

Canada's federal programs in biotechnology for human health



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CANADA
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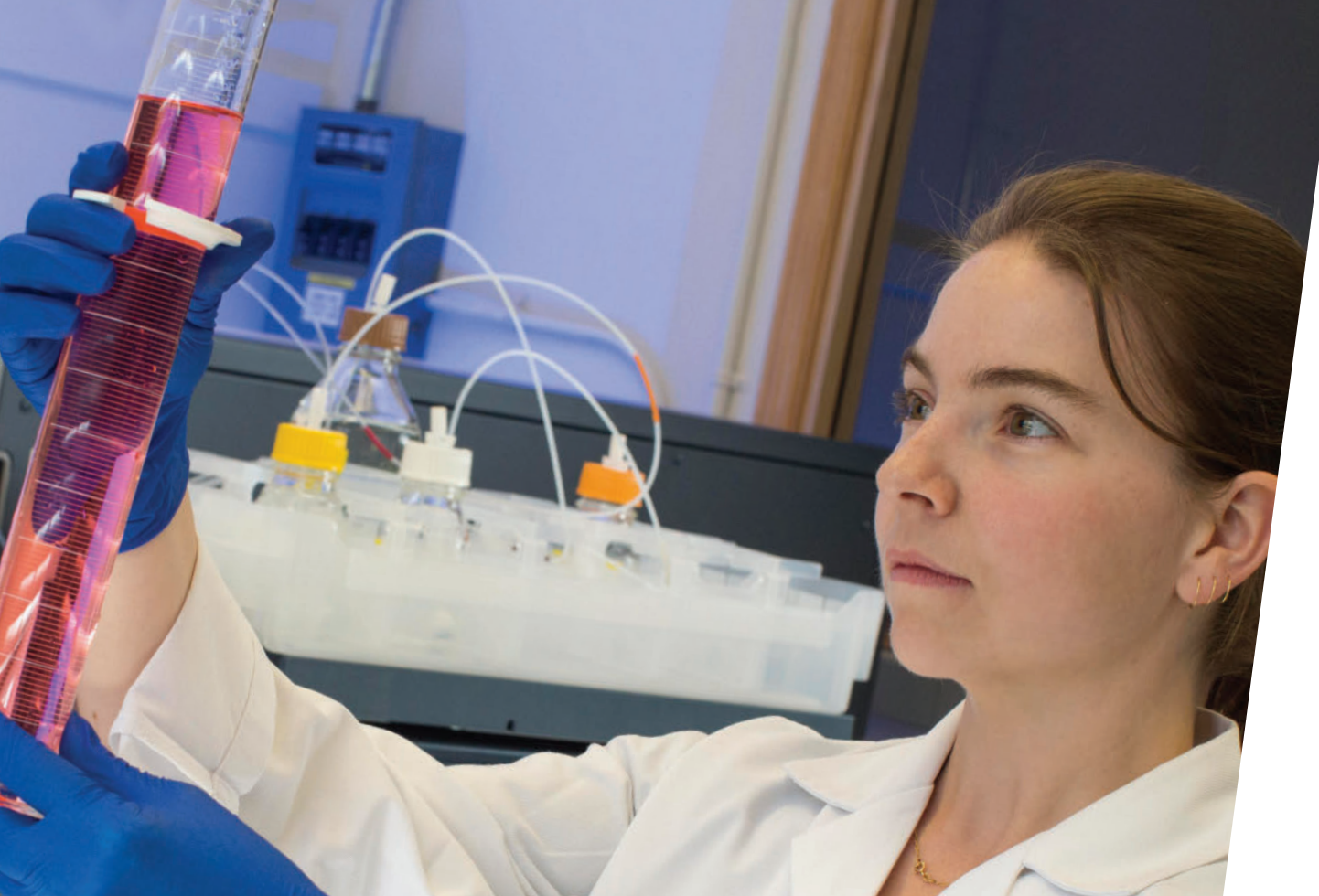
BIO International
Convention **2019**



Government
of Canada

Gouvernement
du Canada

Canada 



Federal Budget 2019: Making prescription drugs more accessible and affordable

The Government of Canada's Innovation and Skills Plan is helping Canadian businesses to start up, scale up, and become globally competitive. Its Strategic Innovation Fund is a new approach to supporting business innovation, as well as investments across the country in all economic sectors. In the last two years, the Fund has proven successful in attracting and supporting high-quality and innovative business investment in Canada.

Budget 2019 also signaled the Government of Canada's plan to move forward on foundational elements for a national pharmacare plan, to make prescription drugs more affordable and accessible to more Canadians.

<https://www.budget.gc.ca/2019/docs/themes/pharmacare-assurance-medicaments-en.html>

Canada Pavilion

June 4-6, 2019

Exhibition Hall, Pennsylvania Convention Center

Opening ceremony June 4 at 10:30 a.m.

Join us for the opening ceremony of the Canada Pavilion, where federal and other Canadian dignitaries will deliver remarks.

Exhibition June 4-6 from 10:00 a.m. to 6:00 p.m.

- Visit the federal family booth to discover our programs in biotech for human health

- Connect with the National Research Council of Canada's (NRC) business development officers, scientific program leaders, and Industrial Research Assistance Program (IRAP)
- Connect with the Canadian Trade Commissioner Service (TCS) of Global Affairs Canada



Hey bio companies.

We don't just see your industry.

We see you.

You're a lot more than beakers and microscopes.

You're innovators whose companies can make a difference.

You need to hire top talent.

Get some research money.

And maybe some expert advice.

We get that.



The governments of Canada offer more than
1,000 supports for businesses.

Find them all in one place.

innovation.canada.ca

Grow from here.

Canada 



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Innovation, Science, and Economic Development (ISED)

Seventeen federal departments and agencies make up the Innovation, Science and Economic Development (ISED) Portfolio, working to build a knowledge-based economy in all regions of Canada and to advance the government's Innovation and Skills Plan.

The ISED portfolio provides support to research and development through the National Research Council of Canada and the Canada Foundation for Innovation, through initiatives including Genome Canada, the Stem Cell Network and the Centre for Drug Research and Development, as well as through investments in National Centres of Excellence. Support to companies in the life sciences for research, commercialization, growth and expansion, includes that provided by the NRC's Industrial Research Assistance Program, the Regional Development Agencies, and by the all-sector Strategic Innovation Fund (SIF). In addition, following Budget 2018, the Centres of Excellence for Commercialization and Research and Business-led Networks of Centres of Excellence will be consolidated into SIF. ISED, through the creation of Innovation Canada, has committed to making it easier for entrepreneurs to find the supports they need to grow.

Research Networks

(Networks of Centres of Excellence and Networks of Centres of Excellence for Knowledge Mobilization)

\$128M

Allergy, Genes and Environment Network – AllerGen

Biotherapeutics for Cancer Treatment – BioCanRx

Canadian Glycomics Network – GlycoNet

CellCAN Regenerative Medicine and Cell Therapy Network – CellCAN

Business-led Networks

(Centres of Excellence for Commercialization and Research and Business-led Networks of Centres of Excellence)

\$173.5M

Accel-Rx Health Sciences Accelerator – Accel-Rx

Centre for Commercialization of Cancer Immunotherapy – C3i

Centre for the Commercialization of Antibodies and Biologics – CCAB

Centre for Commercialization of Regenerative Medicine – CCRM

Centre for Drug Research and Development – CDRD

Centre for Imaging Technology Commercialization – CIMTEC

Consortium québécois sur la découverte du médicament – CQDM

MaRS Innovation – MI

NEOMED Institute – NEOMED

\$385M university, hospital, infrastructure support

Canada Foundation for Innovation – Major Science Initiatives Fund: \$85M+

Canada First Research Excellence Fund: \$300M

Strategic Innovation Fund

Example of investment: \$22.5M granted to Stemcell Technologies to enable the establishment of a new stem cell manufacturing facility in Vancouver

1-800-328-6189

www.ic.gc.ca, www.Innovation.Canada.ca

Canadian Intellectual Property Office (CIPO)

The Canadian Intellectual Property Office (CIPO) is responsible for the administration and processing of the greater part of intellectual property (IP) in Canada. CIPO's areas of activity include: patents, trademarks, copyrights, industrial designs and integrated circuit topographies.

Variety of IP tools and resources tailored to businesses and innovators

Suite of seminars and training services for businesses

Online IP tools and resources to help you better acquire, manage and leverage your IP assets

IP professionals ready to answer your questions

Going global with your IP

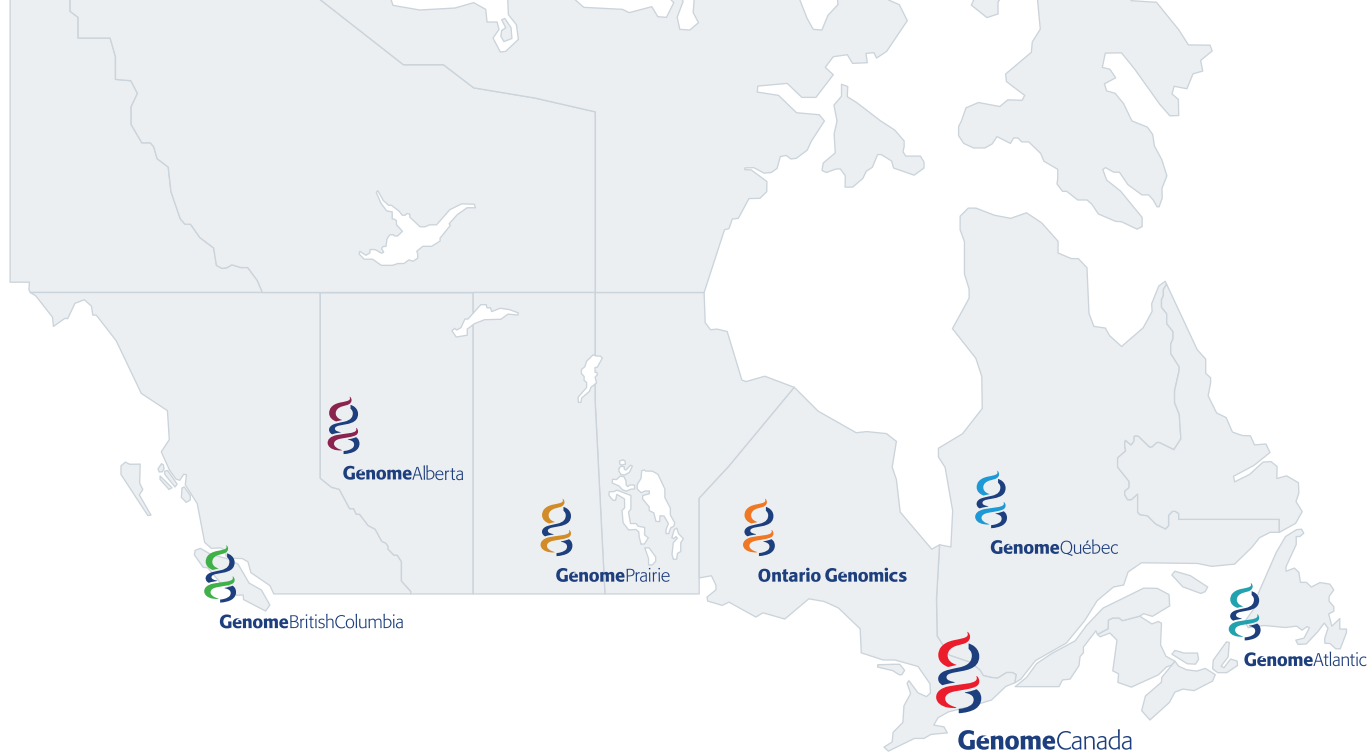
Practical advice for determining your international IP strategy

Guides to protecting your IP in the United States, the European Union, China, and India

File once: Apply for foreign patents from within Canada under the Patent Cooperation Treaty (PCT), or apply for Canadian patents from your jurisdiction under PCT

1-866-997-1936
www.canada.ca/ip-for-business





Genome Canada (GC)

Genome Canada harnesses the transformative power of genomics to deliver benefits to Canadians and people around the world.

We support large-scale research projects in health, agriculture and agri-food, forestry, fisheries and aquaculture, environment, energy and mining.

Quick facts

6 regional Genome Centres

\$3.65 B invested in Canada since 2000

420 projects and technology platforms funded since 2000

> 30 primary affiliated universities currently involved

> 2,000 active annual HQP

> 245 industry co-funding partners since 2000

> 175 companies created or enhanced since 2000

Canada is a genomic leader in rare genetic disorders, cancer and pediatric health, among other areas.

1-613-751-4460

www.genomecanada.ca

National Research Council of Canada (NRC)

The National Research Council of Canada works with Canadian and international organizations to accelerate the discovery and development of innovative biologic medicines.

Our Industrial Research Assistance Program provides advice and financing to Canadian SMEs to stimulate wealth creation, product development and commercialization, and connects Canadian companies with international innovation networks.

Industrial Research Assistance Program (IRAP)

Stimulate SME wealth creation through a comprehensive suite of innovation services and funding

Technical and business advice from concept to commercialization

Networking, connecting with industry experts and potential business partners

Financial support for projects through all stages of the innovation process

Biomedical-experienced advisors located across the country

canada.ca/nrc-irap

Human Health Therapeutics and Medical Device R&D

Collaborative Research Programs and Initiatives:

- Multi-functional antibody-based therapeutics
- Disruptive technology solutions for cell and-gene therapy
- Biomanufacturing - Platforms and automation
- Vaccines and emerging infections – readiness innovation

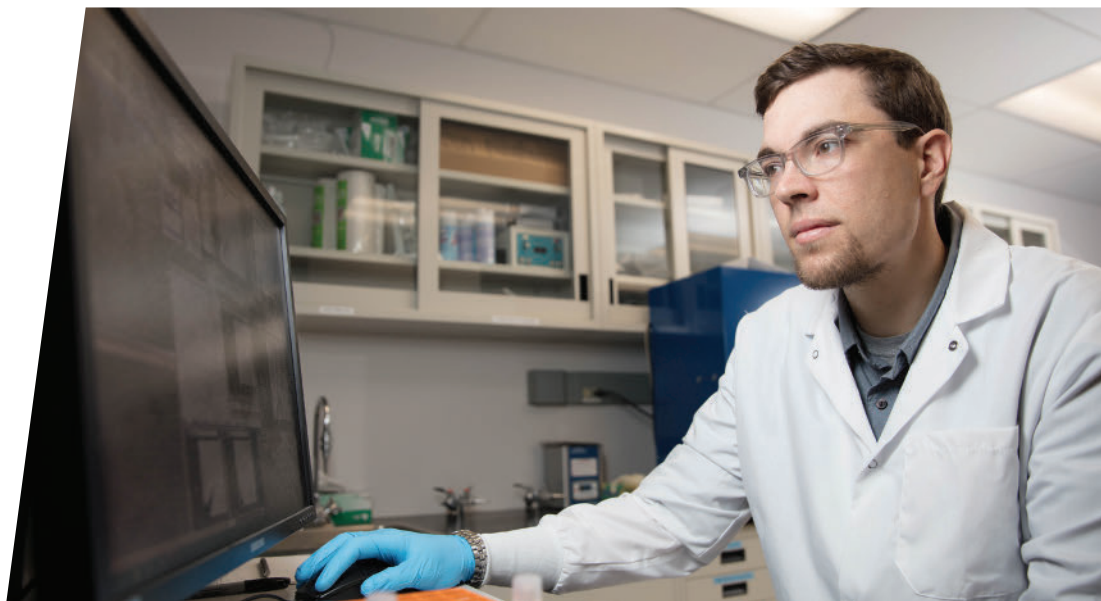
~300 experts in the lab to help SMEs reach IND

State of the art facilities for discovery, development, biomanufacturing, and analysis

Tech transfer to CROs and CMOs

canada.ca/nrc-human-health-therapeutics

1-877-NRC-CNRC
nrc.canada.ca



Canadian Institutes of Health Research (CIHR)

The Canadian Institutes of Health Research (CIHR) is Canada’s federal funding agency for health research. Composed of 13 Institutes, we collaborate with partners and researchers to support the discoveries and innovations that improve our health and strengthen our health care system.

Institutes: virtual networks of researchers that focus on important health problems

Aging

Cancer Research

Circulatory and Respiratory Health

Gender and Health

Genetics

Health Services and Policy Research

Human Development, Child and Youth Health

Indigenous Peoples’ Health

Infection and Immunity

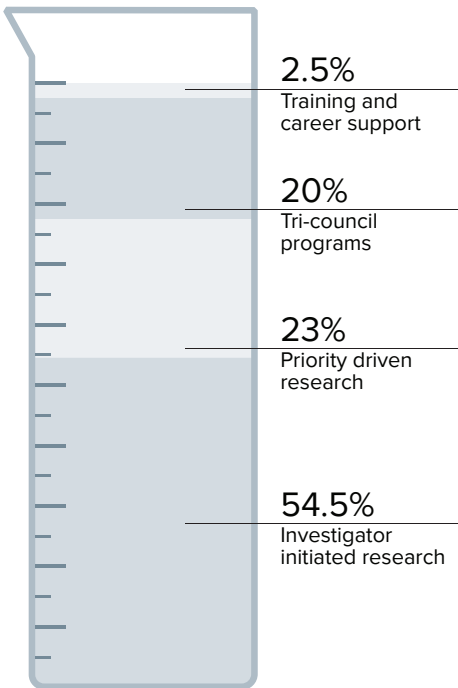
Musculoskeletal Health and Arthritis

Neurosciences, Mental Health and Addiction

Nutrition, Metabolism and Diabetes

Population and Public Health

\$1B / year to support health research



International collaborations

Attracting and retaining the best international scholars and experts

Connecting Canadian researchers and trainees with top health researchers in the international community

Leading the development of international health research consortia

Facilitating health research capacity building in low- and middle-income countries

Addressing internationally recognized global health priorities; proactively responding to emerging health threats

Canadian Trade Commissioner Service (TCS) of Global Affairs Canada

Every day, leading companies and organizations from around the world turn to Canada as their trusted business partner. With a dynamic marketplace supported by a competitive and innovative economy, Canada is world-renowned for its excellence in life sciences. Let our team of professionals help you to connect with Canada.

The Canadian Trade Commissioner Service (TCS)

The TCS is the strategic link to finding the right Canadian partners to match your specific requirements for procurement, investment, innovation or education.

Source: We can introduce you to the Canadian organization best suited to meet your needs for high quality products, services or technologies.

Invest: Canada's welcoming business environment, competitive business costs, low taxes and highly-educated workforce are key reasons to establish or expand your business in Canada. Our investment professionals can provide the strategic intelligence you need.

Innovate: Canadian innovation has transformed the world. Canada is a world leader in science and technology with strong capabilities across a wide range of sectors. We can connect you with research and development partners in Canada.

Network: The TCS has a network of offices located around the world in over 160 cities. We can introduce you to Canadian firms that are ready to do business in your market.

TCS business development programs

Canadian Technology Accelerator (CTA)

Supports high-potential technology companies to accelerate their growth in new markets through individualized services including workshops, mentorship and business introductions. CTA programs currently operate in the key technology hubs throughout the U.S. and Asia.

CanExport Innovation (CXI)

Helps Canadian innovators to meet with foreign collaborators to commercialize their technologies through joint research and development opportunities (max \$75K for eligible expenses per project).

CanExport

The Government of Canada's Program will provide up to \$50 million over five years in direct financial support to small and medium-sized enterprises (SMEs) in Canada seeking to develop new export opportunities and markets, particularly high-growth priority markets and sectors. Delivered by the Trade Commissioner Service (TCS) of Global Affairs Canada, in partnership with the National Research Council Industrial Research Assistance Program (NRC-IRAP), CanExport provides financial support for a wide range of export marketing activities.



Export Development Canada (EDC)

Helping Canadian companies grow and succeed in international business

Financing, insurance, bonding, trade knowledge, and matchmaking to help Canadian companies sell and invest abroad

Financial solutions for foreign buyers to facilitate and grow purchases from Canadian companies

Supply chain bonding solutions and foreign exchange coverage

Portfolio Credit Insurance (for Accounts Receivable) to mitigate risks for buyer default, bankruptcy, repudiation and political risk

1-800-229-0575
www.edc.ca

Business Development Bank of Canada (BDC)

Financing solutions

Getting your growth project underway

Advisory services

Providing expert advice to run a better, more profitable business

International expansion

Consulting to successfully enter foreign markets

Venture Capital Action Plan (VCAP)

\$158M for health IT, medical devices, and clinical stage biopharmaceuticals

Healthcare Venture Fund (HVF)

\$270M for biotechnology, medical devices, diagnostics, digital health, and drug development



1-877-BDC-BANX
www.bdc.ca



Regional Development Agencies

Regionally-tailored programs, services, knowledge and expertise

\$511M announced in **Budget 2018** to support the Innovation and Skills Plan across all regions of Canada

Streamlining of Regional Development Agency programming: greater emphasis in helping firms scale up, develop new markets and expand, as well as assist with the adoption of new technologies and processes

Public Health Agency of Canada (PHAC)

Mandate

Promote health

Prevent and control chronic diseases and injuries

Prevent and control infectious diseases

Prepare for and respond to public health emergencies

Serve as a central point for sharing Canada's expertise with the world

Apply international research and development to Canada's public health programs

Strengthen intergovernmental collaboration on public health and facilitate national approaches to public health policy and planning.

Biotech

Science innovation: Technology advancements to enhance public health investigations

Infectious and chronic diseases: prevention, monitoring, treatments

Immunization and vaccines: national priorities for development, existing vaccines for children and adults, pregnancy, safety, travel

Lab biosafety and biosecurity: Human Pathogens and Toxins Regulations (HPTR) licensing program, guidelines, training, and enforcement

Surveillance programs: Over 50 specialised surveillance systems to address specific diseases and health concerns



Health Canada (HC)

Regulatory activities

Health products

- **Review and evaluation:** testing, manufacture, preparation, preservation, packaging, administration, storage and sale of health products
- **Compliance and enforcement:** education, compliance monitoring and investigation, enforcement
- **Monitoring and tracking:** post-market surveillance, risk/benefit analysis, labelling changes, advisories, warnings, product removal from marketplace

Food products and environmental/ industrial products are regulated under the Food and Drugs Act (FDA) and the Canadian Environmental Protection Act (CEPA), respectively. This includes:

- Health and safety requirements under the FDA and its accompanying regulations, policies and guidelines
- Human health regulation and laboratory research for living organisms used in consumer, industrial and environmental applications.

Lab activities

Research activities

- Better understand methods for assuring quality of biologics
- Develop new testing methods and techniques for the regulatory process
- Determine mechanism of action for various classes of biologics
- Generate scientific evidence to support effective decision-making

Product evaluation activities

- Batch testing
- Lot release testing: products assigned to one of Evaluation Groups with different levels of supervision

1-866-225-0709
www.canada.ca/en/health-canada.html



