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Media Statement

## **W.A. DIABETES GROUP FUNDS FRESH TYPE 2 DIABETES PROJECT**

WA's peak diabetes research funding group has announced financial support for a project investigating a new way to tackle disease-inducing chronic inflammation linked to type 2 diabetes.

Diabetes Research WA has awarded one of its 2022 Research Grants, valued at \$60,000, to University of Western Australia Professor Kevin Pflieger.

Professor Pflieger, Dr Elizabeth Johnstone and the Molecular Endocrinology and Pharmacology Laboratory team at the Harry Perkins Institute of Medical Research, in collaboration with colleagues at Monash University, hope to reduce health complications of type 2 diabetes by blocking a newly-discovered pathway.

"Inflammation is increased in type 2 diabetes and we've found this pathway effectively stokes the fires of inflammation in the body, making it burn more fiercely, increasing the risk of it getting out of control and causing collateral health damage," said Professor Pflieger.

The group has found that key proteins on the surface of cells involved in chronic inflammation – known as Immunoglobulin-like Cell Adhesion Molecules – are turned on by a process called transactivation when other G protein-coupled receptor molecules on the cell surface are themselves turned on.

"We hope to develop smart inhibitors of this pathway in order to keep inflammation under control and, in doing so, treat and prevent type 2 diabetes complications, such as atherosclerosis – which is the formation of fatty deposits in arteries – and kidney disease," Professor Pflieger explained.

"This new funding will support us to dig into the underlying molecular mechanisms driving this transactivation process and test peptides that modulate the pathway, to expand the number of potential type 2 diabetes drug targets."

The work will involve use of BRET – bioluminescence resonance energy transfer – technology, which Professor Pflieger's laboratory is a world-leader in using to study protein-protein interactions.

Diabetes Research WA executive director Sherl Westlund said, with 463 million adults living with diabetes in 2019, the majority with type 2, this was pivotal fundamental research.

"This type of project has enormous potential and we are thrilled to be able to provide funding at this early phase to help propel this research forward," she said.

UWA and Monash University are also supporting the project with funding.

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**Media contact:** Natalie Caudle, 0407 984 435, [natalie@capturemedia.com.au](mailto:natalie@capturemedia.com.au)