

SELECT EXTERNAL RESEARCH FUNDING AWARDED IN 2015-16

The following is a selection of external research grants awarded to Ryerson faculty from major funding competitions and are disclosable as of September 2016. The list does not include sub-grants or awards that are not yet public.

CANADIAN INSTITUTES OF HEALTH RESEARCH (CIHR)

Collaborative Health Research Projects (CHRP)*

* With joint funding from NSERC and CIHR.

Michael Kolios (Physics)	Development of treatment planning platform for ultrasound stimulated microbubble therapy	\$832,120
Mark Towler (Mechanical and Industrial Engineering)	Synthesis of Bioactive augments for use in Revision Knee joint replacement	\$501,723

Operating Grants

Colleen Carney (Psychology)	Evidence-Based e-Health Solutions for Youth with Mental Illness	\$354,080
Naomi Koerner (Psychology)	Development of a Scientifically-Informed Written Exposure Intervention for Generalized Anxiety Disorder	\$193,349

HIV Implementation Science Grant

Trevor Hart (Psychology)	Gay Positive Sex: Adaptation of an HIV prevention counselling program for HIV-negative gay and bisexual men	\$150,000
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CIHR Centre for REACH in HIV/AIDS

Trevor Hart (Psychology)	GPS: A community-based intervention for HIV-positive gay and bisexual men	\$140,180
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Other CIHR Grants

Other CIHR grants were also received by the following faculty members: Costin Antonescu (Chemistry and Biology); Deborah Fels (Information Technology Management); Tae Hart (Psychology); Michael Kolios (Physics); Candice Monson (Psychology); Mark Towler (Mechanical and Industrial Engineering); Mandana Vahabi (Nursing); Stephen Waldman (Chemical Engineering).

NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA (NSERC)

Strategic Partnership Grants for Networks

Bala Venkatesh (Electrical and Computer Engineering)	NSERC Energy Storage (NEST) Network Grant	\$4,984,000
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Collaborative Research and Development Grants

D�eric Rousseau (Chemistry and Biology)	Triglyceride crystallization and particle interactions in multicomponent	\$395,700
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Kaamran Raahemifar (Electrical and Computer Engineering)	Wavelet Based Cognitive UWB Sensors for Smart Tunnels	\$320,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Investigation of Performance and Benefits of Urban Micro Wind Turbines	\$100,000
Ahmed AbdElrahman (Civil Engineering)	Ahmed AbdElrahman (Civil Engineering)	\$80,000

Discovery Grants

Guang Jun Liu (Aerospace Engineering)	Synthesis, Control, and Experimental Validation of Robotic Systems with Multiple Working Modes	\$210,000
Alagan Anpalagan (Electrical and Computer Engineering)	Radio Resource Management in Next Generation Wireless Systems: Design, Analysis and Optimization	\$200,000
Xavier Fernando (Electrical and Computer Engineering)	Cognitive Radio Networks with Wireless Sensor Applications	\$175,000
Bo Tan (Aerspace Engineering)	Femtosecond pulsed laser synthesis of functional nanomaterials and their applications	\$170,000
Yuan Xu (Physics)	Methods for ultrasound imaging systems to improve image qualities and to reduce the system cost	\$150,000
Costin Antonescu (Chemistry and Biology)	Dynamic regulation of the cell surface proteome	\$145,000
Anton de Ruitter (Aerospace Engineering)	Guidance, Control and Dynamics for Asteroid Exploration	\$145,000
Anton de Ruitter (Aerospace Engineering)* *Accelerator Supplement	Guidance, Control and Dynamics for Asteroid Exploration	\$120,000
Daniel Foucher (Chemistry and Biology)	Designing Moisture and Light Stable Group 14 Homo- and Alternating Polymers including Polystannanes	\$140,000
Mohammed Kianoush (Civil Engineering)	Evaluation, performance and design of concrete liquid containing structures	\$140,000
Umberto Berardi (Architectural Science)	Development of Advanced Building Systems with PCM, VIP, and AEROGEL	\$135,000
Ahmad Varvani-Farahani (Mechanical and Industrial Engineering)	Damage and life assessment of materials undergoing concurrent fatigue and cyclic plastic strain accumulation over asymmetric multiaxial stress cycles with various loading spectra	\$125,000
Stephen Waldman (Chemical Engineering)	Cartilage Mechnobiology	\$125,000
Elsayed Elbeshbishy (Civil Engineering)	Techniques for Enhancing Anaerobic Digestibility of Municipal Solid Waste	\$115,000
Konstantinos Georgiou (Mathematics)	Efficiency Tradeoffs for Combinatorial Optimization Problems	\$115,000
Goetz Bramesfeld (Aerospace Engineering)	Flight Performance Enhancements using Atmospheric Gusts and Aeroelastic Effects	\$110,000
Puren Ouyang (Aerospace Engineering)	Contour tracking control in position domain: principle, development, and application	\$110,000
Claus Rinner (Department of Geography)	Location, Time, and Scale in GIS-Based Multi-Criteria Decision Analysis - Advancing the Agenda	\$110,000

Saeed Zolfaghari (Mechanical and Industrial Engineering)	The effect of customer satisfaction on design and profitability of supply chains	\$110,000
Ahmed El-Rabbany (Civil Engineering)	An Autonomous GNSS/MEMS-Based INS Integrated System for Unmanned Mapping Operations	\$100,000
James Li (Civil Engineering)	Development of a comprehensive municipal spill management planning framework	\$100,000
Zaiyi Liao (Architectural Science)	Methodology for the Next Generation of Building Thermal Modeling and Simulation	\$100,000
Xianxun (Arnold) Yuan	Probabilistic Life-Cycle Costing: Beyond the Great Expectation	\$100,000

Other NSERC Discovery grants were also received by faculty members: Peter Danzinger (Computer Science); Foivos Xanthos (Mathematics).

PromoScience

Liping Fang (Mechanical and Industrial Engineering)	Pitch Black	\$125,100
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Idea to Innovation

Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering)	Development and Commercialization of a Visual Learning System for Robot Programming by Demonstration	\$100,908
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Engage Grants

NSERC Engage grants were received by the following faculty members: Dimitri Androutsos (Electrical and Computer Engineering); Alagan Anpalagan (Electrical and Computer Engineering); Costin Antonescu (Chemistry and Biology); Michael Arts (Chemistry and Biology); Ebrahim Bagheri (Electrical and Computer Engineering); Soosan Beheshti (Electrical and Computer Engineering); Ayse Bener (Mechanical and Industrial Engineering); Goetz Bramesfeld (Aerospace Engineering); Lesley Campbell (Chemistry and Biology); Jun Cao (Mechanical and Industrial Engineering); Joon Chung (Aerospace Engineering); Yaser Dahman (Chemical Engineering); Konstantinos Derpanis (Computer Science); Chen (Cherie) Ding (Computer Science); Alexandre Douplik (Physics); Farhad Ein-Mozaffari (Chemical Engineering); Ahmed El-Rabbany (Civil Engineering); Xavier Fernando (Electrical and Computer Engineering); Alexander Ferworn (Computer Science); Daniel Foucher (Chemistry and Biology); Mark Gorgolewski (Architectural Science); Robert Gossage (Chemistry and Biology); Siyuan He (Mechanical and Industrial Engineering); Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering); Muhammad Jaseemuddin (Electrical and Computer Engineering); Mohammed Kianoush (Civil Engineering); Bryan Koivisto (Chemistry and Biology); Michael Kolios (Physics); Wey Leong (Mechanical and Industrial Engineering); James Li (Civil Engineering); Jinyuan Liu (Civil Engineering); Hesham Marzouk (Civil Engineering); Mehrab Mehrvar (Chemical Engineering); Stephanie Melles (Chemistry and Biology); Andriy Miranskyy (Computer Science); Ali Miri (Computer Science); Farahnaz Mohammadi (Electrical and Computer Engineering); David Naylor (Mechanical and Industrial Engineering); Pawel Pralat (Mathematics); Kaamran Raahemifar (Electrical and Computer Engineering); Russell Richman (Architectural Science); Ziad Saghir (Mechanical and Industrial Engineering); Khaled Sennah (Civil Engineering); Sharareh Taghipour (Mechanical and Industrial Engineering); Scott Tsai (Mechanical and Industrial Engineering); Isaac Woungang (Computer Science); Amirnaser Yazdani (Electrical and Computer Engineering); Xianxun (Arnold) Yuan (Civil Engineering); Xiao-Ping Zhang (Electrical and Computer Engineering); Lian Zhao (Electrical and Computer Engineering).

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL OF CANADA (SSHRC)

Partnership Grants

Henry Parada (Social Work)	Rights for Children and Youth Partnership: Strengthening Collaboration in the Americas	\$2,499,989
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Insight Grants

Sepali Guruge (Nursing)	Developing a comprehensive understanding of elder abuse prevention in immigrant communities	\$233,053
Lorraine Janzen Kooistra (English)	Visualizing the unmarked: the social politics of fin-de-siecle periodicals and digital humanities markup practices	\$229,666
Leslie Atkinson (Psychology)	Cumulative Risk, Cumulative Outcome, and Mediated Nets of Adversity	\$206,727
Rachel Langford (Early Childhood Studies)	Caring about care: An examination of care in Canadian childcare	\$127,521

Other SSHRC Insight grants were also received by the following faculty members: David Atkinson (Geography); Wendy Cukier (Information Technology Management); Irene Gammel (English); Dan Horner (Criminology); Min Seong Kim (Economics); Jamin Pelkey (Languages); Susan Preston (Social Work); German Pupato (Economics); Thomas Schneider (Accounting and Finance); Kristyn Scott (Business Management); Oona St-Amant (Nursing); Julie Tomiak (Sociology).

Partnership Development Grants

Sepali Guruge (Nursing)	Aging Well: Partnering to optimize social network and support for older immigrants in Ontario	\$200,000
Tara Collins (Child and Youth Care)	International and Canadian Child Rights Partnership	\$199,973
Nina-Marie Lister (Urban and Regional Planning)	Safe Passage: Towards an Integrated Approach for Landscape Connectivity	\$199,500

Connection Program Grants

SSHRC Connection Program grants were received by the following faculty members: Akua Benjamin (Social Work); Tara Collins (Child and Youth Care); Mustafa Koc (Sociology); Alexandra Mazalek (Media); Kristine Newman (Nursing); Sejal Patel (Early Childhood Studies); Pierre Tremblay (Image Arts).

Other SSHRC Grants

Other SSHRC grants were received by the following faculty members: Richard Shaker (Geography); Peggy Shannon (Performance).

CANADA RESEARCH CHAIRS (CRCS)

Ebrahim Bagheri (Electrical and Computer Engineering)	Tier 2 CRC in Software and Semantic Computing	\$500,000
Anton de Ruiter (Aerospace Engineering)	Tier 2 CRC in Spacecraft Dynamics and Control	\$500,000
Anatoliy Gruzd (Business Management)	Tier 2 CRC in Social Media Data Stewardship	\$500,000

OTHER FEDERAL GOVERNMENT

Department of Justice

Judy Finlay (Child and Youth Care)	Cross-over Youth: Care to Custody	\$1,214,190
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International Development Research Centre

Cecilia Rocha (Nutrition)	Scaling up small-scale food processing: A strategy to promote food security among women subsistence farmers in rural Vietnam	\$420,920
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NCE: Canadian Glycomics Network

Warren Wakarchuk (Chemistry and Biology)	Engineering human-like O-linked glycosylation of therapeutic proteins in E. coli.	\$251,000
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Warren Wakarchuk (Chemistry and Biology)	Application of polysialyltransferase to therapeutic protein modification and for engineering of cells and tissues of the nervous system	\$175,000
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Environment Canada

Claire Oswald (Geography)	The fate and transport of chloride in urbanizing catchments of the Lake Simcoe/South-eastern Georgian Bay watersheds	\$212,106
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James Li (Civil Engineering)	Development of all season stormwater low impact development (LID) practices for Lake Simcoe watershed	\$150,000
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National Research Council of Canada

Bala Venkatesh (Electrical and Computer Engineering)	Advanced Smart Energy Storage Demo and Validation Involving Local Distribution Network	\$150,000
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NCE: Auto21 Inc. Connect Canada Internships

NCE: Auto21 Inc. Connect Canada Internships were received by the following faculty members: Soosan Beheshti (Electrical and Computer Engineering); Alan Fung (Mechanical and Industrial Engineering); Matthew Kyan (Electrical and computer Engineering); Rafik Loutfy (Mechanical and Industrial Engineering); Patrick Newmann (Mechanical and Industrial Engineering).

Other Federal Government Grants

Other federal government grants were also received by the following faculty members: Ayse Bener (Mechanical and Industrial Engineering); Imogen Coe (Chemistry and Biology); Trevor Hart (Psychology); Julia Lu (Chemistry and Biology); Janet Koprivnikar (Chemistry and Biology); Ratna Omidvar (Global Diversity Exchange); Pawel Pralat (Mathematics); Ryerson International.

ONTARIO GOVERNMENT & MUNICIPAL GOVERNMENTS

Ministry of Training, Colleges and Universities

Ryerson University	Ontario Centre for Workforce Innovation: Research on evidence-based employment and training approaches for the Employment Ontario (EO) network	\$7,427,136
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Ministry of Citizenship, Immigration and International Trade

Ratna Omidvar (Global Diversity Exchange)	Industry Leads: Employer Engagement on Immigrant Employment	\$209,544
Wendy Cukier (Information Technology Management)	Entrepreneurial Entrepreneurship	\$150,000

Ministry of Children and Youth Services

Judy Finlay (Child and Youth Care)	Crossover Youth	\$149,538
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Ministry of Northern Development and Mines

Judy Finlay (Child and Youth Care)	Community Wellness Index for Neskantaga	\$114,565
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Ministry of Research and Innovation (Early Researcher Awards)

Costin Antonescu (Chemistry and Biology)	High-resolution analysis of receptor tyrosine kinase function at the cell surface	\$140,000
Becky Choma (Psychology)	Islamophobia: The exacerbating and inhibiting functions of fear and humour	\$140,000
Seth Dworkin (Mechanical and Industrial Engineering)	Understanding and Mitigating Engine Emissions	\$140,000
Margaret Moulson (Psychology)	The Origins of Individual Differences in Emotion Processing	\$140,000
Scott Tsai (Mechanical and Industrial Engineering)	Coating and encapsulating biological cells using lab-on-a-chip technology	\$140,000

Ontario Centres of Excellence

Fengfeng (Jeff) Xi	Development of a full size morphing winglet with space and weight constraints	\$150,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Peer-to-Peer Real-Time Streaming over Hybrid Wireless Mesh Networks	\$114,992

Other Ontario Centres of Excellence (OCE) grants were received by the following faculty members: Soosan Beheshti (Electrical and Computer Engineering); Goetz Bramesfeld (Aerospace Engineering); Alexandre Douplik (Physics); Seth Dworkin (Mechanical and Industrial Engineering); Alan Fung (Mechanical and Industrial Engineering); Farrokh Janabi-Sharifi (Mechanical and Industrial Engineering); Michael Kolios (Physics); Richard Lachman (Media); Rafik Loutfy (Mechanical and Industrial Engineering); Jennifer McArthur (Architectural Science); Patrick Neumann (Mechanical and Industrial Engineering); Kaamran Raahemifar (Electrical and Computer Engineering); Khaled Sennah (Civil Engineering); Shuguang Wang (Geography and Environmental Studies); Dewei (David) Xu (Electrical and Computer Engineering); Lian Zhao (Electrical and Computer Engineering).

Municipal Government Grants

Municipal government grants were received by the following faculty members: City of Toronto — Tom Griffin (Hospitality and Tourism Management); Kelly McShane (Psychology); Matthias Sweet (Urban and Regional Planning); Regional Municipality of York — Arnold Yuan (Civil Engineering); Scadding Court Community Centre — Wendy Cukier (Information Technology Management).

NON-PROFIT ORGANIZATIONS AND FOUNDATIONS

Ontario HIV Treatment Network and CIHR

Trevor Hart (Psychology)	GPS: A community-based intervention for HIV-positive gay and bisexual men	\$157,232
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Open Society Foundations

Ratna Omidvar (Global Diversity Exchange)	Building Inclusive Cities	\$150,000
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J.W. McConnell Family Foundation RECODE Grants

J.W. McConnell Family Foundation RECODE grants were received by the following faculty members: Lesley Campbell (Chemistry and Biology); Robert Clapperton (Professional Communication); Jean Golden (Sociology); Bryan Koivisto (Chemistry and Biology); Shelagh McCartney (Urban and Regional Planning); Andrew Millward (Geography and Environmental Studies); Michael Murphy (Media); Claire Oswald (Geography and Environmental Studies); Jennifer Poole (Social Work); Claus Rinner (Geography and Environmental Studies); Richard Shaker (Geography and Environmental Studies); Vicki Van Wagner (Midwifery); Philip Walsh (Business Management); Hong Yu (Retail Management); David Zakus (Occupational and Public Health).

Mitacs Inc. Grants

Mitacs Inc. grants were also received by the following faculty members: Ron Babin (Information Technology Management); Ayse Bener (Mechanical and Industrial Engineering); John Caruana (Philosophy); Joon Chung (Aerospace Engineering); Wendy Cukier (Information Technology Management); Charles Davis (Media); Konstantinos Derpanis (Computer Science); Seth Dworkin (Mechanical and Industrial Engineering); Elsayed Elbeshbishy (Civil Engineering); Alan Fung (Mechanical and Industrial Engineering); Anatoliy Gruzd (Business Management); Siyuan He (Mechanical and Industrial Engineering); Lev Kirischian (Electrical and Computer Engineering); Jinyuan Liu (Civil Engineering); Kelly McShane (Psychology); Karen Milligan (Psychology); Raktim Mitra (Urban and Regional Planning); Hossein Rahnama (Media); Sharareh Taghipour (Mechanical and Industrial Engineering); Jahan Tavakkoli (Physics); Paul Walsh (Aerospace Engineering); Philip Walsh (Business Management); Lixia Yang (Psychology).

Association, Foundation and Society Grants

Grants from associations, foundations and societies were also received by the following faculty members: American Psychological Association — Rachel Ayla Caplan (Early Childhood Studies); American Society of Heating, Refrigerating and Air-Conditioning Engineers — Alan Fung (Mechanical and Industrial Engineering); Asia Pacific Foundation of Canada — Howard Lin (Business Management); Association for Canadian Studies — Ratna Omidvar (Global Diversity Exchange); Canadian Patient Safety Institute — Sherry Espin (Nursing); Canadian Research Data Centre Network — Danielle Lamb (Business Management); Directors Guild of Canada — James Warrack (Image Arts); Earth Day Canada — Raktim Mitra (Urban and Regional Planning); Friends of Canadian Broadcasting — Laura Nenysh (Media); Laidlaw Foundation — Ratna Omidvar (Global Diversity Exchange); Palo Alto Veterans Institute for Research — Candice Monson (Psychology); Stiftung Mercator (Cities of Migration) — Ratna Omidvar (Global Diversity Exchange); Sunnybrook Research Institute — Leslie Atkinson (Psychology); Toronto Region MiSA PNC — Imogen Coe (Chemistry and Biology).

INDUSTRY FUNDING

Bala Venkatesh (Electrical and Computer Engineering)	Research on Urban Energy Issues	\$1,600,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Design and Development of an Active Lower-Limb Exoskeleton for Rehabilitation Applications	\$380,000

D�r�ck Rousseau (Chemistry and Biology)	Triglyceride crystallization and particle interactions in multicomponent environments	\$244,500
James Li (Civil Engineering)	Hydraulic Physical Modeling Study	\$160,000
Kaamran Raahemifar (Electrical and Computer Engineering)	Wavelet Based Cognitive UWB Sensors for Smart Subway Tunnels	\$160,000
Ali Miri (Computer Science)	Investigations as to how wireless carriers can make more transparent to Canadian consumers what personal information the carrier is collecting and how that information will be used	\$125,000
Deborah Fels (Information Technology Management)	Enhanced real-time and post-production captioning for VoiceWriter captioning software	\$115,269
Ayse Bener (Mechanical and Industrial Engineering)	Data Science Lab	\$100,000
Donald Rose (Nursing)	Exploring the concept of caring in nursing curricula in Ontario: A provincial nursing education initiative	\$100,000

Industry funding was also received by the following faculty members: Ahmed Abdelrahman (Civil Engineering), Ron Babin (Information Technology Management); Ebrahim Bagheri (Electrical and Computer Engineering); Lesley Campbell (Chemistry and Biology); Imogen Coe (Chemistry and Biology); Wendy Cukier (Information Technology Management); Zouheir Fawaz (Aerospace Engineering); Daniel Foucher (Chemistry and Biology); Xijia Gu (Electrical and Computer Engineering); Aziz Guergachi (Information Technology Management); Siyuan He (Mechanical and Industrial); Khandaker (Anwar) Hossain (Civil Engineering) Bryan Koivisto (Chemistry and Biology); Raktim Mitra (Urban and Regional Planning); Jennifer McArthur (Architectural Science); Joanne McNeish (Business Management); Andrew Millward (Geography and Environmental Studies); Ratna Omidvar (Global Diversity Exchange); Frank Russo (Psychology); Khaled Sennah (Civil Engineering); Kathryn Woodcock (Occupational and Public Health); Fengfeng (Jeff) Xi (Aerospace engineering); Arnold Yuan (Civil Engineering); Frauke Zeller (Professional Communication).

INTERNATIONAL FUNDING

Alliance for Potato Research and Education (US)

Nick Bellissimo (Nutrition)	Role of White Potatoes on Subjective Appetite, Food Intake, Glycemic Response, Mood, and Memory Performance in Normal Weight and Overweight/Obese Children	\$118,151 (USD)
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International funding was also received by the following faculty members: Cincinnati Children's Hospital Medical Center (USA) — John Marshall (Chemistry and Biology); Department of Health (United Kingdom) — Kristine Newman (Nursing); Institute of Marine Research (Norway) — Michael Arts (Chemistry and Biology); Istituto Nazionale di Alta Matematica (Italy) — Peter Danziger (Mathematics); National League for Nursing (USA) — Heather Beanlands (Nursing); Tel Aviv University (Israel) — Avner Levin (Business Management).