

**John R. Evans Leaders Fund / Fonds des leaders John-R.-Evans  
 Backgrounder / Fiche d'information**

**Ontario**

The Canada Foundation for Innovation (CFI) Board of Directors approved a contribution of \$24,049,234 to support 124 infrastructure projects in the province. / Le conseil d'administration de la Fondation canadienne pour l'innovation (FCI) a approuvé des contributions totalisant 24 049 234 \$ en vue d'appuyer 124 projets d'infrastructure dans la province.

Project Title / Titre du projet	Maximum CFI Contribution / Contribution maximale de la FCI
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**Carleton University**

Decentred Governance in a Digital Age	\$75,509
A Bi-planar High-speed X-ray Fluoroscopy System to Study Traumatic Injury Biomechanics	\$262,500
Genomics of Plants, Pathogens, and Pests (GP3)	\$80,000
Integrated Microbial Electrosynthesis Systems for Production of Industrial Chemicals from Municipal Solid Waste and CO <sub>2</sub>	\$80,000
System for Electrophysiological Assessment of Brain Development	\$80,000
<b>5 projects / projets</b>	<b>\$578,009</b>

**Lakehead University**

Materials and Technologies for Radiation Medical Imaging Detectors	\$68,407
Laboratory for Next-generation Wind Energy Conversion and Control Technologies	\$127,079
Understanding and Addressing the Social-ecological Dimensions of Health	\$49,033
<b>3 projects / projets</b>	<b>\$244,519</b>

**McMaster University**

An Acoustic Noise and Vibration Measurement Facility for Low-noise and High-efficiency Electric Motor Drives	\$200,000
Neural Mechanisms Linking Autism-risk Genes with Impaired Social Behavior	\$400,000
Advanced Epitaxial Nanostructures and Materials Laboratory	\$190,584
Investigating Novel Mechanisms in Immune-mediated Platelet Disorders	\$160,000
Metagenomics and Genomics of the Microbiome, Infectious Disease and Host Response	\$650,000

## ... / McMaster University

Understanding Pain Mechanisms and Management in Neuromusculoskeletal Rehabilitation	\$129,000
Developments of Diagnostic and Predictive Tools and Regulatory Device Testing Machines for Cardiovascular Diseases	\$185,000
Momentum-resolved EELS Spectroscopy of Beam-sensitive Nanoscale Materials	\$387,788
Establishment of Nucleic Acid Nanomedicine Laboratory at McMaster University	\$75,005
Improving Perioperative and cancer Outcomes Through Excellence and application of Virtual Technologies (PROTECT) Lab	\$800,000
Integrative Psychophysiology Research Lab	\$100,000
<b>11 projects / projets</b>	<b>\$3,277,377</b>

## Nipissing University

Nipissing University Centre for the Study of War, Atrocity, and Genocide (C-WAG)	\$120,864
<b>1 project / projet</b>	<b>\$120,864</b>

## Ontario College of Art and Design University

Mixed Reality Human-computer Interfaces for Internet-of-things Enabled Environments	\$73,800
Next Generation Holographic Technology and XR Research	\$39,025
Using Hybrid Images to Document COVID-19's Shadow Pandemics in Vulnerable Communities	\$74,772
<b>3 projects / projets</b>	<b>\$187,597</b>

## Queen's University

Electrochemical CO2 Conversion to Fuels and Chemicals	\$125,000
Mobarch--Mobile Laboratory for the Study of the Built Environment	\$100,000
Intelligent Water Flume, an AI/ML-Enhanced Fluid Experiment Platform for Exploration and Exploitation on Flow Physics	\$125,000
Supercapacitors: The Future of Energy Storage	\$125,000
Cosmic-ray and Neutrino Detector Development for the Future	\$165,000
Multi-Material Robotics Research (M2R2) Lab	\$125,000
Active Quantum Photonic Technology	\$150,000
Interactive Architecture and Smart Environments	\$150,000
1,25 Hydroxyvitamin D3 Metabolism in the Eye: A Regulator of Normal Ocular Physiology and Pathological Disease	\$100,000
<b>9 projects / projets</b>	<b>\$1,165,000</b>

## Ryerson University

Development of Value Added Biodegradable Multilayer Polymers for Packaging Applications	\$76,300
Infrastructure for Investigations on Single Cells in Microfluidics	\$152,000
Holistic Analysis of Plastic Additives as Environmental Contaminants	\$75,990
Hearing Loss at the Cocktail Party	\$76,000
<b>4 projects / projets</b>	<b>\$380,290</b>

## Trent University

Quantum-enabled Nano-transducers for (bio)Nanotechnologies	\$54,257
Unravelling the Emerging Environmental Risks of Pollution from the High-tech Industry	\$146,553
<b>2 projects / projets</b>	<b>\$200,810</b>

## University of Guelph

Nokom's House	\$298,160
Exploring Neutron Stars using Computer Simulations	\$181,830
Integrated Carbon and Nitrogen Thermal Cracking System to Understand Soil Organic Matter Persistence	\$130,000
Advanced Thermogravimetric Analyzer for Chemical Upcycling of Agri-food Biomass	\$265,718
Infrastructure to Establish a Nutrition and Intestinal Health Laboratory	\$85,720
<b>5 projects / projets</b>	<b>\$961,428</b>

## University of Ottawa / Université d'Ottawa

Mitigating Impacts of Industrial Pollutants on Human and Ecosystem Health	\$351,959
A Translational Platform For Transcranial Magnetic Stimulation in Novel Patient Populations	\$191,320
Intracranial Hemorrhage Center of Excellence	\$125,000
Inclusion, Interaction, and Intervention: The Triple-I Lab	\$519,576
Intelligent Verification and Adaptation of Critical IoT Systems (VERACITY)	\$118,922
Laboratoire de recherche critique en droits et santé mentale	\$47,898
<b>6 projects / projets</b>	<b>\$1,354,675</b>

## University of Toronto

Enabling Sustainable e-Mobility through Intelligent Thermal Management Systems for EVs and Charging Infrastructure	\$600,000
Structural Biology Laboratory	\$160,000
Advanced Live Cell Imaging and Isothermal Calorimetry for the Study Immune Cell Dysfunction and Inflammation	\$429,308

... / **University of Toronto**

Baby Brain and Behaviour Lab (BaBBL): Electrophysiological Measures of Infant Speech and Language Development	\$75,001
Targeted Therapeutics to Enhance Radiotherapy Efficacy and Safety in the Era of Image-guided Conformal Treatment	\$782,975
Child Obesity and Metabolic Health in Pregnancy: A Novel Approach to Chronic Disease Prevention and Planetary Health	\$148,186
Kinetics-transport Interaction Towards Deposition of Carbon Particulates in Mesochannel Supercritical Fuel Flows	\$99,337
The Evolutionary Genomics of Infectious Phytopathogen Emergence	\$120,000
A Study of Induced Seismicity through Novel Triaxial Experiments and Data Analysis Methodologies	\$100,000
Towards the Sustainable Development of Energy Resources - Fundamentals & Implications of Hydraulic Fracturing Technology	\$400,000
Characterizing and Unlocking the Therapeutic Potential of Stem Cells and the Leukemic Microenvironment	\$479,998
Combination Ribonucleic Acid Treatment Technology lab	\$150,000
The Microbiome Engineering Laboratory for Resource Recovery	\$200,000
Integrated Non-invasive Human Neuroimaging and Neuromodulation Platform	\$216,679
Neuronal Mechanisms of Dynamic Emotional Behavior	\$140,000
Stem Cell Models to Investigate Brain Function in Development and Disease	\$466,818
Constraining Source Compositions and Timescales of Mass Transport using Femtosecond LA-MC-ICPMS	\$560,000
The Advanced Membranes (AM) Laboratory for Sustainable Water Management and Resource Recovery	\$200,000
Preclinical Magnetic Resonance Imaging for Targeted Brain Tumour Therapies	\$765,626
Role of Pancreatic and Gut Hormones in Energy Metabolism	\$250,000
Technologies to Interrogate and Control Carbohydrate-mediated Immunity	\$250,000
Durable Low Ice Adhesion Coatings Laboratory	\$125,000
Mapping the Dark Metabolome using Click Chemistry Tools	\$400,000
Macromolecular Bioelectronics Encoded for Self-assembly, Degradability, and Electron Transport	\$400,000
Expediting Knowledge Synthesis Using Artificial Intelligence – CAL®-Synthesi.SR Dashboard	\$148,685
Real Time High-resolution Imaging and Cell Sorting for Studying Multi-organ Repair and Regeneration after Lung Injury	\$508,323
Improving Collaboration Efficiency for Fork-based Software Development	\$80,000
<b>27 projects / projets</b>	<b>\$8,255,936</b>

**University of Waterloo**

Public Health Research and Analytics Lab: A Platform for Disease Mapping, Health Data Analyses and Knowledge Translation	\$76,000
Understanding Gait Patterns in Health and Disease	\$100,000
Multi-element Signatures to Trace Nutrient Sources, Pathways and Processes: From Field to Watershed Scales	\$135,000
Microscopy System for Targeting S-Palmitoylation in Neurodegeneration	\$160,000
Scalable Infrastructure for Big Data Systems	\$220,000
Mild-impact-induced Cavitation in Soft Matter and Traumatic Brain Injury: From Fluid Physics to Applied Health	\$80,000
Continuous, Intelligent, Semantics-Aware Fuzz Testing of System Software	\$75,108
Establishment of the Glacier and Cryosphere Research Laboratory	\$76,000
Infrastructure for Advanced Hemodynamics Research	\$100,000
Infrastructure for Advancing Vision-Based Structural Assessment Technologies	\$137,000
Collaborative Digital Heritage Studio (CoDHerS)	\$130,000
Infrastructure for Scalable End-to-end Differentially Private Machine Learning	\$80,000
Biofilms as Bioreactors: Using Microbial Processes to Sequester Carbon and Remediate Metals in Mine Waste Materials	\$100,000
Developing Correct, Efficient, and Transparent Build and Deployment Pipelines	\$100,000
Advanced Characterization Facility for Stable Metal Halide Perovskite Materials and Devices	\$125,619
The Seamless User-Centred Conscious Experience Study System (SUCCESS)	\$71,000
deTOUR lab	\$32,652
Laboratory for Trapped Ion Quantum Computing with Nonidentical Qubits	\$202,421
Advancing the Next Generation of Biomanufacturing Systems	\$472,000
Understanding the Transport Phenomena and Reaction Kinetics in Mixed Ionic-electronic Conducting (MIEC) Membranes	\$79,900
Understanding the Role of Defects in Artificial Leaves using In-Situ Multimodal Characterizations and Calculation	\$105,000
<b>21 projects / projets</b>	<b>\$2,657,700</b>

**University of Western Ontario (The)**

Bioactive Hydrogels for 3D Bioprinting of Living Tissues	\$254,814
Gene Therapy Development for Musculoskeletal Diseases	\$387,254
NMR Instrumentation for High Resolution Protein Structures, High Throughput Drug Screening & Metabolomics	\$790,004
CerebroVascular-NeuroMetabolic Interactions in Humans	\$257,381

**... / University of Western Ontario (The)**

Neurophysiology of Acute and Persistent Concussion in Younger and Older Adults	\$203,286
Bridge Health Monitoring Laboratory for Next-generation Structural Inspection and Maintenance	\$138,680
Memory-intensive High-dimensional Models for Financial Data and Risk Management	\$257,613
Optical Coordinate Measuring Device to Quantify Wear of Orthopaedic Implants	\$280,782
Surviving Memory in Postwar El Salvador: A Collaborative Research Initiative	\$52,026
<b>9 projects / projets</b>	<b>\$2,621,840</b>

**University of Windsor**

Infrastructure for Clean Energy Research: Innovative Studies on Novel Catalysts for Small-Molecule Fixation	\$75,001
Compound-specific isotope analysis of greenhouse gases, contaminants and ecological tracers	\$150,000
<b>2 projects / projets</b>	<b>\$225,001</b>

**Wilfrid Laurier University**

Mapping Stories Global Research Lab	\$57,077
Speciation Analyses for Elucidating Molecular Mechanisms of Environmental Selenium Chemistry and Toxicology	\$200,000
<b>2 projects / projets</b>	<b>\$257,077</b>

**York University**

DEXR LAB	\$100,000
Machine Learning and Additive Manufacturing for the Development of Next Generation Materials	\$140,000
Organic Synthesis for Development of Therapeutics	\$107,000
Microvascular Epigenetics of Physical Activity	\$80,000
The Climate-Data-Driven Design (CD3) Facility for Built Infrastructure	\$140,000
Infrastructure for the Catalytic Synthesis of Medicinally Relevant Organofluorine Compounds	\$160,000
Establishment of the Intelligent Visualization Laboratory	\$114,726
Generative Modeling for CryoEM, Hyperspectral Imagery and Video	\$140,000
Neuromechanics of Balance Deficits During Dynamic Stance	\$125,000
Next Generation of Neutrino Detector for the Deep Underground Neutrino Experiment (DUNE)	\$125,000

**... / York University**

Social and Technological Systems lab	\$50,000
Center for Research on Addiction Vulnerability in Early Life	\$50,000
Biophotonics Diagnosis, Treatment and Dosimetry in Age-related Disorders and Human Diseases	\$160,000
The Centre for Public AI (CPAI)	\$69,385
<b>14 projects / projets</b>	<b>\$1,561,111</b>

**NOTE:**

As part of this announcement, an additional \$7,214,770 was awarded under the Infrastructure Operating Fund (IOF), a mechanism that assists institutions with the incremental operating and maintenance costs associated with the new infrastructure.

**À NOTER :**

Cette annonce comprend l'attribution d'une somme additionnelle de 7 214 770 dollars du Fonds d'exploitation des infrastructures. Les établissements utilisent ces montants pour assumer une partie des coûts d'exploitation et de maintenance de la nouvelle infrastructure.