**BACKGROUNDER – Ontario Research Fund Announcement**

Today, Kingston and the Islands MPP Sophie Kiwala announced that 15 Queen’s University researchers, in a wide range of disciplines, have received funding from the Ontario government totaling more than $2.8 million.

**About the Ontario Research Fund - Early Researcher Awards**

* The Early Researcher Awards program provides funding to promising early career researchers – those no more than five years into their independent academic careers and no more than 10 years from having completed their doctoral degree - to enhance their research and support their efforts in establishing a research team.
* Each award to a leading researcher is a maximum total value of $140,000. The award must be matched by an additional $50,000 from the researcher’s institution.

**About the Ontario Research Fund – Research Infrastructure**

* The Research Infrastructure Fund provides research institutions with funding to help support infrastructure needs, such as modern facilities and equipment.
* The fund is further subdivided into three funds;
	+ The Large Infrastructure Fund supports the costs of building/renovating and equipping facilities to conduct collaborative academic research;
	+ The Small Infrastructure Fund helps cover the costs of acquiring or renewing research equipment; and
	+ The College-Industry Innovation Fund which helps cover the costs of building, renovating and equipping research facilities to promote college-industry partnerships.
* Awards under the Ontario Research Fund are funded by 40 per cent each from the Ontario Government and the Canada Foundation for innovation. The remaining 20 per cent is funded from private funding partners or the applicant’s institution.

**About Research at Queen’s**

Queen’s distinguishes itself as one of the leading research-intensive institutions in Canada. The mission is to advance research excellence, leadership and innovation, as well as enhance Queen’s impact at a national and international level. Through undertaking leading-edge research, Queen’s is addressing many of the world’s greatest challenges, and developing innovative ideas and technological advances brought about by discoveries in a variety of disciplines. Queen’s University is a member of the U15 Group of Canadian Research Universities.​

**Researcher Profiles**

**Early Researcher Awards**

* **Amer Johri** (Cardiology) – Dr. Johri’s research is focused on using ultrasound scans of a patient’s carotid arteries to detect early stage heart disease.
* **David Rival** (Mechanical and Materials Engineering) – Dr. Rival’s research is focused on the propulsion and response of micro-sized autonomous vehicles that can be used to better measure turbulence in atmospheric and water-based flows – allowing for improved site locations for wind and hydroelectric turbines.

**Ontario Research Fund – Large Infrastructure Fund**

* **Virginia Walker** (Biology)

*Towards a Sustainable Fishery in Nunavummiut –* $698,320

Dr. Walker proposes to utilize traditional Indigenous knowledge and leading-edge genomic science to manage the Arctic Char population. This project will allow for the development of new commercial fishery opportunities, augment Arctic sovereignty claims and provide employment and food security to the people of Nunavut.

**Ontario Research Fund – Small Infrastructure Fund:**

* **Alexander Braun** (Geological Sciences and Geological Engineering)

*Reservoir Monitoring Using Time-Lapse Superconducting Gravimetry* – $150,000

Dr. Braun will utilize the funding to purchase a superconducting gravimeter for use in monitoring shale gas, heavy oil and groundwater reservoirs.

* **Robert Colautti** (Biology)

*Ecological Genomics of Plant Adaptation in Novel Environments* – $150,000

Dr. Colautti’s research will use next-generation genetic sequencing to better understand the evolutionary and genetic basis for ecological dominance in established and novel environments.

* **Qingling Duan** (Department of Biomedical and Molecular Sciences)

Integrative Systems Biology Investigation of Chronic Respiratory Diseases – $150,000

Dr. Duan aims to identify novel biological networks regulating drug response and susceptibility to diseases such as those affecting the airways. Her research program will improve patient care through better prevention, diagnosis, and treatment of chronic diseases as well as train highly-qualified personnel in high-throughput computational biology

* **Gabor Fichtinger** (Computing)

*Real-time Navigated iKnife System for Breast Cancer Surgery* - $358,342

Dr. Fichtinger’s research will allow for more accurate resection measurements during computer-aided surgery to minimize disruption to health tissue.

* **Lindsay Fitzpatrick** (Chemical Engineering)

*Biomaterial host response analysis and engineering laboratory* – $125,000

Dr. Fitzpatrick aims to develop better biomaterials – materials used in the creation of medical devices such as pace makers or artificial joints – to reduce the risk of rejection within the body.

* **Nader Ghasemlou** (Biomedical and Molecular Sciences)

*Neuroimmune interactions in pain* - $150,000

Dr. Ghasemlou aims to identify the immune targets that control the initiation, development and maintenance of neurological pain, with the goal of developing more effective future treatments.

* **Mark Ormiston** (Biomedical and Molecular Sciences)

*Regenerative Cardiovascular Medicine Library* - $175,000

This project will look to expand upon Dr. Ormiston’s past research to develop new immune cell-based therapies for pulmonary arterial hypertension and other vascular diseases.

* **Jordan Poppenk** (Psychology)

*Understanding and harnessing human memory revival* - $85,000

Dr. Poppenk aims to better understand how memories are formed and retrieved. The funding will support the development of new memory testing and measurement facilities.

* **Michael Rainbow** (Mechanical Engineering)

*High-speed skeletal imaging laboratory* - $200,000

Dr. Rainbow’s funding will support the development of the High-Speed Skeletal Imaging Research Laboratory, which will provide the capability to precisely measure how joints move and determine the mechanical factors associated with musculoskeletal diseases.

* **David Reed** (Department of Medicine)

*Nutrient-neural signaling in the colon: a role in IBS* - $110,900

Dr. Reed’s research will examine the role of nutrient signaling pathways in irritable bowel syndrome with an aim to develop new therapeutic targets.

* **Kevin Stamplecoskie** (Chemistry)

*Harnessing the Power of Light: Discovering New Materials for Optoelectronics, Solar Energy Harvesting, and Biomedicine* – $130,000

Dr. Stamplecoskie’s funding will be used to develop a state of the art photonics materials research program that will attract/cultivate collaborators from Ontario, and abroad. The instrumentation is essential to engineering new, high performance, photonic materials.

* **Laura Wells** (Chemical Engineering)

*Laboratory for the development of bioresponsive and interactive ophthalmic biomaterials* - $125,000

Dr. Wells aims to develop new biomaterials and modification techniques to improve ocular device integration and function for patients suffering from eye diseases.