

# *Senate Research Report*

October 29, 2013

## Awards and Honours

- Dr. Jean Hutchinson (Geological Sciences and Geological Engineering) received the 2013 Thomas Roy Award from the Canadian Geotechnical Society for outstanding contributions to Engineering Geology in Canada. The award was given at the CGS annual conference. Also recognized at the conference for their contributions were students Ryley Beddoe (PhD candidate Civil Engineering) and recent undergraduates Gary Cui, Jessica Galavan, Duncan Leung and Matt Lloyd (supervisor: Dr. Mark Diederichs, Geological Sciences and Geological Engineering).
- Mr. André Juneau, the director of the Institute of Intergovernmental Relations, has been selected as the president-elect of the Institute of Public Administration (IPAC). IPAC is a Canadian organization dedicated to the promotion of excellence in public service.
- Professor Don W. Macnamara, a retired brigadier-general in the Queen's School of Business, is the 2013 recipient of the prestigious Vimy Award presented annually by the Conference of Defence Associations Institute in recognition of significant and outstanding contributions to the defence and security of Canada and the preservation of its democratic values.
- Dr. Mary Ann McColl, associate director at the Centre for Health Services and Policy Research and professor in the School of Rehabilitation Therapy and the Department of Community Health and Epidemiology, is one of two recipients of the 2013 Kenneth G. Langford Lifetime Membership Award for her research and work on spinal cord injuries, disability policy and access to services for people with disabilities.
- Dr. Arthur McDonald (Physics, Engineering Physics and Astronomy) has accepted the internationally-renowned Giuseppe and Vanna Cocconi prize from the European Physical Society for the research work of the Sudbury Neutrino Observatory (SNO) scientific collaboration, of which he is the director. The prize was presented in Stockholm to Professor McDonald and Professor Yochiro Suzuki, director of the SuperKamiokande collaboration *"for their outstanding contributions to the solution of the solar neutrino puzzle ..."*
- Dr. Robert Reid (Obstetrics and Gynaecology) has been named a Fellow *ad eundem* by the Royal College of Obstetricians and Gynaecologists (RCOG) in the United Kingdom, only the fourth Canadian to have earned this honour in the past 25 years.
- Dr. John Smol (Biology) was recently named a Canadian Change Maker – defined as Canadians who changed the world. Dr. Smol is one of only nine Canadians selected by

*Canadian Geographic* for an honour that includes film director James Cameron and retired astronaut Chris Hadfield.

- Three Queen's professors and respected researchers have been formally inducted as fellows of the Canadian Academy of Health Sciences (CAHS) for their demonstrated leadership, creativity, competence and commitment to the health sciences:
  - Dr. Roger Deeley (Pathology and Molecular Medicine)
  - Dr. Jacalyn Duffin (Hannah Chair, History of Medicine)
  - Dr. Elizabeth Eisenhauer (Oncology)
- Five Queen's professors have been recognized with the Queen's University Prizes for Excellence in Research:
  - Dr. Richard Birtwhistle (Family Medicine)
  - Dr. John Burge (School of Music)
  - Dr. Troy Day (Mathematics and Statistics)
  - Dr. George Lovell (Geography)
  - Dr. Kerry Rowe (Civil Engineering)

## Research Funding

### **Auto 21 Inc.**

#### **Connect Canada Internship**

- Dr. Bradley Diak (Mechanical and Materials Engineering) – \$10,000 for *Bond coating of intricate shapes for improved properties*

### **Canada Foundation for Innovation: Leaders Opportunity Fund**

- Dr. Alberto Neder (Medicine) – \$200,000 for *A Laboratory of Clinical Exercise Physiology in chronic cardiopulmonary diseases (LACEP)*
- Dr. Michael Rauh (Pathology and Molecular Medicine) – \$206,000 for *A translational research pipeline for personalized diagnostics in myelodysplastic syndromes*
- Dr. Steven Fischer (School of Kinesiology and Health Studies) – \$150,000 for *Movement for Performance Biomechanics and Ergonomics Laboratory*
- Drs. Jean-Michel Nunzi (Chemistry), Dominik Barz (Chemical Engineering) and James Stotz (Physics) – \$400,000 for *Research on portable multidimensional micro-nano biological sensing devices*

- Dr. Ron Levy (Surgery) – \$200,000 for *Monkey models of movement disorders: electrophysiology and neuromodulation therapies*
- Dr. Linda Booij (Psychology) – \$100,000 for *The relevance of DNA methylation processes in serotonin genes for the diagnosis and treatment of mental illness*

#### **Canadian Institutes of Health Research (CIHR): CIHR Fellowship**

- Mr. Daniel Harrington (Geography), \$90,000 over 2.5 years for *Access to specialist healthcare services in Ontario*. Supervisor: Dr. Mark Rosenberg

#### **Canadian Institutes of Health Research (CIHR)**

##### **Fellowship – Priority Announcement: CIHR/Rx&D – CAMO Research Program**

- Mr. Ravi Ramjeesingh (Oncology) – \$140,000 over 2.5 years for *Association between times to administration of adjuvant chemotherapy and outcomes in early breast cancer: analysis of adjuvant studies conducted by NCIC Clinical Trials Group*. Supervisor: Dr. Wendy Parulekar

#### **Canadian Institutes of Health Research (CIHR)**

##### **Doctoral Award: Frederick Banting and Charles Best Canada Graduate Scholarships**

- Ms. Maya Gupta (Psychology) – \$70,000 over 1.5 years for *Underlying neurobiological and cognitive mechanisms of disability in social anxiety and schizophrenia*. Supervisor: Dr. Christopher Bowie
- Ms. Alyson Lindsay Mahar (Public Health Sciences) – \$105,000 over 2.5 years for *The association between a history of severe mental illness and the early detection, diagnosis, treatment and survivorship of cancer*. Supervisor: Dr. Patti Groome
- Ms. Kristin McCabe (Biomedical and Molecular Sciences) – \$46,667 over 1.5 years for *The role of vitamin K and matrix Gla protein in the development of vascular calcification in experimental chronic kidney disease*. Supervisors: Drs. Michael Adams and Rachel Holden
- Ms. Chelsy Caryn Prince (Biomedical and Molecular Sciences) – \$70,000 over 1.5 years for *Structure and function of E. coli tyrosine kinase: a regulator of capsule development and antibiotic resistance in gram-negative bacterial pathogens*. Supervisor: Dr. Zongchao Jia

## **Canadian Institutes of Health Research (CIHR)**

### **Doctoral: Vanier Canada Graduate Scholarships**

- Ms. Katherine Holshausen (Psychology) – \$150,000 stipend over 2.5 years for *A step forward for STEPS: An investigation of the neural and behavioural responses to a novel treatment for functional outcome in schizophrenia*. Supervisor: Dr. Christopher Bowie

## **Canadian Institutes of Health Research (CIHR)**

### **Master's Award: Frederick Banting and Charles Best Canada Graduate Scholarships**

- Mr. Colin Patrick Thomas Baillie (School of Kinesiology and Health Studies) – \$17,500 (stipend) over 1 year for *Developing a built environment assessment tool for Aboriginal communities*. Supervisor: Dr. Lucie Lévesque
- Ms. Chloe Hudson (Psychology) – \$17,500 (stipend) over 1 year for *The relationship between victimization, theory of mind and mental health in adolescents with autism spectrum disorder*. Supervisor: Dr. Elizabeth Kelley
- Ms. Catherine Normandeau (Biomedical and Molecular Sciences) – \$17,500 (stipend) over 1 year for *Mechanisms in compulsive drug use*. Supervisor: Dr. Eric Dumont

## **Canadian Institutes of Health Research (CIHR): Science to Business Program**

- Mr. Youssef Hanna El-Hayek (School of Business) – \$22,500 over 1.5 years

## **Canadian Institutes of Health Research (CIHR): Open Operating Grants**

- Dr. Sameh Basta (Biomedical and Molecular Sciences) – \$338,346 over 3 years for *Disruption of immune functions by virus infection*
- Dr. Ian Chin Sang (Biology) – \$619,296 over 5 years for *The role of Eph and insulin receptor tyrosine kinase signaling in C. elegans neurodevelopment*
- Dr. Meredith Chivers (Psychology) – \$179,609 over 3 years for *Sexual desire emerges from arousal: testing a model of responsive desire in women with and without sexual difficulties*
- Dr. Linda Lévesque (Community Health and Epidemiology) – \$282,343 over 3 years for *The impact of human papillomavirus (HPV) vaccination on adolescent health outcomes: the Ontario Grade 8 HPV vaccine cohort study*
- Dr. William Pickett and Dr. Colleen Davison (Public Health Sciences) – \$447,193 over 4 years for *Determinants of health among young people in Canada: the role of health promoting families*

- Dr. Robert Ross (School of Kinesiology and Health Studies) – \$1,446,504 over 5 years for *Evaluating a small change approach to preventing long term weight gain in overweight and obese adults*
- Dr. Graeme Smith (Obstetrics and Gynecology) – \$431,018 over 3 years for *Cardiac and vasculoendothelial assessment following a pre-eclamptic pregnancy*

#### **Canadian Institutes of Health Research (CIHR)**

##### **Operating Grant: Population health Intervention Research**

- Dr. Lucie Lévesque (School of Kinesiology and Health Studies) – \$199,431 over 1 year for *Dissemination of 'Pausa Activa', a strategy to enhance physical activity promotion in health care settings in Mexico: investigating program implementation and impact*

#### **Canadian Institutes of Health Research (CIHR)**

##### **Catalyst Grant: Health Services and Systems for an Aging Population**

- Dr. Spencer Moore (School of Kinesiology and Health Studies) – \$98,575 over 1 year for *Forming the Montreal Neighbourhood Networks and Healthy Aging Panel: a panel for future studies of social capital, neighbourhood environments, and health care system use over the life course*

#### **Canadian Institutes of Health Research (CIHR)**

##### **Collaborative Health Research Projects (NSERC Partnered)**

- Dr. Gabor Fichtinger (School of Computing) – \$336,940 over 3 years for *Perk Tutor: ultrasound-guided needle placement training platform*

#### **Cancer Research Society**

- Dr. Andrew Craig (Biomedical and Molecular Sciences) – \$120,000 over 2 years for *Regulation of breast cancer metastasis by TOCA proteins*

#### **Foundation of the American College of Allergy, Asthma & Immunology**

##### **Young Faculty Support Award**

- Dr. Anne Ellis (Medicine) – \$50,000 over 1 year for *Epigenetic signature of allergic disease in dendritic cells: prenatal & early life*

### **Lotte & John Hecht Memorial Foundation**

- Dr. John Muscedere (Medicine) – \$382,982 over 1.5 years for *The prevention of nosocomial infections in critically ill patients with lactoferrin (PREVAIL study)*

### **The Lung Association**

- Dr. Thomas Massey (Biomedical and Molecular Sciences) – \$50,000 over 1 year for *Mechanisms of amiodarone and dronedarone pneumotoxicity*

### **Mitacs: Accelerate**

- Dr. Diane Beauchemin (Chemistry) – \$15,000 for *Development of a new sample introduction system for inductively coupled plasma spectrometry*
- Dr. Brian Frank (Electrical and Computer Engineering) – \$15,000 for *The evaluation and improvement of VCOs designed for IEEE 802.11ad (WiGig) applications*
- Dr. Kim McAuley (Chemical Engineering) – \$15,000 for *Dynamic mathematical modeling for control of film gauge for Tedlar® film casting*
- Dr. Gennady Zak (Mechanical and Materials Engineering) – \$15,000 for *Development of a camera-based monitoring system for remote laser welding of sheet metal assemblies in automotive application*

### **Mitacs: Elevate**

- Dr. Dongmei Chen (Geography) – \$57,500 for *Image-objects Manipulation Engine (IoME): semi-automated feature extraction from Very High Resolution (VHR) remotely sensed imagery*
- Dr. Philip Jessop (Chemistry) – \$57,500 for *Agents and processes for forward osmosis*

### **Natural Sciences and Engineering Council of Canada (NSERC)**

#### **Collaborative Research and Development Grant**

- Dr. Aristides Docoslis (Chemical Engineering) – \$57,000 for *Carbon nanotube-filled thermoplastic composites with improved electrical and mechanical properties*. DuPont Canada contributed \$50,000 (cash) and \$7,000 (in-kind)
- Dr. Hossam Hassanein (School of Computing) – \$240,000.00 for *Integrated sensing and RFID solutions in challenging environments*. Syncrude Canada contributed \$120,000.00 (cash) and \$136,200.00 (in-kind)

- Dr. Philip Jessop (Chemistry) – \$14,815 for *CO<sub>2</sub>-switchable particles for drying organic liquids*. Fielding Chemical Technologies contributed \$14,815.00 (cash)
- Dr. Yan-Fei Liu (Electrical and Computer Engineering) – \$239,651 for *Technology development for high efficiency LLC DC-DC converter for server rectifier application with digital control and multi-phase interleaving*. Murata Power Solutions contributed \$120,000.00 (cash) and \$196,120.00 (in-kind)
- Dr. Stephen McKinnon (Mining Engineering) – \$153,414 for *Application of seismic stress inversion to stress field mapping in deep mines*. Xstrata Nickel contributed \$76,706.00 (cash) and \$76,707.00 (in-kind)
- Dr. Andrew Pollard (Mechanical and Materials Engineering) – \$140,100 for *Effects of non-homogeneously distributed roughness on turbulent pipe flow*. Hydro-Quebec contributed \$80,000.00 (cash) and \$82,600.00 (in-kind)
- Dr. Zhongwen Yao (Mechanical and Materials Engineering) – \$67,500 for *Aging of Inconel X-750 spacer material*. UNENE contributed \$67,500 (cash)

### **Natural Sciences and Engineering Council of Canada (NSERC)**

#### **Collaborative Research and Training Experience (CREATE) Program**

- Dr. Mark Green (Civil Engineering) – \$1,650,000 for *Sustainable Engineering in Remote Areas (SERA)*

### **Natural Sciences and Engineering Council of Canada (NSERC)**

#### **Discovery Grant**

- Dr. John Allingham (Biomedical and Molecular Sciences) – \$250,000 for *Molecular mechanisms of motility and microtubule-remodeling by kinesins*
- Dr. Diane Beauchemin (Chemistry) – \$220,000 for *Towards swift yet accurate forensic analysis and risk assessment of food and environment safety*
- Dr. William Bendena (Biology) – \$165,000 for *Neuropeptide roles in regulating physiology and behavior*
- Dr. Gunnar Blohm (Biomedical and Molecular Sciences) – \$145,000 for *Multi-sensory integration across reference frames*
- Dr. Richard Brachman (Civil Engineering) – \$175,000 for *Limiting local tensions in landfill geomembranes*

- Dr. Timothy Bryant (Mechanical and Materials Engineering) – \$130,000 for *Improved friction and wear performance in polymeric components of orthopaedic bearings*
- Dr. Natalie Cann (Chemistry) – \$220,000 for *Interfaces and chirality: molecular dynamics simulations of enantioseparations*
- Dr. John Cartledge (Electrical and Computer Engineering) – \$255,000 for *Terabit-per-second coherent optical fiber communications*
- Dr. Monica Castelhana (Psychology) – \$145,000 for *Complex visual information processing from real-world environments*
- Dr. Dongmei Chen (Geography) – \$165,000 for *Methods and uncertainty modeling for land cover change detection from multi-resolution remotely sensed data*
- Dr. Chialin Chen (School of Business) – \$160,000 for *Analysing smart grid systems design decisions with dynamic pricing, innovation diffusion and policy control mechanisms*
- Dr. Ian Chin-Sang (Biology) – \$332,500 for *Identification and characterization of genes that regulate morphogenesis*
- Dr. Adam Chippindale (Biology) – \$110,000 for *Sexual conflict, ageing and the evolution of cyto-nuclear interactions*
- Dr. Andrew Daugulis (Chemical Engineering) – \$285,000 for *The application of polymers in bioprocessing: using first principles thermodynamic methods to predict solute-polymer affinity in partitioning bioreactors*
- Dr. Troy Day (Mathematics and Statistics) – \$395,000 for *The evolutionary dynamics of drug resistance in host-pathogen interactions*
- Dr. Brad Diak (Mechanical and Materials Engineering) – \$110,000 for *Deformation response of oriented crystalline aggregates: experiment and theory*
- Dr. Aris Docoslis (Chemical Engineering) – \$145,000 for *Strategies for AC electrokinetic manipulation and detection of viruses in microfluidic environments*
- Dr. Hans Dringenberg (Psychology) – \$200,000 for *Plasticity of the juvenile and adult rodent primary auditory cortex*
- Dr. Steven Fischer (School of Kinesiology and Health Studies) – \$120,000 for *Advancing the practice of proactive ergonomics by innovating tools and applications using digital human modeling*
- Dr. James Fraser, Physics (Physics, Engineering Physics and Astronomy) – \$260,000 for *Controlling nano to microscale dynamics with light: from fundamental research to advanced fabrication*



- Dr. Vicki Friesen (Biology) – \$165,000 for *What role does adaptation play in population differentiation and speciation in highly mobile organisms?*
- Dr. Saeed Gazor (Electrical and Computer Engineering) – \$205,000 for *Cognitive and distributed signal processing*
- Dr. Paul Grogan (Biology) – \$200,000 for *Biogeochemical controls on the structure and functioning of arctic terrestrial ecosystems*
- Dr. David Hanes (Physics, Engineering Physics and Astronomy) – \$105,000 for *Globular clusters: diagnostic indicators of halo structure, galaxy formation and interaction histories*
- Dr. Keyvan Hashtrudi-Zaad (Electrical and Computer Engineering) – \$145,000 for *Control systems design for stable telerobotic and haptic interactions*
- Dr. Simon Hesp (Chemistry) – \$120,000 for *Novel Asphalt Cement Test Methods and Compositions for Improved Flexible Pavement Performance*
- Dr. Praveen Jain (Electrical and Computer Engineering) – \$305,000 for *Power electronics converters for electric vehicles*
- Dr. Zongchao Jia (Biomedical and Molecular Sciences) – \$345,000 for *Structural and functional insights into alpha-kinases and their regulation*
- Dr. Wenyu Jiang (Mathematics and Statistics) – \$75,000 for *Statistical methods in the design and analysis of clinical trials and assessment of prediction with patient-specific information*
- Dr. Robert Knobel (Physics, Engineering Physics and Astronomy) – \$135,000 for *Nanomechanics and nanoelectronics for measurements near quantum limits*
- Dr. Andrew Lewis (Mathematics and Statistics) – \$75,000 for *On the interplay of controllability and stabilisation*
- Dr. Xiang Li (Chemical Engineering) – \$135,000 for *Novel optimization models and methods for process systems engineering under uncertainty*
- Dr. Tamas Linder (Mathematics and Statistics) – \$225,000 for *Source coding with delay and complexity constraints: theory and algorithms*
- Dr. Guojun Liu (Chemistry) – \$495,000 for *Designer architectural materials from block copolymers*
- Dr. Patrick Martin (School of Computing) – \$100,000 for *QoS-aware management of cloud applications*
- Dr. Paul Martin (Biology) – \$135,000 for *The evolution and ecology of young species in sympatry*

- Dr. Janet Menard (Psychology) – \$145,000 for *Contributions of neuropeptide Y to hippocampal-lateral septal-hypothalamic regulation of behavioural defense*
- Dr. Douglas Mewhort (Psychology) – \$235,000 for *Understanding memory and knowledge*
- Dr. James Mingo (Mathematics and Statistics) – \$115,000 for *Higher order freeness of random matrices*
- Dr. Robert Montgomerie (Biology) – \$27,000 for *Social selection*
- Dr. William Nelson (Biology) – \$135,000 for *Evolution in stage-structured populations*
- Dr. Dan Offin (Mathematics and Statistics) – \$55,000 for *Dynamics, stability and symmetric minimization*
- Dr. Scott Parent (Chemical Engineering) – \$145,000 for *Clean curing polymer technology for advanced engineering applications*
- Dr. Yingwei Peng (Community Health and Epidemiology) – \$75,000 for *Novel statistical models and estimation methods for survival and longitudinal data*
- Dr. Ronald Peterson (Geological Sciences and Geological Engineering) – \$135,000 for *Reactive minerals in mine waste in permafrost environments*
- Dr. Anne Petitjean (Chemistry) – \$170,000 for *Macrocyclic receptors for the recognition of biologically relevant substrates*
- Dr. Keith Pilkey (Mechanical and Materials Engineering) – \$110,000 for *Investigation of local features and mechanisms that lead to global failure in heterogeneous materials*
- Dr. William Plaxton (Biology) – \$335,000 for *The functional organization and control of plant carbohydrate and phosphate metabolism*
- Dr. Kevin Robbie (Physics, Engineering Physics and Astronomy) – \$205,000 for *A new conception of evaporation and condensation: atomic energies and the impact on thin film structure*
- Dr. Michael Roth (Mathematics and Statistics) – \$95,000 for *Asymptotic algebraic geometry and Diophantine applications*
- Dr. Kai Salomaa (School of Computing) – \$150,000 for *Automata with limited nondeterminism and applications of automata*
- Dr. Wayne Snedden (Biology) – \$165,000 for *Investigation into the roles of Arabidopsis calcium sensors in stress response and development*
- Dr. Myron Szewczuk (Biomedical and Molecular Sciences) – \$30,000 for *The role of glycosylation in receptor activation*

- Dr. David Thomson (Mathematics and Statistics) – \$145,000 for *Statistical spectrum estimation and solar gravity modes*
- Dr. Suning Wang (Chemistry) – \$620,000 for *Organoborane-based materials: photoreactivity, photochromism, chemical sensing and electroluminescence*
- Dr. Lawrence Widrow (Physics, Engineering Physics and Astronomy) – \$125,000 for *Halo substructure and the dynamics of disk galaxies*
- Dr. Serdar Yuksel (Mathematics and Statistics) – \$120,000 for *Optimal design of stochastic networked control systems*
- Dr. Eugene Zaremba (Physics, Engineering Physics and Astronomy) – \$220,000 for *Theory of ultracold matter*
- Dr. Shetuan Zhang (Biomedical and Molecular Sciences) – \$150,000 for *Regulation of ubiquitin ligase Nedd4-2 and cardiac sodium and potassium ion channels*

#### **Natural Sciences and Engineering Council of Canada (NSERC)**

##### **Discovery Accelerator Supplement**

- Dr. Ian Chin-Sang (Biology) – \$120,000 for *Identification and characterization of genes that regulate morphogenesis*
- Dr. Troy Day (Mathematics and Statistics) – \$120,000 for *The evolutionary dynamics of drug resistance in host-parasite interactions*
- Dr. Tamas Linder (Mathematics and Statistics) – \$120,000 for *source coding with delay and complexity constraints: theory and algorithms*

#### **Natural Sciences and Engineering Council of Canada (NSERC)**

##### **Discovery Grant Northern Research Supplement**

- Dr. Paul Grogan (Biology) – \$100,000 for *Climate change and nutrient availability as controls on shrub growth and plant community structure along a seven site transect across the Canadian low arctic*
- Dr. Ronald Peterson (Geological Sciences and Geological Engineering) – \$87,500 for *Environmental impact of mine waste interactions with permafrost*

## **Natural Sciences and Engineering Council of Canada (NSERC)**

### **Discovery Grant Subatomic Physics**

- Dr. Mark Boulay (Physics, Engineering Physics and Astronomy) – \$330,000 for *DEAP-3600 installation completion and commissioning*
- Dr. Mark Chen (Physics, Engineering Physics and Astronomy) – \$421,000 for *SNO+ final construction, commissioning and first data*
- Dr. Philippe Di Stefano (Physics, Engineering Physics and Astronomy) – \$184,000 for *Low temperature scintillation for rare event searches*
- Dr. Anthony Noble (Physics, Engineering Physics and Astronomy) – \$84,000 for *Search for dark matter with the PICASSO experiment*
- Dr. Wolfgang Rau (Physics, Engineering Physics and Astronomy) – \$250,000 for *SuperCDMS*

## **Natural Sciences and Engineering Council of Canada (NSERC): Engage**

- Dr. Karen Rudie (Electrical and Computer Engineering) – \$21,702 for *Mobile fitness monitoring system*. Systems Inc. contributed \$16,099.00 (in-kind)
- Dr. Il-Yong Kim (Mechanical and Materials Engineering) – \$25,000 for *Multi-disciplinary design optimization of a lunar rover chassis*. Neptec Design Group Ltd contributed \$20,000.00 (in-kind)

## **Natural Sciences and Engineering Council of Canada (NSERC)**

### **Interaction Grant**

- Dr. Dongmei Chen (Geography) – \$3,708 for *Object-based change detection of forest resourced from high resolution digital images*

## **Natural Sciences and Engineering Council of Canada (NSERC)**

### **Research Tools & Instruments**

- Dr. Cathleen Crudden (Chemistry) – \$122,888 for *Supercritical fluid chromatography in the synthesis of chiral pharmaceuticals, fine chemicals and organic materials*
- Dr. Andrew Daugulis (Chemical Engineering) – \$43,886 for *Purchase of a steam sterilizer (autoclave)*

- Dr. Mark Diederichs (Geological Sciences and Geological Engineering) – \$150,000 for *Precision controlled vertical actuator for advanced hydro-thermal coupled confined and long term testing for nuclear waste repository geomechanics*
- Dr. Steven Fischer (School of Kinesiology and Health Studies) – \$62,062 for *Portable electromyography and electrical goniometer systems for measuring muscle activations and movements in the field*
- Dr. Ceredwyn Hill (Biology) – \$13,090 for *Upgrade of fluorescence microscopy imaging system*
- Dr. Zongchao Jia (Biomedical and Molecular Sciences) – \$118,094 for *Monitoring Biomolecular Interactions using Isothermal Titration Calorimetry*
- Dr. Jean-Michel Nunzi (Chemistry) – \$56,295 for *A controlled environment system to demonstrate efficient up-conversion in organic solar cells*
- Dr. Andrew Take (Civil Engineering) – 97,792 for *An X-ray imaging facility to improve geosynthetic landfill liner materials*

**Pakistan Higher Education Commission  
International Research Support Initiative Program**

- Dr. David Zechel (Chemistry) – \$3,700 for *Discovery of anticancer drugs produced by soil bacteria*

**Social Sciences and Humanities Research Council (SSHRC): Insight Grants**

- Dr. Rosa Bruno-Jofré (Education) – \$49,194 for *The Canadian province of the Religieuses de Notre Dame des Missions: the reference horizon and their educational work*
- Dr. Amanda-Mae Cooper (Faculty of Education) – \$187,403 for *Increasing capacity to mobilize and apply research knowledge in the Ontario education system*
- Dr. Jean-Etienne H. de Bettignies (Business) – \$59,673 for *Product market competition and innovation*
- Dr. Una R. D'Elia (Art History) – \$85,500 for *Sculpture and color in fifteenth-century Tuscany*
- Dr. Oded Haklai (Political Studies) – \$122,230 for *Politics of settlers in contested territories: Israel in comparative perspective*
- Dr. Myra J. Hird (School of Environmental Studies) – \$344,960 for *Canada's Waste Future: uncertainty, futurity, and democratic engagement*

- Dr. Fiona M. Kay (Sociology) – \$93,399 for *Racial and ethnic diversity in corporate law firms: a longitudinal study of organizational practices shaping hiring, retention, and promotions*
- Dr. Don A. Klinger (Faculty of Education) – \$283,630 for *High school students in applied English programs: what are the factors impacting their performance on the Ontario secondary school literacy test*
- Dr. Benjamin Kutsyuruba (Faculty of Education) – \$156,100 for *Understanding teach attrition and retention: the role of teacher induction and mentorship programs*
- Dr. Amy E. Latimer-Cheung (School of Kinesiology and Health Studies) – \$126,920 for *Examining the role of Paralympic sport in challenging negative stereotypes of disability*
- Dr. Steven F. Lehrer (School of Policy Studies) – \$129,549 for *Theory, experiments and empirical methodology of coalitional bargaining: an integrated approach*
- Dr. Rebecca Manley (History) – \$59,968 for *Tsar Hunger: conceiving hunger in modern Russian history*
- Dr. Lesley Wade-Woolley (Faculty of Education) – \$169,750 for *Understanding the role of prosody in reading*
- Dr. Jane Webster (Business) – \$240,650 for *Persuading employees to be environmentally responsible for social media*
- Dr. Michael Welker (Business) – \$72,523 for *Accounting data manipulation in international trade disputes*

## **Social Sciences and Humanities Research Council (SSHRC)**

### **Insight Development Grants**

- Dr. Marco Cozzi (Economics) – \$72,420 for *The power of phi and incomplete econometric models in quantitative macroeconomics with heterogeneous agents*
- Dr. Christopher DeLuca (Education) – \$74,998 for *Teacher assessment competency within the accountability era of Canadian education: constructing a baseline measure*
- Dr. Joshua Karton (Faculty of Law) – \$54,300 for *An exploration of the international arbitrator's duty to apply the law*
- Dr. Jean-Baptiste Litrico (Business) – \$45,831 for *Overcoming the legitimacy challenge of hybridity: how social enterprises present themselves to external audiences*

## Other News

A new Queen's-led politics and international affairs research journal, *Politicus*, hopes to publish undergraduate student work and start conversations on current and sometimes controversial topics. *Politicus* is the brainchild of fourth year politics student and first managing editor, Troy Sherman. He said that he came up with the idea when he learned that the London School of Economics publishes an academic journal called *Millennium*. The first issue is set for publication in March 2014.