

Research aims to stop the rise of childhood diabetes

November 14 2014, by David Ellis

The last 20 years has seen many advances in medicine - but it's also seen a doubling of the rate of type 1 diabetes in children in Australia and worldwide.

New nationwide research is underway, led from the University of Adelaide's Robinson Research Institute and the Women's and Children's Hospital, to better understand the causes of [type 1 diabetes](#), why it's on the increase, and how children can be spared its potentially life-threatening complications.

Speaking in the lead-up to World Diabetes Day (Friday 14 November), Professor Jenny Couper from the University's Robinson Research Institute and the Women's and Children's Hospital says our modern [environment](#) is the key to understanding the increase in type 1 diabetes.

"We believe our environment has both harmful and protective effects, which children are exposed to very early in life, perhaps even before they're born. Our research is finding out how this is happening, and what is happening at a molecular level to lead to type 1 diabetes," Professor Couper says.

Professor Couper has recently been awarded \$2.5 million from the National Health and Medical Research Council and Juvenile Diabetes Research Foundation to establish a new Centre of Research Excellence to investigate the early development of type 1 diabetes. The centre's team combines the expertise of clinicians and scientists from South

Australia, Victoria, New South Wales, Western Australia and Queensland.

"The new Centre of Research Excellence will particularly focus on what happens during pregnancy and in early life that drives the process leading to type 1 diabetes," Professor Couper says.

"We are following 1400 children across Australia, who have a first-degree relative with type 1 diabetes, from pregnancy through early childhood; and we are also following older children who have the first signs of the process that leads to diabetes.

"We will study the [children](#)'s genes and the environment that they're exposed to - including nutrition, viral infections and the healthy bacteria that live in our bodies, the microbiome.

"Many of the changes in our modern environment may be modifiable, providing the real prospect of intervening before a child has type 1 diabetes," she says.

Other institutions involved in the Centre for Research Excellence are the Walter and Eliza Hall Institute, Royal Melbourne Hospital, University of New South Wales, University of Western Australia and University of Queensland.

More information about the national type 1 [diabetes](#) research efforts can be found [here](#).

Provided by University of Adelaide

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