



University
of Windsor

Research Stimulus Fund Report 2013/14

June 2014

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Office of the Vice-President, Research and Innovation

Executive Summary

The Research Stimulus Fund (RSF) was established under the purview of the Vice-President, Research and Innovation (VPRI) in support of the University of Windsor's Strategic Plan to "create a more research-intensive university with graduate programs that build on academic and professional strengths". It is the intention that this fund be used to intensify research strengths, increase future research funding, and enhance graduate training and experiential learning. The aggregate RSF funding for each of the individual Faculties is based on the last three-year average of Tri-Council (NSERC, SSHRC and CIHR) funding dollars as calculated and reported by the Indirect Costs Secretariat. The allocation to each Faculty is calculated as a percentage of the total amount of RSF monies available (\$500,000) for 2013/14.

Each of the Faculties distributed its allocated funding to individuals or groups of researchers for approved projects or activities. The fund was used for a diverse variety of projects and activities, and to purchase infrastructure within various areas of the Faculties. In some instances, RSF funding was augmented by Faculty and/or VPRI co-investment. The Faculty of Education used a portion of its RSF allotment to support the revision and resubmission of a SSHRC Partnership Development Grant (PDG) application, which was successful, with the balance of the allotment being used as a cash contribution to the awarded project. The Faculty of Engineering used the fund to support the purchase of research infrastructure, upgrades to existing equipment, and renovation and enhancement of existing labs and facilities. The Faculty of Human Kinetics spent its allotment to partially fund an internal grant to three researchers for their work, the results of which will strengthen their future external funding applications. The Faculty of Science utilized the fund to award three Golden Jubilee Research Excellence Awards to expand and strengthen the research programs of the recipients, and seven Research Infrastructure Awards to enable the purchase of research equipment to advance the capabilities of a number of existing research areas and labs. The Faculty of Arts, Humanities and Social Sciences (FAHSS) used some of its RSF allotment to aid five researchers in expanding upon their existing research programs or building new programs. The Odette School of Business awarded a Golden Jubilee Professorship to one of its mid-career and highly successful researchers. Descriptions of each of the individual awards and funded activities/purchases are detailed in this report.

Background

Funding from the Research Stimulus Fund (RSF), under the purview of the Vice-President, Research and Innovation (VPRI), is allocated to each of the individual Faculties based on their respective three-year average of Tri-Council (NSERC, SSHRC and CIHR) research revenue within each Faculty (as provided by the Indirect Costs Secretariat). The RSF funding is intended to be used to support the research enterprise, to invest in research infrastructure, and to provide strategic research grants or awards to faculty members in the individual Faculties that have the potential to attract additional external funding to the University.

RSF-Funded Projects and Activities

Education

Tri-Council research has increased significantly over the past few years within the Faculty of Education and the investments made under the RSF is seen as further strengthening the research culture within the Faculty to enable researchers to achieve increased successes.

Dr. Yvette Daniel

Dr. Daniel received an internal grant of \$6,500 funded by RSF monies (\$1,500) together with contributions from the VPRI (\$3,500) and the Dean of Education (\$1,500) to assist her in revising and resubmitting her SSHRC Partnership Development Grant (PDG) application, which received a 4A rating after the first submission in 2012-13.

Dr. Yvette Daniel

Dr. Daniel was provided with funding totalling \$12,500 comprised of \$2,500 from the RSF and \$8,000 from the VPRI as an institutional contribution to her successful 2014-2017 SSHRC Partnership Development Grant, "*Pedagogies of Repair and Reconciliation: The Embodied Praxis of Youth Civic Engagement*", for which the total awarded amount is \$197,810.

Engineering

The Faculty of Engineering has made investments in its research infrastructure by providing funding to purchase and/or upgrade equipment and machines, and monies to complete renovations to labs and research areas.

Drs. Hanna Maoh and Chris Lee

Drs. Maoh and Lee received \$17,000 from the RSF and \$22,000 from the Dean of Engineering, for a total of \$ 39,000, to complete renovations and upgrades to their lab containing infrastructure received through a CFI/MRI award to establish a state-of-the art research laboratory for integrated transportation and traffic engineering research.

Dr. Ram Balachandar

Dr. Balachandar was provided with \$15,000 from the RSF and \$15,000 from the Dean of Engineering, for a total of \$30,000, to assist with establishing the Hydraulic Engineering Laboratory.

Dr. Sazzadur Chowdhury

Dr. Chowdhury and his colleagues in Electrical and Computer Engineering received funding in the amount of \$181,260, consisting of \$61,260 from the RSF and \$120,000 from the Dean of Engineering, to purchase equipment for the MEMS research facility.

Drs. Majid Ahmadi and Rashid Rashidzadeh

Drs. Ahmadi and Rashidzadeh in the Department of Electrical and Computer Engineering were provided with \$24,740 in funding to aid in obtaining infrastructure for research activities conducted in the Research Centre for Integrated Microsystems (RCIM).

Human Kinetics

Increased external funding is one of the goals envisioned by the Dean and researchers in the Faculty of Human Kinetics. A research proposal, vetted through the Kinesiology Strategic Leadership Group, was presented to the VPRI with a request for funding from the RSF and other sources; this request was approved.

Drs. Cheri McGowan, Kenji Kenno and Kevin Milne

Drs. McGowan, Kenno and Milne were awarded an internal grant in the amount of \$23,630 funded by the RSF (\$10,500) and the VPRI (\$13,130) for their project, *"Isometric resistance exercise to treat hypertension"*. This study proposes to conduct a large-scale, randomized control isometric handgrip trial with a large group of participants that will result in a stronger foundation for external applications.

Science

The Faculty of Science issued a call for submissions for three Golden Jubilee Awards in three thematic areas with the goal of increasing external research funding and research capacity by growing existing research programs through the fostering of new partnerships and research directions. Each of these awards is valued at \$40,000 per year for a period of two years.

Golden Jubilee Research Excellence Awards

Dr. Robert Schurko

Dr. Schurko received his award in the area of Materials Science for his research program, *"Multinuclear SSNMR for High-Throughput Screening of Pharmaceuticals"*. This award will increase Dr. Schurko's program capacity, open new doors to private/industrial research collaborations, and enhance the reputation of the University.

Dr. Daniel Mennill

Dr. Mennill won this award in the area of Environment & Ecosystems for his research program, *"Ecosystem level studies of animal responses to anthropogenic disturbance: animal communication in polluted and pristine Canadian environments"*. This award will provide the means for Dr. Mennill to explore new research directions, strengthen existing and foster new collaborations, and to attract new research funding.

Dr. Panayiotis Vacratsis

Dr. Vacratsis was a recipient of this award in the area of Health Research for his research program, *"Integration of Next Generation Biological Mass Spectrometry Techniques: Health Research and Beyond"*. This award will aid in the expansion of Dr. Vacratsis' research by using mass spectrometry for numerous biological and health applications leading to new opportunities for research funding.

The Faculty of Science also issued a call for submissions for Research Infrastructure Grants to increase research capacity and funding by fostering new partnerships and expanding existing research programs in four strategic areas: environment and ecosystems, materials science, health, and emerging areas related to cross-border strategies. There were seven awards given.

Research Infrastructure Awards**Drs. Ziad Kobti and Arunita Jaekel**

Dr. Kobti and Jaekel received an award in the amount of \$40,000 to create the Centre for Cross-Border Computing and to aid in purchasing equipment to conduct research in key areas in cross-border traffic management and security. The various projects are cross-disciplinary and have the potential to attract partnerships with government and industry. This investment will also support future collaboration with the University's Cross-Border Institute.

Dr. Luis Rueda

Dr. Rueda was awarded funding totalling \$4,500 to purchase equipment for his work in integrative machine learning approaches for transcriptomic and interactomic data analysis in breast and prostate cancer. Using machine learning techniques for prediction will open an unexplored avenue for finding new genes and biomarkers.

Drs. Barbara Zielinski, Dennis Higgs and Huiming Zhang

Drs. Zielinski, Higgs and Zhang were the recipients of an award in the amount of \$5,000 which will aid in the acquisition of an operating system for equipment used in the optical analysis of neural responses. The techniques used in this research will further environmental and health research.

Dr. Daniel Mennill

Dr. Mennill received an award for \$15,000 to assist with the purchase of equipment to conduct environmental monitoring for collaborative studies in migration, biodiversity, and behaviour in the Great Lakes and other Canadian ecosystems. This infrastructure will facilitate new research collaborations and training of students.

Drs. Lisa Porter, Dennis Higgs, Barbara Zielinski and Huiming Zhang

Drs. Porter, Higgs, Zielinski and Zhang were awarded funding totalling \$40,000 to purchase imaging equipment which will be the core infrastructure that will service the needs of both environmental/ecosystem and health researchers. This infrastructure will elevate the quality of data that is collected, allow researchers to accelerate productivity, and will support a number of potential research and industrial collaborations.

Drs. Jichang Wang, Jeremy Rawson, Derek Northwood, Tricia Carmichael and James Green

Drs. Wang, Rawson, Northwood, Carmichael and Green were the recipients of an award for \$39,000 to purchase an electrochemical workstation for in-situ detection/analysis to be used in various approaches performed by these researchers. It will allow them to conduct advanced experiments for which there is no equipment currently available and it will also allow HQP to gain hands-on experience on a number of very important topics.

Drs. Michael Boffa, Sirinart Ananvoranich, Marlys Koschinsky, Bulent Mutus, Siyaram Pandey and Otis Vacratsis

Drs. Boffa, Ananvoranich, Koschinsky, Mutus, Pandey and Vacratsis received an award in the amount of \$32,500 for the purchase of infrastructure for their work on a molecular understanding of complex biochemical and pathophysiological events, with a goal of translation of basic research findings into the development of therapeutic strategies and modalities, analytical approaches, and biomarkers. This infrastructure will strengthen and enhance the work being done in this area.

Faculty of Arts, Humanities and Social Sciences (FAHSS)

The Faculty of Arts, Humanities and Social Sciences invested in a number of areas to increase research capacity and research dissemination. The Faculty also issued a call for applications for funding to aid researchers in the development of their research projects and/or activities for the purpose of attracting increased external funding and laying the foundation for new collaborative opportunities.

Dr. Douglas Walton

Dr. Watson received funding in the amount of \$40,000, funded by the RSF (\$20,000) and the Dean of FAHSS (\$20,000) to complete work as a Research Associate in the Center for Research in Reasoning, Argumentation and Rhetoric (CRRAR).

Dr. Hans Hansen

Dr. Hansen was provided with funding in the amount of \$5,000 split equally between the RSF and the Dean of FAHSS to cover the publication subvention for his book, *"Riel's Defense: Perspectives on His Speeches"*.

FAHSS Research Stimulus Fund (RSF) Awards

Dr. Christine Burr

Dr. Burr was awarded funding in the amount of \$2,736 to develop her project on working girls in early American cinema. The results achieved from this research will strengthen her proposal and her research profile for a SSHRC Insight Development Grant application planned for February 2015.

Dr. Irene Carter

Dr. Carter received an award for \$5,000 to continue her work on exploring disability and social work with the target country of India for this research. This work will provide the potential to build on former research on disability and social work in developed countries and make connections with social work educators in developing countries.

Dr. Guy Lazure

Dr. Lazure was the recipient of an award in the amount of \$4,000 for his project, "*Mapping the Spanish Republic of Letters (1450-1650): Networks of Humanist Correspondence*". His plan is to build a database of the extant correspondence of the period's major Spanish humanists which will be made available to the scholarly community on a new interactive website, with the hope of developing a larger collaborative project in the future.

Dr. Lydia Miljan

Dr. Miljan was awarded the sum of \$4,689 to host a three-day workshop on the software QDA Data analysis. The skills learned at the workshop will allow her research team to conduct a content analysis study on Canadian politics.

Dr. Carlin Miller

Dr. Miller received an award for \$11,700 to conduct research on mindfulness programming for teachers and parents of children with ADHD. It is anticipated that the participants of the program (parents and teachers) with better attendance and homework compliance will experience benefits such as enhanced mindfulness, improved knowledge of ADHD, reduced stress, and enhanced quality of life.

Business

The Odette School of Business invited applications for a Golden Jubilee Professorship to be jointly funded by the Faculty (\$ 30,000), RSF (\$ 14,000) and VPRI (\$ 6,000) in the total amount of \$50,000 per year for a two-year period with one course release. Each applicant provided a research plan outlining the strategic priorities, aims, and projected outcomes that would be supported by the award.

Dr. Francine Schlosser

Dr. Schlosser was awarded the Golden Jubilee Professorship in the Odette School of Business to conduct various research activities, including: (i) to prepare and disseminate topical and impactful research to both practical and academic audiences; (ii) to research, develop, and experiment with innovative and collaborative student learning experiences; (iii) to pursue academic and practical service leadership opportunities; and (iv) to develop a forum for entrepreneurial activities.

Specific Grants and Awards Received as a Result of RSF Funding

Dr. Yvette Daniel was provided with the opportunity to revise and resubmit her SSHRC Partnership Development Grant application with the support of funding received from the RSF, the VPRI and the Dean of Education. Subsequently, she was successful in receiving a SSHRC PDG (2014-2017) in the amount of \$197,810.