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Media Statement

## **WA RESEARCHERS DEVELOP NEW SYSTEM IN HUNT FOR FRESH DIABETES TREATMENTS**

West Australian medical researchers have opened up a new avenue to search for improved treatments for type 2 diabetes which affects more than 1.4 million Australians.

Abraham N John from WA's Centre for Diabetes Research has, under the supervision of Associate Professor Fang Xu Jiang, created a new scientific model for a process linked to the development of the condition which can be caused by the failure of insulin-producing pancreatic beta-cells.

The findings have recently been published in the Journal of Neuroendocrinology.

"There's increasing evidence to suggest that in type 2 diabetes these beta cells could be failing because they're being triggered to revert to more primitive forms of themselves – a process called dedifferentiation," said Professor Grant Morahan, head of the Centre.

"This recent work of ours has confirmed mouse beta cell lines cultured in a high glucose environment lost their ability to release insulin, giving us a model to study dedifferentiation."

The next step is for the scientists to use the model to screen existing medications.

"Our goal is to find a new way to treat or cure type 2 diabetes so we're now looking to identify a drug that can reverse the dedifferentiation process, returning the immature beta cells to mature cells that work as they should," said Professor Morahan.

Diabetes Research WA executive director Sherl Westlund said with type 2 diabetes affecting more Australians each day, it was paramount research such as this was funded.

"This is a complex condition which can have a tremendous impact on a person's health putting them at significantly higher risk of having a heart attack or stroke, kidney failure, amputation and depression, anxiety and blindness," said Ms Westlund.

"While there are treatments available for type 2 diabetes, there's a need for more effective, targeted medications, so there's a real and urgent need for research such as this."

While a healthy diet and regular exercise can often prevent or delay type 2 diabetes, research shows about 4 out of 10 people may not currently be able to avoid developing it.

The WA Centre for Diabetes Research is based at The Harry Perkins Institute of Medical Research in Nedlands.

Diabetes Research WA, based at Royal Perth Hospital, was established in 1976 to stimulate research into diabetes in Western Australia and has distributed more than \$5 million dollars for this work.

For information, please visit [www.diabetesresearchwa.com.au](http://www.diabetesresearchwa.com.au) or call (08) 9224 1006.

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