, including Australian families.

"Within these families there were more than three thousand siblings with Type 1 diabetes, so this study is of a magnitude that has never seen before," he said.

"It's already known that genes called HLA account for about 40% of the total genetic risk for type 1 diabetes, but what's remained unknown is what other genes are risk factors.

"This investigation is important because it confirmed in this large group of families four non-HLA genes that were found from smaller studies, as well as unveiling several more genes that may also be linked to the disease."

Professor Morahan said more research was now needed to focus in on the genes concerned, to identify them and further explore their relationship to Type 1 diabetes.

"By identifying these genes, we will potentially be able to deliver new advances in treatment and prevention by targeting them," he said.

This next phase of the study, which aims to boost the number of families to 4000, will also include families from Western Australia.

In people with Type 1 diabetes, the third most prevalent chronic disease of childhood, the immune system mistakenly attacks the pancreas cells that produce insulin. There is no cure for the disease, which is treated with injections of insulin.

Type 1 diabetes frequently runs in families. If one member of a family has type 1 diabetes there is a 15 fold higher risk than that of the general population that another member will also develop diabetes.

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Over 100,000 Australians have type 1 diabetes and the number is on the rise, with research revealing the incidence of the disease was increasing by about 3% a year.

Diabetes Australia WA's Director of Health Services Jo Hart said the research was very encouraging.

"With the unexplained rise in the number of people developing Type 1 diabetes this sort of research is critical to helping reduce the impact of the condition into the future," Ms Hart said.

"The fact that so many young children are affected by this form of diabetes makes it even more crucial that research groups continue to investigate new ways of treating, or indeed curing it."

Diabetes Research Foundation President Clinical Professor Alex Cohen said Professor Morahan's position was founded and has been operative since February this year and already there was a considerable amount of research activity taking place locally, nationally and internationally around the centre.

World Diabetes Day is on November 14.

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