

January, 2019

Media Statement

NEW TYPE 1 DIABETES PROJECT COULD HELP KIDS AT HIGH-RISK

West Australian researchers have been awarded funding for a world-first project that could ultimately help prevent type 1 diabetes developing in very young children who are at high-risk of the condition.

WA's peak diabetes research funding group, Diabetes Research WA, has provided a \$60,000 grant to research fellow Dr Aveni Haynes from the Children's Diabetes Centre at Telethon Kids Institute, and her team, to investigate continuous glucose monitoring (CGM) for measuring blood sugar levels in children at high-risk of developing type 1 diabetes but who are not yet showing clinical signs of the condition.

Dr Haynes said the project will involve children enrolled in the Australia-wide Environmental Determinants of Islet Autoimmunity (ENDIA) study who have either a parent or sibling with type 1 diabetes and who have developed type 1 diabetes specific autoantibodies that indicate they are on the path towards developing the autoimmune condition.

"There's evidence that blood sugar levels in these high-risk children could be abnormal some months to years before they develop type 1 diabetes symptoms. Previously these children have been monitored using blood tests which only reflect a snapshot in time," explained Dr Haynes.

"Our work is looking to find early changes in the pattern of blood glucose levels in very young children in more detail and the CGM will show us what's happening to those levels 24 hours a day."

Dr Haynes said given these children had a much higher risk of being diagnosed with clinical type 1 diabetes, their parents may experience anxiety related to this. This project could help alleviate some of that anxiety by giving parents more information about whether or not there were any signs of changes in their child's day-to-day blood glucose levels.

"The information could also be used in future research aimed to reverse, delay or slow the progression of these children developing symptomatic or clinical type 1 diabetes; perhaps by helping to preserve insulin-producing cells that are lost in type 1 diabetes, or using other possible treatments earlier than is standard practice now," she said.

"And we want to reduce the chances these at-risk children will first present to hospital with diabetic ketoacidosis which can be life-threatening and is caused by blood sugar levels being too high for too long."

Diabetes Research WA executive director Sherl Westlund said the project held enormous potential to impact future treatment and prevention of type 1 diabetes.

"Type 1 diabetes – for which there is no cure and which can pose many health complications – is becoming more common, so any research that can help reduce its impact is very important," she said.

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