

# Fonds des leaders John-R.-Evans Fiche d'information

#### **Ontario**

Le conseil d'administration de la Fondation canadienne pour l'innovation (FCI) a approuvé des contributions totalisant 33 537 683 \$ en vue d'appuyer 155 projets d'infrastructure dans la province.

Titre du projet	Contribution maximale de la FCI
Algoma University	
Equipment to Support Research in Aquatic Neurophysiology	30 677 \$
1 projet	30 677 \$
Brock University	
Markerless Motion Capture Equipment for Large Scale Field Testing	68 372 \$
Infectious Disease Research Suite at Containment Level 3	101 654 \$
Analysis of Extracellular Vesicle Function in Human Health and Disease	125 000 \$

# **Carleton University**

Carleton Oniversity	
Application of Raman Spectroscopy to Improve Food Integrity	110 000 \$
Development and Evolution of the Amphibian Skeleton	75 002 \$
Aerosol Jet Printed Nano Sensor Platforms for Point-of-Care Diagnostics, and Monitoring Health and Environment	100 000 \$
Multitouch Displays for Collaborative Clinical Decision-Making	86 921 \$
Carleton Tides Centre for Oligonucleotide and Peptide (Tides) Cancer Diagnostic and Therapeutic Agents	120 000 \$
Quantitative Functional MRI Technologies for Assessing Brain Health in Depression	125 000 \$
Cultural Heritage Informatics Collaboratory	69 660 \$
Mitigating the Negative Impacts of E-waste Through Sustainable Biotechnology	125 000 \$
MARVEL - The Mixed and Augmented Reality and Virtual Environments Lab	158 473 \$
Development of Innovative Methods in Emissions Estimations using Remote Sensing	75 001 \$
The Individual Variation Across the Lifespan Project: A Collaborative Examination of Language Acquisition and Use	40 001 \$
Defining How We Establish and Maintain a Healthy Gut	75 001 \$
EquiCon: Equitable Conservation for a Sustainable Future	75 002 \$
13 projets	1 235 061 \$



# **Lakehead University**

Laboratory for Physiological Macroecology	119 591 \$
Research Infrastructure for Multitrophic Studies of Boreal Forest Landscapes	174 996 \$
Microscope, and Trace Gas Analyzers (Nitrous Oxide and Ammonia) for Photonics and Bio-Photonics Research Facilities	166 892 \$
Design and Development of Powertrain Technologies for Heavy-duty Electric Transportation Applications	100 017 \$
Laboratory for Climate Change Mitigation and Air Pollution Control	124 986 \$
Low-dose Direct Conversion Radiation Medical Imaging Detectors	124 574 \$
6 projets	811 056 \$

## **McMaster University**

Lab for Innovative Neurophysiological Study of Leadership	302 379 \$
High Throughput High Content Multi-dimension Microscopy	400 000 \$
Additively Manufactured Homes for Mobility and Equity (AM-HOME) Laboratory	300 000 \$
The Role of Brain-viscera Coupling in Shaping Subjective Experience and Social Interaction	200 000 \$
Infrastructure for Sustainable E-commerce Last-mile Deliveries	117 000 \$
ConTElab: Engineering Contractile Tissues for Tissue Regeneration and Wound Healing	243 701 \$
Nuclear Receptor Pathways for Plasticity: Linking Environmental Stressors with Compensatory Responses	140 000 \$
Novel Tools and Methods for Characterizing the Exposome	390 000 \$
Laboratory for the Modification and Characterization of Proteins and Cells at Biomaterial Interfaces	200 000 \$
Ocular Imaging & Preclinical Evaluation	210 550 \$
Platform for Molecular Bacteriology Research	149 319 \$
Platform for Antimicrobial Discovery from Symbiotic Microbes	372 656 \$
Laboratory for Metabolism and Translational Science - LiMTS	400 000 \$
Wound Infection Biomarker and Drug Discovery Facility	353 628 \$
Hydrogen Energy Advances Lab Infrastructure	150 000 \$
15 projets	3 929 233 \$

# **Ontario College of Art and Design (OCAD University)**

Mobile Projection Mapping and Communities: Reinforcing Diversity and Cultural Heritage through Urban Artistic Projects	55 716 \$
1 projet	55 716 \$



# **Queen's University**

17 projets	2 227 138 \$
Functional Structures Based on Main-group Supramolecular Interactions	125 000 \$
Resilient Agile Aerial Autonomy	125 000 \$
Controlling Detonation Instabilities: Experiments and Models to Enable Next- generation Engines	80 000 \$
Exploring the Landscape of Electrochemical Reactions and Improving Process Sustainability through Paired Synthesis	125 000 \$
Neuro-immunity in Cancer and Allergy	250 000 \$
Time-dependent Rock and Joint Behavior in Deep Underground Environments	175 600 \$
Identifying Predictors of Recurrence and Developing Novel Therapies for Patients with Brain Tumours	100 000 \$
FEWA Contaminant Biogeochemistry Lab: Holistic Assays of Hg Biogeochemical Cycling in Forest Ecosystems	120 000 \$
Smart Networks for Scientific Computing	152 000 \$
Fast-charging Infrastructure for Electric Vehicles	97 536 \$
Harnessing Macrophage Biology to Control Neuroinflammation	150 000 \$
Systems for Seismic Protection and Resilience of Mass Timber Structures	125 000 \$
Facilitating Bidirectional Communication for Fast and Flexible HumanRobot Collaboration	152 000 \$
Geophysical Monitoring and Modelling of the Subsurface of Urban Environments and Large Infrastructures	100 000 \$
Building a Stratospheric Balloon-borne Instrumentation Laboratory	75 001 \$
Thermo-hydro-mechanical Coupled Rock Performance: Transforming Design of Geological Storage and Resource Developments	200 000 \$
Seeing the Invisible: A Precision Medicine Informatics for Cancer Biomarkers Anchored in Time and Space	75 001 \$

# **Toronto Metropolitan University**

Towards Resilient Buildings Under Different Wind Scenarios	76 000 \$
Development of Collapsible Returnable Packaging for Direct-to-Consumer (D2C) Product Distribution	88 000 \$
Emissions' Characterization of Alternative Fuels at High Pressures	76 000 \$
Advanced and Rapid Fabrication Platform of Electrode Structures for Fuel Cells and Electrolyzers	92 026 \$
Development of Autonomous Drones for Indoor Environments	116 059 \$
Maternal Fetal Diagnostics	88 961 \$
Affordable Living Integrated Residential Testbed (ALIRT)	395 060 \$
7 projets	932 106 \$



Gas Flux Instrumentation for Novel Investigations of the Plant-soil-atmosphere Continuum in Agroecosystems	113 737 \$
1 projet	113 737 \$

# **University of Guelph**

Infrastructure to Establish a Lab in Comparative Neurogenesis	87 595 \$
Advanced Robotic Imaging Systems to Support High Throughput Screening Approaches	101 392 \$
An Integrated UAV-Hyperspectral-LiDAR System for Forest Health Monitoring	116 258 \$
Investigating Biopolymer Interactions for the development of Biosensing and Nucleic Acid-based Therapeutic Applications	261 510 \$
Investigating the role of Innervation in the Post-injury Microenvironment during Regeneration	96 276 \$
Sportacle: An Integrated Database and Analytics Platform	54 121 \$
Modelling Occupancy of an Endangered Lemur Species Community	31 503 4
Towards a Mechanistic Understanding of Global Ghange: Effects of Warming on Biological Processes Across Scales	90 000 \$
Single-Crystal X-ray Diffractometer: Critical Infrastructure for Advanced Materials Research at the University of Guelph	305 000 \$
9 projets	1 143 655 \$

#### Université d'Ottawa

Single-cell Analysis of Epithelial-mesenchymal Plasticity	700 000 \$
Role of Histone Chaperones in Neurodevelopment	95 000 \$
The Composition and Distribution of Platinum-group Minerals in Rocks	136 950 \$
Large-scale Modelling of Lyme Disease under Climate, Environmental and Socio- demographic Changes	151 603 \$
A Cryo-EM Drug Discovery Pipeline Targeting the Acetylcholine Receptor for the Treatment of Neuromuscular Disease	292 058 \$
Identifying Best Music Education Programs for Rehabilitation Strategies in Children and Older Adults	329 050 \$
A Front-lead Field-based Research Program Exploring the Intersection of Geologic Fluids and Society	108 359 \$
Molecular Determinants and Effects of New Treatment Approaches in Psychiatry	364 422 \$
Zero-carbon Building Facility	481 422 \$
Assistive-device Biocompatibility Lab: Moving into the Future	383 636 \$
An Ultra Sensitive Microfluidics based Biosensor for Foodborne Pathogen Detections	460 597 \$
Effort Perception & Automatic Behaviors in Physical Activity Across the Lifespan	400 000 \$



# **University of Toronto**

Children de l'Oronic	
Assessing Plant Responses to Environmental Change	336 000 \$
Multi-scale Biomechanics of Orthopaeadic Sports Medicine Laboratory	200 000 \$
Enhancing Community Research Access to Neuroimaging in Aging using Portable Low-field MRI	222 063 \$
The Indoor Microbiology and Environmental Exposures Laboratory	100 000 \$
Revealing the Molecular Basis of Postnatal Brain Maturation with Innovative Genetic and Optical Approaches in Zebrafish	125 000 \$
Neural Scene Representations for Active 3D Imaging	200 000 \$
Determining the Role of the Immune Microenvironment in Oral Cancer and Periodontitis using Tissue Spatial Phenotyping	250 000 \$
Program to Study the Interaction of Genes with the Environment and Immunity and Various Pathological Conditions	350 000 \$
Examining Movement in Complex and Cluttered Environments to Inform Policy, Clinical Interventions and Clinical Education	79 495 \$
Establishment of Metallurgical Materials and Corrosion Laboratory Group for Corrosion Microscopy Studies	100 000 \$
Elucidating the Effects of Anthropogenic Stressors on the Behaviour and Physiology of Aquatic Animals	239 868 \$
High Throughput Imaging Cell Sorter for Single Cell Analysis of Immune Responses in Infection, Autoimmunity and Cancer	240 000 \$
Multifunctional Materials for Biomedical Applications	400 000 \$
4D Quantitative Cardiovascular Physiology Centre	650 000 \$
Next Generation Computational MRI for Rapid Neuroimaging and Image-guided Therapy	155 000 \$
A Molecule to Mouse Approach to Study the Intracellular Localization of Genetic Code Interpretation in Mammalian Cells	400 000 \$
Facility for Quantum Materials and Device Assembly from Atomically Thin van der Waals Layers	800 000 \$
Advanced Cold Spray Facility	200 000 \$
Imaging Biophysical Determinants of the Innate Immune Response	799 597 \$
Al Platform for Mapping, Tracking and Predicting Circuit Alterations in Alzheimer's Disease	155 000 \$
A Computer Graphics Perspective on Entanglement of Slender Structures	600 000 \$
Enabling a High-throughput Drug Discovery Pipeline for Targeting Disease-related Human Proteins	439 721 \$
Real-time Multi-faceted Probes of Quantum Materials	365 000 \$
2p-RAM for Whole-brain Single-neuron Imaging of Behaving Zebrafish to Study Neural Mechanisms of Cognitive Behaviors	512 059 \$
Integrated Circuits for Wireless Brain Implants with Multi-modal Neural Interfaces	100 000 \$
Healthy Life Trajectories Initiative (HeLTI) Analytics Platform	375 507 \$
Accelerating Biomanufacturing Innovation Through Enhanced Capacity for Scale-up	400 000 \$



Helium Recovery System for the Biomolecular NMR Facility	350 000 \$
Ultra-sensitive Cryogenic Detector Development for Dark Matter and Neutrino Experiments	312 000 \$
Next-generation Real-time Closed-loop Personalized Neurostimulation	220 000 \$
Ramsey Laboratory for Environmental Archaeology (RLEA): How Human- Environment Interactions Shaped Plant-Food Production	132 000 \$
3P Lab: Centreing Power, Privilege and Positionality for Health Equity Research	353 169 \$
Infrastructure for Structural and Functional Virology Research hub	650 000 \$
Automation and Equity in Healthcare Laboratory	150 000 \$
H-SCREEN: A Platform for High Throughput and High Content Imaging-based Small Molecule Screens for Disease Modulation	755 636 \$
and Downstream Bioprocess Engineering	

## **University of Waterloo**

Cave Automatic Virtual Environment Research Nodes (CAVERNs)	125 000 \$
Live-imaging Confocal Microscopy of Dynamic Process for Regenerative Medicine Application and Biotechnology Development	163 000 \$
Scalable Infrastructure for Data-intensive Systems	220 000 \$
Hyperspectral Imaging for Quantifying Methane from Anthropogenic and Natural Sources	300 000 \$
Resolving Ecosystem Scale Greenhouse Gas Dynamics of Human-impacted Freshwaters	100 000 \$
Dual-arm Mobile Manipulation: Human-centered Interaction for Human Spaces	100 000 \$
Development of a Comprehensive Laboratory for Evaluation of Tissue Mechanics	100 000 \$
Emerging Natural Interactive Technologies to Support Older Adults' Social Connections and Digital Inclusion	80 000 \$
A Transmission Electron Microscope Optimized for the Visualization of Unstained Biological Specimens	451 157 \$
Engineering Multifunctional All-liquid Soft Materials and Ultra-light Weight Aerogels	49 635 \$
An Indoor Air Quality and Occupant Exposure Testing and Monitoring Laboratory	100 000 \$
Imaging System for the Development of Medical Microrobots	80 000 \$
12 projets	1 868 792 \$

# **University of Western Ontario (The)**

Mass Spectrometer for the Support of Small Molecule Synthesis	454 348 \$
Infrastructure to Support Data Science-driven Health Research Projects at Western University	486 166 \$
Accelerating Clinical Translation of 129Xe/19F MRI for Addressing Lung and Brain Disease	321 725 \$



Signaling and Drug Discovery  9 projets	3 682 740 \$
Protein Conformational Regulation after Phosphorylation: A New Paradigm in Cell	800 000 \$
Multiscale Electrochemical Degradation Laboratory	422 261 \$
Two-photon Calcium Imaging in Marmosets	604 742 \$
Laboratory for Integrative Studies of Avian Communication	145 928 \$
Investigating Placental Development in Normal and Pathological Pregnancy	208 262 \$
Body, Mind, and Movement Research Laboratory	239 308 \$

## **University of Windsor**

A Microwave Plasma Reactor with Characterization and Simulation Systems for Synthesis of Graphene and CO2 free Hydrogen	165 556 \$
Field to Lab Environmental DNA/RNA Facility: Applications from Microbes to Metazoans	80 557 \$
Laboratory for Integrated System of Human-driven Vehicles and Connected and Autonomous Vehicles	245 137 \$
Biomolecular Interaction Analysis Platform to Innovate Therapeutic and Diagnostic Solutions	90 555 \$
Infrastructure for Solid-State Materials Discovery and Characterization Facility	80 556 \$
Facility for Research on Affordable and Sustainable Housing using Construction Printing Technology	139 369 \$
6 projets	801 730 \$

## Wilfrid Laurier University

Neural Tracking of Dynamic Social Behavior in Degu Motor Cortex	63 030 \$
Bioelectric Control of Cell Fate and Tissue Plasticity	75 000 \$
Equipment for Understanding Innate Immune Pathway Modulation using Nanoparticles	80 000 \$
The Neural Correlates of Auditory Feedback Control of Speech Across the Lifespan	80 000 \$
* FLAGship Digital Media Lab	29 774 \$
5 projets	327 804 \$

<sup>\*</sup> Financement de l'infrastructure liée au soutien à la recherche du CRSH

## **York University**

Infrastructure for Innovative Nanomaterials for Energy and Environment	138 585 \$
Infrastructure for High-Definition Microplastic Detection (HD-MPD) and Identity Analysis	126 254 \$
Landscapes in Transition: Environmental Sensitivities Due to Climate Change	198 161 \$
3 projets	463 000 \$



## NOTER:

Cette annonce comprend l'attribution d'une somme additionnelle de 10 061 305 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.