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# INTRODUCTION

# Aim of the guide

This guide is intended to help European researchers and innovators identify and access opportunities for collaboration with their Canadian colleagues. The guide offers an overview of Canada's science, technology and innovation system and profiles a selection of programs, fellowships and scholarships that may be of interest to Europeans. Each program profile provides a brief description of the program, the eligibility criteria for Europeans, and a link to further information.

# STRUCTURE OF THE GUIDE

# Chapter 1: Canada's science, technology and innovation system

Chapter 1 provides an overview of the structure of Canada's science, technology and innovation system. This chapter outlines the policy context in which research and innovation occur in Canada and describes who funds and performs research in Canada.

# Chapter 2: Canadian science, technology and innovation programs with funding available to Europeans

Chapter 2 profiles Canadian science, technology and innovation programs through which Europeans can obtain funding. This chapter includes federal and provincial programs.

# Chapter 3: Canadian science, technology and innovation programs with partnership opportunities for Europeans

Chapter 3 profiles Canadian science, technology and innovation programs that are open to European participation but do not explicitly offer funds to European participants. These programs allow Europeans to collaborate with their Canadian colleagues, but require Europeans to bring their own funding. This chapter presents federal and provincial programs.



# CHAPTER 1 Canada's science, technology and innovation system

# Structure of the Canadian innovation system

Canada is a federation of ten provinces and three territories. The Canadian constitution specifies that provincial governments have exclusive responsibility for all levels of education, natural resources and health. Within the education sector, provincial governments are responsible for the basic operating costs of educational institutions, including staff salaries that support research and development (R&D) carried out within Canadian universities, colleges, and teaching hospitals.

In Canada, federal and provincial governments are jointly responsible for the framework conditions that support science, technology and innovation such as: fiscal and tax systems; funding for research and development; commercialization, knowledge transfer and mobilization; intellectual property rights; labour mobility; policies shaping competition, foreign investment, and trade. At the federal level, the Minister of Innovation, Science and Economic Development and the Minister of Science have responsibility for innovation in Canada. The Minister of International Trade has the responsibility to support international innovation, science, and technology.

# Policy context in Canada

In 2007, the federal government released Mobilizing Science and Technology to Canada's Advantage, a framework to guide Canada's science and technology (S&T) policy. This document emphasizes creating an "entrepreneurial advantage," a "people advantage", and a "knowledge advantage" for Canada by promoting world-class excellence, partnerships, and, accountability for R&D investments. The strategy centres both on increasing private sector R&D and on ensuring that Canada benefits from an internationally competitive university research environment. The strategy also identifies four broad strategic R&D priorities: environmental science and technologies; natural resources and energy; health and related life sciences and technologies; and, information and communication technologies.



The 2007 S&T policy announced the creation of Canada's Science, Technology and Innovation Council (STIC). STIC is an independent advisory body mandated to provide advice on STI policy issues, inform federal government policy and benchmark Canada's progress in these areas. In 2008, STIC identified 13 sub-priority areas for R&D, which were endorsed by the Government of Canada.

In November 2013, the Government of Canada launched a new international trade plan entitled "Global Markets Action Plan," which also enhances the reach of the Federal ST&I Strategy by promoting Canadian business innovation and global competitiveness.

In December 2014, the Government of Canada released an updated Science, Technology and Innovation strategy, which maintains many of the core tenets of the 2007 strategy. The 2014 update also commits to enhance accountability and transparency in research and reduce the administrative burden associated with funding research in Canada. Finally, the revised strategy introduces a new priority area for R&D in Canada and a new sub-priority under Environmental Science. As of December 2014, the full complement of Canada's S&T research and development priorities are:

#### → Environmental science:

- + Water (health, energy, security)
- Cleaner methods of extracting, processing and utilizing hydrocarbon fuels, including reduced consumption of these fuels
- + Agriculture (added in 2014)

### → Natural resources and energy

- Energy production in the oil sands
- + Arctic (resource production, climate change adaptation, monitoring)
- + Biofuels, fuel cells and nuclear energy

### → Health and life sciences

- + Regenerative medicine
- + Neuroscience
- + Health in an aging population
- + Biomedical engineering and medical technologies

### → Information and communications technologies

- + New media, animation and games
- + Wireless networks and services
- + Broadband networks
- + Telecom equipment



- → Advanced manufacturing (added in 2014)
- + Automation (including robotics)
- + Lightweight materials and technologies
- + Additive manufacturing
- + Quantum materials
- + Nanotechnology
- + Aerospace
- + Automotive

# **Research funding**

In 2014, direct research expenditures in Canada were estimated to be worth \$30.6 billion, or slightly less than 2 percent of GDP. In Canada, research funding comes from six sources: the federal government, the provincial governments, universities, the private sector, non-profit organizations and foreign entities. In 2013, the largest investor in Canadian R&D was the private sector, accounting for 46 percent of all R&D expenditures in Canada, followed by the federal government (19 percent); universities (18 percent); and, foreign investors, the provincial governments and the non-profit sector collectively invested the remaining 17 percent of R&D expenditures in Canada.

Federal investments are dispersed primarily between intramural research performed by the federal government's 13 science-based departments and agencies, and extramural R&D performed by the postsecondary education sector. Funding for extramural R&D activities is allocated on a competitive basis through the following agencies:

- + The Natural Sciences and Engineering Research Council of Canada (NSERC) is the federal funding agency for academic research in the fields of natural sciences and engineering. The agency supports university students in their advanced studies, promotes and supports discovery research and fosters innovation by encouraging Canadian companies to participate and invest in postsecondary research projects.
- + The Social Sciences and Humanities Research Council of Canada (SSHRC) is the federal research funding agency that promotes and supports postsecondary-based research and training in the humanities and social sciences. By focusing on developing talent, generating insights and forging connections across campuses and communities, SSHRC strategically supports



world-leading initiatives that reflect a commitment to ensuring a better future for Canada and the world.

- + The Canadian Institutes of Health Research (CIHR) is Canada's federal funding agency for health research. Its mission is to create new scientific knowledge and to enable its translation into improved health, more effective health services and products and a strengthened Canadian health care system. Composed of 13 institutes, CIHR provides leadership and support to more than 13,000 health researchers and trainees in universities, teaching hospitals, and research institutions across Canada.
- + The Canada Foundation for Innovation (CFI) invests in state-ofthe-art facilities and equipment at universities, colleges, research hospitals, and non-profit research institutions that attract and retain the world's top talent, train the next generation of researchers, support private-sector innovation, and create high-quality jobs that strengthen Canada's position in today's knowledge economy.
- + Genome Canada is a not-for-profit organization that connects ideas and people across public and private sectors to find new uses for genomics, invests in large-scale science and technology to fuel innovation, and translates discoveries into applications, new technologies, societal impacts and solutions across key sectors of national importance, including health, agriculture, forestry, fisheries & aquaculture, energy, mining, and the environment.

Collectively, NSERC, SSHRC and CIHR are referred to as the Tri-Council. Some programming is offered by the Tri-Council Agencies in consortium (see Chapter 2). A smaller portion of direct federal funding goes to other sectors including the business and non-profit sectors through direct and indirect funding mechanisms. For example, the federal government provides direct support through the National Research Council Industrial Research Assistance Program (NRC IRAP), and indirect support for research activities performed by the private sector through the Scientific Research and Experimental Development (SR&ED) tax credit program.

# **Research performers**

Research activities in Canada are carried out primarily by the private sector, postsecondary education institutions (universities and



colleges) and the federal government. In 2014, the private sector was responsible for 50 percent of all research activities performed in the country, postsecondary education institutions performed 40 percent, and the federal government performed 8 percent. The provincial governments and the not-for-profit sector conducted the remaining 2 percent of R&D activities in Canada.

Canadian postsecondary education institutions (primarily universities) perform significantly more than the OECD average of 18 percent. This distinctive feature of the Canadian research landscape is a result of significant investments in this sector over an extended period, and a business sector that performs comparatively lower proportion of R&D activities, when compared with the OECD average of 68 percent. The result is an ecosystem where universities are well-positioned to serve as cross-sectoral platforms for regional, national and international R&D activities.

Universities are also home to 14 networks under the Networks of Centres of Excellence program, which brings together more than 2,000 public and private sector organizations in Canada and abroad in leading-edge thematic research networks. Almost half of all federal laboratories are co-located on university campuses, to encourage knowledge transfer and mobilization between the academic and public sectors. Universities also provide incubation space and services to business and not-for-profit R&D partners in the pre-competitive and competitive stages of knowledge mobilization and commercialization through technology transfer and industrial liaison offices and community research offices. Across the country, 26 research parks are located on or near university campuses.

# Canada-EU cooperation in science, technology and innovation

Canada and the European Union have a strong history of cooperation in the fields of science, technology and innovation. In 1996, Canada and the European Community signed the Agreement for Scientific and Technological Collaboration to "encourage and facilitate cooperation between the Community and Canada in fields of common interest where the Parties are supporting research and development activities to advance science and/or technology relevant to those fields of interest."



The 1996 agreement established the Canada-EU Joint Science and Technology Cooperation Committee (JSTCC), which meets every 12 to 18 months. The JSTCC outlines priorities for cooperation in science and technology, reports on existing collaborations and offers suggestions to increase collaboration in priority areas. Current priorities, as defined at the most recent JSTCC meeting in November 2014, are health, agriculture and agri-food, information and communications technologies, arctic, marine, aerospace and researcher training and mobility.

### **CHAPTER 2**

# CANADIAN PROGRAMS WITH FUNDING AVAILABLE TO EUROPEANS

The Government of Canada offers many types of scholarships, bursaries and programs through various federal departments and agencies to encourage international student and faculty mobility. Global Affairs Canada maintains a website which provides information on all of these programs. Website: http://www.scholarshipsbourses.gc.ca

The programs offered by each of Canada's 10 provinces vary considerably, according to the capacity of their respective provincial budget, the province's mandate on innovation and education, and the demands created within each provincial jurisdiction. For this reason, not every provincial government offers programs directly to international students, postdocs and faculty.

The following is a selection of programs offered at the national and provincial level that provide funding directly to international students, postdocs and faculty.

# National Programs

### **Canada Excellence Research Chairs**

- → Program Type: Research
- → Thematic Areas:
- Environmental science and technologies;
- Information and communication technologies (digital economy);
- + Health and related life sciences and technologies; and
- + Natural resources and energy
- → Funding Opportunity:

The Canada Excellence Research Chairs (CERC) Program awards world-class researchers up to \$10 million CAD over seven years to establish ambitious research programs at Canadian universities.



### → Eligibility Criteria for Europeans:

Open to applications from the world's top researchers who wish to develop ambitious research programs at Canadian universities.

→ Further information:

Website: http://cerc.gc.ca/home-accueil-eng.aspx

Contact: information@cerc.gc.ca

### Canada Research Chairs

→ Program Type: Research

→ Thematic area: Open to all disciplines

→ Funding Opportunity:

The Canada Research Chairs (CRC) Program invests \$300 million CAD per year to attract and retain some of the world's most accomplished and promising minds. Chairholders aim to achieve research excellence in engineering and the natural sciences, health sciences, humanities, and social sciences.

### → Eligibility Criteria for Europeans:

Open to full professors and associate professors (Tier 1), and associate professors and assistant professors (Tier 2) of any nationality. Foreign researchers are eligible to be nominated by potential host institutions in Canada and can be nominated at any time during the year.

→ Further information:

Website: http://www.chairs-chaires.gc.ca/home-accueil-eng.aspx Contact: information@chairs-chaires.gc.ca

### **Banting Postdoctoral Fellowships**

→ Program Type: Capacity building

→ Thematic area: Open to all disciplines

→ Eligibility Criteria for Europeans:

The Banting Postdoctoral Fellowships, valued at \$70,000 per year CAD for two years, aim to attract and retain top-tier postdoctoral talent to develop their leadership potential and to position them for success as research leaders of tomorrow.

### **→ Funding Opportunity:**

European citizens are eligible to apply. Applicants who are not Canadian citizens or permanent residents of Canada may only hold their Banting Postdoctoral Fellowship at a Canadian institution.

#### → Further information:

Website: banting.fellowships-bourses.gc.ca/home-accueil-eng.html

Contact: banting@researchnet-recherchenet.ca



# Vanier Canada Graduate Scholarships

- → Program Type: Capacity building
- → Thematic area: Open to all disciplines.
- → **Funding Opportunity:** The Vanier Canada Graduate Scholarships, valued at \$50,000 CAD per year, for up to three years, aim to attract and retain world-class doctoral students by supporting students who demonstrate both leadership skills and a high standard of scholarly achievement.
- → Eligibility Criteria for Europeans:

European citizens are eligible to apply. Applicants must be nominated by a Canadian university.

→ Further information:

Website: www.vanier.gc.ca/
Contact: vanier@cihr-irsc.gc.ca

## NSERC Industrial Postgraduate Scholarships Program (IPS)

- → Program Type: Training
- → Thematic area: Open to all disciplines in the natural sciences and engineering
- → Funding Opportunity:

Industrial Postgraduate Scholarships provide financial support for graduates from science and engineering programs to highly qualified science and engineering graduates. This support allows them to gain research experience in industry while undertaking advanced studies in Canada.

### → Eligibility Criteria for Europeans:

Qualified foreign candidates are eligible to apply, although NSERC may choose to limit the number of foreign students participating in the program from time to time.

→ Further information:

Website: http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/IPS-BESIl\_eng.asp Contact: schol@nserc-crsng.gc.ca

# NSERC Visiting Fellowships in Canadian Government Laboratories Program

- → Program Type: Research
- → Thematic area: Open to all disciplines in the natural sciences and engineering
- → Funding Opportunity:

The Visiting Fellowships in Canadian Government Laboratories
Program provides promising emerging scientists and engineers with
the opportunity to work with research groups or leaders in Canadian
government laboratories and research institutions. Fellowships are



awarded for one year with the possibility of renewal for a second and third year, at the discretion of the government department concerned. The number of awards varies according to the budgets of participating departments and agencies.

### → Eligibility Criteria for Europeans:

Applicants must have received a doctoral degree in the natural sciences or engineering from a recognized university within the past five years. Applications will be accepted from candidates currently enrolled in a doctoral program at a recognized university; however, candidates must expect to complete all requirements for their degree (including the thesis defence) within six months of submitting their application. If a candidate has withdrawn from the workforce and active research for maternity leave, or to raise a child for at least one year, after receiving his or her doctorate, NSERC will extend the eligibility period to six years. One can apply only twice for a Visiting Fellowship in Canadian Government Laboratories.

### → Further information:

Website: http://www.nserc-crsng.gc.ca/Contact: schol@nserc-crsng.gc.ca

# **SSHRC Insight Development Grants**

- → Program Type: Research
- → Thematic Area: Open to all disciplines in the social sciences and humanities
- **→ Funding Opportunity:**

Insight Development Grants support research in its initial stages. The grants enable the development of new research questions, as well as experimentation with new methods, theoretical approaches and/or ideas. Funding is provided for short-term research development projects, of up to two years, proposed by individuals or teams.

Proposals are to respond to the following objectives:

- + build knowledge and understanding from disciplinary, interdisciplinary and/or cross-sector perspectives through support for the best researchers;
- + support new approaches to research on complex and important topics, including those that transcend the capacity of any one scholar, institution or discipline;
- + provide a high-quality research training experience for students;
- + fund research expertise that relates to societal challenges and opportunities; and,
- + mobilize research knowledge, to and from academic and nonacademic audiences, with the potential to lead to intellectual, cultural, social and economic influence, benefit and impact.



## → Eligibility Criteria for Europeans:

European researchers whose primary affiliation is with a non-Canadian postsecondary institution are eligible to participate as co-applicants; the rationale for international collaboration must be clearly outlined in the application.

#### → Further information:

Website: http://www.sshrc-crsh.gc.ca

Contact: insightdevelopment@sshrc-crsh.gc.ca

# **SSHRC Partnership Grants**

- Program Type: Research/Innovation/Capacity building/ Knowledge mobilization
- → Thematic Area: Open to all disciplines in the social sciences and humanities
- → Funding Opportunity:

Partnership Grants provide support for new and existing formal partnerships over four to seven years to advance research, research training and/or knowledge mobilization in the social sciences and humanities through mutual cooperation and sharing of intellectual leadership, as well as through resources as evidenced by cash and/or in-kind contributions. A formal partnership is a bilateral or multilateral formal collaboration agreement between an applicant and one or more partners, of which at least one must be a Canadian postsecondary institution and at least one must be different from the institution or organization that will administer the grant funds. Partnerships may be between academic institutions, or between one or more academic institutions and one or more non-academic partners. These partners agree and commit to work collaboratively to achieve shared goals for mutual benefit.

### → Eligibility Criteria for Europeans:

International postsecondary institutions may participate as coapplicants. Co-applicants from European post-secondary institutions can access SSHRC funding in two ways: a) through a reimbursement of expenses related to research activity b) through a sub-agreement entered into by the Canadian post-secondary institution and the European institution to transfer funds to the European institution.

#### → Further information:

Website: www.sshrc-crsh.gc.ca/funding-financement/

Contact: partnershipgrants@sshrc-crsh.gc.ca

### SSHRC – Partnership Development Grants

- → Program Type: Research/Innovation/Knowledge mobilization
- → Thematic Area: Open to all disciplines in the social sciences and humanities



### → Funding Opportunity:

Partnership Development Grants provide support over one to three years to develop research and related activities in the social sciences and humanities, including knowledge mobilization and the meaningful involvement of students and new scholars, by fostering new partnerships for research and related activities involving existing and/or potential partners or to design and test new partnership approaches for research and/or related activities that may result in best practices or models that can either be adapted by others or that have the potential to be scaled up to a regional, national or international level.

### → Eligibility Criteria for Europeans:

International postsecondary institutions may participate as coapplicants. Co-applicants from European post-secondary institutions can access SSHRC funding in two ways: a) through a reimbursement of expenses related to research activity b) through a sub-agreement entered into by the Canadian post-secondary institution and the European institution to transfer funds to the European institution.

#### → Further information

Website: www.sshrc-crsh.gc.ca

Contact: partnershipgrants@sshrc-crsh.gc.ca

### **SSHRC Connection Grants**

- → Program Type: Knowledge mobilization
- → Thematic Area: Open to all disciplines in the social sciences and humanities
- → Funding Opportunity:

Connection Grants support events and outreach activities geared toward short-term, targeted knowledge mobilization initiatives. These events and activities represent opportunities to exchange knowledge and to engage on research issues of value to those participating. Events and outreach activities funded by a Connection Grant may often serve as a first step toward more comprehensive and longer-term projects potentially eligible for funding through other SSHRC funding opportunities.

### → Eligibility Criteria for Europeans:

International postsecondary institutions may participate as coapplicants. Co-applicants from European post-secondary institutions can access SSHRC funding in two ways: a) through a reimbursement of expenses related to research activity b) through a sub-agreement entered into by the Canadian post-secondary institution and the European institution to transfer funds to the European institution.



#### → Further information:

Website: www.sshrc-crsh.gc.ca/funding-financement/

Contact: connection@sshrc-crsh.gc.ca

### **CIHR International Collaboration**

→ Program type: Research/ Capacity building/Knowledge transfer

- → Thematic area: Health
- → Funding opportunity:

The Canadian Institutes of Health Research (CIHR) encourages Canadian researchers to engage in international research projects and/or international collaborations when appropriate by providing funds to support research conducted in, and/or in direct collaboration with researchers and/or knowledge-users based in other countries.

CIHR encourages applications in the field of global health, which demonstrate that the proposed research project has the potential to improve the health of the global community. CIHR contributes to and supports international research projects and international collaborations to address a range of research areas. These areas include but are not limited to established priorities in global health research, and the development of domestic and international health-research capacity.

Foreign researchers may apply as Principal Applicants, Co-Applicants or Collaborators if they meet the relevant definitions in CIHR Grants and Awards Guide (http://www.cihr-irsc.gc.ca/e/805.html), as well as the specific eligibility criteria outlined in the Funding Opportunity. They are not required to have an employment relationship or academic status with a CIHR-eligible Institution.

Foreign Researchers must meet Nominated Principal Applicant requirements:

- + spend a minimum of six months per year at a Canadian institution
- have an employment relationship or academic status with a CIHR-eligible Institution

The CIHR Nominated Principal Applicant may transfer funds to team members (e.g., researchers, trainees, knowledge-users, etc.) based outside of Canada subject to approval from the Canadian Institution Paid. The Primary Institution has principal responsibility for the use and monitoring of funds that are transferred to a Non-eligible Secondary Institution.

#### → Further information:

Website: For an overview of how to apply for CIHR funding, please refer to the following link: http://www.cihr-irsc.gc.ca/e/795.html. To



access CIHR's funding opportunities, please refer to the CIHR Funding Opportunities

### The Canada Foundation for Innovation

- → Program type: Research infrastructure
- → Thematic area: Open to all disciplines
- → Funding opportunity:

The Canada Foundation for Innovation (CFI) is a non-profit corporation created by the Government of Canada through the 1997 Budget Implementation Act. Its mission is to benefit Canadians by strengthening the capacity of Canadian universities, colleges, research hospitals and non-profit research institutions to carry out world-class research and technology development.

The infrastructure funded by the CFI includes the state-of-the-art equipment, laboratories, databases, specimens, scientific collections, computer hardware and software, communications linkages and buildings necessary to conduct leading-edge research.

### → Eligibility criteria for Europeans:

Eligible institutions apply to the CFI through a suite of funds and all applications are assessed using three broad criteria:

- + Quality of the research and its need for infrastructure;
- + Contribution to strengthening the capacity for innovation;
- + Potential benefits of the research to Canada.

The CFI funds up to 40 percent of a project's research infrastructure costs. This funding is then leveraged to attract the remaining investment from partners in the public, private and non-profit sectors in Canada and ground the world.

### → Further information:

Website: www.innovation.ca

### **Mitacs**

Mitacs is a national, not-for-profit organization that works with universities, companies and both federal and provincial governments to build partnerships that support industrial and social innovation in Canada.

# **Mitacs Accelerate**

- → Program Type: Research/Training/Knowledge mobilization
- → Thematic Area: Open to all disciplines
- **→ Funding Opportunity:**

Accelerate is a scalable internship program that sees graduate students and postdoctoral fellows collaborating with partner



companies on a research challenge of mutual interest. Projects start at four months and \$15,000 and can be expanded depending on applicants' needs. Applicants can apply at any time.

### → Eligibility Criteria for Europeans:

European students studying full-time at a Canadian university are eligible. European postdoctoral fellows appointed at a Canadian university are also eligible.

#### → Further information:

Website: www.mitacs.ca/en/programs/accelerate

Contact: accelerate@mitacs.ca

### **Mitacs Elevate**

→ Program Type: Research /Training/Knowledge mobilization

→ Thematic Area: Open to all disciplines

→ Funding Opportunity:

Elevate is a competitive program that provides customized research management and leadership training to recent postdoctoral fellows. The two-year curriculum offers professional development in career areas specific to postdocs. During this time, postdoctoral fellows also address a project with an industry partner and faculty supervisor. This award is available through a biannual call for proposals.

→ Eligibility Criteria for Europeans:

European postdoctoral fellows based at a Canadian university are eliaible.

→ Further information:

Website: www.mitacs.ca/en/programs/elevate

Contact: elevate@mitacs.ca

# Mitacs Globalink Research Internship

→ Program Type: Research

→ Thematic Area: Open to all disciplines

→ Funding Opportunity Description:

The Globalink Research Internship is a competitive initiative that brings top-ranked senior undergraduates from eight partner countries for 12-week research projects at Canadian universities from May to September of each year.

### → Eligibility Criteria for Europeans:

Senior undergraduate students in France are eligible to apply in fall 2015 for travel to Canada in May 2016.

→ Further information:

Website: https://www.mitacs.ca/en/programs/globalink/

Contact: globalink@mitacs.ca



### Globalink Research Award

→ Program Type: Research

→ Thematic Area: Open to all disciplines

→ Funding Opportunity:

The Globalink Research Award supports student travel for a research project abroad. Senior undergraduates or graduate students and faculty at Canadian universities collaborate with faculty in Brazil, China, India, Mexico, Turkey, and Vietnam on 12- to 24-week research projects of mutual interest. Applicants can apply at any time.

### → Eligibility Criteria for Europeans:

Criteria for Europeans: European senior undergraduates and graduate students studying full-time at Canadian universities are eliaible to apply.

#### → Further information:

Website: https://www.mitacs.ca/en/programs/globalink/

Contact: international@mitacs.ca

# Provincial programs

### Fonds de recherche du Québec

In their respective fields, the Fonds de recherche du Québec – Nature et technologies (Nature and Technology), the Fonds de recherche du Québec – Santé (Health), and the Fonds de recherche du Québec – Société et culture (Society and Culture) have the following mandate:

- + To ensure the strategic and coherent development of research in Québec;
- + To provide financial support for research and for the training of researchers;
- + To create any partnerships necessary for fulfilling their mission;
- + To promote and provide financial support for knowledge mobilization.

# Fonds de recherche du Québec – Health – Postdoctoral Training for Applicants Living Outside of Québec

→ Program Type: Training
 → Thematic Area: Health
 → Funding opportunity:

This postdoctoral training program is aimed at citizens of other countries and Canadian citizens (applicants from other Canadian provinces and permanent residents of Canada) who are not domiciled in Québec and who wish to purse their postdoctoral training in the province. The purpose of this program is to help doctorate (Ph.D.) holders enhance their training and broaden their field of interest. It is also aimed at encouraging these researchers to experience new scientific environments, to acquire new research



methodologies and management and communication skills, and to supervise students. The Fonds de recherche du Québec assumes that the internship director will mentor applicants in developing their university career.

### → Further information:

Website: http://www.frqs.gouv.qc.ca/

# Fonds de recherche du Québec – Nature et Technologies – Short-term Research and Upgrading Program for Foreign Students

→ Program Type: Training

→ Program Description:

This merit-based award program for foreign students is designed to foster international research activities at Québec universities, attract top foreign students and researchers, and enhance the reputation and influence of Québec universities throughout the world.

→ Further information:

Website: http://www.fras.gouv.gc.ca/

# New Brunswick Health Research Foundation (NBHRF) Establishment Grant

→ Program Type: Research

→ Thematic Area:

Human health, specifically: biomedical science, clinical research, health services and systems research, and research on the cultural, social, and environmental determinants of population health

→ Funding Opportunity:

The Establishment Grant Program is intended to assist in attracting outstanding researchers to the province of New Brunswick by providing funding to establish independent health research programs within the province. Although the investigator is the applicant, it is expected that the investigator and their department head will collaborate on the complete application. The program is offered annually, subject to availability of funding.

- + The grant may be up to CAD \$60,000 per year for up to 2 years.
- + The grant may be used to match funds from another agency, provided that the request to the other agency has already been submitted or approved at the time of application to NBHRF and that all NBHRF requirements and processes are followed.
- + 50% of the funds may be used toward a teaching release.
- + Funds are advanced to the applicant organization only after the candidate has accepted a tenure-track employment offer and must be utilized within two years of the date disbursed.



- → Eligibility Criteria for Europeans. To be eligible to apply, the investigator must:
- + be a Canadian citizen, permanent resident, or actively pursuing such status, and not simultaneously be a graduate student, research fellowship holder or holder of any other training award, or an employee of a for-profit business;
- + not have previously held an NBHRF Establishment Grant or NBHRF New Investigator Grant;
- + be able to commit a minimum of 50% of his/her time to conduct research (NBHRF may seek verification of this commitment)
- + be sponsored by the appropriate department head and dean of a New Brunswick university
- + Applications will be accepted within fifteen months of the date of the original decision notification of the national granting agency.
- → Further information:

Website: http://www.nbhrf.com/nbhrf-establishment-grant

# The Beatrice Hunter Cancer Research Institute (NBHRF) New Investigator Award

→ Program Type: Research

→ Thematic Area: Health, cancer

→ Funding Opportunity:

The New Brunswick Health Research Foundation (NBHRF) and the Beatrice Hunter Cancer Research Institute (BHCRI) are pleased to offer the following opportunities: New Investigator Awards of CAD \$25,000 per year for up to 2 years are offered to qualified researchers who are undertaking cancer research in the Province of New Brunswick.

### → Eligibility Criteria for Europeans:

Europeans may apply for this award. To be eligible, the applicant:

- + Must have an academic or research appointment which allows the individual to pursue the proposed research project
- + Must conduct research within a New Brunswick institution
- + Must engage in independent research activities for the entire duration of the funding
- → Further information:

Website: http://www.nbhrf.com/



### **CHAPTER 3:**

# CANADIAN SCIENCE, TECHNOLOGY AND INNOVATION PROGRAMS – PARTNERSHIP OPPORTUNITIES FOR EUROPEANS

# National programs

# Agriculture and Agri-Food Canada Foreign Participant Research Program

- → Program Type: Research
- → Thematic Area: Agriculture and agri-food
- **→ Funding Opportunity:**

Agriculture and Agri-Food Canada's (AAFC) Foreign Research Participant Program (FRPP) matches international science talent with AAFC researchers to undertake the approved research projects in Canada. AAFC provides research guidance, scientific training, research space and materials. The research subjects should be of mutual interest, priority and benefit to research teams in Canada and to the FRP's home country and/or sponsoring organization and should relate to the agriculture and agri-food sector. Interested science talent can contact the AAFC scientist leading a proposal of interest for more information and discussion about the research opportunity.

### → Eligibility Criteria for Europeans:

Science talent including students (especially graduate students), scientists or research professionals from foreign countries and international organizations are welcome to participate in research activities of AAFC, as "foreign research participants" (FRPs). The potential FRPs should have or obtain scholarships in their country of origin or international organizations to cover their accommodation and living expenses while in Canada. There is no scholarship program at AAFC. Tuition fees for FRPs are not applicable/needed at AAFC.

#### → Further information:

Website: http://www.agr.gc.ca/eng/science-and-innovation/

#### **Genome Canada**

Genome Canada invests in and manages large-scale research projects in key selected areas such as agriculture, environment, fisheries, forestry, health and new technology development. Genome Canada also supports research projects aimed at studying and analyzing the ethical, environmental, economic, legal and social issues related to genomics research (GE3LS). In addition, five science & technology (S&T) innovation centres with cutting edge technical capabilities have been put in place across Canada to support the large-scale projects.



Research teams may include as co-applicants international, private sector (for -profit organizations) or federal laboratory scientists. However, Genome Canada funding is restricted to work performed within Genome Canada eligible institutions, i.e., Genome Canada will not support research to be undertaken outside Canada, in forprofit organizations or in federal laboratories, except for costs incurred based on a reasonable fee-for-service arrangement or contract. For information about current calls for funding, visit:

http://www.genomecanada.ca

# National Research Council (NRC)

NRC is comprised of three integrated R&D divisions, Emerging Technologies, Life Sciences and Engineering, each guided by advisory bodies composed of industry leaders. Under these three umbrella R&D divisions, NRC has 12 integrated and consolidated portfolios focused on key industry sectors. These portfolios represent areas of strategic importance and economic value for Canada. Within each portfolio, NRC has a variety of programs focused on addressing specific business-identified priorities and challenges through a unique offering of technical and advisory services, research facilities, licensing opportunities and programs and partnership opportunities. NRC is an agency of the Government of Canada, reporting to Parliament through the Minister of Industry. It is governed by a council of appointees drawn from its client community.

### **NRC Eureka**

- → Program Type: Capacity building
- → Thematic Area:

R&D partnerships can be pursued in any civilian application area. EUREKA Clusters focus on a number of industrial areas of strategic interest: ICT, Energy, Water and Manufacturing.

→ Program Description:

EUREKA is an inter-governmental network for market-driven R&D that includes 40 pan-European economies, Israel, South Korea and, since 2012, Canada. For industry, research centres and universities seeking to pursue R&D projects abroad, yet reluctant to deal with the associated complexities and risks, EUREKA streamlines the technology partnering process, identifies and secures national funding sources in their respective country, conducts stringent due diligence, and provides an internationally recognized endorsement via the EUREKA label that brings value to the return on investment. The beneficial



results speak for themselves: since its creation in 1985, EUREKA has generated over 5,300 industrial projects in virtually all civilian (non-military) application areas, coordinating close to €30 billion (\$42 billion CAD) of public and private financing.

### → Eligibility Criteria for Europeans:

Projects must involve at least two EUREKA member states, one of which is Canada. Project leads can be industry (large or SMEs), academia and research institutes for individual projects. Under the EUREKA Eurostars mechanism, Project Leads must be R&D performing SMEs (under 250 employees).

# → Further information:

Website: www.eurekanetwork.ca

### **NSERC Strategic Network Grants (SNG)**

- Program Type: Research / Capacity building/ Knowledge mobilization
- → Thematic Areas:
- + Environmental science and technologies
- + Information and communication technologies (digital economy)
- + Manufacturing; and,
- + Natural resources and energy
- → Funding Opportunity:

The SNG program funds complex research proposals that involve multi-sectoral collaborations in targeted areas that could strongly enhance Canada's economy, society or environment within the next 10 years.

### → Eligibility Criteria for Europeans:

Europeans can collaborate with NSERC Strategic Networks by bringing their own funds. Based on the availability of funds, existing NSERC Strategic Networks may be eligible to apply for the Strategic Network Enhancement Initiative, which offers additional funding to strengthen and develop international links.

### → Further information:

Website: http://www.nserc-crsng.gc.ca/

Contact: rpp@nserc-crsng.gc.ca

# NSERC - Strategic Project Grants (SPG)

- → Program Type: Research/ Capacity building
- → Thematic Areas:
- Environmental science and technologies;
- + Information and communication technologies (digital economy);
- + Manufacturing; and
- + Natural resources and energy



### → Funding Opportunity:

The SPG program funds early-stage project research in target areas that could strongly enhance Canada's economy, society and environment in the next 10 years.

### → Eligibility Criteria for Europeans:

Europeans can collaborate with Strategic Projects by bringing their own funds. French researchers can apply to a bilateral, parallel call through Agence Nationale de la Recherche (ANR).

#### → Further information:

Website: http://www.nserc-crsng.gc.ca/

Contact: rpp@nserc-crsng.gc.ca

# NSERC - Collaborative Research and Training Experience Program (CREATE)

→ Program Type: Training

→ Thematic Areas:

At least 60 percent of CREATE funding is directed towards the following priority areas:

- + Environmental science and technologies;
- + Information and communication technologies;
- + Manufacturing; and
- + Natural resources and energy.
- → Funding Opportunity:

The CREATE Program is designed to improve the mentoring and training environment for the Canadian researchers of tomorrow by improving areas such as communication, collaboration and professional skills, as well as providing experience relevant to both academic and non-academic research environments.

### → Eligibility Criteria for Europeans:

Can collaborate with funded CREATES by bringing their own funds. German researchers can apply to a bilateral call through the German Research Foundation (DFG).

### → Further information:

Website: http://www.nserc-crsng.gc.ca/Contact: create@nserc-crsng.gc.ca

# Sustainable Development Technology Canada (SDTC)

Sustainable Development Technology Canada helps commercialize Canadian clean technologies, readying them for growth and export markets. With a portfolio of companies under management valued at more than \$2 billion CAD, SDTC is positioning cleantech as a driver of jobs, productivity and economic prosperity. SDTC operates two funds aimed at the development and demonstration of innovative



technological solutions. The SD Tech Fund supports projects that address climate change, air quality, clean water, and clean soil. The NextGen Biofuels Fund supports the establishment of first-of-kind large demonstration-scale facilities for the production of next-generation renewable fuels.

### SDTC - SD Tech Fund

- → Program Type: Commercialization
- → Thematic Area: Clean technology
- → Funding opportunity:

The SD Tech Fund supports projects that address climate change, air quality, clean water, and clean soil.

Eligibility Criteria for Europeans: A project must be (primarily) carried out in Canada and must strengthen the Canadian capacity to develop and demonstrate clean technologies by organizations established in Canada. Europeans and European entities can collaborate with Canadians on projects that are funded by the SD Tech Fund. Europeans and European entities can contribute in-kind, cash or advisory work but cannot receive direct funding from the SD Tech Fund.

→ Further information:

Website: www.sdtc.ca

### SDTC - NextGen Biofuels Fund

- → Program Type: Commercialization
- → Thematic Area: NextGen Biofuels
- → Funding opportunity:

The NextGen Biofuels Fund supports the establishment of first-of-kind large demonstration-scale facilities for the production of next-generation renewable fuels.

### → Eligibility Criteria for Europeans:

A project must be carried out, or primarily carried out, in Canada and strengthen the Canadian capacity to develop and demonstrate clean technologies by organizations established in Canada.

Europeans and European entities can collaborate with Canadian organizations on projects funded by the NextGen Biofuels Fund.

Europeans and European organizations can contribute in-kind, cash or advisory work but cannot receive direct funding from the NextGen Biofuels Fund.

→ Further information:

Website: www.sdtc.ca



# Provincial programs

### Alberta Innovates

Alberta Innovates is a provincially funded system for innovation that companies and researchers around the world agree is unique. Businesses, government, and universities collaborate to share resources, experts, and ideas across sectors. University researchers work together unrestricted by academic barriers.

#### Alberta Innovates Connector

### → Program Type:

Research/Training/Capacity building/ Knowledge mobilization

#### → Thematic Areas:

Biotechnology, Health, Energy, Environmental, Nanotechnology, Genomics, Proteomics and Metabolomics, and Information Communications Technologies (ICT). Calls open to all thematic areas.

### → Program Description:

Professional staff at the Connector consults with researchers, organizations, or companies (including those from the EU) that have an interest in collaborating on research and innovation projects in the province of Alberta. Staff may explore client interests, areas of expertise, their collaboration partners, project plans, funding strategy, and other relevant issues in order to identify the best possible linkages into the Alberta innovation system based on the client's unique circumstances. The Connector is funded by the government of Alberta to consult with clients and there is no cost to use the service.

### → Eligibility Criteria for Europeans:

The Connector is open to anyone interested in research and innovation in Alberta. Eligibility varies for specific projects, collaboration partners, programs, services, or infrastructure needs. Contact the Connector to discuss your specific project needs and circumstances.

# $\rightarrow$ Further information:

Website: www.albertainnovates.ca

# Ontario Ministry of Research and Innovation (MRI)

The Ontario Ministry of Research and Innovation supports world-class research, commercialization and innovation taking place across Ontario through a range of programs and services like the Ontario Research Fund, Innovation Demonstration Fund and Ontario Venture Capital Fund.

Together with research partners in universities, colleges and hospitals, entrepreneurs and business leaders, the ministry helps foster scientific discovery and commercialization of new technologies and products



that can be marketed to the world. By harnessing Ontario's talented workforce, entrepreneurial spirit and highly developed industry clusters, the ministry is helping build an innovative culture in Ontario that continues to support job creation and economic growth for all Ontarians.

### Ontario Research Fund – Research Excellence (ORF-RE)

- Program Type: Research Operations Funding
- → Thematic Area:

All research disciplines are eligible, but applications in three focus areas are encouraged: bio-economy and clean technologies; advanced health technologies; and digital media and information & communications technology.

### → Program Description:

The Ontario Research Fund – Research Excellence (ORF-RE) provides research institutions with funding to help support the operational costs of large-scale transformative research of strategic value to the province.

### → Eligibility Criteria for Europeans:

The program encourages international research collaboration; however, only Ontario institutions may apply and ORF- RE funding must be used to support research undertaken in Ontario.

### → Further information:

Website: http://www.ontario.ca/

# **Quebec Ministry for Education (MEES)**

The mission of the Ministère de l'Éducation et de l'Enseignement supérieur is to support the development and promote the quality of college and university education with a view to facilitating access to the highest forms of knowledge and culture. This mission is accomplished by means of developing the knowledge and competencies of all those who express an interest and demonstrate the necessary aptitudes. The Quebec Ministry for Economy, Science & Innovation (MESI) also contributes to the development of basic and applied research, science, innovation and technology, among other areas, in academia, industry and society, with a view to sustainable development by promoting a knowledge society, economic development, social progress and respect for the environment.

→ **Further information:** www.education.gouv.qc.ca www.economie.gouv.qc.ca



## **MESI - Tax holiday for foreign researchers**

→ Program Type: Tax measure

→ Thematic areas: Open to all disciplines

→ Program Description:

Candidates who benefit from this measure are entitled to a provincial tax holiday for a maximum period of five years: a full 100% holiday for the first two years, 75% for the 3rd year, 50% for the 4th year and 25% for the 5th.

Eligibility criteria for Europeans: This program is intended for researchers who are Canadian non-residents for tax purposes. They must hold the equivalent of a Québec graduate diploma or higher, and work for a Canadian company (not a university) that conducts research and development activities in Québec. Their work must focus almost exclusively on research and development within the company.

#### → Further information:

Website: http://www.economie.gouv.qc.ca
Contact: conges.fiscaux@economie.gouv.qc.ca

## MESI - Tax holiday for foreign experts

→ Program Type: Tax measure

→ Thematic areas: Open to all disciplines

→ Program Description:

Candidates who benefit from this measure are entitled to a provincial tax holiday for a maximum period of 5 years: a full 100% holiday for the first 2 years, 75% for the 3rd year, 50% for the 4th year and 25% for the 5th.

### → Eligibility criteria for Europeans:

This program is intended for experts who are Canadian non-residents for tax purposes. They must hold the equivalent of a Québec graduate diploma or higher, and work for a Canadian company (not a university) that conducts research and development activities in Québec. Their work must focus almost exclusively on tasks involving the application of the results of research and development within the company. The application of this research may take the form of commercialization of innovation, funding of innovation activities, technology transfer (patents, licenses, etc.), and innovation management.

### → Further information:

Website: http://www.economie.gouv.qc.ca
Contact: conges.fiscaux@economie.gouv.qc.ca



# CHAPTER 4: OTHER CANADIAN PROGRAM OWNERS THAT MAY BE OF INTEREST

## Canada's science-based departments and agencies

Canada's 13 federal science-based departments and agencies have mandates to pursue research activities to support development of government policies, establish and maintain regulations and standards, and contribute to advance the production of new knowledge and in some instances, transfer technology and knowledge to other sectors. Much of this research is conducted in approximately 200 federal labs across the country, the majority of which are located on or close to university campuses, which enables regular collaboration with the academic community. Federal researchers also collaborate regularly with international stakeholders. In addition to core research activities, each of Canada's science-based departments and agencies runs unique programs that may be of interest to European researchers.

- + Agriculture and Agri-Food Canada website: http://www.agr.gc.ca
- + Canadian Food Inspection Agency website: www.inspection.gc.ca
- + Canadian Space Agency website: http://www.asc-csa.gc.ca
- + Defence Research and Development Canada website: http://www.drdc-rddc.gc.ca/en/partnerships.page
- + Fisheries and Oceans Canada website: http://www.dfo-mpo.gc.ca/science
- + Environment and Climate Change Canada: http://www.ec.gc.ca/scitech/
- + Health Canada website: http://www.hc-sc.gc.ca
- + Health Canada Fellowship Program website: http://www.hc-sc.gc.ca/sr-sr/rescar/fellow-bours/index-eng.php
- + Government of Canada science website: http://www.science.gc.ca
- + International Development Research Centre website: http://www.idrc.ca
- + National Research Council Canada website:
   http://www.nrc-cnrc.gc.ca/eng/solutions/collaborative/index.html
- + Statistics Canada website: http://www.statcan.gc.ca

The following two websites are responsible for conducting research in a number of areas; interested parties should search through these web sites for material related to various types of transport and for information about all of Canada's natural resources, such as forestry and mining.



+ Natural Resources Canada website: http://www.nrcan.gc.ca/home

+ Transport Canada website: www.tc.gc.ca

### **Ontario Centres of Excellence**

Ontario Centres of Excellence (OCE) drive the development of Ontario's economy by helping create new jobs, products, services, technologies and businesses. In partnership with industry, OCE co-invests to commercialize innovations originating in the province's publicly funded colleges, universities and research hospitals.

The commercialization and talent development projects OCE supports are in the segments of the economy that will drive Ontario's future prosperity and global competitiveness. These segments include energy and environment; advanced manufacturing; advanced health technologies; and information, communications technologies and digital media.

Through its flexible suite of programs, OCE continues to act as a catalyst for innovative business development helping companies to grow and achieve sustainable, commercial success and global competitiveness. OCE funding is available to Ontario academia and industry. OCE has three main program areas: industry-academic collaboration, entrepreneurship, and commercialization.

→ Further information:

Website: http://www.oce-ontario.org/programs

## Michael Smith Foundation for Health Research, British Columbia

British Columbia (BC) is home to a vibrant health research community with an international reputation for excellence. A central pillar of support for BC's health researchers is the Michael Smith Foundation for Health Research (MSFHR), an organization that works province-wide to empower BC's best and brightest to pursue world-class innovation and stretch the bounds of what health research can achieve.

MSFHR was founded in 2001 by the provincial government to revitalize BC's health research enterprise and to attract substantial investment from a range of funding sources. Investing in more than 1,500 researchers has allowed MSFHR to:

- + Discover solutions to our greatest health challenges. MSFHR programs advance BC's ability to generate world-class health innovation by providing vital early-career support to new investigators and up-and-coming research stars.
- + Connect knowledge and action. As a provincial leader in the science and practice of knowledge translation, MSFHR works to bridge the gap between what is known to improve health and what is done to improve health at the point-of-care.



+ Engage partners to address provincial priorities. Harnessing the power of health research for innovation and change requires coordination and strategic vision. As a trusted, non-partisan voice for BC's health research community, MSFHR provides leadership and unites diverse stakeholders for province-wide planning and action.

→ Further information:

Website: www.msfhr.org Contact: info@msfhr.org



### METHODOLOGY

All information collected for the purpose of this guide is publicly available through the government of Canada and the respective provincial government organizations. All information included herein has been verified with the appropriate program administrators.

# ERA-Can+ project

The Guide to Canadian science, technology and innovation programs is a product of the ERA-Can+ project. This project has been established to help Canadians access Horizon 2020 funding, a multi-year (2014-2020) program for science and technology funded by the European Commission. Building on several years of successful collaboration, ERA-Can+ will foster and support enhanced collaborations between Canadian and European researchers and innovators in the academic and private sectors.

The ERA-Can+ consortium is led by the Agenzia per la Promozione della Ricerca Europea (APRE) in Italy. The other European partners are the Zentrum für Soziale Innovation (ZSI) in Austria, the Centre National de Recherche Scientifique (CNRS) in France and Der Projektträger im Deutschen Zentrum für Luft- und Raumfahrt (DLR) in Germany. The Canadian partners are Universities Canada, Global Affairs Canada and the Public Policy Forum (PPF).

Additional information about ERA-Can+ and project activities can be found at www.era-can.net

### COORDINATION

APRE – Agenzia per la Promozione della Ricerca Europea, ITALY **www.apre.it** Via Cavour 71 | 00184 Roma Italy



Ce projet est principalement financé par l'Union européenne dans le cadre du sous programme «Activités de coopération internationale» du 7eme Programme-Cadre pour la Recherche et le Développement technologique (2007-2013). N°de contrat: 609507 INCO.2013-2.1 Action de soutien | Début: le 1er octobre 2013 | Durée: 36 mois

ERA-Can+ is a project cofunded by the European Community's Programme for International Cooperation under the 7th Framework Programme for Research and Technological Development (2007-2013).
Contract Number: 609507 INCO.2013-2.1 Support Action | Start date: 01/10/2013 | Duration: 36 months

### **CANADA**

Universities Canada | Universités Canada www.univcan.ca

Global Affairs Canada | Affaires mondiales Canada

www.tradecommissioner.gc.ca

PPF – Public Policy Forum | Forum des Politiques Publiques

www.ppforum.ca

### **EUROPE**

CNRS – Centre National de la Recherche Scientifique, FRANCE

www.cnrs.fr

DLR – Projektträger im Deutschen Zentrum für Luft- und Raumfahrt, GERMANY

www.dlr.de/pt

ZSI – Zentrum für Soziale Innovation, AUSTRIA www.zsi.at

### CONTACT

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