



VICE-PRINCIPAL (RESEARCH)

## *Senate Research Report*

*April 19, 2016*

### News

The Queen's Research Opportunities Funds (QROFs), a new suite of internal awards launched in the fall to support of the research enterprise at Queen's, has [just announced its first round of successful applicants](#) (funding details are provided in the *Research Funding* table below).

Research prominence is a key driver in our Strategic Framework and is guided by our Strategic Research Plan. With up to \$1 million awarded in the first competition, the QROFs are intended to provide researchers and scholars the opportunity to accelerate their research programs. The next QROF competition is scheduled to launch in the fall.

Professor Benjamin Bolden (Faculty of Education) won the 2016 Competition for Choral Writing and the Diane Loomer Award (\$1500) from Choral Canada for his composition *Tread Softly*. His composition is based off the poem *The Cloths of Heaven* by W.B. Yeats and is an a cappella choral work. It will be performed at the 2016 National Youth Choir of Canada during Choral Canada's Podium biennial choral conference and published by Cypress Choral Music.

Queen's University has joined the Southern Ontario Water Consortium (SOWC) – a partnership of 10 universities and private sector organizations that seeks to advance innovative water technologies to commercialization by providing funding and access to real-world facilities.

Queen's University [unveiled the Centre for Advanced Computing](#), the new identity of the former High Performance Virtual Computing Laboratory (HPVCL). Originally formed in 1999 as HPCVL, the CAC is a consortium of four universities led by Queen's that also includes Carleton University, the University of Ottawa, and the Royal Military College of Canada. The facility specializes in providing secure computing resources, and support for academic and medical research clients. CAC will continue to be an active Compute Canada partner site, and a provider of resources supporting the National Digital Infrastructure Platform. CAC provides a world-class environment supporting more than 400 Canadian research teams, comprising some 2,100 researchers working in a wide variety of fields.

## Research Funding

<b>Name</b>	<b>Department</b>	<b>Project Title</b>	<b>Amount</b>
Queen's Research Opportunities Funds – Research Leaders' Fund			
Allingham, John	Biomedical and Molecular Sciences	Targeting the Oncogenic Kinesin Motor Protein KIF14 for Cancer Therapy	\$48,420
Boegman, Leon	Civil Engineering	Characterizing Spatial Hydrodynamics in Wastewater Stabilization Ponds to Advance Completely Stirred Tank Reactor Design Models	\$50,000
Bonier, Frances	Biology	Ecophysiology and Immunology Research Methods for Advancing Understanding of Organismal Responses to Challenges	\$50,000
Castleden, Heather	Geography and Planning	CIHR's New Open Suite of Programs and College of Reviewers: So, How's that Working for Pathways to Aboriginal Health Equity in Research and Outcomes in Canada?	\$50,000
Duan, Qingling	Biomedical and Molecular Sciences	Moving Towards Precision Medicine using Genomic Signatures in Severe Asthma	\$50,000
French, Simon	School of Rehabilitation Therapy	Improving the Primary Care Management of Low Back Pain: a Feasibility Study	\$49,992
Ormiston, Mark	Biomedical and Molecular Sciences	Generation of Blood Outgrowth Endothelial Cells for the Study of Immune Dysfunction in Pulmonary Arterial Hypertension	\$50,000
Pande, Ishita	History	A Global History of Hindu Sexology	\$34,772

Wells, Laura	Chemical Engineering	The Role of Biomaterial Surface Properties and Neutrophil Cell Behaviour on Intraocular Lens Posterior Capsule Opacification (Secondary Cataracts)	\$49,600
Webber, Grégoire	Faculty of Law	Law and Common Good	\$48,200
Queen's Research Opportunities Funds – The International Fund			
Bartels, Susan	Emergency Medicine	'Peace Babies' in the Democratic Republic of Congo	\$20,000
Booth, Christopher	Oncology	Cancer Health Services Research Collaboration at the Regional Cancer Centre, Thiruvananthapuram, Kerala, India	\$20,000
Champagne, Pascale	Civil Engineering	An Integrated Algal System as a Potential Eco-engineered Wastewater Treatment Process in Ecuador	\$20,000
Epprecht, Marc	Global Development Studies	Matariki Network for African Studies	\$20,000
Godfrey, Christina	School of Nursing	Building Skills in Evidence Synthesis to Advance Healthcare	\$20,000
Goerzen, Anthony	Smith School of Business	Global Supply Chain Management Practice – Environmental and Social Sustainability	\$20,000
Miller, James	School of Religion	Decentering Critical Theory	\$20,000
Rainbow, Michael	Mechanical and Materials Engineering	An International Collaboration to Understand the Neuromechanics of the Human Foot	\$20,000
Tu, Dongsheng	Canadian Cancer Trials Group	Collaborative Research on Statistical Models for the Joint Analysis of Quality of Life and Survival Data	\$20,000

Wang, Suning	Chemistry	Collaborative Research on Catalysis and Materials with Researchers at Nagoya University and Kyoto University	\$20,000
Queen's Research Opportunities Funds – The Arts Fund			
Robinson, Dylan	Faculty of Arts & Science	Not too Few to Forget: Developing a Public Art Memorial for Kingston's Prison for Women	\$10,000
Tolmie, Jane	Gender Studies	Ciara Philips to Queen's as a Visiting Artist in Residence	\$10,000
Walker, Craig	School of Drama and Music	Kat Sandler to Queen's as a Visiting Artist in Residence	\$10,000
Canadian Research Data Centre Network – APS Mini Grant			
Jaworski, Taylor	Economics	Historical Trauma, Institutional Trust, and the Intergenerational Transmission of Trust (Ms. Maggie Jones)	\$6,000
Canada Foundation for Innovation – John R. Evans Leaders Fund (JELF)			
Fichtinger, Gabor	School of Computing	Real-time Navigated iKnife System for Breast Cancer Surgery	\$358,342
Ghasemlou, Nader	Biomedical and Molecular Sciences AND Anesthesiology and Perioperative Medicine	Neuroimmune interactions in pain	\$150,000
Poppenk, Jordan	Psychology	Understanding and harnessing human memory retrieval	\$85,000
Rainbow, Michael	Mechanical and Materials Engineering	High-Speed Skeletal Imaging Laboratory	\$200,000
Reed, David	Medicine	Nutrient-Neural Signaling in the Colon: A Role in IBS	\$110,900

This research report is meant to be an illustration of research activity at Queen's University and is based on information provided to the Office of the Vice-Principal (Research) by University Research Services.

Wells, Laura	Chemical Engineering	Laboratory for the development of bioresponsive and interactive ophthalmic biomaterials	\$125,000
Mitacs – Accelerate			
Boegman, Leon	Civil Engineering	Development of a numerical wave uprush prediction tool for the Cataraqui Region Conservation Authority Lake Ontario and St. Lawrence River shoreline	\$15,000
Mitacs – Globalink Research Award - Campus France			
Petitjean, Anne	Chemistry	Building on an Innovative Platform: Tuning Guanine Quadruplex Recognition for Anticancer Applications	\$5,000
Natural Sciences and Engineering Research Council (NSERC) – Engage			
Bakhshai, Alireza	Electrical and Computer Engineering	Novel mid-point balancing for ANPC converter and assessing future DC to MV power converter architectures	\$25,000
Natural Sciences and Engineering Research Council (NSERC) – Engage Plus			
Kim, Il Yong	Mechanical and Materials Engineering	High fidelity modeling and validation for next general military smart displays Industry Partner: General Dynamics Canada Ltd., \$12,500.	\$12,500