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## **New funding for Victorian researchers to find the next breakthrough in diabetes**

Victorian diabetes researchers have secured 14 innovative research projects representing 40 percent of the 2023 Diabetes Australia Research Program (DARP) grants.

Diabetes Victoria is delighted the projects focus on all types of diabetes – including prevention, management and the search for a cure – all seeking to bring to an end the often devastating complications of this chronic condition.

“Diabetes Victoria strives to support world class research in diabetes to further our understanding of this serious and complex condition. Every dollar spent on research is an important investment. Each research project funded may hold a vital key to that next breakthrough,” says Diabetes Victoria CEO, Glen Noonan.

Diabetes Victoria is a proud supporter of the Diabetes Australia Research Program (DARP).

“Since 1987, we have been a significant contributor to the DARP funding pool, supporting more than 350 diabetes research projects in Victoria. This includes contributing more than \$19 million over the past decade alone,” Mr Noonan adds.

Research is critically important to help tackle the diabetes epidemic in Australia, with the number of people diagnosed continuing to grow in numbers and impact. Diabetes is a relentless condition to manage, requiring significant efforts every day to keep glucose levels within a safe range. This is to avoid both low and high glucose levels, which can cause serious short and long-term complications, including coma, heart attack, stroke, vision loss, amputations and kidney damage.

“But it’s not just the physical impacts of diabetes that we are concerned about. Diabetes takes a toll on mental health. And every day, through our advocacy helpline, we hear that some people with diabetes still experience discrimination, e.g. in schools and workplaces, and many, many more face stigma in their everyday lives. Research is needed more than ever to improve both the health and quality of life of people with diabetes,” Mr Noonan says.

The 2023 DARP-funded projects are seeking answers to a range of very diverse questions, highlighting that diabetes is a complex condition that can impact almost every cell and organ in the body, and every aspect of a person’s life.

Among the researchers to receive funding is Dr John Karas. His study is seeking to develop a new oral form of insulin. He is trying to solve a problem that has plagued diabetes researchers for almost 100 years – the oral delivery of insulin as capsules or tablets. Scientists have struggled to make insulin as



a pill, because insulin is unstable and degrades quickly in the body as soon as it is digested. This is why insulin is still given as an injection or via a continuous infusion by an insulin pump. All people with type 1 diabetes and around one quarter of people with type 2 diabetes need to inject insulin every day.

Another promising and DARP-funded project is led by Dr Elizabeth Holmes-Truscott from Deakin University and the Australian Centre for Behavioural Research in Diabetes (ACBRD). Dr Holmes-Truscott seeks to investigate how negative perceptions around diabetes and diabetes stigma affect women with gestational diabetes. This type of diabetes is growing at a considerable rate, affecting one in six pregnancies. Dr Holmes-Truscott's work has already shown that stigma substantially adds to the burden of living with type 1 and type 2 diabetes. Now, with this new funding, she will be able to examine how it affects the emotional wellbeing, self-care and outcomes of women with gestational diabetes.

The Victorian recipients of the 2023 DARP grants come from many of Melbourne's most well-known institutions including Monash University, the University of Melbourne, Deakin University, St Vincent's Institute of Medical Research and Baker Heart & Diabetes Institute.

## About diabetes in Victoria

- Every day, 90 Victorians develop diabetes... making it the fastest growing chronic condition in our state.
- All types of diabetes are serious and can cause further health complications.
- In Victoria, there are currently more than 383,000 Victorians registered with the National Diabetes Services Scheme.
- The prevalence of type 2 diabetes is rising at an alarming rate. Every year, more than 17,000 Victorians develop type 2 diabetes. In addition, there are another 13,000 Victorian women with gestational diabetes who are at high risk of developing type 2 diabetes after their pregnancy.
- Heart attacks and strokes are up to four times more likely in people with diabetes.
- Diabetes is the leading cause of preventable blindness in adults.
- Kidney failure is three times more common in people with diabetes.
- Amputations are 15 times more common in people with diabetes.
- Depression, anxiety and distress affect more than 30 per cent of all people with diabetes.
- The full list of all DARP-funded projects in Victoria is published on the next page.

**We support, empower and campaign for all Victorians living with,  
or affected, by diabetes.**

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### Diabetes Victoria

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RESEARCHER	INSTITUTE	PROJECT
<b>Professor Judy de Haan</b>	Baker Heart and Diabetes Institute	Validating a unique anti-inflammatory therapy to treat heart failure after a heart attack in type 2 diabetic patients with co-morbid hypertension
<b>Dr Kevin Huynh</b>	Baker Heart and Diabetes Institute	Plasma lipidomics to assess glucose tolerance and risk of type 2 diabetes
<b>Dr Elizabeth Holmes-Truscott</b>	Deakin University	Perceptions and experiences of social stigma among women with gestational diabetes: An exploratory qualitative study and development of a novel questionnaire employing co-design
<b>Associate Professor Melinda Coughlan</b>	Monash University	Boosting regulatory T-cells with kidney-targeted nanoparticles to treat diabetic kidney disease
<b>Dr Tracey Gaspari</b>	Monash University	Pharmacological targeting of IRAP to resolve diabetes-induced cardiovascular complications
<b>Dr Jay Jha</b>	Monash University	Evaluating NOX5 as a promising therapeutic target for diabetic kidney disease
<b>Associate Professor Lisa Moran</b>	Monash University	Addressing type 2 diabetes risk in women with polycystic ovary syndrome (PCOS): A partnership between Monash Health PCOS clinic and Diabetes Victoria <i>Life!</i> community program
<b>Professor Raymond Norton</b>	Monash University	Novel peptide-based inhibitors of protein kinase ce interactions as dual-action agents for the treatment of type 2 diabetes
<b>Professor Rebecca Ritchie</b>	Monash University	Lifting the veil: Sex-specific cardiac benefits of next-generation glucose-lowering therapy
<b>Dr Arpeeta Sharma</b>	Monash University	Inhibiting complement C5a receptor1 to improve heart function in type 2 diabetes
<b>Dr Chris Tikellis</b>	Monash University	Splice-switching oligonucleotides targeting ACE2 for the treatment of diabetic kidney disease
<b>Dr Andrew Sutherland</b>	St Vincent's Institute of Medical Research	T-cell engineering for enhancement of T regulatory cell function in type 1 diabetes
<b>Dr Garron Dodd</b>	University of Melbourne	Targeting fibrosis in the brain: A new class of drugs to treat type 2 diabetes
<b>Dr John Karas</b>	University of Melbourne	Oral insulin

