



DALHOUSIE
UNIVERSITY

Department of Surgery

RESEARCH

BULLETIN

FALL 2026

Prior to the summer break, the Research Committee met to review the research budget for the academic year ahead (*right*). I would like to highlight some of the ongoing work and new initiatives that came out of that meeting.

At a Glance: Research Funding Allocation

Divisional research personnel support	\$320,000
Clinician-Investigator Program (CIP) salary support	\$105,000
Establishment grants	\$105,000
Operating, bridge, and match funding competition	\$100,000
Basic science collaborative	\$80,000
Community Health & Epidemiology (CH&E) “rapid response”	\$65,000
Research Office administration	\$27,000

Back by overwhelming demand are directed research funds to each Division for the retention of highly qualified research personnel. These represent the largest funding allocation item in our budget.

An additional resource which remains underutilized is our “rapid response” fund for biostatistical support from the Department of Community Health and Epidemiology. This allows surgeons requiring research methodology support to consult with biostatisticians to develop or refine their study designs. Each Division is allocated funds which are administered through the Departmental Research Office.

To ensure that new faculty members have the research supports they need to succeed, we continue to disburse Establishment Grants. Award of Establishment Grants is an iterative process whereby new hires submit a summary of their planned research program along with letters of support from mentors. These applications are reviewed by members of our Research Committee to ensure that the new faculty are competitive for additional external sources of funding.

Despite these changes, we will continue to hold an open call for operating, bridge and match funding with a deadline of September 1, 2026. All application information can be found here:

<https://medicine.dal.ca/departments/departments-sites/surgery/research/research-office/funding.html>

Finally, I am pleased to report that the revised **Hirsch Score** is ready for prime time. This AI-driven online tool is designed to streamline reporting of research deliverables. Instead of entering individual items from a cumbersome and unintuitive dropdown menu, Department members will be asked to submit a current CV using the Faculty of Medicine promotions CV template. By moving to this template, my hope is research productivity will be more accurately captured and more faculty members will go up for promotion once they have gone through the trouble of updating their CV. You can have a look at the revised Hirsch score here: <https://medicine.dal.ca/departments/departments-sites/surgery/research/research-office/research-deliverables.html>

Michael Bezuhly MD MSc SM FRCSC
Director of Research

Surgeon-Scientist Trainees

The Department of Surgery Research Office has a long history of supporting and mentoring the next generation of surgeon-scientists through the Royal College Clinician-Investigator Program (CIP). Our CIP alumni can be found here:

<https://medicine.dal.ca/departments/department-sites/surgery/research/research-office/clinician-investigator-program.html>



Dr. Katherine Tourigny (Division of Neurosurgery) will be starting the fourth year of her PhD in Neuroscience at Oxford University. Her thesis work involves evaluating signals and artifacts from devices in bioelectronic systems for closed loop neuromodulation. Dr. Tourigny is the recipient of a Killam and McLaughlin Foundation awards.

Dr. Takhliq Amir (Division of Cardiac Surgery) has completed the second and final year of her Master's degree in Community Health and Epidemiology. Her thesis work involved the development of a surveillance strategy for thoracic aortic aneurysms using cardiac CT scan. She is scheduled to defend her thesis this fall.



Dr. Cameron Penny (Division of General Surgery) entered the CIP in July 2025. He is pursuing a PhD in Community Health and Epidemiology. His project concentrates on the influence of physical activity patterns on breast cancer incidence in Nova Scotia using data from the Atlantic Partnership for Tomorrow's Health (Atlantic PATH) Study. **Dr. Penny was awarded a CIHR Fellowship grant** in his first year and is the recipient of the Dr. Patrick Madore Clinical Investigator Traineeship.

Dr. Ellen Parker (Division of Neurosurgery) entered the CIP this July. She is working towards her Master's of Science in Clinical Trials at the University College London (UCL). Her proposed clinical trial will be evaluating the effect of memantine on patients with traumatic brain injury. Dr. Parker is supported through CIP Ministry funding.



Dr. Joel Bierer (Division of Cardiac Surgery) defended his PhD in April. His research focussed on determining an optimal ultrafiltration protocol for pediatric cardiac surgery. Joel returned to clinical training in July and is this year's Department of Surgery representative to CAGS Golden Scalpel Research Competition.

New CIP applications for 2027 entrance should be received by Elaine Marsh (elaine.marsh@dal.ca) by Friday, October 2, 2026.

Department of Surgery Research Day

Our Department held its annual Research Day along with the Departments of Anaesthesia and Ophthalmology at the Halifax Convention Centre.



We were very fortunate to have Dr. Kim Brooks, President of Dalhousie University open the proceedings with some inspiring remarks.

Our Collaborative Research Day keynote speaker was Dr. Brian Nosek of the University of Virginia, a world authority on metascience and founder of the Centre for Open Science. His talk was entitled “Shifting incentives: from getting it published to getting it right”.



Dr. Joel Bierer was the recipient of the Robert Stone Travelling Fellowship award for his study entitled *“High-Exchange ULTrafiltration to Enhance Recovery after Pediatric Cardiac Surgery: the ULTRA Randomized Controlled Trial”*

Dr. Takhliq Amir was the winner of the Best Resident Presentation for her study *“Size-dependent growth of the ascending aorta in a large contemporary cardiac CT-based surveillance cohort”*



Dr. Lauren Westhaver was awarded the Best Basic Science Presentation for her study *“Longitudinal peripheral blood immune profiling to monitor disease progression in glioblastoma”*

Kassandra Coyle was the recipient of the award for Best Medical Student Presentation for her study entitled *“Functional and Oncologic Outcomes After Transoral Laser and Robotic Surgery for Oropharyngeal Carcinoma”*



Publication in Profile

In each Bulletin, we will highlight a recent high-impact paper from one of our faculty members. In this issue, we focus on a paper from Dr. Adrienne Weeks' group entitled



"Plasma Extracellular Vesicle Sampling from Glioblastoma Demonstrates a Small RNA Signature Indicative of Disease and Identifies *incRNA RPPH1* as a Biomarker."

Jae Ho Han, Adrienne Weeks, Jeremy Roy. *Neuro-oncology Advance*. 2026 Jan7:8(1).

Dr. Adrienne Weeks works with Dr. Jeremy Roy, a PhD researcher affiliated with the Beatrice Hunter Cancer Research Institute and the Atlantic Cancer Research Institute. She served as supervisor to Dr. Jae Ho Han, a Neurosurgery resident in the CIP, who is the first author on this paper.

In their basic science discovery lab, they identified extracellular vesicle (EVs), membrane-bound particles released by tumour cells, in the blood plasma of patients that were specific to glioblastoma tumors. They used next-generation sequencing to examine the small RNA cargo within these vessels and identified the long coding RNA (*incRNA*) *RPPH1* as a promising biomarker.

These findings could help change clinical practice by developing blood tests to measure EV-associated *RPPH1* in patients thereby facilitating diagnosis and recurrence of glioblastoma.

Department of Surgery Research Committee

We would like to thank **Drs. Katerina Neumann, Richard Spence** and **Robyn Urquhart** for their years of service on the Research Committee. Their commitment and vision have strengthened research in the Department. Thank you!



Dr. Boris Gala Lopez has been named Research Director of the Division of General Surgery and will be serving on the Research Committee.

Meet our Researchers: Dr. Samuel Jessula

Dr. Jessula completed a Bachelor's in Science as well as medical school at McGill University. He attended Dalhousie University for general surgery training, during which time he completed the Clinical Investigator Program and a Master's in Community Health and Epidemiology. He then completed his fellowship in Vascular and Endovascular Surgery at Massachusetts General Hospital. He is a fellow of Royal College of Surgeons of Canada in both General and Vascular Surgery. His clinical interests include the entire spectrum of vascular and endovascular surgery with a focus on open and endovascular complex aortic aneurysm repair.



Dr. Jessula is the Research Director in the Division of Vascular Surgery. His research interests include clinical outcomes in aortic aneurysmal disease, peripheral vascular disease and trauma. Dr. Jessula teaches and mentors young clinician scientists, particularly engaging with medical students. His recent research involves building a pre-habilitation program to better optimize patients prior to major vascular surgery.

Recent Publications: Multifaceted Program to Improve Discharge on Antiplatelets and statin Medication.

Mackay B, Grant Gorveatt A, Morton R, Davies L, Ghouti L, Casey P, Smilth ML, McDonald J, Shannon L, and Samuel Jessula. *JVS-Vascular Insights* 2025; 3:100207.

Retroperitoneal Approach for Ilio-Superior Mesenteric Artery Bypass: Technique and Case Series. Gaudette E, AlOtaibi M, Cote C, Lightfoot C, Casey P and Jessula S. *J Vasc Surg Cases Innov Tech.* 2024; 10(5):10154.



Meet our Researchers: Dr. Emily Krauss

Dr. Emily Krauss is an Assistant Professor in the Division of Plastic Surgery. She earned her medical school degree at the University of Calgary and completed her residency training in Plastic Surgery at Dalhousie. She completed fellowship training in peripheral nerve surgery at the University of Washington.

Dr. Krauss is the Research Director in the Division of Plastic Surgery. Her research interests include patient outcomes following nerve surgeries, such as nerve transfer, nerve grafting and repair. She actively involves both residents and students in her research, providing leadership and mentorship to medical trainees. Dr. Krauss collaborates with Orthopaedic and Neurosurgery researchers and holds multiple interdepartmental research awards for this work. She is also dedicated to promoting physician preparedness and supporting strategies to address burnout and maintain work-life balance.

Recent Publications: Five Practical Video Modules to Reduce Physician Burnout Through Mindfulness and Systematic Review of Evidence. Pouramin P, Taylor R, Llaneras NS, Sivakumar A, Blum E, Ridley C, Mackinnon SE, Krauss EM. *Plast Reconstr Surg Glob Open.* 2025; 13(8):e6878.

Rehabilitation goals for hand and upper extremity function after cervical spinal cord injury: A retrospective study. Selman T, Holland R, Harrison JM, Keefe B, Abukar E, McVeigh S, Whelan A, Krauss EM. *Spinal Cord Med.* 2025; 1:1-10.

Kudos



Dr. Greg Hirsch has received the 2026 *Faculty of Medicine Award for Career Excellence in Research Mentorship*

Dr. Michael Bezuhyly has received the 2026 *Faculty of Medicine Award for Excellence in Clinical Research Award*. Along with co-PI Dr. Jean Marshall, he is the recipient of a CIHR Project grant entitled “Defining novel mast cell dependent pathways of skin fibrosis” (\$ 1,116,900, 4 years).



Dr. Alison Wallace, along with co-PIs at the University of Calgary, is the recipient of a CIHR Project grant entitled “Radioactive air pollution induced disease prevention (RAPID)” (\$ 1,900,000, 5 years).