

## **Juvenile Diabetes Research Foundation Canada**

### **Responses**

#### **1. Economic Recovery and Growth**

*Given the current climate of federal and global fiscal restraint, what specific federal measures do you feel are needed for a sustained economic recovery and enhanced economic growth in Canada?*

The federal government has a history of recognizing the important role that research excellence and successful innovation policy plays in improving the competitiveness and productivity of our society while also serving as a means to achieve a better standard of living. JDRF encourages the Government of Canada to continue to make strategic investments in science, technology, research and innovation to further our country's knowledge economy and promote continued economic growth. Established in partnership with the Government of Canada in 2009, the Juvenile Diabetes Research Foundation Canadian Clinical Trial Network (JDRF CCTN) is a groundbreaking effort to accelerate "Made-in-Canada" solutions for the management, care and cure of type 1 diabetes. JDRF CCTN is currently developing and implementing a broad range of high-profile clinical trials in association with leading diabetes researchers at partner universities and medical centres across Southern Ontario. By enhancing the existing clinical trial infrastructure in the province and providing high-profile training opportunities for seasoned and emerging investigators alike, JDRF CCTN will build upon its success of positioning Canada as an international hub for diabetes translational research, innovation, and commercialization for new therapeutics and enabling technologies. Now that JDRF CCTN's core infrastructure has been established, further funding will go directly into cutting-edge clinical research while allowing JDRF CCTN to accelerate and leverage the immediate and impressive gains in momentum that have already been made as a result of the federal government's support. Further funding would be used to expand JDRF CCTN to be national in scope, providing long-standing benefits to Canada's knowledge-based economy by creating and maintaining long-term high paying jobs in the health research sector across various institutions. JDRF CCTN's experience suggest that an expanded network will continue to attract interest from Canadian and international pharmaceutical and technology companies seeking an innovative platform for drug and device development and that health entities outside Canada will continue to turn their attention and resources to JDRF CCTN, bringing new opportunities to Canada.

#### **2. Job Creation**

*As Canadian companies face pressures resulting from such factors as uncertainty about the U.S. economic recovery, a sovereign debt crisis in Europe, and competition from a number of developed and developing countries, what specific federal actions do you believe should be taken to promote job creation in Canada, including that which occurs as a result of enhanced internal and international trade?*

JDRF recommends that the Government of Canada support the creation of long-term, high-paying jobs by continuing to place priority on investments in the health and related life sciences and technologies sector. With sustained support from the federal government, the Canadian life sciences sector continues to have significant potential for creating jobs and economic growth in Canada. In the original agreement between JDRF and the Federal Economic Development Agency for Southern Ontario, JDRF CCTN committed it would provide the creation and maintenance of 152 highly-skilled jobs in Southern Ontario. JDRF CCTN has surpassed this requirement and more than 200 personnel are working on activities that are part of the JDRF CCTN initiative at leading institutions in Southern Ontario. JDRF

CCTN is positioned to continue to advance effective new treatments for type 1 diabetes. The number of researchers in Canada who have programs focused on type 1 diabetes has grown dramatically in the last 10 years. Researchers based in Canada have considerable strengths in both basic research and clinical translation and have a proven track record of productive collaboration to leverage efforts into world-class successes and to accelerate the pace of discovery and commercialization in Canada. Now that the network infrastructure of JDRF CCTN has been established, additional funding will go straight into cutting-edge clinical research while allowing JDRF CCTN to accelerate and leverage the immediate and impressive gains that have already been made as a result of the federal government's support. JDRF CCTN has attracted global interest in conducting research at Canadian hospitals and universities by potentiating the development of the medical and technology job sectors in Southern Ontario, creating highly-qualified jobs and strengthening the region's growing knowledge-based economy. Further support will allow JDRF to strengthen the JDRF CCTN network within existing hospitals and universities across Canada, providing additional advanced training and highly-skilled jobs for Canadians that will make a lasting impression on our economy.

### **3. Demographic Change**

*What specific federal measures do you think should be implemented to help the country address the consequences of, and challenges associated with, the aging of the Canadian population and of skills shortages?*

JDRF recommends that as Canadian demographics shift, the federal government continue to see the health and life sciences sector as a priority for research and training funding. JDRF CCTN is potentiating the development of the medial and technology job sectors in Southern Ontario, creating highly-qualified jobs and strengthening the region's growing knowledge-based economy. Furthermore, JDRF CCTN is providing unique training opportunities for seasoned and emerging investigators alike and providing Canadian investigators with the opportunity to participate in international clinical trials. The International Diabetes Foundation World Diabetes Atlas in 2001 placed Canada tenth in incidence of type 1 diabetes among the young, age 0-14 years, with nearly 22 new-onset cases per 100,000 Canadians annually. Unfortunately, the number of children developing this form of diabetes every year is increasing rapidly, especially among the youngest children. In 2010, the Canadian health care system spent \$11.7 billion on diabetes care and it is estimated that by 2020, this cost will rise to \$16.9 billion annually. JDRF CCTN is a groundbreaking effort to accelerate "Made-in-Canada" solutions for the treatments, care and cure of type 1 diabetes. JDRF CCTN is already making available new technologies and treatments to Canadians living with type 1 diabetes and, given Canada's competitive advantage in the field, has attracted significant interest from both Canada and international drug and device developers as a platform for innovation. JDRF CCTN is uniquely positioned to continue to serve as the platform for clinical testing that allows researchers to test their treatments and technologies sooner, thereby ensuring Canadian patients have access to the newest and best available treatments as soon as possible while providing significant savings to the health care system in the future.

### **4. Productivity**

*With labour market challenges arising in part as a result of the aging of Canada's population and an ongoing focus on the actions needed for competitiveness, what specific federal initiatives are needed in order to increase productivity in Canada?*

While the federal government has long-recognized innovation as a driver of productivity, the Review of Federal Support to Research and Development Expert Panel Report, "Innovation Canada: A Call to Action," notes that Canada still struggles with subpar productivity growth. The report emphasizes that productivity growth is primarily the result of innovation. Collaboration among governments, businesses, not-for-profits, and the higher education sector contributes to successful business innovation and the

introduction of new products and processes. Partnerships are a key component of JDRF's approach to research and JDRF CCTN is a shining example of how collaborative networking is a way of getting the most out of our research capacity. This collaboration is key to combining existing expertise in creating novel therapeutics with the scientific development and commercialization capability. JDRF CCTN is comprised of a network of collaborating clinical research institutions across Southern Ontario who are participating in the design and conduct of clinical trials in type 1 diabetes. This unique network structure permits a greater degree of standardization, which both increases the value and utility of trial data, and lowers establishment and operating costs. In addition to validating and defining best practices for new technology and a variety of therapeutics in Canada, the clinical platform and scientific expertise provided by JDRF CCTN serves as an attractant to industry which needs to perform clinical studies at the last critical stage of development for commercialization of health technologies. JDRF CCTN also provides an opportunity for Canadian clinical investigators to be full collaborators in international trials and Canadian trial sites provide an important source of participants, increase recruitment efficiency, and increase the overall impact of trial results. JDRF encourages the federal government to continue to recognize the importance of and provide support for partnerships between the private and public sectors – like that between JDRF and the Federal Economic Development Agency for Southern Ontario – which promote cutting-edge research, innovation and commercialization, and furthers Canada's global research leadership and competitive advantage.

## **5. Other Challenges**

*With some Canadian individuals, businesses and communities facing particular challenges at this time, in your view, who is facing the most challenges, what are the challenges that are being faced and what specific federal actions are needed to address these challenges?*

JDRF believes that the Government of Canada needs to adopt long-term policies which leverage investments, continue to grow national capacity for research discovery and development and provide an enabling environment to attract more research dollars to Canada. Currently, one of the most significant barriers to developing new diabetes therapeutics is the scarcity of support for investigators to turn laboratory discoveries into treatments suitable for clinical trial use. JDRF CCTN is developing mechanisms to enhance translational research resources for Canadian companies and investigators, in order to ensure that promising discoveries are brought to clinical testing without delay. A continued partnership with JDRF allows the Government of Canada to take a continued visible leadership position that emphasizes innovation and tangible progress towards commercialization. JDRF CCTN has created the foundation of a strong clinical research network to develop and conduct leading-edge clinical trials in Canada and deliver the benefits of research advances in diabetes to improve the lives of every person affected by type 1 diabetes. As a result JDRF's partnership with the Federal Economic Development Agency of Southern Ontario the following benefits have been achieved in Southern Ontario and can be expanded across Canada with additional investment:

- Enrichment of infrastructure for research and development, including the infrastructure to run multi-site clinical trials;
- Enhanced potential for collaboration with industry;
- Promotion of scientific collaboration, including opportunities for international collaboration;
- Expansion of access to clinical trials to Canadians;
- Efficiencies in patient recruitment, leading to more rapid study results;
- Realization of economies of scale, leading to greater statistical power and more significant study results; and
- Potential for trial results to impact clinical care for other diseases (e.g. type 2 diabetes and other autoimmune diseases).

The JDRF CCTN partnership with the Government of Canada emphasizes the importance of direct government investment in research and development, in the knowledge economy, and in private-public partnerships in accruing real economic and societal gains.