

External Research Funding Awarded in 2014-15

The following is a list of external research grants from major funding competitions awarded to Ryerson faculty in 2014-15. The list does not include sub-grants or awards that are not yet public. Available and announceable details, reported as of September 2015, are provided below.

Natural Sciences and Engineering Research Council of Canada

Collaborative Research and Development Grants

Ebrahim Bagheri (Electrical and Computer Engineering)	Semantics-enabled Social Network Analysis	\$450,000
Frank Russo (Psychology)	A dynamic emotion feedback system for music using audio, symbolic and physiological features	\$291,999
Fengfeng (Jeff) Xi (Aerospace Engineering)	Modular Reconfigurable Aircraft Cabin Interiors	\$200,000
Dewei (David) Xu (Electrical and Computer Engineering)	Advanced Thermal Management Technologies for the Next Generation Aerospace Power Converters	\$160,000
Ling Guan (Electrical and Computer Engineering)	An optimized cloud-based mobile augmented reality system for marketing and advertising	\$159,945

Discovery Grants

Ling Guan (Electrical and Computer Engineering)	Developing Information Theoretic Tools for Multimedia Multimodal Information Processing	\$185,000
Sridhar Krishnan (Electrical and Computer Engineering)	Non-stationary Signal Feature Extraction and Analysis	\$185,000
Jelena Masic (Computer Science)	Resource management in cloud data-centers	\$180,000
Robert Botelho (Chemistry and Biology)	Regulation and Function of Phosphoinositide Lipid Signalling	\$170,000
Said Easa (Civil Engineering)	Advancing performance-based highway geometric design	\$170,000
Jeffrey Fillingham (Chemistry and Biology)	Transcriptional regulation of non-coding RNAs in <i>Tetrahymena thermophila</i>	\$170,000
Joseph McPhee (Chemistry and Biology)	Antimicrobial peptide resistance mechanisms in adherent-invasive <i>Escherichia coli</i>	\$160,000
Sarah Sabatinos (Chemistry and Biology)	Measuring the effect of environmental stress on checkpoint, genome instability and survival	\$160,000

Xiao-Ping Zhang (Electrical and Computer Engineering)	Signal and Data Processing Based on Statistical and Graphical Models	\$150,000
Ebrahim Bagheri (Electrical and Computer Engineering)	Dynamic Runtime Software Architecture Adaptation	\$145,000
Alexandra Mazalek (RTA School of Media)	Grasping Science: Designing Tangible and Embodied Interactions for the Computational Sciences	\$145,000
Fengfeng (Jeff) Xi (Aerospace Engineering)	Shape Adaptive Modular Reconfigurable Systems	\$145,000
Deborah Fels (Information Technology Management)	Inclusive media and design	\$140,000
Mohamad Jaber (Mechanical and Industrial Engineering)	Inventory management in sustainable closed-loop supply chains with continuous improvement	\$140,000
John Enright (Aerospace Engineering)	Attitude Estimation for Small, Agile Spacecraft	\$125,000
Zouheir Fawaz (Aerospace Engineering)	Experimentally validated models for the prediction of fatigue damage progression and failure of conventional and green polymeric composites in aerospace and biomedical applications	\$125,000
Stephanie Melles (Chemistry and Biology)	Cross-scale drivers of diversity in relation to global change in aquatic and terrestrial ecosystems	\$125,000
Vojislav Mistic (Computer Science)	Opportunistic spectrum access for emergency response networks	\$125,000
Ziad Saghir (Mechanical and Industrial Engineering)	Diffusion in Multi-components mixtures	\$125,000
Dewei (David) Xu (Electrical and Computer Engineering)	Next Generation Grid Connected Converters for Smart Grid	\$125,000
Olivia Das (Electrical and Computer Engineering)	Performance and Availability Evaluation of Software Systems	\$120,000
Mikhail Soutchanski (Computer Science)	A Principled Approach to Reasoning about Discrete Dynamic Systems	\$120,000
Ahmed Abdelrahman (Civil Engineering)	Development of innovative techniques for optical and LiDAR sensor data processing	\$110,000
Raffi Karshafian (Physics)	Interaction of ultra-sonically stimulated microbubbles with biological membranes	\$110,000
Karthikeyan Umapathy (Electrical and Computer Engineering)	Adaptive Signal Modeling and Feature Extraction Methods for Analyzing Cardiac Fibrillation	\$110,000
Shudong Yu (Mechanical and Industrial Engineering)	Modeling vibrational behaviour of non-smooth large scale dynamical systems	\$110,000

Janet Koprivnikar (Chemistry and Biology)	Host resistance and tolerance to parasitism: importance of behaviour and habitat in a changing world	\$105,000
Anthony Bonato (Mathematics)	Complex networks and vertex pursuit games	\$100,000
Robert Gossage (Chemistry and Biology)	Ligand Designs for Catalysis: New Directions for Green Chemistry	\$100,000
Hesham Marzouk (Civil Engineering)	Utilization of Ultra High Performance Concrete for Offshore Applications	\$100,000
Chen (Cherie) Ding (Computer Science)	Selection and Recommendation of Data Analytic Services in the Cloud	\$90,000
Andriy Miranskyy (Computer Science)	Mitigating Risks Associated with Big Data Solutions	\$90,000
Silvana Ilie (Mathematics)	Numerical Methods with Applications to Biochemical Systems	\$70,000
Stephen Waldman (Chemical Engineering)	Chondrocyte desensitization to mechanical loading	\$25,000

Engage Grants

Ahmed Abdelrahman (Civil Engineering)	Feature Extraction and Classification Using Mobile LiDAR Data	\$25,000
Alagan Anpalagan (Electrical and Computer Engineering)	Cloud-data Optimized RF Sensor Communication	\$25,000
Ebrahim Bagheri (Electrical and Computer Engineering)	Social media analysis for customer relationship management	\$25,000
Ayse Bener (Mechanical and Industrial Engineering)	Modeling historical user behavior for enhanced ad targeting	\$25,000
Ayse Bener (Mechanical and Industrial Engineering)	Software Analytics to Predict Software Defects	\$25,000
Ying Jung (Joseph) Chow (Civil Engineering)	Agent-based decision support system for a flexible transit service pilot	\$25,000
Ying Jung (Joseph) Chow (Civil Engineering)	Development of mobile device-based surrogate systems for connected and autonomous vehicle technologies	\$25,000
Joon Chung (Aerospace Engineering)	Development of Topology Optimization Tool	\$25,000
Joon Chung (Aerospace Engineering)	Development of Unmanned Aerial Vehicle Reconfigurable Ground Control Station Building Tools for Presagis	\$25,000

Konstantinos Derpanis (Computer Science)	Visual Analysis for Document Clustering	\$25,000
Alexandre Douplik (Physics)	Experimental evaluation of multi-wavelength illumination system for tissue differentiation and surgical guidance	\$25,000
Alexandre Douplik (Physics)	Experimental evaluation of sound recognition and sound localization methodologies towards development of a novel semi-automated sound localization system	\$25,000
Seth Dworkin (Mechanical and Industrial Engineering)	A model for long-term ground temperature response to geo-exchange	\$25,000
Seth Dworkin (Mechanical and Industrial Engineering)	Developing an Intelligent Control System for Hybrid Ground Source Heat Pumps	\$25,000
Xavier Fernando (Electrical and Computer Engineering)	RFID based Productivity and Food Traceability Enhancement System	\$25,000
Alexander Ferworn (Computer Science)	A Flight Assist Object Avoidance System for Micro Unmanned Aerial Vehicles	\$25,000
Alan Fung (Mechanical and Industrial Engineering)	Design optimization and performance characterization of an air source heat pump system coupled with building integrated photovoltaic-thermal (BIPV/T) collectors	\$25,000
Ling Guan (Electrical and Computer Engineering)	Accurate camera tracking for integrating special effects into internet video	\$25,000
Martina Hausner (Chemistry and Biology)	Detection of biofilm growth associated with absorbent materials employed in meat packaging	\$25,000
Siyuan He (Mechanical and Industrial Engineering)	Development of Laser Pattern Projection Availability Indicator	\$25,000
Khandaker (Anwar) Hossain (Civil Engineering)	High performance composite load bearing structural system	\$25,000
Khandaker (Anwar) Hossain (Civil Engineering)	Lightweight self-consolidating concrete incorporating Lafarge aggregates	\$25,000
Darko Joksimovic (Civil Engineering)	Design Guidance for Enhanced Pollutant Removal Efficiency of a Bioretention Cell	\$25,000
Mohammed (Reza) Kianoush (Civil Engineering)	A feasibility study for transforming ISO shipping containers into liquid storage containers for WWTP's and WTP's	\$25,000
Mohammed (Reza) Kianoush (Civil Engineering)	Innovative Structural Fastening System for Building Envelope	\$25,000
Guang Jun Liu (Aerospace Engineering)	Modeling and control of aerial robot manipulator with hardware in the loop simulations	\$25,000

Jinyuan Liu (Civil Engineering)	Optimized Design of Shaft Foundations for Noise Walls in the GTA	\$25,000
Ali Miri (Computer Science)	Secure, Cloud-Based Mobile Health Platforms	\$25,000
Farahnaz Mohammadi (Electrical and Computer Engineering)	Design and Implementation of a Load Moderation Center (LMC) for Building Automation Application	\$25,000
Farahnaz Mohammadi (Electrical and Computer Engineering)	Thermal management of electronic components used in ExoLegs system	\$25,000
Pawel Pralat (Mathematics)	A self-organizing dynamic network model increasing the efficiency of outdoor digital billboards	\$25,000
Pawel Pralat (Mathematics)	Utilizing Big Data for Business-to-Business Matching and Recommendation System	\$25,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Innovative RFID based Real-time Inventory Location Tracking - Manufacturing Pilot	\$25,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Low cost hybrid surface imaging techniques and cross-polarized subsurface microscopy (dermoscopy) for tele-monitoring skin lesions and ulcers and their healing process	\$25,000
Russell Richman (Architectural Science)	Quantifying hygrothermal performance of a super-insulated wall assembly using mineral wool semi-rigid insulation	\$25,000
Anton de Ruiter (Aerospace Engineering)	Advanced Satellite Attitude Determination	\$25,000
Khaled Sennah (Civil Engineering)	Development and Study of Ultra-High Performance Concrete (UHPC) for Bridge Infrastructure Applications	\$25,000
Medhat Shehata (Civil Engineering)	The Development of a Protocol to Enable Beneficial Reuse of Returned Concrete	\$25,000
Sharareh Taghipour (Mechanical and Industrial Engineering)	Root-cause analysis of the critical assets in a co-generation power plant station, and developing failure prediction and maintenance optimization models	\$25,000
Vladislav Toronov (Physics)	Development of the hyperspectral near infrared spectroscopy device for the assessment of sport-related concussion	\$25,000
Scott Tsai (Mechanical and Industrial Engineering)	Coating cells with microfluidics	\$25,000
Ahmad Varvani-Farahani (Mechanical and Industrial Engineering)	Seismic and Fatigue Analysis of Once-Through Steam Generators	\$25,000

Warren Wakarchuk (Chemistry and Biology)	Development of a Scalable In Vitro Sialylation Process for Butyrylcholinesterase	\$25,000
Fengfeng (Jeff) Xi (Aerospace Engineering)	Integrated Design of Landing Gear Clevis Joints	\$25,000
Fei Yuan (Electrical and Computer Engineering)	Development of High-Efficiency Wireless Power Transfer Systems using Adaptive Magnetic Resonant Coupling	\$25,000
Lian Zhao (Electrical and Computer Engineering)	Networking In-door Wellness Appliances	\$25,000
Lian Zhao (Electrical and Computer Engineering)	Optimal scheduling and control design for green energy systems	\$25,000
James Smith (Electrical and Computer Engineering)	Multi-axis Laser Aggregate for Machining Applications	\$24,980
James Smith (Electrical and Computer Engineering)	Optimizing Recovery Time and Peak Power for Low-Power Modes in Embedded Processors	\$24,930
Soosan Beheshti (Electrical and Computer Engineering)	Control System Development for Robotic Cardiac Catheterization	\$24,900
Mark Gorgolewski (Architectural Science)	How to better use building energy modelling to predict actual building performance.	\$24,630
David Naylor (Mechanical and Industrial Engineering)	Computational Fluid Dynamics (CFD) Analysis of Building Integrated Photovoltaic/Thermal Systems	\$24,167

Engage Plus Grants

Zouheir Fawaz (Aerospace Engineering)	Development of strain-life based fatigue design methodology for landing gear components	\$12,500
Hua Lu (Mechanical and Industrial Engineering)	Reliability study of femtosecond laser inscribed Fiber Bragg Grating sensor for long-term application under harsh environment	\$12,500

Idea to Innovation

Michael Kolios (Physics)	Development of an acoustic and photoacoustic flow cytometer	\$125,000
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Interaction Grants

Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Meeting for Collaborative Research and Development Initiation towards Development and Integration of Image-Based Control of Robots	\$3,380
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Joon Chung (Aerospace Engineering)	Introduction of Virtual Reality Simulation facility at Ryerson University	\$2,600
Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Collaborative Research and Development towards partnership on vision-based planning and control of unmanned systems for 4Front Robotics	\$2,100

PromoScience

Liping Fang (Mechanical and Industrial Engineering)	Big Bang	\$31,900
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Research Tools and Instruments

Scott Tsai (Mechanical and Industrial Engineering)	Microscopy system for microfluidics with integrated optical tweezers and high speed imaging	\$140,385
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Special Research Opportunity

Bryan Koivisto (Chemistry and Biology)	Funding for Ryerson Student Spaceflight Experiments Program	\$17,000
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Strategic Network Grants

Balasubramanian Venkatesh (Electrical and Computer Engineering)	Support for Preparing the NSERC Energy Storage Technology Network Application	\$25,000
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Social Sciences and Humanities Research Council of Canada

Connection Grants

Idil Atak (Criminal Justice and Criminology)	Advancing Protection and Fostering Belonging in an Era of the Criminalization of Migration	\$25,000
Blake Fitzpatrick (Image Arts)	Critical Topography	\$25,000
Elizabeth McCay (Nursing)	Poverty Reduction Strategies for Urban Youth in Canada	\$24,432
Daniel Rubenson (Politics and Public Administration)	Connecting Experimentalists and Formal Theorists	\$12,980

Insight Development Grants

Calvin Langton (Child and Youth Care)	Factors associated with desistance versus recidivism in adolescents with sexual offenses: Toward an integrated theory.	\$74,129
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Zhixi Cecilia Zhuang (Urban and Regional Planning)	Place-making practices in suburban ethnic retail neighbourhoods	\$65,770
Ben Barry (Fashion)	Refashioning Masculinity: The Use of Fashion to Deconstruct and Reimagine Men's Gendered Identities	\$61,608
Osmud Rahman (Fashion)	Cross-national consumer research: Modelling fashion shopper's behaviour and preferences	\$47,477
Kristin Smith (Social Work)	Online Social Work Education in Canada: What happens when Critical Pedagogy Goes Digital?	\$33,794
Rachel Berman (Early Childhood Studies)	Discourses of race and racialization within an early childhood setting	\$33,553
Haomiao Yu (Economics)	Strategic Uncertainty, Social Identity and the Theory of Large Games	\$30,709

Insight Grants

Catherine Middleton (Information Technology Management)	Digital Canada: Understanding Canadian's infrastructure and literacy needs for engagement in digital society	\$210,139
Becky Choma (Psychology)	Ideological beliefs and differential distress: Threat target as a moderator	\$175,491
Ivor Shapiro (Journalism)	Mapping the professional orientation of Canadian Journalists	\$136,328
Paul Moore (Sociology)	Circuits of Cinema: Itinerant Showmanship in North America, 1895 to 1907	\$105,657

Knowledge Synthesis Grants

Wendy Cukier (Information Technology Management)	LEARNING - Soft Skills are Hard: the Skills Gap• and Importance of Soft Skills•	\$24,868
Janice Waddell (Nursing)	Bridging the Theory/Practice Divide: Experiential Learning for a Critical, People-Centred Economy	\$18,012

Partnership Development Grants

Kathryn Underwood (Early Childhood Studies)	Inclusive Early Childhood Service System Project	\$199,855
Kiaras Gharabaghi (Child and Youth Care)	Learning as Intervention	\$189,908
Jennifer Martin (Child and Youth Care)	Child Sexual Abuse Images Online: Identifying and Addressing Knowledge Gaps and Multilevel Barriers to Cross-sectoral Responses	\$142,707

Partnership Grants

Henry Parada (Social Work)	LOI - Rights for Children and Youth Partnership: Strengthening Collaboration in the Americas	\$20,000
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Canadian Institutes of Health Research

Team Grants

Trevor Hart (Psychology)*+	HIV Prevention for Gay and Bisexual Men: A Multisite Study and Development of New HIV Prevention Interventions	\$1,500,000
Josephine Wong (Nursing)*	Reducing HIV vulnerabilities and Promoting Resilience among self-identified heterosexual African, Caribbean and Black Men in Ontario	\$1,499,925

* In partnership with the Ontario HIV Treatment Network
 + In partnership with Canadian Foundation for AIDS Research

Operating Grants

Candice Monson (Psychology)	A comparison of the effects of internet-based strategies to support mental health clinicians' use of an effective psychotherapy for post-traumatic stress disorder	\$728,496
Stephen Waldman (Chemical Engineering)	Tissue engineering of auricular cartilage implants for external ear reconstruction	\$339,992
Zahava Rosenberg-Yunger (Health Services Management)	Development and Assessment of an Instrument for Evaluating Public and Patient Involvement in Resource Allocation Decisions	\$161,980

Canada Research Chairs

Robert Botelho (Chemistry and Biology)	Tier 2 Canada Research Chair in Biomedical Science and Technologies	\$500,000
Julia Spaniol (Psychology)	Tier 2 Canada Research Chair in Cognitive Aging	\$500,000

Other Federal Government

Canada Council for the Arts — Grants to Organizations

George Kapelos (Architectural Science)	Exhibition and Publication on the 1958 Toronto City Hall competition's impact on Canadian architectural culture	\$23,700
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Citizenship and Immigration Canada

Ratna Omidvar (Ted Rogers School of Management)	Immigrant Entrepreneurship: Study to scan policy and programs for encouraging immigrant entrepreneurs	\$4,945
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Department of Justice

Judy Finlay (Child and Youth Care)	Cross Over Kids	\$40,000
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Environment Canada

Janet Koprivnikar (Chemistry and Biology)	Lake Winnipeg Basin Initiative: Parasite Project - Part 3	\$9,576
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Grand Challenges Canada — Stars in Global Health

Jason Nolan (Early Childhood Studies)	Adaptive Design International: a global social network for the construction of low-cost custom adaptations for children with disabilities	\$112,000
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Institute of Public Administration Canada

Tuna Baskoy (Politics and Public Administration)	Survey of Senior Government Policy Makers: Comparative Analysis	\$2,500
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International Development Research Centre — Canadian Partnerships Program- Small Grants

Madhura Mitu Sengupta (Politics and Public Administration)	Access and Innovation: Assessing the Health Impact Fund and Other Rewards Systems for Incentivizing Pharmaceuticals Research	\$15,000
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Minister of Canadian Heritage and Official Languages — Celebration and Commemoration Program

Patrice Dutil (Politics and Public Administration)	The Sir John A. Macdonald's Toronto: A Walking Tour	\$30,000
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National Capital Commission

Andrew Millward (Geography)	Tree Protection Zone: Mapping of Tree Roots Using Non-Invasive Ground Penetrating Radar, Including Analysis and Report	\$1,876
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Natural Resources Canada

Daolun Chen (Mechanical and Industrial Engineering)	Fatigue and durability studies of newly developed cast aluminum alloys for automotive cylinder head applications	\$19,000
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NCE: AGE-WELL

Deborah Fels (Information Technology Management)	Tools for User Needs Gathering to Support Technology Engagement (TUNGSTEN)	\$50,750
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NCE: AUTO21 Inc. Connect Canada Internships

Soosan Beheshti (Electrical and Computer Engineering)	Cloud-based Infrastructure for Big Data Retrieval, Analysis, and Delivery of Energy Information	\$20,000
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Alan Fung (Mechanical and Industrial Engineering)	Energy audit and cost/benefit analysis for selected small and medium-sized industrial customers of Enbridge Gas Distribution Inc.	\$20,000
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Matthew Kyan (Electrical and Computer Engineering)	Scene localisation and pose tracking for immersive mobile vistas	\$20,000
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Nick Bellissimo (School of Nutrition)	Development of NutriCubes with FKP Nutrio Foods Inc.	\$10,000
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Lev Kirischian (Electrical and Computer Engineering)	Validation of the Dynamically Reconfigurable Multi-stream Video-processors in Xilinx Virtex/Kintex-7 FPGA Platform	\$10,000
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Songnian Li (Civil Engineering)	3DSolar: Web-based 3D Environment for Modeling Urban Solar Energy Potential	\$10,000
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Rafik Loutfy (Mechanical and Industrial Engineering)	Self Health Monitoring for TrackSafe	\$10,000
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Medhat Shehata (Civil Engineering)	Testing the Durability of Pervious Concrete Under Canadian Winter	\$10,000
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Alan Fung (Mechanical and Industrial Engineering)	Energy assessment and cost benefit analysis for selected small and medium capacity industrial customers of Enbridge Gas Distribution Inc.	\$5,000
Aziz Guergachi (Information Technology Management)	Methods for optimizing electric vehicles charging station network for Toronto City	\$5,000
Farrokh Janabi-Sharif (Mechanical and Industrial Engineering)	Development of a Comparison Framework for the HVAC System Modelling Methods	\$5,000
Russell Richman (Architectural Science)	Towards understanding the relationship between energy literacy and energy consumption	\$5,000
Phillip Walsh (Management and Entrepreneurship)	The feasibility study of developing a smart community in a suburban area: Whitby, ON.	\$5,000
Bin Wu (Electrical and Computer Engineering)	Four Level Medium Voltage Multilevel Converter for PV and PEV Fast Charging Applications	\$5,000
Daolun Chen (Mechanical and Industrial Engineering)	Enhancing the corrosion resistance of Mg alloys by optimum incorporation of rare-earth elements and use of a green bio-organic-metal coating for automotive application	\$3,000

NCE: Technology Evaluation in the Elderly Network (TVN)

Deborah Fels (Information Technology Management)	Development of Tecla Shield 3 Interface for frail elderly users	\$20,000
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Ontario Government & Municipal Governments

Ontario Centres of Excellence – Ontario Aerospace R&TD Challenge

Fengfeng (Jeff) Xi (Aerospace Engineering)	Modular Reconfigurable Aircraft Cabin Interiors	\$100,000
Dewei (David) Xu (Electrical and Computer Engineering)	Advanced Thermal Management Technologies for the Next Generation Aerospace Power Converters	\$80,000

Ontario Centres of Excellence – TalentEdge Fellowship/Internship

Pawel Pralat (Mathematics)	Web Visitor Engagement Measurement and Maximization	\$57,500
Fengfeng (Jeff) Xi (Aerospace Engineering)	Bombardier Aerospace Internships	\$30,000
Ron Babin (Information Technology Management)	IDC Canada Research Projects	\$20,000

Alan Fung (Mechanical and Industrial Engineering)	Energy audit and cost/benefit analysis for selected small and medium-sized industrial customers of Enbridge Gas Distribution Inc.	\$20,000
Rafik Loutfy (Mechanical and Industrial Engineering)	Self Health Monitoring for TrackSafe	\$20,000
Abdolreza Abhari (Computer Science)	Social Media Data Analysis	\$15,000
Soosan Beheshti (Electrical and Computer Engineering)	Cloud-based Infrastructure for Big Data Retrieval, Analysis, and Delivery of Energy Information	\$15,000
Linying Dong (Information Technology Management)	3D Printing in Canada	\$10,000
Medhat Shehata (Civil Engineering)	Testing the Durability of Pervious Concrete Under Canadian Winter	\$10,000
Patrick Neumann (Mechanical and Industrial Engineering)	Development and testing of an approach to assess human factors capability in an organization	\$5,000
Songnian Li (Civil Engineering)	3DSolar: Web-based 3D Environment for Modeling Urban Solar Energy Potential	\$4,998

Ontario Centres of Excellence – Voucher for Innovation and Productivity (VIP)

Ying Jun (Joseph) Chow (Civil Engineering)	Development of mobile device-based surrogate systems for connected and autonomous vehicle technologies	\$25,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Innovative RFID based Real-time Inventory Location Tracking - Manufacturing Pilot	\$25,000
Ziad Saghir (Mechanical and Industrial Engineering)	Analytical Study of SO ₂ absorption in the membrane fiber tubes module	\$25,000
Ramani Ramakrishnan (Architectural Science)	Acoustical Performance of Porous Media	\$24,210
Mohammad Abdoli-Eramaki (Occupational and Public Health)	Design and biomechanical evaluation of an ergonomic chamber lid remover for Hydro workers	\$20,000
Soosan Beheshti (Electrical and Computer Engineering)	Cloud-based Infrastructure for Big Data Retrieval, Analysis, and Delivery of Energy Information	\$20,000
Alan Fung (Mechanical and Industrial Engineering)	Design optimization and performance characterization of an air source heat pump system coupled with building integrated photovoltaic-thermal (BIPV/T) collectors	\$20,000
Mohammed Kianoush (Civil Engineering)	Strength and ductility of reinforced concrete tall cylindrical structures	\$20,000

Matthew Kyan (Electrical and Computer Engineering)	Colour management and semi-automated bin-packing for high quality object reproduction in additive manufacturing	\$20,000
Derick Rousseau (Chemistry and Biology)	Development of NutriCubes with FKP Nutrio Foods Inc.	\$20,000
Medhat Shehata (Civil Engineering)	Testing the Durability of Pervious Concrete Under Canadian Winter	\$20,000
Lian Zhao (Electrical and Computer Engineering)	Plasma Trigger for Intake Air on Internal Combustion Engines	\$20,000
Lian Zhao (Electrical and Computer Engineering)	Smart air purifiers for home automation	\$20,000
Songnian Li (Civil Engineering)	3DSolar: Web-based 3D Environment for Modeling Urban Solar Energy Potential	\$19,996
Kaamran Raahemifar (Electrical and Computer Engineering)	Design and Implementation of a Load Moderation Center (LMC) for Building Automation Application	\$19,958

Ontario Ministry of the Environment

Michael Arts (Chemistry and Biology)	Risk-Benefit Analyses of Ontario Sportfish	\$82,740
Rachel Dodds (Hospitality and Tourism Management)	Green Festivals and Events	\$67,743
Lynda McCarthy (Chemistry and Biology)	Practice of land-applying biosolids	\$40,000
Rachel Dodds (Hospitality and Tourism Management)	To Remove a Barrier to the Adoption of Sustainable Recreation and Tourism Practices by Businesses in the Lake Simcoe Watershed	\$17,144

Ontario Ministry of Research and Innovation

Bryan Koivisto (Chemistry and Biology)	Funding for Ryerson Student Spaceflight Experiments Program	\$6,000
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Ontario Ministry of Training, Colleges and Universities

Harald Bauder (Geography)	Towards Creating a Sanctuary Province: A Review of the Literature on the Labour Market Policies, Programs, and Service Deliveries that Help Employers Utilize Illegalized Immigrants Human Capital	\$16,267
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District of Timiskaming

Kathryn Underwood (Early Childhood Studies)	Inclusive Early Childhood Service System — Timiskaming	\$25,000
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Municipal Grants

Kathryn Underwood (Early Childhood Studies)	County of Wellington — Inclusive Early Childhood Service System	\$198,634
Wendy Cukier (Information Technology Management)	Regional Municipality of Peel — Academic Research and Study of Social Mobility in Peel	\$165,000
Kathryn Underwood (Early Childhood Studies)	City of Hamilton — Inclusive Early Childhood Service System -- Hamilton	\$15,000
Kathryn Underwood (Early Childhood Studies)	City of Toronto — Inclusive Early Childhood Service System -- Toronto	\$15,000

Institutional Grants

Department of Foreign Affairs and International Trade — DFAIT International Scholarship Program

Marsha Mceachrane Mikhail (International Affairs)	Student Exchange Program 2014-2015 Competition	\$45,500
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National Research Council Canada - Industrial Research Assistance Program (NRC-IRAP) – Canada Accelerator and Incubator Program (CAIP)

Incubate Innovate Network of Canada (I-INC)	\$10,662,891
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J.W. McConnell Family Foundation – The RECODE - Fuelling Social Innovation and Entrepreneurship in Higher Education

RECODE at Ryerson	\$500,000
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Ontario Ministry of Economic Development, Employment, and Infrastructure – Social Enterprise Demonstration Fund

Social Enterprise Demonstration Fund at Ryerson	\$500,000
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Non-Profit Organizations & Foundations

Atkinson Foundation

Winnie Ng (Social Work)	Transforming the Conversation on Good Jobs for All	\$10,000
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Barrow Cadbury Trust

Ratna Omidvar (Ted Rogers School of Management)	Cities of Migration	\$14,000
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Bertelsmann Stiftung

Ratna Omidvar (Ted Rogers School of Management)	Cities of Migration	\$30,999
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Funded by Shastri Indo-Canadian Institute with the support of Foreign Affairs, Trade and Development Canada / avec l'appui d'Affaires étrangères, Commerce et Développement Canada

Eric de Noronha Vaz (Geography)	The Goan land: A spatial interpretation of the past, present and future opportunities and challenges for India	\$10,000
Dave Valliere (Management and Entrepreneurship)	Social Drivers of Entrepreneurial Intent	\$1,000

George Cedric Metcalf Charitable Foundation

Cheryl Teelucksingh (Sociology)	Building Toronto: Achieving Social Inclusion in Toronto's Emerging Green Economy	\$14,674
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International Science and Technology Partnerships Canada Inc.

Rafik Loutfy (Mechanical and Industrial Engineering)	Design support system to enhance safety of railway track workers	\$211,990
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J.W. McConnell Family Foundation

Ratna Omidvar (Ted Rogers School of Management)	DiverseCity onBoard National Dissemination	\$275,000
Ratna Omidvar (Ted Rogers School of Management)	hireimmigrants.ca	\$150,000

Maytree Foundation

Wendy Cukier (Information Technology Management)	Inclusion of Immigrants and Racialized Minorities, in Toronto and Worldwide	\$1,735,343
Ratna Omidvar (Ted Rogers School of Management)	DiverseCity onBoard	\$294,336

Mitacs Inc.

Jinyuan Liu (Civil Engineering)	Numerical Investigation of Long-Term Settlement of Waba Dam	\$90,000
Aziz Guergachi (Information Technology Management)	Designing New Business Models to Transform Bombardier's Customer Services & Support Department into a Profit Centre	\$80,000
John Enright (Aerospace Engineering)	Evolving a Sub-Arcsecond Star Tracker	\$57,500
Mohammed (Reza) Kianoush (Civil Engineering)	Establishing the seismic performance factors and nominal shear strength of elevated liquid tanks	\$57,500
Alireza Sadeghian (Computer Science)	Taking SickKids Mobile	\$51,000
Bin Wu (Electrical and Computer Engineering)	Developing Advanced Topologies for High-Power MotorDrives	\$45,000
Cheri Bradish (Marketing)	Rogers "Innovation Pitch"	\$31,463
Daniel Foucher (Chemistry and Biology)	Water-Safe UV Curable Antimicrobials Nanoscale coatings for Plastics	\$30,000
Andriy Miranskyy (Computer Science)	Optimization of Real-time Bidding System via Automatic Detection of Performance-related Defects	\$30,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Monitoring System for Predictive Energy Management and Maintenance of PV Systems	\$30,000
Dewei (David) Xu (Electrical and Computer Engineering)	Anti-islanding detection for renewable energy systems in distribution system	\$30,000
Cheri Bradish (Marketing)	Management Strategy in the Digital Age: Exploring the Implications of Digital Media on Sport Marketing	\$20,000
Corinne Ong (Occupational and Public Health)	The interaction of Cryptosporidium with aquatic biofilm systems	\$20,000
Ron Babin (Information Technology Management)	Evaluation Framework for cloud services	\$15,000
Wendy Cukier (Information Technology Management)	The Connected Workplace Project: Factors affecting the uptake of wireless technology in Canadian Business	\$15,000

Wendy Cukier (Information Technology Management)	BrightLane: Creating a Home for a Community of Entrepreneurs	\$15,000
Jeffrey Fillingham (Chemistry and Biology)	Violacein effects in mice Rho 264.7 cells	\$15,000
Daniel Foucher (Chemistry and Biology)	Water-Safe UV Curable Antimicrobials Nanoscale coatings for Plastics	\$15,000
Ken Grant (Management and Entrepreneurship)	Identifying Areas of Assessment for Strategic Asset Development Tool	\$15,000
Matthew Kyan (Electrical and Computer Engineering)	Maximizing Efficiencies - Identification of Optimization Based Best Practices for Commercial 3d-printing	\$15,000
Jason Lisi (Graphic Communications Management)	Development of Colour-Changing Indicator Label	\$15,000
Hesham Marzouk (Civil Engineering)	Structural Health Monitoring of Rebecca Street Bridge	\$15,000
Ojelanki Ngwenyama (Global Management Studies)	Connected Workplace Project: Private Industry	\$15,000
Colin Ripley (Architectural Science)	Culture of Outports	\$15,000
Norman Shaw (Retail Management)	The Connected Workplace: Public Sector	\$15,000
Kernaghan Webb (Law)	Making the extraordinary ordinary: what is stopping organizations from unlocking the power of good• in everything they do	\$15,000
Fengfeng (Jeff) Xi (Aerospace Engineering)	Vision Guided Robotics for Laser/MIG Welding Seam Tracking	\$15,000
Ayse Bener (Mechanical and Industrial Engineering)	Multi-criteria decision making model for environmental sustainability analysis in ICT	\$5,000
Alan Fung (Mechanical and Industrial Engineering)	Effect of parabolic solar trough collectors (PSTCs) on performance of solar-geothermal power plant	\$5,000
Darko Joksimovic (Civil Engineering)	Hydraulic simulation models of water pipe networks with geographic information system (GIS) and global positioning system (GPS)	\$5,000
Terry Fox Research Institute		
Michael Kolios (Physics)	Project Grant in Ultrasound and MRI for Cancer Therapy	\$441,033

The Psychology Foundation of Canada

David Day (Psychology)	Evaluation of Stress Lessons: From Stressed Out to Chilled Out: A Program for Teens on Managing Stress	\$5,000
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The Scottish Rite Charitable Foundation of Canada

Karen Milligan (Psychology)	Using Mindfulness to Address Cognitive Processing and Emotion Regulation Challenges in Youth with Learning Disabilities	\$105,811
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Trico Charitable Foundation

Wendy Cukier (Information Technology Management)	Social Enterprise Case Studies 2014: Case Studies of Jump Math and TurnAround Couriers Inc.	\$10,000
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Woodcock Foundation

Nina-Marie Lister (Urban and Regional Planning)	ARC/Animal Road Crossing Exhibit	\$25,000
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Industry Funding

NCE: AUTO21 Inc. — Industrial Cash Contribution to OCE VIP

Songnian Li (Civil Engineering)	3DSolar: Web-based 3D Environment for Modeling Urban Solar Energy Potential WITH Woodstock Hydro Services	\$5,004
Soosan Beheshti (Electrical and Computer Engineering)	Cloud-based Infrastructure for Big Data Retrieval, Analysis, and Delivery of Energy Information with Screaming Power Inc.	\$5,000
Alan Fung (Mechanical and Industrial Engineering)	Design optimization and performance characterization of an air source heat pump system coupled with building integrated photovoltaic-thermal (BIPV/T) collectors with Ecologix Heating Technologies Inc.	\$5,000

Other Industry Research Funding

Ratna Omidvar (Ted Rogers School of Management)	National Replication of DiverseCity onBoard with TD Bank Group	\$250,000
Mohamed Lachemi (Civil Engineering)	Numerical investigation	\$174,000

Ebrahim Bagheri (Electrical and Computer Engineering)	Semantics-enabled Social Network Analysis with ThinkCX Technologies Inc.	\$230,000
Frank Russo (Psychology)	A dynamic emotion feedback system for music using audio, symbolic and physiological features with waveDNA	\$146,001
Derick Rousseau (Chemistry and Biology)	A mechanistic understanding of oleosome stability and loading applications with Concept Capital Management	\$143,000
Fengfeng (Jeff) Xi (Aerospace Engineering)	Modular Reconfigurable Aircraft Cabin Interiors with Bombardier Inc.	\$100,000
Dewei (David) Xu, (Electrical and Computer Engineering)	Advanced Thermal Management Technologies for the Next Generation Aerospace Power Converters with Honeywell ASCa Inc.	\$88,400
Yuanshun Li (Finance)	Understanding the Residual Value Risks in Public-Private Partnerships with PPP Canada	\$83,020
Wendy Cukier (Information Technology Management)	Connected Workplace Report: The Transformation of work in Canada 2014 with Rogers Communications Inc.	\$70,000
Derrick Rousseau (Chemistry and Biology)	Fat crystallization and rheology in multicomponent food environments with Mondelez International Inc.	\$70,000
Zouheir Fawaz (Aerospace Engineering)	Aircraft Materials Compatibility Testing with Pratt & Whitney Canada Corp.	\$58,395
Balasubramanian Venkatesh (Electrical and Computer Engineering)	PS1401: Smart Grid Laboratory Demonstration of PowerStream Substation with PowerStream Inc.	\$55,000
Balasubramanian Venkatesh (Electrical and Computer Engineering)	PS1402: Aggregation of Energy Storage Solutions with PowerStream Inc.	\$55,000
Balasubramanian Venkatesh (Electrical and Computer Engineering)	PS1403: Protection Management of Feeders with Renewables with PowerStream Inc.	\$55,000
Xianxun (Arnold) Yuan (Civil Engineering)	Understanding the Effect of Public Private Partnerships on Innovation in Canadian Infrastructure Projects with PPP Canada	\$50,000
Warren Wakarchuk (Chemistry and Biology)	Investigating the in vitro sialylation of therapeutic proteins produced with PlantForm Corporation	\$40,000
Alexander Ferworn (Computer Science, Wheelchair Adapter Kit)	The Network-Enables Powered Wheelchair Adapter Kit with Microsoft Corporation	\$33,875
Imogen Coe (Chemistry and Biology)	Analytics Research Environment with McGraw-Hill Global Education	\$30,000

Medhat Shehata (Civil Engineering)	Evaluation of Deicing Agents on the Durability of Hydromedia (Low-Compactibility Pervious Concrete) with Lafarge Canada	\$30,000
Bin Wu (Electrical and Computer Engineering)	Developing Advanced Topologies for High-Power Motor Drives with Rockwell Engineering	\$27,500
Wendy Cukier (Information Technology Management)	ADaPT-Enterprise program with Accenture Inc.	\$25,000
Ayse Bener (Mechanical and Industrial Engineering)	Using Software Analytics to Reduce Production Defects/Issues with Turkcell Technoloji Arastirma ve Gelistirme A.S.	\$20,000
Derrick Rousseau (Chemistry and Biology)	Kinetic and oxidative stability of omega-3 oil encapsulated within spray-dried microemulsions with POS Management Corp.	\$25,000
Ron Babin (Information Technology Management)	Review of sustainability requirements for outsourcing projects with Hydro One Inc.	\$15,000
Ayse Bener (Mechanical and Industrial Engineering)	DIONE-Analytics and Intelligence in Software Development for RTC with IBM	\$15,000
Fengfeng (Jeff) Xi (Aerospace Engineering)	Bombardier Aerospace Internships with Bombardier Inc.	\$15,000
Lian Zhao (Electrical and Computer Engineering)	Efficient motor driver and compressor design for air-conditioning with RigMaster Power International Ltd.	\$15,000
Zouheir Fawaz (Aerospace Engineering)	Development of strain-life based fatigue design methodology for landing gear components with SPP Canada Aircraft Inc.	\$12,500
Hua Lu (Mechanical and Industrial Engineering)	Reliability study of femtosecond laser inscribed Fiber Bragg Grating sensor for long-term application under harsh environment with QPS Photonics Inc.	\$12,500
Jason Lisi (Graphic Communications Management)	Esko Lean Profiling with Esko Software BVBA	\$8,000
Khaled Sennah (Civil Engineering)	Experimental study on refractory bricks joint and interface action for industry implementation with Hatch Ltd.	\$7,500
Derrick Rousseau (Chemistry and Biology)	Method for analysis of beta/beta-prime crystallinity in food fats with POS Management Corp.	\$5,600
Mohammad Abdoli-Eramak (Occupational and Public Health)	Design and biomechanical evaluation of an ergonomic chamber lid remover for Hydro workers with Toronto Hydro-Electric System Limited	\$5,010
Aziz Guergachi (Information Technology Management)	Methods for optimizing electric vehicles charging station network for Toronto City with Toronto Hydro-Electric System Limited	\$5,000

Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Development of a Comparison Framework for the HVAC System Modelling Methods with Toronto Hydro-Electric System Limited	\$5,000
Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Optical Coverage Measurement of Deburred Surfaces with Surface Measurement Solutions Inc.	\$5,000
Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Optimal Robotic Scanning Path for Surface Inspection of Parts with Complex Geometry with Surface Measurement Solutions Inc.	\$5,000
Mohammed Kianoush (Civil Engineering)	Strength and ductility of reinforced concrete tall cylindrical structures with Bah Enterprises Inc.	\$5,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Cloud Based Sensor and Load Management with SensorSuite Inc.	\$5,000
Russell Richman (Architectural Science)	Towards understanding the relationship between energy literacy and energy consumption with Toronto Hydro-Electric System Limited	\$5,000
Khaled Sennah (Civil Engineering)	Development and Study of Ultra-High Performance Concrete (UHPC) for Bridge Infrastructure Applications with St Marys Cement Group - Canadian Building Materials	\$5,000
Philip Walsh (Management and Entrepreneurship)	The feasibility study of developing a smart community in a suburban area: Whitby, ON. with Toronto Hydro-Electric System Limited	\$5,000
Bin Wu (Electrical and Computer Engineering)	Four Level Medium Voltage Multilevel Converter for PV and PEV Fast Charging Applications	\$5,000
Xiao-Ping Zhang (Electrical and Computer Engineering)	2015 IEEE Multimedia Signal with Mitsubishi Electric	\$5,000
Lian Zhao (Electrical and Computer Engineering)	Smart air purifiers for home automation with Heaven Fresh Canada Inc.	\$5,000
Fiona Yeudall (School of Nutrition)	Food Fit Evaluation for Community Food Centres Canada with Community Food Centres Canada	\$3,725
Deborah Fels (Information Technology Management)	Research Day with Google Inc.	\$2,500
Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Commercialization of a system for intuitive robot programming from human demonstrated tasks with VL Robotics Inc.	\$2,450