

**Regional Backgrounder / Fiche d'information par région  
New Opportunities Fund / Fonds de relève**

**Province : Ontario**

The following 105 projects, totalling \$14,865,111, were approved in the province of Ontario. / Les 105 projets suivants ont été approuvés dans la province de l'Ontario totallisant 14 865 111 \$.

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

Infrastructure for Examining the Integrative Physiology of Hypoxia Tolerance in Animals	\$160,256
Investigation of involuntary motor behaviors in patients with movement disorders	\$102,578
Excavations at Kourion's Amathus Gate Cemetery	\$18,488
<b>3 projects / projets</b>	<b>\$281,322</b>

**Carleton University**

Radio Frequency Integrated Circuits Laboratory	\$269,529
Characterization of Civil Engineering Material	\$194,647
<b>2 projects / projets</b>	<b>\$464,176</b>

**Lakehead University**

Electrochemical Work Station	\$59,680
Water and Wastewater Treatment in Cold Regions	\$102,522
Microanalytical research facility	\$79,347
<b>3 projects / projets</b>	<b>\$241,549</b>

**Laurentian University**

Tissue culture facility	\$35,750
Equipment for both field and laboratory study of workplace safety and injury prevention with a primary focus on work environments of northern Ontario	\$78,770
Research in Social Work Practice Laboratories	\$16,165
<b>3 projects / projets</b>	<b>\$130,685</b>

## McMaster University

Infrastructure to Enable Research in Water, the Environment and Public Health	\$487,374
Equipment for bioseparations engineering research	\$112,981
Crystallographic Studies of DNA Repair Proteins and Novel Antibiotic Inhibitor-Protein Complexes	\$236,522
Variable temperature UHV-STM for the study of compound semiconductor surface chemistry	\$240,000
Basic and clinical studies of activated protein C, a new anti-sepsis drug	\$96,681
Functional genomics studies in infectious disease research	\$180,086
Cellular and Molecular Studies of Ion Channels and Neurotransmitter Receptors and their Responses to Physiological and Pathological Stimuli	\$150,000
Automatic code generation of efficient and probably correct image processing and relational programs	\$91,623
A McMaster detector laboratory for nuclear astrophysics and nuclear structure with exotic beams at TRIUMF	\$112,600
Solid-State NMR: a tool for characterizing Electrochemically Relevant Materials	\$200,000
McMaster Low-Temperature High-Magnetic-Field Laboratory (Mac-LTHMFL) For New Materials Research	\$359,984
Electric Impedance Tomography : Biomedical Engineering, Muscle Physiology, and Cardiac MRI	\$69,681
Development of social perception in children with autism and in typically developing children	\$150,000
Manufacturing Process Investigation Tools	\$100,000
<b>14 projects / projets</b>	<b>\$2,587,532</b>

## Queen's University

Chronic Pain Research Facility	\$140,000
Aquatic biodiversity recovery assessment unit for field and laboratory	\$36,000
Laboratory for Studying the Neural Basis of Decision-Making	\$150,000
Cell and Molecular Mechanisms of Gastrointestinal Epithelial Host Defense and Resistance to Injury	\$80,000
<b>4 projects / projets</b>	<b>\$406,000</b>

## Ryerson University

Computing Facility for Advanced System Modelling, Analysis, Integration, Simulation and Control	\$60,000
Spatial Information Management & Application Laboratory (SIMAL)	\$50,082
Diffusivity Determination in Polymer-Solvent Systems	\$65,688

Module-based Cellular System for Reconfigurable Manufacturing	\$60,000
<b>4 projects / projets</b>	<b>\$235,770</b>

### Trent University

Metal(loid) speciation in suboxic environments: Geochemical experiments and development of analytical capabilities	\$200,000
Laboratory for molecular & biochemical studies on the waterborne parasite, Giardia lamblia	\$119,086
<b>2 projects / projets</b>	<b>\$319,086</b>

### University of Guelph

Facilities for Studying Nutrient Utilization by Aquatic Animals	\$126,783
Actin purification and biochemical analysis stations for investigating F-actin conformational changes	\$81,794
Infrastructure for research in immunogenetics: the neuroendocrine-immune axis and the genetics of disease resistance	\$121,340
Innate immunity and acute phase response of salmonid fish	\$151,122
Electron paramagnetic resonance spectroscopy for the identification and characterization of molecular materials with magnetic and/or conductive properties	\$159,655
Integrated facility for biology and molecular biology of plant viruses, virus diagnosis, and genetic engineering of fruit crops for multiple virus resistance	\$124,373
Palmar impact loading, repetitive strain injuries and joystick dynamics with a human factors approach to joystick design	\$112,355
A combined set-up for the study of macromolecular assemblies in creating novel and improved food products	\$146,454
Turfgrass Science Research to Increase Stress Tolerance and Reduce Inputs	\$125,017
Integrated investigation of muscle function and intracellular signaling transduction	\$125,336
GIS Modeling Laboratory for Agricultural Conservation Management	\$143,822
<b>11 projects / projets</b>	<b>\$1,418,051</b>

### University of Ottawa / Université d'Ottawa

Behavioural and Metabolic Research Center for Obesity Prevention and Treatment	\$595,083
Laboratory for Applied Geographic Information Systems Science and Geomatics of the Environment	\$124,719
Caractérisation de Composants Actifs pour Systèmes de Communications en Radiofréquences et Micro-ondes	\$181,179

Membrane Trafficking and Organization: Combining excellence in innovative fluorescent microscopy techniques with biomedical investigations into the mechanisms of cholesterol transport and function	\$221,143
Laboratory for studies in systems and computational neurobiology	\$206,921
Microwave Photonics Research Laboratory	\$239,000
Thermal Ecology Laboratory and Field Research Facility	\$140,154
The Ottawa Hospital Data Warehouse: an integrated data system for measuring and improving patient safety and quality of hospital care	\$275,241
Solution NMR of Membrane Proteins	\$367,901
Equipment for Computer-Aided Wireless Design Lab	\$116,141
“Foundations of Computation” Research Laboratory	\$72,734
<b>11 projects / projets</b>	<b>\$2,540,216</b>

### University of Toronto

Non-linear laser-scanning microscope for dynamic functional imaging of biological specimens	\$191,600
Forest canopy dynamics: infrastructure for experimental studies and computer simulation	\$110,937
Integrative Nanotechnology/Biomedical Science Laboratory (INBS)	\$200,000
Cellular and molecular mechanisms underlying presynaptic specialization during synapse formation	\$100,000
Facility for Thin Film Amorphous and Nanocrystalline Silicon and Carbon	\$180,000
DNA sequencing facility for the genomic exploration of fungal diversity	\$100,000
Novel Mechanisms of Platelet Aggregation Independent of von Willebrand factor and Fibrinogen, and their Effect on Thrombosis and Hemostasis	\$35,090
Infrastructure for advanced control-based dynamic optical link	\$156,494
Central Control of Breathing in Vertebrates: Episodic Breathing and Ventilatory Acclimatisation to Chronic Hypoxia	\$40,000
An Infrastructure for Compiler-Supported Software Optimization Research	\$83,588
Elucidating mechanisms of islet apoptosis	\$28,800
Arrhythmia Vulnerability in Humans	\$50,000
High Performance Parallel Computing Infrastructure for Robust and Real-time Optimization	\$47,460
Millimeter wave and high data rate integrated circuit characterization	\$167,990
Hybrid Design & Research Facility for Extreme Urban Environments (HDRFEUE)	\$119,932

Comparative Cognitive Neuroscience of Memory	\$179,059
Understanding the molecular mechanisms involved in neutrophil function and the development of a novel clinical assay to improve monitoring and management of patients with neutrophil related disorders	\$219,486
Process Control Simulator for the Development and Evaluation of Advanced Operations Applications	\$140,866
Molecular anthropology laboratory for human evolutionary studies	\$206,224
Minimalist Proteins: Possible Gene Regulatory Drugs	\$146,453
Laboratory for Wireless and Internetworking Research	\$102,460
A stable isotope mass spectrometer facility for Geobiology research	\$240,000
<b>22 projects / projets</b>	<b>\$2,846,439</b>

### University of Waterloo

Infrastructure for the Development of Robust Water Treatment Strategies and Tools for the Protection of Public Health	\$125,000
Biophotonics facility	\$85,000
Research Computing Infrastructure: Collaborative Computing Facilities for New Researchers in Mathematical and Computer Sciences	\$515,588
Creation of a Research Facility for Experimental Work in Cell and Molecular Biology	\$300,000
Facility for Advanced Research in Multiple-Input Multiple-Output (MIMO) Wireless Communication Systems	\$167,850
<b>5 projects / projets</b>	<b>\$1,193,438</b>

### University of Western Ontario

Infrastructure Support for Powder Technology Research	\$90,930
Social Interaction Laboratory	\$52,919
Scanning electrochemical microscopy, near-field spectroscopy and microscopy of single semiconductor nanostructures	\$225,194
Multimode Scanning Probe Microscope for the Study of Charge Distribution in Materials on the Nanoscale	\$250,895
Mobile Solar Video (MSV) systems for wildlife monitoring	\$144,860
<b>5 projects / projets</b>	<b>\$764,798</b>

### University of Windsor

Interdisciplinary Research Laboratory Infrastructure for Molecular and Cellular Toxicology in wildlife and humans	\$50,000
Temperature dependent optical characterization of anisotropic materials	\$49,890

A transcritical CO2 refrigeration research facility	\$45,600
Parallel Linux-PC Scientific Computing Cluster for Theoretical and Computational Studies of Chemical Problems and Phenomena	\$50,000
Low oxidation state main group chemistry: the development of unprecedented reagents for chemical and materials synthesis	\$44,750
Particle Image Velocimeter for the University of Windsor	\$50,000
Instrumentation for characterizing size-reduced waste plastics to improve automotive recovery and recycling	\$47,250
Facility for Sample Partition Capacity Measures and Infrastructure to Allow Trace Chemical Dosing for Bioavailability/Toxicology Research	\$46,734
A rock sample preparation facility for studying the mantle-crustal evolution and depositional environments in the early Earth	\$41,300
The Development of an Ultra High-Energy Resolution Electron Source for an Electron-Molecule Collisions Facility	\$49,995
Instrumentation for Investigation of Atmospheric Particulate Matter from Vehicular Emission	\$50,000
An Integrated Modelling Facility for the Study of Subsurface Geofluids and Their Role in Earth and Environmental Sciences	\$49,800
<b>12 projects / projets</b>	<b>\$575,319</b>

### York University

Exercise physiology and endocrinology laboratory for the study of the metabolic syndrome and diabetes	\$206,195
Laboratory for the Study of Growth, Maturation and Physical Activity	\$204,323
Facility for the Structural Characterization and Sequencing of Proteins and Peptides in Vacuo	\$200,167
Parallel Computing Facility for Mathematical and Statistical Analysis of Complex Systems, Large Data Sets and Performance Analysis	\$250,045
<b>4 projects / projets</b>	<b>\$860,730</b>