

Senate Research Report ***April 28, 2011***

Awards and Honours

American Council of Learned Societies (ACLS): Collaborative Research Fellowship

Dr. Margaret Aziza Pappano (English) and her U.S. research partner Nicole Rice have been awarded a prestigious American Council of Learned Societies (ACLS) collaborative research fellowship for their unique interpretation of the civic religious drama of late medieval England.

Canadian Society of Pharmacology and Therapeutics (CSPT): Pfizer Senior Scientist Award

Dr. James Brien (Pharmacology & Toxicology) has been awarded the CSPT Pfizer Senior Scientist award for significant contributions to the advancement and extension of knowledge in the field. He will deliver the Pfizer Prize Oration, describing his research achievements, during the CSPT Annual Meeting in Montreal in May.

Catalysis Division of the CSC: Canadian Catalysis Lectureship Award

Dr. Cathleen Crudden (Chemistry) was awarded the 2011 Canadian Catalysis Lectureship Award (CCLA). The CCLA provides funding to present lectures at 4-6 locations across Canada, with the tour to be completed within 12 months of receiving notice of the award.

Bank of Canada: Fellowship Award

Dr. Gregor Smith (Economics) has received the Bank of Canada Fellowship Award, which provides financial support over five years to academics doing research of interest to the bank.

Bank of Canada: Governor's Award

Dr. Thorsten Koepl (Economics) has earned the Bank of Canada Governor's Award, granted for a two-year term, which recognizes younger academics who show potential for completing exemplary research.

Engineering Institute of Canada: New Fellow

Jean Hutchinson (Geological Sciences & Geological Engineering) has been named a Fellow of the Engineering Institute of Canada (EIC). Fellowships are awarded in recognition of excellence in engineering and service to the profession and to society.

The American Ornithologists' Union: Elliott Coues Award

Bob Montgomerie (Biology) was awarded the 2010 Elliott Coues Award for his contributions to understanding sexual selection and the evolution of parental care in birds. This award, administered by one of the oldest and largest organizations in the world devoted to the scientific study of birds, recognizes outstanding and innovative contributions to ornithological research.

Ontario Undergraduate Student Alliance: Award for Excellence in Teaching

Professor Sidneyeve Matrix (Film & Media Studies) has been awarded the 2011 OUSA Award for Excellence in Teaching at Queen's University by the Alma Mater Society and the OUSA.

The Canadian Association of Pathologists: William Boyd Lecturer

Dr. Victor Tron (Pathology & Molecular Medicine) has been named the William Boyd Lecturer for 2011. The lecture will take place in Vancouver, British Columbia in June.

Research Funding

External Awards

Bernice Ramsay Discovery Grants Program

Dr. Douglas Munoz (School of Medicine, Psychology) and Dr. Michel Melanson (School of Medicine) received \$100,000 for their project *Using eye movements and functional brain imaging to investigate cognitive deficits in ALS*.

Canadian Institutes of Health Research (CIHR): Catalyst Grant

Dr. Nandini Deshpande (School of Rehabilitation Therapy), Dr. Elsie Culham (School of Rehabilitation Therapy) and Dr. Brenda Brouwer (School of Rehabilitation Therapy) received \$46,800 for their project *Does diabetes mellitus-induced vestibular system dysfunction contribute to higher prevalence of balance and mobility impairment in community-dwelling diabetic elderly?*

Canadian Institutes of Health Research (CIHR): Knowledge Synthesis Grant

Dr. Amy Latimer (School of Kinesiology & Health Sciences) received \$100,000 for her project *Developing physical activity guidelines for Canadians with multiple sclerosis. Phase I: Knowledge synthesis and consensus guidelines*.

Canadian Institutes of Health Research (CIHR): Meetings, Planning and Dissemination Grant

- Dr. Beatriz Alvarado (Community Health & Epidemiology), Dr. Stevenson Fergus (School of Kinesiology & Health Sciences, Community Health & Epidemiology) and Dr. Jorge Martinez-Cajas (Medicine, Microbiology & Immunology) received \$21,610 for their project *Community based prevention strategy to reduce vulnerability to HIV in LGTB communities*.
- Dr. Margaret Harrison (School of Nursing, Community Health & Epidemiology) received \$25,000 for her project *Moving safety knowledge into action: building capacity for systematic review in patient safety*.
- Dr. Margaret Harrison (School of Nursing, Community Health & Epidemiology) received \$25,000 for her project *Implementation science and synthesis network of the Americas (ISSNA)*.
- Dr. Jorge Martinez-Cajas (Medicine, Microbiology & Immunology) and Dr. Beatriz Alvarado (Community Health & Epidemiology) received \$24,820 for their project *Third Canada-Colombia workshop on HIV/AIDS research*.

- Dr. Trisha Parsons (School of Rehabilitation Therapy) received \$3,374 for her project *Building Canadian research partnerships to improve outcomes associated with kidney disease*.
- Dr. Joan Tranmer (School of Nursing, Community Health & Epidemiology), Dr. Dana Edge (School of Nursing) and Dr. Elizabeth VanDenKerkhof (School of Nursing, Anesthesiology & Perioperative Medicine) received \$22,780 for their project *Defining and optimizing nursing contribution to chronic disease care within the primary care setting*.

Canadian Institutes of Health Research (CIHR): Operating Grant

- Dr. Lauren Flynn (Chemical Engineering), Dr. John Watkins (Surgery), Dr. Stephen Waldman (Chemical Engineering) and Dr. Brian Amsden (Chemical Engineering) received \$99,346 for their project *Engineering adipogenesis for soft tissue regeneration*.
- Dr. Lucie Lévesque (School of Kinesiology & Health Sciences), Dr. Ian Janssen (School of Kinesiology & Health Sciences) received \$199,615 for their project *National guidelines for the prevention of obesity in the Mexican school system: an investigation of policy implementation and impact*.
- Dr. Donald Maurice (Pharmacology & Toxicology) received \$100,000 for his project *Compartment specific cyclic nucleotide signalling and control of mural cell vascular functions*.
- Dr. Linda McLean (School of Rehabilitation Therapy), Dr. Robert Brison (Emergency Medicine, Community Health & Epidemiology), Dr. Andrew Day (Community Health & Epidemiology) and Dr. Marie-Andrée Harvey (Obstetrics & Gynaecology) received \$978,477 over five years for their project *Optimizing treatment outcomes for women with stress urinary incontinence through the identification of factors contributing to successful interventions*.
- Dr. John Schreiner (Cancer Centre of Southeastern Ontario (formerly known as the Kingston Regional Cancer Centre); Physics, Engineering Physics & Astronomy; Oncology), Dr. Johnson Darko (Cancer Centre of Southeastern Ontario; Physics, Engineering Physics & Astronomy; Oncology), Dr. Gregory Salomons (Cancer Centre of Southeastern Ontario; Physics, Engineering Physics & Astronomy; Oncology), Dr. Kimberley McAuley (Chemical Engineering) and Dr. Andrew Kerr (Cancer Centre of Southeastern Ontario; Physics, Engineering Physics & Astronomy; Oncology) received \$60,388 for their project *Advancing gel dosimetry for clinical radiation therapy*.

Cancer Care Ontario: Applied Cancer Research Unit (ACRU)

Dr. Gabor Fichtinger (School of Computing, Electrical & Computer Engineering, Surgery) received \$1,182,500 over five years for his project *Cancer imaging/cancer imaging network of Ontario: system prototyping in image-guided robotic percutaneous intervention*.

MITACS Accelerate Graduate Research Internship Program

Dr. Andrew Pollard (Mechanical & Materials Engineering, Mathematics & Statistics) and Dr. Ugo Piomelli (Mechanical & Materials Engineering) received \$15,000 for their Postdoctoral Fellow, Dr. Hassan Raiesi, for his project *Prediction of vortex breakdown over wing geometries using detached-eddy simulation*.

MITACS Elevate Fellowship Program

Dr. Kurt Kyser (Geological Sciences & Geological Engineering, School of Environmental Studies) received \$65,000 for his Postdoctoral Fellow, Dr. Steven Beyer, for his project *Basin analysis and uranium exploration in the paleoproterozoic roraima basin, Guyana*.

Natural Sciences and Engineering Research Council of Canada (NSERC)

Collaborative Research and Development Grant

Dr. Kurt Kyser (Geological Sciences & Geological Engineering, School of Environmental Studies) and Dr. Daniel Layton-Matthews (Geological Sciences & Geological Engineering) received \$315,000 over three years for their project *Exploration geochemistry for deep uranium deposits*.

Natural Sciences and Engineering Research Council of Canada: Engage Grants

Dr. Amir Fam (Civil Engineering) received \$25,000 for his project *Novel application mode of concrete waterproofing agent for enhancing durability of infrastructure in Canada*.

Network of Centres of Excellence, Canada: Full Application Preparation (FAP)

Dr. Daren Heyland (Medicine, Community Health & Epidemiology) received \$25,000 to develop his full proposal *Technology evaluation in the elderly network (TECH VALUE NET – TVN)*.

Ontario Centres of Excellence: Connections Program

Dr. David Mody (Chemical Engineering) received \$101,000 for his projects entitled:

- *Options for waste heat rejection in nuclear fuel conversion facility*
- *Energy recovery*
- *Geothermal heating and cooling*
- *Shell Canada – novel alternative fuel*
- *Natural gas vehicles*
- *Development of new rubber compounds*
- *Development of a process to manufacture respiratory filter material*
- *DuPont – pilot scale solids handling system*
- *Agrium plant water reduction study*
- *Power generation for electromagnetic oil sands process*
- *Salt cavern brine handling*
- *Design of a polyethylene wax lab scale pilot plant*
- *Process fit analysis for a proprietary vaccine in an existing Canadian biopharmaceutical production facility*
- *Cellulosic biorefinery demonstration plant*
- *Predictive model based controller for fermenter coolers*
- *Modeling and optimization of pharmaceutical manufacturing plant*
- *Use of switchable solvents for seed oil processing*
- *Canola oil plant capacity increase*
- *Ontario east wood centre – value proposition*
- *Microconstituents in the environment*

- *Bioprocessing system design project*
- *Pharmaceutical wastewater treatment and disposal*
- *Kettle rotor guard design*
- *Trends in increasing litigation against architects and engineers in Ontario*
- *Development of an evaluation template for OPA FIT program*
- *Design of experiments capability improvement*
- *Ranney Falls hydro project*
- *Scaffolding*
- *Evaluation of new battery technology*
- *Liquid fertilizer market analysis*

Ontario Ministry of Government Services

Dr. Yolande Chan (School of Business) received \$67,175 for her project *Broadband Strategic Research and Impact Analysis: Development of a Partnership and Evaluation Framework for Assessing the Social and Economic Impacts of Provincial Broadband Investments*.

Ontario Ministry of Transportation (MTO):

Highway Infrastructure Innovation Funding Program (HIIFP)

- Dr. Simon Hesp (Chemistry) received \$37,500 for his project entitled *Impact of Asphalt Cement Physical Hardening on Asphalt Mixtures*.
- Dr. Simon Hesp (Chemistry) received \$35,000 for his project entitled *Effect of Temperature/Moisture on CIR/CIREAM Mix During Placement*.

Social Sciences and Humanities Research Council of Canada (SSHRC)

Creation Grants in Fine Arts

Dr. Dorit Naaman (Film and Media Studies, Gender Studies) and Dr. Dana Olwan (Gender Studies) received \$223,256 over three years for their project *Qatamon in Color*.

Internal Awards**Queen's University - Principal's Development Fund
Senate Advisory Research Committee (SARC) Grants
Subcommittee I (Health)**

Dr. Katrina Gee	Microbiology & Immunology	Impact of IL-27 on the inflammasome: pushing the boundaries of inflammation?	\$10,000
Dr. Brendan Gurd	School of Kinesiology & Health Studies	Regulation of SIRT1 deacetylase activity by reversible phosphorylation in skeletal muscle	\$10,000
Dr. Brian Milne, Dr. Edwin Ashbury, Dr. Elizabeth VanDenKerkhof, Dr. Ronald Holden, Dr. Jason McVicar	Anesthesiology & Perioperative Medicine, Pharmacology & Toxicology	Development of a Brief Clinical Tool to Predict Adverse Behaviour at the Induction of Anesthesia in Children	\$ 8,243
Dr. Trisha Parsons	School of Rehabilitation Therapy	Testing a New Tool to Measure Arterial Stiffness: Comparing the response to change characteristics between applanation tonometry (AT) and photoplethysmography (PPG)	\$9,900
Dr. Joan Tranmer, Dr. Elizabeth VanDenKerkhof, Dr. Dana Edge, Dr. Kim Sears, Dr. Linda Levesque	School of Nursing, Community Health & Epidemiology	The prescribing trends of nurse practitioners to older adults in Ontario: 2000-2010	\$10,000

Subcommittee II (Humanities and Fine Arts)

Dr. George A Bevan	Classics	Developing Best Practices for the Quantitative Evaluation for Neutron Tomography	\$6,973
Dr. Karen Dubinsky	Global Development Studies, History	Carlos Varela: Words, Music and World	\$5,000
Dr. Ian McKay	History	Believing Otherwise in Vancouver: Jack Scott as an organic intellectual of West Coast Radicalism	\$4,032
Dr. James Miller	School of Religion	Religion and Ecology of the Bulang Nation, SW China	\$8,672

Dr. Ishita Pande	History	The Politics of Child-Marriage in Postcolonial India	\$8,618
Dr. Natalie Rewa	Drama	Exhibiting Scenography	\$3,000
Dr. Anastasia Riehl	English	A Canadian English Case Study: Wolfe and Amherst Islands	\$6,668
Dr. Ariel Salzman	History	The Catholic Response to the Ottoman Challenge	\$4,000

Subcommittee III (Engineering)

Dr. Dominik Barz	Chemical Engineering	Fabrication of Nafion-Based Micro-Membranes for Micro-Chemical Systems	\$10,000
Dr. Keyvan Hashtrudi-Zaad	Electrical & Computer Engineering	Analog Control of Haptic Interfaces for Enhanced Virtual Reality Rendering	\$5,415
Dr. Il Yong Kim	Mechanical & Materials Engineering	Three-dimensional Bone Remodelling Simulation Using Topology Optimization	\$10,000
Dr. Yong-Jun Lai	Mechanical & Materials Engineering	Novel Microsensor for Lake Water Monitoring	\$5,415
Dr. Qingguo Li	Mechanical & Materials Engineering	Wearable Sensors: A valid alternative to motion analysis for gait?	\$5,416
Dr. Shahram Yousefi	Electrical & Computer Engineering	Network-coded information exchange: a threat to security?	\$9,900

Subcommittee V (Social Science)

Dr. Ajay Agarwal	School of Urban & Regional Planning	How Do Transit Supportive Land Use Policies Impact Urban Form?	\$5,175
Dr. Bitu Amani	Faculty of Law	Biofuel: Patents and optimal commercial licencing practices	\$5,025
Dr. Meredith Chivers, Dr. Tom Hollenstein	Psychology	Sexual concordance and sexual functioning in women	\$5,000
Dr. David L.A. Gordon	School of Urban & Regional Planning	Gordon Stephenson's International Planning Legacy: A Kingston Pilot Project	\$8,389
Dr. Martin Hand	Sociology	Persistent Traces and Potential Memories: emerging technologies, conventions and practices of memory-making in the digital era	\$7,671
Dr. Fiona Kay	Sociology	Racial and Ethnic Diversity in Large U.S. Law Firms: A longitudinal study of organizational dynamics and firm hiring, promotion, and retention patterns	\$8,168

Dr. Kathleen Lahey	Faculty of Law, Gender Studies and Cultural Studies	Feminist Studies of Taxation and Budgeting: Assessing the Impact of Policies	\$7,000
Dr. Scott Matthews	Political Studies	Public Opinion and Intertemporal Policy Choice	\$7,230
Dr. John Meligrana	School of Urban & Regional Planning	Investigate Watershed Planning in Shanghai, China	\$4,500
Dr. Cherie Metcalf	Faculty of Law	Property Law Culture: Public law, private preferences and the regulation of property	\$2,200
Dr. Scott Morgensen	Gender Studies	Terms of Inclusion: Oral History of Toronto Pride 2011	\$5,698
Dr. Nasser Saleh	Engineering & Science Library	Investigating Collaborative Information Behaviour of Undergraduate Students in Group-Based Learning Tasks	\$4,922
Dr. Marcus Taylor	Global Development Studies	Climate Change and Social Conflict in South Asia	\$5,280
Dr. Leela Viswanathan	School of Urban & Regional Planning	Planning for the Memorialization of First Nations Residential Schools: A Case Study of the Woodlands Cultural Centre, Brantford Ontario	\$7,748
Dr. Ruqu Wang	Economics	A Theory of Refund in Auctions	\$5,000