

Setting *the world standard*

ON THE RESEARCH FRONT

The Canadian Diabetes Association was born of a conviction and unwavering belief in the critical importance of research.

Association founder Dr. Charles H. Best, co-discoverer of insulin, recognized the essential need for ongoing research at the highest levels in order to gain further knowledge about diabetes prevention, treatment, management and ultimately discover a cure.

Upholding our proud heritage, the Association supports research excellence and innovation by funding Canada's most renowned scientists and physicians in their battle against diabetes. Over the last 32 years, the Canadian Diabetes Association has awarded over \$90 million towards diabetes research.

Research makes the difference

The importance and value of research has been vividly demonstrated over time by key advances in the fight against this chronic disease.

Milestones

- ◆ Dramatic improvements in the purity of insulin through the development of synthetic human insulin.
- ◆ Insulin pumps, which mimic the natural release of insulin from the pancreas, are now a viable treatment option that allows people to better manage their diabetes.
- ◆ Successful islet cell transplantation – known as 'The Edmonton Protocol' – has been done on people with type 1 diabetes, allowing them the freedom to stop taking insulin.
- ◆ Recognition that proper diet and exercise reduces the chances that a person with impaired glucose tolerance would develop type 2 diabetes.

Most exciting of all are the recent advances in our understanding of the genetics, biochemistry and physiology of diabetes. Using cutting-edge technologies, new discoveries are being made every day.

Canadian investigators are recognized as world leaders in diabetes research, and much of their work is made possible by the Canadian Diabetes Association through the Charles H. Best Research Fund.



ASSOCIATION FUNDED RESEARCH

Ontario researchers are working on developing a vaccine that would prevent type 1 diabetes.

In **British Columbia**, researchers are trying to understand how important life changes – such as parenthood – affect exercise and eating habits, in order to design educational tools that help prevent type 2 diabetes.





ASSOCIATION FUNDED RESEARCH

Why are women with diabetes more vulnerable to irregular heart rhythms than their male counterparts?

Québec researchers are trying to understand the causes of this gender difference and find possible solutions to the problem.

Why is it so difficult for diabetes-damaged nerves in the hands and feet to repair themselves? That's the question being studied by **Alberta** researchers.

TACKLING DIABETES TOGETHER!

The Association ensures our dollars go further by investing in partnerships with other organizations involved in diabetes research. Current partners include: University of Western Ontario, University of British Columbia, Canadian Institutes of Health Research, national health charities and industry.

We fund only the highest quality research

Responsibility for making recommendations concerning our research program rests with the Association's National Research Council (NRC) and its four Research Committees, comprised of over 50 distinguished Canadian scientists and physicians. This group's diverse scientific backgrounds and areas of expertise – biochemistry, genetics, immunology, population health and self-management education – and their impressive collective body of work places them at the forefront of diabetes research and care.

To ensure the Association funds the best ideas regardless of the area of specialization or location within Canada where the research is conducted, all proposals are subjected to a highly competitive and stringent 'peer review' evaluation process:

- ◆ a full review by two Research Committee members, who also assign a numerical score;
- ◆ a review by up to three 'external' reviewers who are not members of the Research Committees;
- ◆ ranking of the applications in priority order based on average scores; and,
- ◆ highest ranked applications are recommended for funding.

We fund the best ideas and the brightest minds

The Association offers an extensive range of research and training awards to stimulate and expedite the scientific understanding of diabetes, and to promote the development of effective prevention strategies, treatments and ultimately a cure or cures for diabetes.

The Association offers two types of research grants:

- ◆ Operating grants: awarded to investigators affiliated with a university, research institute or hospital, in order to carry out their proposed research; and,
- ◆ Innovation grants: awarded to investigators with highly innovative ideas in the early exploratory stages.

The Association offers training awards to help launch the careers of young investigators:

- ◆ Personnel Award: scholar awards, clinician scientist awards, post-doctoral fellowships and doctoral student research awards.

We value and need your support

Continued research to find a cure for diabetes and develop better ways to prevent, treat and manage this disease and related complications requires persistence, dedication... and funding. With the soaring numbers of people affected by diabetes and the related rise in costs to individuals, families and Canadian taxpayers, the need for research has never been more pressing.

The Canadian Diabetes Association works in communities across the country to promote the health of Canadians and eliminate diabetes through our strong nationwide network of volunteers, employees, healthcare professionals, researchers, partners and supporters. In the struggle against this global epidemic, our expertise is recognized around the world. The Canadian Diabetes Association: setting the world standard.