

## ***Senate Research Report***

### ***September 23, 2010***

#### **Awards and Honours**

##### **Ministry of Research and Innovation**

##### **Early Researcher Awards (ERA)**

The Honourable John Gerretsen, Minister of Consumer Affairs, visited Queen's to publicly announce the funding of eight Queen's research projects under the Early Researcher Award Program. These awards were approved for \$100,000 each (plus an additional \$40,000 each for indirect costs to Queen's).

- Dr. John Allingham (Biochemistry) for his project entitled *"Structural and functional studies of novel motor protein complexes in disease-causing fungi"*.
- Dr. Gunnar Blohm (Physiology) for his project entitled *"Internal representations of space for perception and action"*.
- Dr. Leon Boegman (Civil Engineering) for his project entitled *"Characterization of turbulent mixing dynamics in large lakes"*.
- Dr. Il-Yong Kim (Mechanical and Materials Engineering) for his project entitled *"Computational analysis and optimization for greenhouse gas reduction in manufacturing and innovative biomechanical design"*.
- Dr. Amy Latimer (School of Kinesiology and Health Studies) for her project entitled *"Optimizing the impact of persuasive messages encouraging Canadians to participate in physical activity"*.
- Dr. Alan Lomax (Medicine) for his project entitled *"Neural control of immune system activation"*.
- Dr. Douglas Spencer Moore (School of Kinesiology and Health Studies) for his project entitled *"Investigating the social environmental and behavioural pathways linking socioeconomic status to cardiovascular disease risk across the life course"*.

- Dr. Kyra Pyke (School of Kinesiology and Health Studies) for her project entitled "*The role of blood flow in shaping the function and structure of human arteries*".

*Publicly announced August 20, 2010*

### **The Canadian Association of Geographers Awards**

Dr. Joan Schwartz (Art, Geography) received the Geography in the Service of Government or Business Award which recognizes one who has performed major work in the public or private sector.

### **Fulbright Scholarship**

Dr. Lynda Jessup (Art) is one of a dozen Canadians to be awarded a prestigious Fulbright Scholarship. Professor Jessup will study at the Rockefeller Archive Centre in New York State, beginning in September. The Fulbright program is an educational movement based on the principle of scholarly exchange between the United States and various countries from around the world.

### **Karolinska Institutet Prize for Research in Medical Education**

Dr. Richard Reznick (Health Sciences) has been awarded the 2010 Karolinska Institutet Prize for Research in Medical Education for his work in surgical education. Dr. Reznick has contributed to innovative applications of quantitative and qualitative methods that are used globally to reduce surgical complications.

### **Institute of Electrical and Electronics Engineers (IEEE) William E Newell Award**

Dr. Praveen Jain (Electrical and Computer Engineering) has been awarded the IEEE William E. Newell Award. It is the highest IEEE award in the field of power electronics for his advancements in the theory and practice of high-frequency power conversion systems.

*Publicly announced July 1, 2010*

## **Order of Canada**

Dr. Walter Rosser (Family Medicine, Emeritus) has been named a member of the Order of Canada. He is cited “for his leadership in the discipline of family medicine and primary care research and for his contributions to the establishment of practice-based research networks in Canada”.

## **E.W.R. Steacie Memorial Fellowship**

Dr. Ingrid Johnsrude has been awarded the E.W.R. Steacie Memorial Fellowship which contributes \$30,000 per year for two years to relieve fellows of teaching and administrative duties so that they may devote all of their time and energy to research.

## **United Kingdom Royal Academy of Engineering Fellowship**

Dr. R. Kerry Rowe (Civil Engineering) has been elected a Fellow of the United Kingdom’s Royal Academy of Engineering. Dr. Rowe was one of six international and the only Canadian Fellow announced at the July 5th annual general meeting in London.

## **Research Funding**

### **Canadian Cystic Fibrosis Foundation**

- Dr. R. Keith Poole (Microbiology and Immunology) received \$267,930 over three years for his project entitled “*Evolution and mechanisms of resistance to aminoglycoside antibiotics in Pseudomonas aeruginosa.*”

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

#### **Institute of Aging – Knowledge Synthesis Grant**

- Dr. Dallas Seitz (Psychiatry) received \$94,499 for his project entitled “*Interventions for neuropsychiatric symptoms of dementia in long-term care: A systematic review.*”

**Canadian Institutes of Health Research (CIHR)**  
**Institute of Neurosciences, Mental Health and Addiction**  
**Institute Community Support Grant**

- Dr. Christopher Frank (Geriatrics) received \$10,000 for his project entitled *“Improving care of the elderly in Canada: The geriatric education recruitment initiative (GERI) - ICS NGO Outreach”*.

**Canadian Institutes of Health Research (CIHR)**  
**Operating Grants – March 2010 Competition**

Name	Department	Title of Project	Total Amount Awarded
Dr. Robert Campbell	Ophthalmology	Cardiovascular and ocular adverse events associated with new treatments for age-related macular degeneration	\$176,906
Dr. Susan Cole	Oncology	Investigations of the drug and organic anion transporter ABCC4	\$663,619
Dr. Peter Davies	Biochemistry	Ice-binding proteins: structure function and evolution	\$1,374,390
Dr. Peter Greer	Pathology and Molecular Medicine	Genetic and cell biological analysis of calpain: a potential therapeutic target in breast cancer	\$734,701
Dr. Peter Greer	Pathology and Molecular Medicine	A molecular and genetic analysis of the fer proto-oncogene: A potential novel therapeutic target in cancer	\$869,320
Dr. Linda Levesque	Community Health and Epidemiology	The short-term safety and utilization of the quadrivalent HPV vaccine in Grade 8 girls: The Ontario cohort study	\$159,723

Dr. Steven Smith	Biochemistry	E2A proteins in acute lymphoblastic leukemia: Structural and functional analysis and inhibition of oncogenic protein-protein interactions	\$640,550
Dr. Christine White	Medicine	The accurate measurement of glomerular filtration rate in patients with kidney disease	\$253,503

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

#### **New Investigator Award**

- Dr. Alan Lomax (Medicine) was awarded \$300,000 for his five year project entitled *“Sympathetic neuropathy during IBD: causes and consequences”*.

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

#### **Team Grant: Early origins of addiction in children and youth (Canada - Finland)**

- Dr. Wendy Craig (Psychology) received \$10,000 for the project entitled *“Youth’s peer support, bullying, psychosocial well-being and addictive behaviours in childhood and adolescence”*.

### **Cancer Care Ontario (CCO) – Research Chair**

- Dr. Penelope Bradbury (Clinical Trials NCIC) received \$500,000 over five years as the CCO 2010 Research Chair in Experimental Therapeutics.
- Dr. Michael Brundage (Oncology) received \$1,000,000 over five years as the CCO 2010 Research Chair in Health Services.
- Dr. Gabor Fichtinger (School of Computing) received \$1,000,000 over five years as the CCO 2010 Research Chair in Cancer Imaging.

### **MITACS – Accelerate Program**

- Dr. Patrick Martin (School of Computing) received \$30,000 in support of his project entitled *“Supporting smart interactions with predictive analytics”*.

### **MITACS – Elevate Fellowship Program**

- Dr. Praveen Jain (Department of Electrical and Computer Engineering) received \$70,000 for his Postdoctoral Fellow, Dr. John Lam, to work on his project entitled *“Improved circuit for compact fluorescent light bulbs”*.
- Dr. Philip Jessop (Department of Chemistry) received \$70,000 for his Postdoctoral Fellow, Dr. Keith Huynh, to work on his project entitled *“Alternative hydrogen sources for portable fuel cells”*.
- Dr. Patrick Martin (School of Computing) received \$70,000 for his Postdoctoral Fellow, Postdoc Farhana Zulkerine, to work on his project entitled *“Decision support for database administrators using Warehouse-as-a-service (DSDAware)”*.
- Dr. David Thomson (Department of Mathematics and Statistics) received \$70,000 for his Postdoctoral Fellow, Dr. Azadeh Moghtaderi, to work on his project entitled *“Prediction of the occurrence of solar eruption”*.

### **Ontario Research Fund – Research Infrastructure Awards (ORF-RI)**

The Honourable John Gerretsen, Minister of Consumer Affairs was at Queen’s on August 20th to announce funding to eight Queen’s researchers under the ORF-RI program.

- Dr. DongMei Chen (Geography) received \$100,883 for her Leaders Opportunity Fund Project entitled *“Establishing a Queen’s GeoComputation and Analysis Laboratory (GCAL) for population health and disease modeling”*.
- Dr. Meredith Chivers (Psychology) received \$91,572 for her Leaders Opportunity Fund Project entitled *“Gender differences in sexuality”*.

- Dr. Ryan Danby (Geography) received \$104,000 for his Leaders Opportunity Fund Project entitled *"Forest-tundra dynamics in a changing climate"*.
- Dr. Peter Davies (Biochemistry) received \$49,130 for his Leaders Opportunity Fund Project entitled *"Structure-based design and screening of inhibitors against the Calpain Proteases"*.
- Dr. Philippe Di Stefano (Physics) received \$185,102 for his Leaders Opportunity Fund Project entitled *"Discriminating detectors for dark matter"*.
- Dr. Albert Jin (Medicine) received \$142,000 for his Leaders Opportunity Fund Project entitled *"Targeting ischemic depolarization in acute stroke"*.
- Dr. John Smol (Biology) received \$50,000 for his Leaders Opportunity Fund Project entitled *"Paleolimnological approaches to environmental issues"*.
- Dr. Shetuan Zhang (Physiology) received \$200,000 for his Leaders Opportunity Fund Project entitled *"Control of cell surface channel density by potassium as a novel mechanism for hERG regulation"*.

*Publicly announced August 20, 2010*

## **GreenCentre Canada**

### **Proof of Principle Funding**

- Dr. David Zechel (Chemistry) and his team of researchers have been awarded \$35,000 from GreenCentre Canada to create compounds called organohalogenes by harnessing naturally occurring enzymes.

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

### **Collaborative Research and Training Experience**

- Dr. Cathleen Crudden (Chemistry) received \$1,568,500 over five years for her project entitled *"NSERC CREATE Training Program in novel chiral materials: An international effort in research and education"*.

- Dr. Sze Hong (Scott) Yam (Electrical and Computer Engineering) received \$1,650,000 for his project entitled *“NSERC CREATE Training Program for next generation optical networks”*.

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

### **Discovery Accelerator Supplements**

- Dr. Cathleen Crudden (Chemistry) received \$120,000 over three years for her project entitled *“Organic synthesis and materials chemistry via catalytic organoborane chemistry”*.
- Dr. Michael Cunningham (Chemical Engineering) received \$120,000 over three years for his project entitled *“Design and synthesis of functional polymer colloids”*.
- Dr. Mark Diederichs (Geological Sciences and Geological Engineering) received \$120,000 over three years for his project entitled *“Improved mechanical models and engineering management strategies for the excavation damage zone (EDZ) in sedimentary rocks around underground nuclear waste repositories.”*
- Dr. W. Andrew Take (Civil Engineering) received \$120,000 over three years for his project entitled *“Effects of climate and climate change on the soil slopes of our natural and built environment”*.
- Dr. Shahram Yousefi (Electrical and Computer Engineering) received \$120,000 over three years for his project entitled *“Rateless codes for advanced architectures”*.

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

### **Idea to Innovation**

- Dr. Gabor Fichtinger (School of Computing) received \$305,980 over two years for his project entitled *“Intraoperative calibration (iCAL) for prostate brachytherapy”*.



### **Queen's University Botterell Foundation Award**

- Dr. David Andrew (Anatomy and Cell Biology, Centre for Neuroscience Studies) received \$3,352 for travel funds for presentations.
- Dr. Richard Henry (Anesthesia and Perioperative Medicine) received \$15,000 for his project entitled *"Improving outcomes and delaying need for surgery in patients waitlisted for total knee arthroplasty. A pilot study"*.
- Dr. Michael Kawaja (Anatomy and Cell Biology) received \$9,915 for his project entitled *"Biomarkers to predict neurological outcome in comatose patients after cardiac arrest"*.
- Dr. Linda McLean (School of Rehabilitation Therapy) received \$10,000 for her project entitled *"Diagnosis of lumbar radiculopathy using quantitative electromyography: a feasibility study"*.
- Dr. Dean Van Vugt (Obstetrics and Physiology) received \$15,000 for his project entitled *"Dysregulation of appetite circuits in PCOS patients: Influence of insulin resistance"*.

### **Queen's University Garfield Kelly Cardiovascular Development Fund**

- Dr. Adrian Baranchuk (Cardiology) received \$4,820 for his project entitled *"Heart rate asymmetry in patients with severe obstructive sleep apnea"*.
- Dr. Brian Milne (Anesthesia and Perioperative Medicine) received \$10,000 for his project entitled *"Development of novel technology for destruction of air emboli and implications for cardiac surgery"*.
- Dr. Terence Ozolins (Pharmacology and Toxicology) received \$10,000 for his project entitled *"Epigenetic mechanisms of ventricular septation defects (VSD)"*.
- Dr. Chandrakant Tayade (Anatomy and Cell Biology) received \$10,000 for his project entitled *"Role of microRNA's in hypertension and cardiac hypertrophy and their potential as diagnostic markers for cardiac pathologies"*.
- Dr. Christopher Ward (Physiology) received \$9,897 for his project entitled *"Cardiac sodium channels"*.

### **Queen's University Violet Powell Research Fund**

- Dr. Bruce Banfield (Microbiology and Immunology) received \$10,000 for his project entitled *"New genetic tools for the study of herpes simplex virus pathogenesis"*.

### **Queen's University William M Spear Memorial Fund**

- Dr. Michael Fitzpatrick (Medicine, Physiology) received \$26,329 for his project entitled *"Expiratory threshold loading in obesity and obstructive sleep apnea"*.
- Dr. Steve Iscoe (Physiology) received \$24,202 for his project entitled *"Inspiratory occlusion-induced hypercoagulability in rats"*.
- Dr. Diane Loughheed (Medicine, Physiology) received \$30,000 for her project entitled *"Physiology of cough in asthma: Comparison of sensory-mechanical responses to mannitol and methacholine challenge tests"*.
- Dr. Denis O'Donnell (Medicine) received \$29,813 for his project entitled *"Mechanisms of exertional dyspnea and exercise intolerance in elderly smokers at risk for COPD"*.

### **Social Sciences and Humanities Research Council (SSHRC) Public Outreach (Innovation, Leadership and Prosperity)**

- Dr. Yolande Chan (School of Business) received \$49,922 for her project entitled French Translation of Findings *"Revitalizing rural economies by mobilizing academic knowledge"*.

### **Social Sciences and Humanities Research Council (SSHRC) Image Text Sound and Technology Grant**

- Dr. Thomas Axworthy (School of Policy Studies) received \$49,500 for his project entitled *"Digital youth and participatory learning"*.

## Social Sciences and Humanities Research Council (SSHRC)

### Aid to Research Workshops and Conferences

- Dr. Marta Straznicky (English Language and Literature) received \$17,827 for her project entitled *"English dictionaries in global and historical context"*.

## Social Sciences and Humanities Research Council (SSHRC)

### Research Development Initiatives

- Dr. Dia Da Costa (Global Development Studies) received \$32,770 over two years for her project entitled *"The work of theatre in an age of precarious labor"*.
- Dr. Jennifer Hosek (German Language and Literature) received \$25,000 over two years for her project entitled *"Peer-to-peer computer assisted language learning initiative"*.
- Dr. Pamela Dickey Young (School of Religion) received \$18,977 for her project entitled *"Sexual diversity and religious diversity"*.

## Social Sciences and Humanities Research Council (SSHRC)

### Aid to Research Workshops and Conferences

- Dr. Yolande Chan (The Monieson Centre, School of Business) received \$20,000 for *"The rural creative economy: From Theory to Practice conference"*.
- Dr. Margaret Little (Gender Studies) received \$19,300 for the *"Kingston Poverty Conference 2010"*.

## Social Sciences and Humanities Research Council (SSHRC)

### Standard Research Grants Program, Oct 15, 2009 Competition Results

Researcher's Name	Department	Project Title	Total Amount Awarded
Dr. Keith Banting	Policy Studies	Ethnic diversity and social solidarity	\$141,168
Dr. Tina Dacin	Business	Understanding social incubation	\$89,096

Dr. Stephanie Dickey	Art	Rembrandt's Etchings: A history of reception and response	\$66,975
Dr. Karen Dubinsky	History	Children, ideology and iconography: How babies rule the world	\$36,000
Dr. Marc Epprecht	History	Same-sex sexualities and gender non-conformity in Africa in comparative historical perspective: Case studies from East, Central and West Africa	\$58,000
Dr. Leandre Fabrigar	Psychology	Exploring the consequences of attitude complexity	\$89,360
Dr. Glenda Fisk	Policy Studies	Consumer entitlement: Implications for service processes and outcomes	\$58,898
Dr. Louis Gagnon	Business	The law of one price and the factors that impede arbitrage across markets	\$51,111
Dr. Allen Head	Economics	Search, sticky prices and the dynamics of house prices and construction	\$62,500
Dr. Robert Hickey	Policy Studies	Labour relations, human resource management and employment outcomes in Ontario's developmental services sector	\$54,415
Dr. Ann Marie Hill	Education	Focus programs on authentic learning for secondary students with developmental disabilities	\$165,732
Dr. Ronald Holden	Psychology	Understanding faking on self-report personality inventories: A comparison of theory-based and empirical approaches to detecting faking	\$58,394
Dr. Tom Hollenstein	Psychology	Adolescent emotion regulation dynamics	\$29,164
Dr. Jennifer Hosek	German	Films making capitals--Capitals making films: Transnationalizing Berlin and Havana post-Cold War	\$53,523
Dr. Susumu Imai	Economics	Structural estimation of political Economicsomy models of trade	\$62,500
Dr. Jill Jacobson	Psychology	Effects of dysphoria and social anxiety on eyewitness memory	\$77,356
Dr. Thorsten Koeppl	Economics	Market making of last resort	\$62,500

Dr. Rachel Laforest	Policy Studies	Fighting poverty provincial style: The cases of Quebec and Ontario	\$14,014
Dr. Jacoba Lilius	Policy Studies	Emotionally energizing or depleting? Awareness and management of variation in client relationship quality for sustainable human service work	\$57,188
Dr. Tara MacDonald	Psychology	Does the tendency to defer to a romantic partner vary as a function of attachment anxiety and threat of rejection?	\$55,380
Dr. John McGarry	Political Studies	Advancing power-sharing theory: A comparative analysis	\$64,147
Dr. Sam McKegney	English	Carrying the burden of peace? Re-imagining Indigenous masculinities through story	\$64,354
Dr. Christopher Miners	Business	The virtues (and vices) of emotional intelligence at work: The relations between emotional intelligence and negotiation performance, moral decision-making, and successful influence attempts	\$82,911
Dr. Margaret Moore	Political Studies	Global justice and political communities	\$24,050
Dr. Allison Morehead	Art	Nature's experiments: Pathology and the search for symbolist form	\$64,440
Dr. Laura Murray	English	Putting intellectual property in its place: Rights discourses, creative labour, and the everyday	\$109,886
Dr. Kip Pegley	Music	Music, war and Canadian nationhood	\$60,174
Dr. Barbara Reeves	Classics	The Humayma Vicus project, Phase 2: Bath-house Phasing and the Nabataean to Roman Transition	\$46,890
Dr. Francois Rouget	French	Ronsard et le livre	\$73,302
Dr. Mark Sabbagh	Psychology	Conventionality and social learning	\$96,950
Dr. Sergio Sismondo	Philosophy	Hegemony of knowledge and the pharmaceutical industry	\$62,270
Dr. Gregor Smith	Economics	Historical international and intranational price dispersion	\$52,958

Dr. Susanne Soederberg	Developmental Studies	Greening corporations: The politics of environmental shareholder activism	\$51,225
Dr. Peter Thompson	Spanish	Placing Spanish Golden Age Society on its End: The Entremeses of Jeronimo Cancer Y Velasco	\$54,789

### Workplace Safety & Insurance Board

- Dr. Panagiotis Katsabanis (The Robert M. Buchan Department of Mining) received \$30,000 for his project entitled *“Examination of the toxicity of blasting fumes as a function of time after blasting”*.