

researchNS

Semi-Annual Report
to the Minister of
Advanced Education

April 2022 to
September 2022

Stefan Leslie
CEO
Research Nova Scotia
5475 Spring Garden Rd.
Suite 503
Halifax, NS B3J 3T2

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Executive Summary

This semi-annual report covers the activities of the Research Nova Scotia Corporation (RNS) for the period of 1 April 2022 to 30 September 2022.

RNS's mandate is to support, organize and coordinate the funding of research in Nova Scotia. Our regulations and corporate strategy put outcomes into focus: whether funding a small-scale grant to pursue improved quality of life, or supporting a multi-million dollar initiative that changes Nova Scotia's energy capabilities, RNS starts with what the province needs, and then brings together the people, projects, equipment and partners that will find solutions.

In the period covered by this report, RNS supported 47 research projects including capacity building grants for students and new researchers, intentional initiatives, and infrastructure support to match federally funded grants awarded to Nova Scotian institutions. The Corporation continues to work closely with Nova Scotia's research institutions to encourage early engagement on federal competitions. RNS facilitates discussions between partners, uptake organizations and end users in the grant development process and remains engaged throughout the application process, and advocates for Nova Scotian priorities to our federal counterparts.

In addition, RNS pursues partnerships and collaboration opportunities that will increase the capacity of the organization to invest in research that makes a difference to Nova Scotians. Through partnerships with Engage Nova Scotia, Genome Atlantic, and the Nova Scotia COVID Recovery Trust, we support innovative activities that help solve problems facing the province, from sustainable and thriving aquaculture to improving the experiences of newcomers working in Nova Scotia.

RNS launched three significant initiatives in the summer of 2022.

The **Forestry Research Program** builds on the Bringing Focus to Forestry research agenda submitted to the Forestry Innovation Transition Trust (FITT) in November 2021. In partnership with FITT, the research program will fund projects and initiatives that support Nova Scotia's forestry sector in its transition to a more sustainable future. FITT funding enabled RNS to bring on a dedicated forestry resource with extensive industry experience to support the program over its three-year timeline.

RNS developed the **Ukrainian Emergency Research Support Program** to assist students, researchers and research technicians relocating to Nova Scotia as a result of the Russian invasion of Ukraine. We are focusing our efforts on research technicians and assistants, who bring their expertise to Nova Scotian research labs as highly qualified personnel.

In partnership with the Discovery Centre, RNS created the **Public Impact Award** to highlight researchers whose work is dedicated to improving the lives of Nova Scotians. The three finalists are achieving results in climate change adaptation, restorative justice, and sustainable agrifood innovation.

This report highlights the impact of RNS through several activity areas.

RNS's **Scotia Scholars program** supported 30 master's and 12 doctoral students during the reporting period, helping to fund research in key areas of health systems improvement and delivery. We profile the contributions of Andrew Hamilton (MSVU), Abraham Nunes (Dalhousie) and Sydney Breneol (IWK) to show how these three Scotia Scholars are contributing to improving the province's health care system – and in part due to the opportunities RNS has provided, have chosen to remain in Nova Scotia.

RNS supports **research connected to the needs of Nova Scotia industry**. The goal of Dr. Nicoletta Faraone (Acadia University) is to create knowledge that is useful to industry. With a solid foundation in basic science and growing connections with local companies, Nicoletta is bridging the gap between discovery research and applied research and helping to build industry's capacity to understand and use research results.

By partnering with **Genome Atlantic** to create the **Small-Scale Climate Change Fund**, RNS was able to support eight organizations consider genomic tools as a way to protect their industry from the negative impacts of climate change.

As part of our role to support research in Nova Scotia, RNS is engaging directly with a broad audience through **podcasts and researcher spotlights**. The podcast explores opportunities or risks in Nova Scotia and connects these issues to the researchers working on them. We hear the voices of community leaders and industry, who are benefiting from the research happening in Nova Scotia, helping to serve their communities and grow their businesses.

The RNS Board welcomed new directors to replace those whose terms had expired. These representatives from industry, the not-for-profit sector, postsecondary research institutions, and the Province of Nova Scotia add expertise and perspectives to Board deliberations.

Board of Directors

The members of the Research Nova Scotia Board of Directors as of 30 September 2022:

Don Bureaux (Chair) – President, Nova Scotia Community College

Andrew Hakin – President and Vice-Chancellor, St. Francis Xavier University

Denise LeBlanc-MacDonald – Director General, National Research Council

Nancy MacLellan - Deputy Minister, Department of Advanced Education

Nicholas Nickerson – Chief Scientist and Co-Founder, Eosense

Karen Oldfield – President and Chief Executive Officer, Nova Scotia Health

Peter Ricketts – President & Vice-Chancellor, Acadia University

Deep Saini – President & Vice-Chancellor, Dalhousie University

Robert Summerby-Murray – President & Vice-Chancellor, St. Mary's University

Oliver Technow – Chief Executive Officer, Biovectra

Kathleen Trott – Associate Deputy Minister, Department of Health and Wellness

Annika Voltan – Executive Director, Impact Organizations of NS

Considering our Impact

With missions firmly rooted in the outcomes RNS wants to effect, the ways in which Corporation is impacting Nova Scotia can be seen in more than facts and figures. This report showcases several examples of this:

- By partnering with Genome Canada to help industry prepare for climate change, RNS is investing in research that will help the private sector plan for its future.
- By supporting research that has the potential for commercialization, RNS is helping to link researchers to start-ups across the province.
- By funding students to learn about health researchers, RNS is helping to develop the talent that will lead the province's health care system in the future.
- By helping to communicate the results of the research in which it is investing, RNS is exposing policy and decision makers to the depth and breadth of the knowledge that is created in Nova Scotia every day.

Partnering to Impact Climate Change

As climate change progresses, Atlantic Canada will need to deal with unique challenges. Research has the capacity to create tools to help prepare industry to manage some of these challenges. For instance, a recent partnership between Research Nova Scotia and Genome Atlantic created the Small-Scale Climate Change Fund (SSCCF) which made funding available to support rapid research projects involving companies and local universities to develop or adopt genomics tools for the battle against climate change.

A total of eight projects ranging in cost from \$5000 to \$20,000 were supported from the SSCCF. The projects involved:

- Genotyping the region's milking shorthorn cattle population
- Rapid detection of a deadly oyster parasite in Atlantic Canada
- Passive sampling to monitor for harmful algae blooms
- Exploring adaptation to ocean warming in blue mussels
- Developing metabolomic approaches to soil microbiomes to increase carbon sequestration in agriculture
- Using DNA to track invasive earthworm species
- Creating a baseline molecular risk assessment for shell disease in the Atlantic Canada Lobster fishery
- Identification of climate-resilient potato varieties.

While the reports on all of the rapid projects showed progress towards adapting to deal with climate change, one in particular, in which genetic profiles from different parts of the Atlantic region were studied to improve environmental tolerance in blue mussels, has led to a larger collaboration between a local mussel producer and a local university.

Atlantic Aqua Farms (AAF), the largest farmer and producer of mussels in North America, is based on PEI with sites in Nova Scotia. In order to increase production, AAF has been exploring the use of triploid mussels on its sites. Triploid mussels have an extra set of chromosomes compared to wild mussels and are sterile. While they grow to market size faster than their wild cousins, triploid mussels have less tolerance to warm water temperatures. In the proposed collaboration, AAF will work with Dalhousie University to employ genomic tools to determine if they can produce triploid mussels that can withstand the increasing water temperatures around the region, thus protecting the future of an important Atlantic food product.

Dalhousie and AAF have submitted a funding application to Genome Canada's Genomic Applications Partnership Program (GAPP) and the results of that competition should be known in early 2023.

Impacting Start-Ups



Dr. Nicoletta Faraone is fascinated about what makes ticks tick. Born and educated in Italy, she came to Acadia University in 2017 to do postdoctoral research on natural pesticides and became interested in the growing concerns in Nova Scotia about ticks and Lyme disease. Now, with a solid foundation in basic science and growing connections with local companies, Nicoletta is bridging the gap between discovery research and applied research and helping to build industry's capacity to understand and use research results.

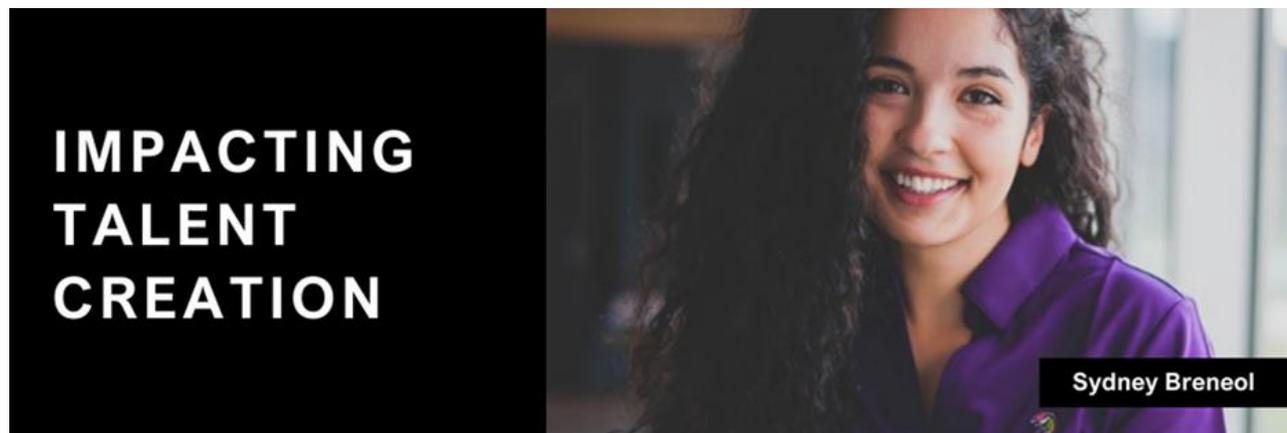
One example of this bridging is Nicoletta's work with Mahone Bay based Atlantick which is developing and marketing a line of naturally sourced tick repellents. According to Atlantick's COO, Nancy Thompson, the company's relationship with Nicoletta has been critical to its growth. "Nicoletta is accessible to us, open to our inquiries, and patient in explaining the implications of the research she conducts. Having a close relationship with a research champion has been a distinct advantage as we've moved along the road to commercialization."

While she continues her work with Atlantick, Nicoletta is also undertaking research for other Nova Scotia start-ups. For example, she has been using nanotechnology to help Oberland Agriscience of Halifax optimize production of black soldier fly larvae which is the basis of its alternative protein source. Oberland is currently selling its larvae as specialized fertilizer and its pet food products are found in stores across the country.

More recently, Nicoletta has been working with Halucenex Life Sciences, a Windsor based start-up that is investigating the use of psychedelic compounds to treat depression and anxiety, especially in those with PTSD. In her lab, Nicoletta is testing psilocybin, the active compound in “magic” mushrooms, on fruit flies to learn more about its efficacy in treating mental health conditions. Animal studies are often the precursors to trials with human participants.

Nicoletta describes herself as a chemist who is interested in providing solutions for human and animal health concerns. She says the goal of her research is to create knowledge that is useful to industry. She credits Acadia’s Office of Industry and Community Engagement and support programs from Mitacs, Nova Scotia Business Inc., and NRC’s Industrial Research Assistance Program for helping her to forge connections with the companies that will translate her work into solutions for Nova Scotians.

Impacting Talent Creation



By supporting students to undertake health-related projects, Research Nova Scotia is investing in the next generation of researchers to work on some of the health care delivery challenges in the province.

The Scotia Scholars Awards program pairs students at the undergraduate, masters and doctorate levels with experienced researchers to undertake projects that align with RNS’s Healthy People and Health Care Systems mission area. The projects range in length from a summer to four years

depending on the education level of the student. They nurture curiosity and build capacity for a health research career in academia, in clinical settings, or in industry.

Hundreds of students at every university and NSCC have participated in the program since its inception. It is a model for building health research capacity in the province.

Consider Andrew Hamilton who received two Scotia Scholars awards when he was a student at Mount Saint Vincent University. His research projects opened doors that have enabled him to impact industry and health care delivery.

When Andrew left Ontario to study nutrition at MSVU, he planned to return there. After several years in retail management, he had decided to become a registered dietician. The program at The Mount was well-respected so he and his wife made Nova Scotia home while he was studying. Exposure to a research project one of his professors was leading changed his plans. Andrew became aware of the power of research to create new products and was determined to be part of it. He credits his undergraduate Scotia Scholars award for helping to secure admittance to a Masters level program, where his research on healthy snack foods attracted academic partners from around the region and the attention of industry. A job offer from a Cape Breton-based firm that was developing a line of healthy snacks for schools and hospitals took him to Sydney after graduation, and thoughts of returning to Ontario were forgotten.

Next, Andrew applied his skills in research design and execution to managing clinical trials for Nova Scotia Health's Eastern Zone. His familiarity with commercialization gave him an edge in dealing with the companies sponsoring the trials and his experience with collaboration motivated him to seek out partners at St. Francis Xavier University and Cape Breton University. In 2022, that partnership with CBU led to him being named the inaugural Executive Director of its Centre of Excellence in Healthy Aging, a collaboration supported by RNS, Nova Scotia Health, and the Department of Health and Wellness, which is conducting clinical research on dementia prevention.

Dr. Abraham Nunes has taken a different path to contributing to the health of Nova Scotians. After graduating from the University of Toronto's medical school, Nunes came to Halifax for a residency interview. A chance meeting with renowned Dalhousie mood disorder researcher, Dr. Martin Alda, one his "research heroes" changed Abraham's plans to remain in Toronto. Instead, he came to Nova Scotia and is now a psychiatrist and a researcher working with Dr. Alda to understand the neurobiology of brain disorders, such as bipolar disorder. His work involves the use of computational modeling, statistical analysis and machine learning to understand what's happening

in the brain, which he calls “the body’s computer”. When a patient has psychiatric symptoms, he believes that his work will lead to better diagnostic tools and treatments.

Abraham said the support available to him in Nova Scotia was critical to continuing his studies here and remaining once he graduated. The Scotia Scholars award helped with the costs associated with completing a PhD while raising a family of four. He said the competitive nature of the award was also useful in that it taught him to develop a successful grant application, and gave him a funding citation for his CV, which opened doors to additional funding opportunities. Most recently, Abraham received a New Health Investigator Grant from RNS for his work on understanding the brains of patients with bipolar disorder, especially with regard to memory.

Sydney Breneol is a registered nurse and a PhD in Nursing candidate who is working at the IWK Health Sciences Centre on providing care for children with complex medical needs when they transition from hospital to home.

Sydney, a native of PEI, knows her subject matter all too well. As a teenager, she was treated for cancer at the IWK. Her experiences led her to study nursing at UPEI, where a professor encouraged her interest in research. Several years later, she’s preparing to defend her thesis and continue her research career, here in Nova Scotia.

Sydney said the funds that came with the Scotia Scholars award were very welcome, but noted there were other benefits, such as opportunities to meet other students and mentors and the boost of confidence that came with knowing she was chosen for the award based on her merit. “I was pretty nervous about being in a PhD program,” she noted. “Knowing I was a Scotia Scholar, feeling that someone believed in my potential enough to invest in me, gave me a real confidence boost.”

Having access to a variety of mentors has helped Sydney zone in on her passion – the sharing of research results to inform new processes or policies. She said that while research creates knowledge, it is of limited value if it is not mobilized into the health care system. She recently accepted a position with a Halifax-based non-profit organization with a mission to employ evidence to inform policies and programs. She believes that with this organization, the results of her research can be implemented to support health care in the province.

While these three Scotia Scholars are impacting the province's health care system in diverse ways, there are similarities in their stories which highlight the value of the program. Funding for students pursuing health-related studies is difficult to secure and each of our award recipients credit the financial award for enabling them to concentrate on their research. All three connected to mentors who nurtured their curiosity and helped them hone their skills. Most importantly, Andrew, Abraham and Sydney are all remaining in Nova Scotia, using their talent and expertise to tackle the challenges that face the province.

Communicating Impact

Research Nova Scotia supports researchers by sharing the results of their work directly to a broad audience.

Beyond Research Podcast

Building on the success of our first season, RNS re-launched the podcast with a new focus and a new format. Season two episodes examine opportunities or risks in Nova Scotia and connects these issues to the researchers working on them. We hear the voices of community leaders and industry who are benefiting from the research happening in Nova Scotia, helping to serve their communities and grow their businesses. During the reporting period, we published three podcast episodes.

Season 2 – Episode 7 | Economic Growth Through Research:

<https://researchns.ca/season-2-episode-7-economic-growth-through-research/>



Research plays a vital role in creating economic growth, talent attraction, and youth retention. When properly executed, research investments also support provincial priorities. In this episode, we explore the different ways research can create economic growth for both new and established companies.

Episode Guests:

Dr. Daniel Boyd, Dalhousie University

Matt Cooper, CEO at Volta

Season 2 – Episode 8 | Climate Change & Agriculture

<https://researchns.ca/beyond-research-podcast-episode-8-climate-change/>



In this episode, we explore how resilient our land-based farms and farm-related businesses are to the impacts of global climate change, as well as solutions researchers and farmers are exploring to help improve our ability to adapt long-term. We hear from industry experts on how climate change is currently impacting our agri-food industry, what solutions are being implemented successfully, and discuss how we can best prepare for future climate-related challenges.

Episode Guests:

Dr. Alana Pindar, Cape Breton University

Rosalie Gillis-Madden, Perennia Food and Agriculture

Season 2 – Episode 9 | Virtual Reality and Health Care

<https://researchns.ca/beyond-research-podcast-episode-9-virtual-reality-health-care/>



Virtual Reality continues to be embraced by researchers, health care providers, and patients alike. Although the field is still relatively new, there are more and more examples of virtual reality having a positive impact on health care delivery, treatment, and training both here at home and around the globe. In this episode we explore examples of how research in the area of virtual reality could help address current gaps and in our healthcare system and improve patient care today and in the future.

Episode Guests:

Dr. Jordan Sheriko, IWK Health Centre

Megan Brydon, IWK Health Centre

Researcher Spotlight

Culture and Perspectives on Sexual Assault Policy

Watch it here: https://www.youtube.com/watch?v=6_sKG-Uv5ng



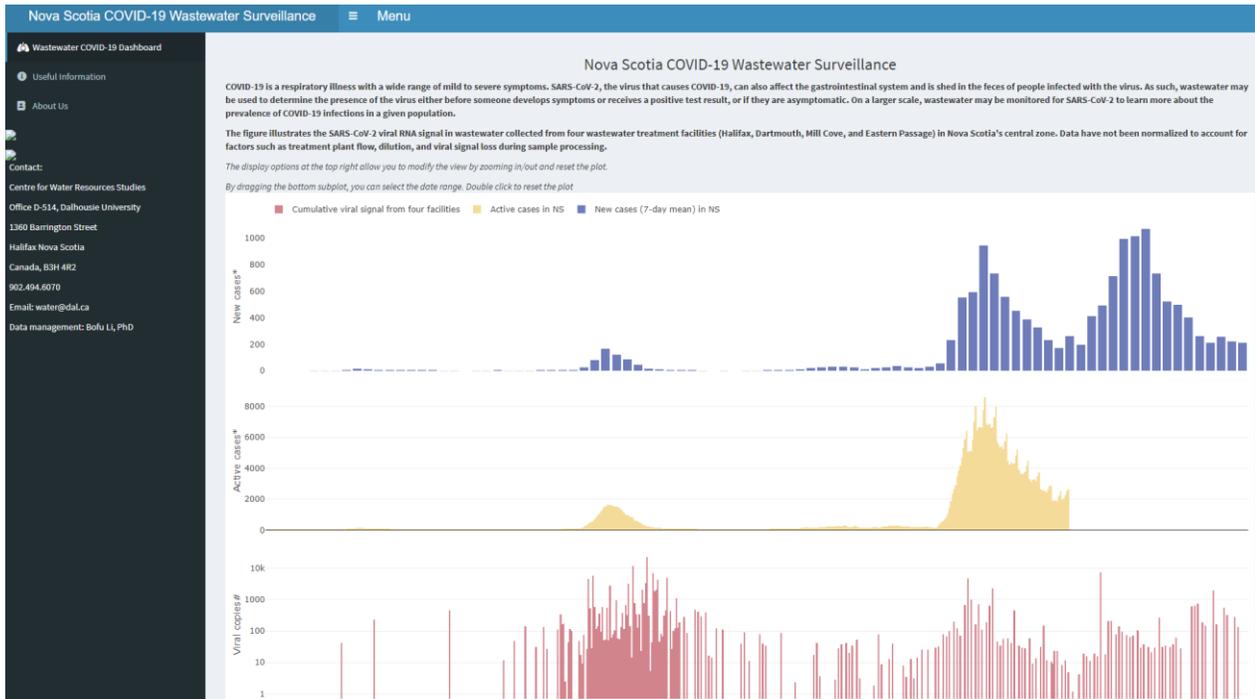
Culture and Perspectives on Sexual Assault Policy (CAPSAP) is a 4-phase study that was conducted at 4 universities in Nova Scotia: Mount Saint Vincent University, Cape Breton University, Saint Mary's University, and Dalhousie University. The research project aimed to gather diverse student perspectives on university sexual assault or sexual violence policies (SV/SA policies). The principal objective has been to provide information that can support university administrators and service providers in providing sexual assault services and responses that fit the needs and perspectives of their culturally diverse student populations.

The information provided via the CAPSAP website, supportsurvivors.ca, is intended to:

- support people (the characteristics and qualities participants see as helpful for responding to sexual violence)
- educate and build awareness (the strategies participants suggested for raising awareness among students)
- suggest policy considerations (elements that should be included in policy or highlighted on educational materials and during information sessions)
- provide virtual communication tools to facilitate education about sexual violence and sexual violence/assault policies, or that would facilitate disclosure
- present administrative considerations (relating to the development, application, and review of SV/SA policies).
- The website also contains a variety of tools to help realize the recommendations the research team has put forward.

Web Stories

Centre for Water Resources Studies launches public COVID-19 wastewater dashboard.



The Centre for Water Resources Studies at Dalhousie University is proud to present its [public COVID-19 wastewater dashboard](#). Wastewater samples from the past 18 months have been collected from four wastewater facilities in Halifax, Nova Scotia.

Project partners include Halifax Water, LuminUltra Technologies, and Research Nova Scotia.

[Learn more about the research project](#) or listen to the Beyond Research Podcast Season 1, Episode 7, "[Testing the Wastewaters: Researchers Develop a Fast and Effective Method for Detecting SARS-CoV-2](#)" below, or wherever you get your podcasts.

Projects Approved by the Corporation

Over the last six months, RNS supported 47 research projects through its Research Opportunities Fund and the Scotia Scholars Awards program.

From 1 April 2022 to 30 September 2022, the following commitments were made:

RNS Commitments

Project Type	# Funded	Total Investment
Matched	4	\$610,446
Intentional	1	\$7,500
Scotia Scholars (Master's & Doctoral Levels)	42	\$772,000
	47	\$1,389,946

Appendix A details each project approved by the Corporation during the reporting period, including the following information on each research project:

1. Name of the lead applicant
2. Name of the lead institution or organization
3. Name of the project
4. Amount of funding approved
5. Research sector
6. Estimated number of jobs in Nova Scotia that will be supported by the funding awarded to the project
7. Estimated number of training opportunities for students and others in Nova Scotia that will be supported by the funding awarded to the project
8. Information about any funding that the project received from other sources, including the following:
 - a. The name of each source, and

- b. The amount received from each source and whether it was in the form of cash or an in-kind contribution.

In this period, RNS invested in building research capacity in 42 students through its Scotia Scholars program. Scotia Scholars supports trainees at the undergraduate, Masters and PhD levels to work on a specific health research project with faculty mentors. Awards for the graduate programs, which were confirmed in June 2022, ranged from \$1,500 to \$60,000 depending on the level of study. The 42 most recent Scotia Scholars are enrolled at Acadia University, Dalhousie University, Mount Saint Vincent University, the Nova Scotia College of Art and Design, and Saint Mary's University.

The competition for undergraduate students will be completed by the end of March 2023. Awards for these students will be issued in time for the summer term when many of these projects are undertaken.

Operations Plan

Research Nova Scotia operates under a rolling three-year operations and strategy implementation plan, as stipulated by the *Research Nova Scotia Corporation Funding Regulations*.

The plan details the key RNS operations that provide focus to the ways in which RNS will address key research trends, mechanisms and intended outcomes we will pursue, and our ongoing connections with Nova Scotia's priorities.

The full plan, which accompanies this semi-annual report, covers the fiscal years **2023-24, 2024-25, and 2025-26**. The first year of activities and operations are defined in greater detail; the second and third years provide a higher-level overview.

This plan includes:

- **Trends in research needs and opportunities:** RNS works with provincial counterparts, partners and other innovation-focused organizations to identify key trends for which research could play a valuable role. We update these trends each year, and consider their influence on our operations and priorities;
- **Activities we will undertake in Years 1-3 to address the trends:** RNS has identified key activities and mechanisms that help position Nova Scotia to respond to challenges and seize opportunities as they emerge;
- **Operations to fulfill our mandate:** RNS offers and is developing additional programs, initiatives and mechanisms that increase Nova Scotia's research and innovation capacity, improve the access of research for industry and communities, and position the province as an innovation leader nationally and internationally.

Each year, we update the three-year plan to maintain oversight on changes in trends, current priorities, and give shape to our direction as we anticipate and respond to the needs of the province. Research typically operates with a long-term perspective, from planning to execution to availability of results. Continuously looking ahead over three years ensures that we maintain our focus on the delivery of results to Nova Scotians, while providing the longer-term focus the research community needs.

Financial Forecast

The following table includes:

1. The current balance in the Research Opportunities Fund and the amount anticipated to be paid from the Fund over the next 6 months;
2. The amount spent on operations from April to September 2022, and the amount anticipated to be spent on operations over the next 6 months;
3. The proposed Research Opportunities Fund and Operations budget for the 01 April 2023 to 31 March 2024.

	Spent (Apr-Sep 22)	Balance (30 Sep 22)	Forecast (Oct 22 – Mar 23)	Proposed (23/24)
Research Opportunities Fund (ROF)	\$1.39 M ¹	\$40.9 M ²	\$14.2 M ³	\$22.1 M ^{1,4}
Operations	\$0.88 M ⁵	N/A	\$0.92 M ⁵	\$1.85 M ^{5,6}

Notes to the financial table:

1. This figure includes both paid and committed (through a grant payment agreement) for new projects approved in the reporting period. It excludes funds paid in the reporting period for projects approved and committed in previous years.
2. This is the total ROF amount that remains uncommitted at the end of the period. It includes an expected \$5 million from Advanced Education for health research and general ROF contribution for 22/23.
3. Includes expected CFI, partner, and convened projects to be approved from October 22 through March 2023.

4. Estimate based on anticipated requests for matching funds, planned convened projects, targeted health research (in consultation with Department of Health and Wellness), and student awards (Scotia Scholars). The budget includes a small contingency for opportunities expected but as yet unannounced.
5. Excludes operations costs associated with forestry research, which is paid for through a contribution agreement with the Forestry Innovation Transition Trust. RNS receives \$150 k per year to cover one FTE and their operating costs.
6. The proposed budget estimates CPI, which is part of the salary adjustment formula and affects most non-salary operations costs.

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Appendix A

Funded April 1- September 30, 2022

Project	Researcher	Institution	RNS Funding	Sector	# of Jobs Created (FTE)	# of Training Opportunities	Partners	Cash	In-Kind
RESEARCH OPPORTUNITIES FUND – CFI JOHN R. EVANS LEADERS FUND (JELF)									
Tick Chemosensory System Station	Nicoletta Faraone	Acadia University	\$249,632	Health	2.0	0	CFI, Industry	\$251,030 (CFI)	\$195,578 (Industry)
Symbiotic nitrogen fixation in legume plants	David Chiasson	Saint Mary's University	\$213,470	Agriculture and Agri-Foods	6.7	14.7	CFI, Saint Mary's University, Industry	\$213,515 (CFI) \$43,500 (SMU)	\$63,766 (Industry)
Research Infrastructure for Large-scale 3D Geometry Acquisition and Modeling	Jiju Poovancheri	Saint Mary's University	\$77,500	Computer Technology	2.0	4.5	CFI, Industry	\$81,188 (CFI)	\$45,028 (Industry)
Neurovascular Research Infrastructure for Improving Brain Health	Erin Mazerolle	St. Francis Xavier University	\$69,844	Health	7.0	7.5	CFI, St. Francis Xavier University, Industry	\$69,859 (CFI) \$1,600 (St. FX)	\$2,080 (St. FX) \$33,358 (Industry)

Project	Researcher	Institution	RNS Funding	Sector	# of Jobs Created (FTE)	# of Training Opportunities	Partners	Cash	In-Kind
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PARTNERSHIP

Partnering to Implement Engage Nova Scotia's Sustainable Development Goals Program	Danny Graham	Engage Nova Scotia	\$7,500	Community Support	2.0	N/A	N/A	N/A	N/A
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SCOTIA SCHOLARS AWARD (MASTER'S)

Intolerance of uncertainty as a moderating factor in understanding relational turbulence	Tessa Cosman	Acadia University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
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Examining attrition and predictors of adherence in a dual-control group study of brief online mindfulness	Arthur MacDonald	Acadia University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
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On the Turning Away: How Fear and Self-Esteem Affect Thought Accessibility	Robb Tupper	Acadia University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
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Sexual Identity Development Trajectories and Their Associated Health Outcomes: Expanding Upon the Facilitative Environments Model	Meaghan Hymers	Acadia University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
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Memories of Parents' Reactions to Coming Out as LGBTQ+	Olivia Cleary	Acadia University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
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Project	Researcher	Institution	RNS Funding	Sector	# of Jobs Created (FTE)	# of Training Opportunities	Partners	Cash	In-Kind
Assessing Visually Induced Motion Sickness in a Diverse Population of Female Stroke Survivors	Summer Fox	Acadia University	\$2,500	Health	N/A	N/A	N/A	N/A	N/A
Detecting the spread of invasive mosquitoes and disease potential in Nova Scotia	Taylor Swanburg	Acadia University	\$1,500	Health	N/A	N/A	N/A	N/A	N/A
Iron supplementation among pregnant Nova Scotians: an exploratory cross-sectional study to assess perceptions and practices	Devora Goldberg	Mount Saint Vincent University	\$20,000	Health	N/A	N/A	N/A	N/A	N/A
Quality of work life in long-term care staff during and after COVID-19: The impact of for-profit/not-for-profit ownership models	Amber Duynisveld	Mount Saint Vincent University	\$20,000	Health	N/A	N/A	N/A	N/A	N/A
Cambodian factory workers' knowledge, attitudes and practices towards maternal and infant and young child feeding and peripartum labour laws	Emily Meier	Mount Saint Vincent University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
Adverse Childhood Experiences and the Information Processing Stream	Adam Mariotti	Saint Mary's University	\$6,500	Health	N/A	N/A	N/A	N/A	N/A
Risk Factors and Recidivism Rates of Victim Age Polymorphism: A Meta-Analysis	Samantha Williams	Saint Mary's University	\$6,500	Health	N/A	N/A	N/A	N/A	N/A

Project	Researcher	Institution	RNS Funding	Sector	# of Jobs Created (FTE)	# of Training Opportunities	Partners	Cash	In-Kind
Development and functional divergence of tendon	Theodore (Ted) Lownie	Saint Mary's University	\$2,250	Health	N/A	N/A	N/A	N/A	N/A
The Detection & Prevention of Suicidality in Justice-Involved Populations: An Empirical Evaluation of the Three-Step Theory of Suicide	Krystal Lowe	Saint Mary's University	\$2,250	Health	N/A	N/A	N/A	N/A	N/A
Consent in the Context of BDSM: Conceptualization, Violations, and the Role of the BDSM Community	Myles Davidson	Saint Mary's University	\$6,500	Health	N/A	N/A	N/A	N/A	N/A
M(other) and Child	Claire Drummond	Nova Scotia College of Art and Design	\$8,000	Health	N/A	N/A	N/A	N/A	N/A
Dislocate(d)	Megan Hosmer	Nova Scotia College of Art and Design	\$4,000	Health	N/A	N/A	N/A	N/A	N/A
Empowered Cycles	Susan Willcocks	Nova Scotia College of Art and Design	\$8,000	Health	N/A	N/A	N/A	N/A	N/A

Project	Researcher	Institution	RNS Funding	Sector	# of Jobs Created (FTE)	# of Training Opportunities	Partners	Cash	In-Kind
Evaluation of the Implementation of Better Nights, Better Days for Children with Neurodevelopmental Disorders (BNBD-NDD)	Alzena Ilie	Dalhousie University	\$20,000	Health	N/A	N/A	N/A	N/A	N/A
Investigating the role of PML in lung cancer cell migration and tumour formation	Sieun Park	Dalhousie University	\$20,000	Health	N/A	N/A	N/A	N/A	N/A
Model Optimization of Histotripsy in Neurosurgery Using Ultrasound and MRI Imaging	Justin Greige	Dalhousie University	\$20,000	Health	N/A	N/A	N/A	N/A	N/A
Integration of Ultrasound Endoscope with Surgical Navigation System	Annika Benson	Dalhousie University	\$20,000	Health	N/A	N/A	N/A	N/A	N/A
Is Anxiety a Mediator in the Relationship Between Cannabis Use and Psychotic-Like Experiences in Emerging Adults? Investigating a Mediation Model in a Multi-Site University Sample	Haley Bernusky	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
Characterizing the role of host stress and inflammatory responses during chronic Pseudomonas aeruginosa infection	Shannen Grandy	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A

Project	Researcher	Institution	RNS Funding	Sector	# of Jobs Created (FTE)	# of Training Opportunities	Partners	Cash	In-Kind
Investigating Previously Infected SARS-CoV-2 Individuals in a University Setting for Antibody Waning and Variant Incidence: A Cross-Sectional, Seroprevalence Study	Benjamin Hewins	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
Investigating NRAD1-miR-4485-3p: a new lncRNA-miRNA axis with therapeutic potential in triple-negative breast cancer	Hannah Cahill	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
Prescriptive natural killer cell-based immunotherapy for leukemia	Emily Carter	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
Depressed mood and relationship conflict: A three-wave longitudinal study of romantic couples	Andy Kim	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
Attention bias and social skills in youth with anxiety disorders	Hailey Burns	Dalhousie University	\$10,000	Health	N/A	N/A	N/A	N/A	N/A
The role of the unfolded protein response in influenza A virus infection	Alina Butova	Dalhousie University	\$9,000	Health	N/A	N/A	N/A	N/A	N/A

SCOTIA SCHOLARS AWARD (DOCTORAL)

Caring for the Instrument: Fine Tuning Teacher Self-Care in Rural Nova Scotia	Erika Kirk	Acadia University	\$15,000	Health	N/A	N/A	N/A	N/A	N/A
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The impact of diet and nutritional status on levels of frailty	Mariana Gonzalez Lara	Dalhousie University	\$60,000	Health	N/A	N/A	N/A	N/A	N/A
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Stressed out: Investigating how Kaposi's sarcoma-associated herpesvirus attacks the cellular stress response	Alexa Wilson	Dalhousie University	\$60,000	Health	N/A	N/A	N/A	N/A	N/A
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Developing a theory-guided, evidence-based training program for rehabilitation providers working with residents with dementia in long-term care	Michael Ibekaku	Dalhousie University	\$60,000	Health	N/A	N/A	N/A	N/A	N/A
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A Motivation-Facilitation Approach to Understanding Image-based Sexual Abuse	Jennifer McArthur	Dalhousie University	\$60,000	Health	N/A	N/A	N/A	N/A	N/A
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Exploring the health needs of immigrant mothers in the postpartum period: A qualitative research study	Neda Akbari Nassaji	Dalhousie University	\$60,000	Health	N/A	N/A	N/A	N/A	N/A
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Characterizing the Neural Profile of Auditory Hallucinations in Bipolar Disorder	Ashley Francis	Dalhousie University	\$45,000	Health	N/A	N/A	N/A	N/A	N/A
Contributing factors to mental health issues in intense social media users among young female Nova Scotians	Kitti Bessenyei	Dalhousie University	\$30,000	Health	N/A	N/A	N/A	N/A	N/A
Optical medical device for detecting the proportion of fat and other biochemicals associated with liver transplantation outcomes in humans	Hao Guo	Dalhousie University	\$30,000	Health	N/A	N/A	N/A	N/A	N/A
Developing a Coaching Intervention to Prevent Burnout Among Medical Residents Post COVID-19 Pandemic	Seyedehsan Etezad	Saint Mary's University	\$15,000	Health	N/A	N/A	N/A	N/A	N/A
Understanding Cartilage Resorption on a Tissue and Molecular Level	Shea McInnis	Saint Mary's University	\$15,000	Health	N/A	N/A	N/A	N/A	N/A
Examining how health care professionals' empathy profiles and work outcomes change over time	Gregory Anderson	Saint Mary's University	\$15,000	Health	N/A	N/A	N/A	N/A	N/A
TOTALS			\$1,389,946		19.7	26.7		\$660,692	\$339,810