

The background of the cover features several large, overlapping teal-colored shapes that resemble stylized puzzle pieces or organic forms. These shapes are set against a plain white background.

Science Atlantic

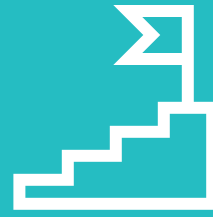
connecting science education and research

2017
2018
Annual Report



Our Organization

Science Atlantic is a federally incorporated and registered charitable association for scientists, post-secondary faculty, researchers, and students in Atlantic Canada.



Our Mission

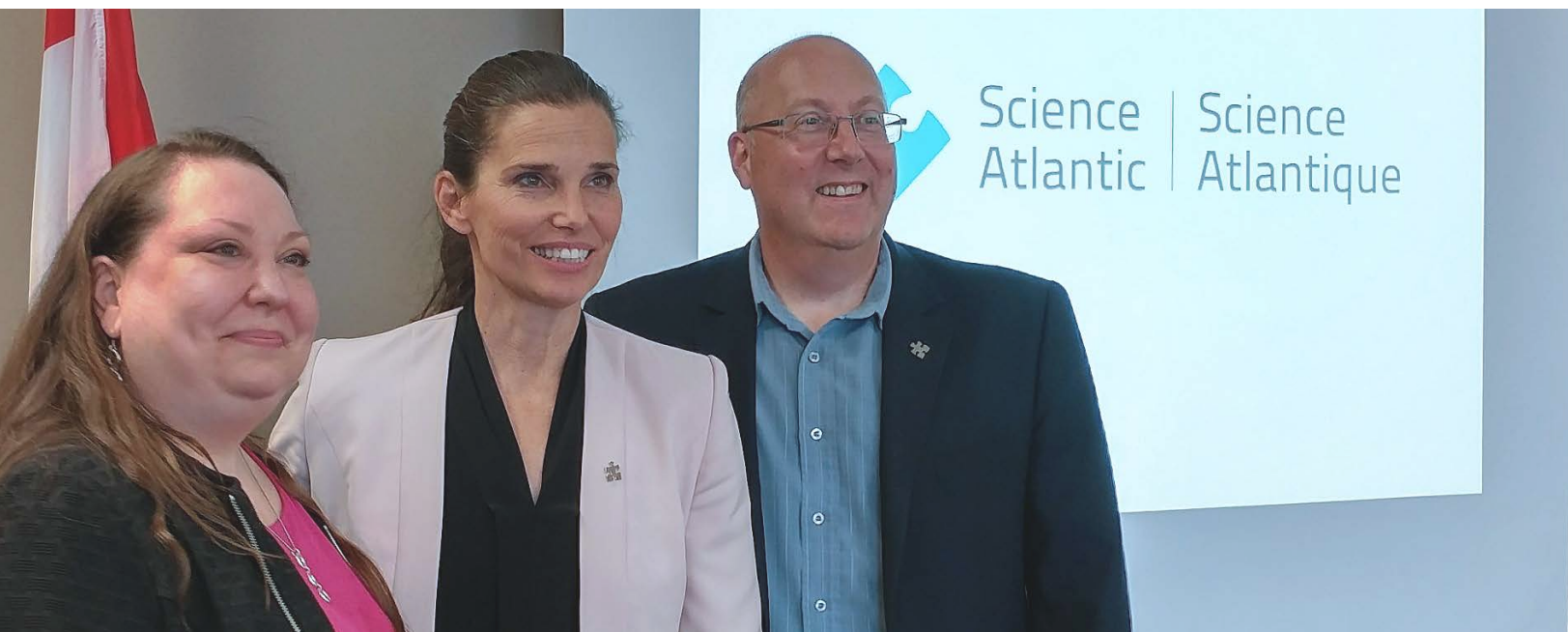
To advance post-secondary science education and research in Atlantic Canada by:

- Providing opportunities that foster and enrich students;
- Supporting and inspiring researchers and educators; and
- Using our collective voice to address important regional science issues.

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Message from Executive Director Lois Whitehead

The past year has been one of focus and determination as we lay the groundwork for a strong and sustainable future. Of our many activities, two stand out for me.

First, we met with the Honourable Kirsty Duncan, Minister of Science, in August. We shared with her the unique history and structure of Science Atlantic, celebrated the contributions of members and students, and demonstrated the Atlantic Facilities and Research Equipment Database (AFRED). She expressed appreciation for the work we do with students and interest in our cross-institutional, collaborative efforts.

Second, in November we embarked on a strategic planning process with the Atlantic Deans of Science, Science Atlantic Institutional Representatives and Committee Chairs, Board members, and staff. These sessions strengthened our dedication to our core activities as well as our commitment to growing the organization and our newest program, AFRED. A standing committee on strategic planning was struck to continue the work, and a detailed plan will be presented to the membership at the November 2018 annual meeting.

This year also saw big changes in staffing. As we said goodbye to Jasmine Golf, Marketing Coordinator, and Prasad Rajandran, Software Developer, Caitlynn Hines joined us as our Science Communication Officer, Michelle McPherson became our first Program and Membership Support Officer, and former student employee Emily Cross became the new AFRED Developer. After the successful launch of AFRED in March 2017, Patty King continues with us in a part-time role as Special Projects Officer. Thank you to all of you for your hard work and dedication during this period of transition and growth.

Above all, our many activities would not be possible without the support of you, our members, faculty representatives, students, deans, and donors. Thank you for your contributions and for volunteering your time and skills.

I invite you to read this year in review to note the accomplishments we've achieved together in the pursuit of creating a robust research and education environment in Atlantic Canada.

Lois Whitehead
Executive Director

Member Institutions



Cape
Breton
University



Board Members

Executive

Christian Lacroix, Incoming Chair
Professor
University of Prince Edward Island

David McCorquodale, Past Chair
Dean of Science
Cape Breton University

Chris Moore, Treasurer
Dean of Science
Dalhousie University

Director, Institutional Representatives

Amanda Cockshutt, Incoming
Dean of Science
Mount Allison University

Andy Foster
Dean of Science
Memorial University

Petra Hauf
Dean of Science
St. Francis Xavier University

Ruth Shaw, Outgoing
Dean of Science, Applied Science, & Engineering
University of New Brunswick, Saint John

Director, Committee Chairs

Jim Diamond, Incoming
Computer Science
Acadia University

Marcia English
Nutrition
St. Francis Xavier University

Dave Hornidge
Physics and Astronomy
Mount Allison University

Ken Kent, Outgoing
Computer Science
University of New Brunswick, Fredericton

Director, Members of the Community

Roby Austin
Associate Professor
Saint Mary's University

Tamara Franz-Odendaal
Professor, NSERC Atlantic Chair for
Women in Science and Engineering
Mount Saint Vincent University

Brent Myron
Manager, CREAT Network
Memorial University



7
Conferences



10
Committees



13
Universities



16
Campuses



56
Years



72
Awards



800+
Conference
Attendees



16,000 +
Undergraduate
Science Students

View this year's and
past recipients at
sciatl.org/SA-ServicePins



Service Pins

Science Atlantic depends on the many faculty members from across the region who volunteer their time to ensure the continuing activities of the organization.

In recognition of their contributions, members who have been involved for five years or longer, or who have been involved for three years as well as coordinating a Science Atlantic conference, are awarded a Science Atlantic service pin.

Each member is presented with a silver puzzle piece shaped lapel pin and a card that reads:

“

Puzzles, like science, are about discovery, problem solving, and making connections. Science Atlantic encourages these values in all its activities.

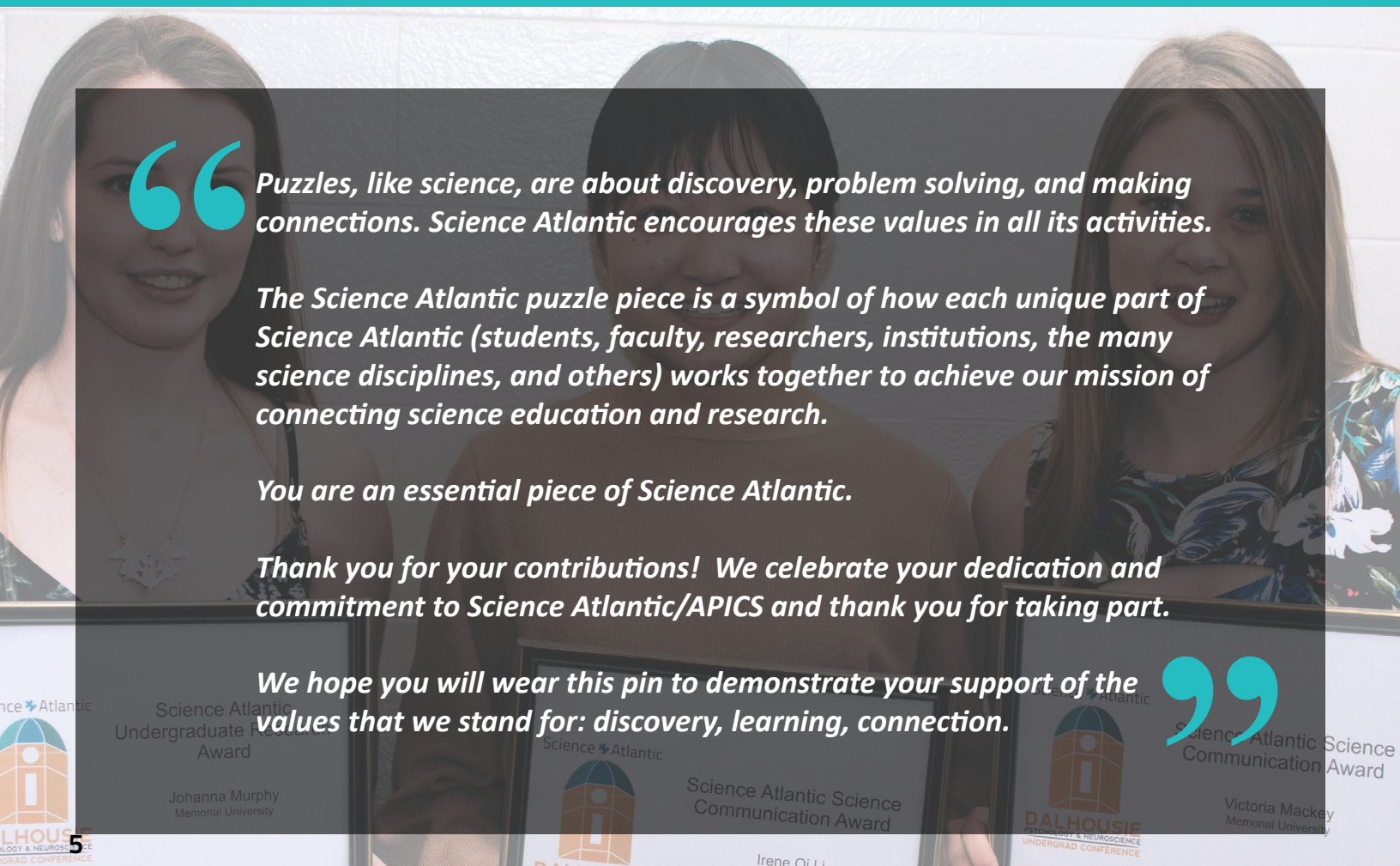
The Science Atlantic puzzle piece is a symbol of how each unique part of Science Atlantic (students, faculty, researchers, institutions, the many science disciplines, and others) works together to achieve our mission of connecting science education and research.

You are an essential piece of Science Atlantic.

Thank you for your contributions! We celebrate your dedication and commitment to Science Atlantic/APICS and thank you for taking part.

We hope you will wear this pin to demonstrate your support of the values that we stand for: discovery, learning, connection.

”



Hall of Fame

The Science Atlantic Hall of Fame was created in 2012, in honour of the organization's 50th anniversary, to recognize current and former members who have shown exemplary service to the organization, as well as alumni who can trace the start of their careers to an influential experience as a student at a Science Atlantic or APICS event.

Categories for recognition are:

- Outstanding Member,
- Outstanding Contributing Member, and
- Outstanding Alumna/Alumnus

View this year's Hall of Fame winners, past winners, or nominate an outstanding individual at sciatl.org/SA-HoF



CONGRATULATIONS TO THIS YEAR'S WINNERS, **ROBERT HAWKES (MOUNT ALLISON UNIVERSITY)**, **GORDON MACDONALD (UNIVERSITY OF PRINCE EDWARD ISLAND)**, AND **BARRY MONSON (UNIVERSITY OF PRINCE EDWARD ISLAND)**!



Committees

Approximately 150 faculty participate in Science Atlantic's committees, organizing annual student conferences, speaker tours, faculty workshops, and special projects.

Aquaculture & Fisheries

Biology

Chemistry

Computer Science

Earth Science

Environment

Nutrition

Mathematics & Statistics

Physics & Astronomy

Psychology



The Atlantic Facilities and Research Equipment Database (AFRED) is an open access, searchable database designed to increase the use of specialized research infrastructure in our region.

The goal of AFRED is to make connections between potential users and the experts and facilities that host the equipment. These connections help to create relationships between industry, government, health organizations, and researchers in both the private and public sectors.

Over the past year, we have been working diligently to create new opportunities, strengthen relationships, and make important improvements.

A second round of funding from ACOA in July 2017 has allowed the project to move forward with increased momentum. The current phase, 2017-2019, focuses on broadening our engagement with colleges, medical facilities, government, and private sector, and on enhancing the technical capacity of the system.

Working with software user experience consultant Ashley Greene of Instratify, staff spoke with senior university administrators from across Canada to learn how AFRED fits into the research landscape and its potential value, within and outside the region. We learned that managing awareness of research infrastructure is a challenge across the country.

Software developments are underway to improve user experience and open the door to potential revenue generation. In particular, new functionality allows us to create standalone and custom-branded versions of AFRED. Our first customer is University of Calgary, with their portal (infrastructure.ucalgary.ca) to be launched in summer 2018. Customized portals will also be available to Atlantic universities and colleges in a way that will simultaneously publish their equipment and facility information to AFRED, thus creating twice the opportunity for promotion and partnership building.

AFRED's growing success was featured in the May/June and November/December issues of Atlantic Business Magazine; you can read both articles at sciatl.org/AFRED-ABM. Over the next year, we hope to keep this momentum and generate more collaborations made through AFRED.

“

We formed a partnership that started in May 2017. The partnership I formed was funded through an IRF project. The college tries to network as much as possible, so it seemed like a good fit to join; it has definitely been positive, so I would recommend it.

”

Randal Power, Lead of the Innovative Product Development Centre
for the Office of Applied Research, College of the North Atlantic

“

The more researchers on AFRED the better; the goal is to collaborate. When I was putting our equipment on AFRED I tried to look around campus for other equipment and had trouble, which means our researchers probably did too unless they knew who to ask.

”

Tyler Gallant, Lead Experimental Engineer, Faculty of Engineering,
University of Prince Edward Island

Participation Growth in AFRED.ca March 31, 2017 compared to March 31, 2018

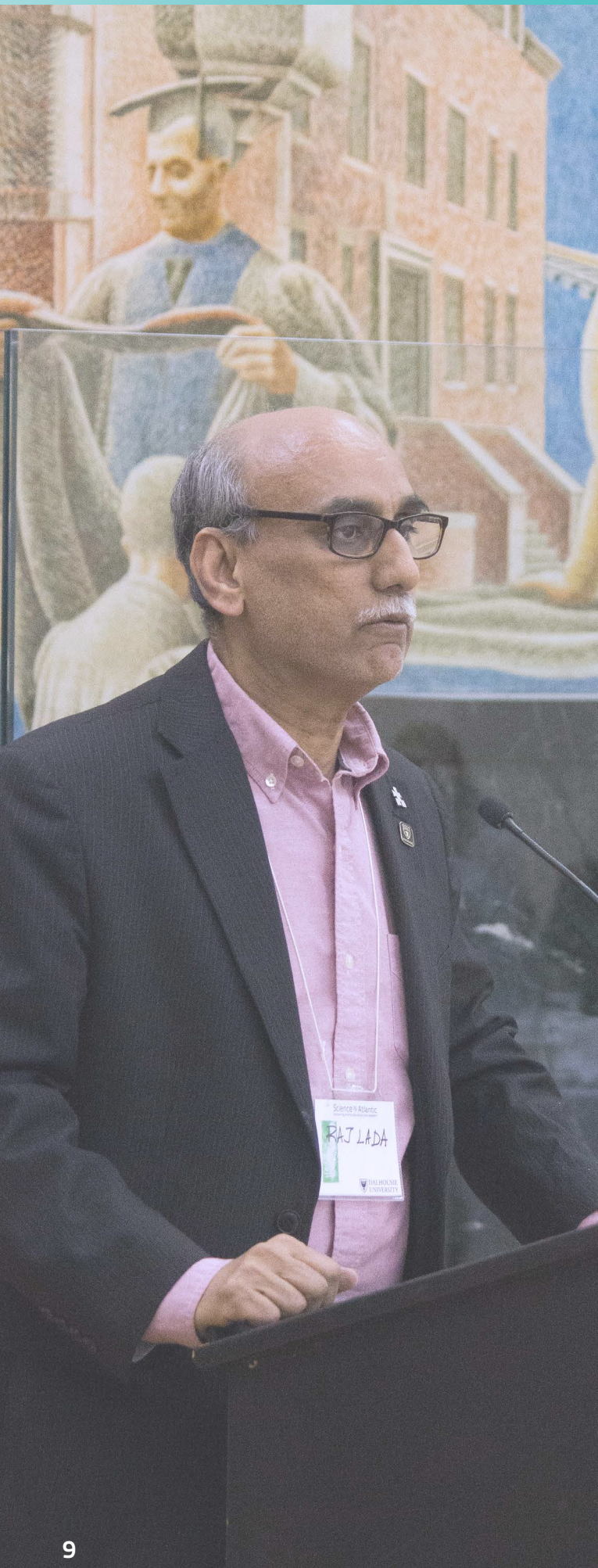


“

The individual universities have almost no idea of what they have, and I believe there is no way of knowing what exists beyond what government has helped to fund.... The universities have a very poor grasp on this information, even at a departmental level.

”

Brent Myron, Manager of Operations at the Core Research Equipment
and Instrument Training Network (CREAIT), Memorial University



Strategic Planning

In November 2017, Science Atlantic Board members, Committee Chairs, Deans of Science, member institution representatives, community members, and staff met to discuss the direction the organization should take in the next five years. Led by facilitator Lisa Tilley of Uprise Consulting, the group identified the major challenges Science Atlantic is facing, as well as where the organization excels. Four strategic priorities were identified over the course of the meeting, indicating where Science Atlantic should focus its efforts moving forward.

The Standing Committee on Strategic Planning worked over the spring to refine the strategic priorities and create measurable goals and objectives that will move Science Atlantic forward. Thank you to Roby Austin (Saint Mary's University), Alyre Chiasson (Université de Moncton), Tamara Franz-Odendaal (Mount Saint Vincent University), Petra Hauf (St. Francis Xavier University), Christian Lacroix (University of Prince Edward Island), Raj Lada (Dalhousie University, Agricultural Campus), Mel Schriver (Crandall University), and staff for their hard work and participation!

The draft Strategic Plan will be available in autumn 2018.

Conferences



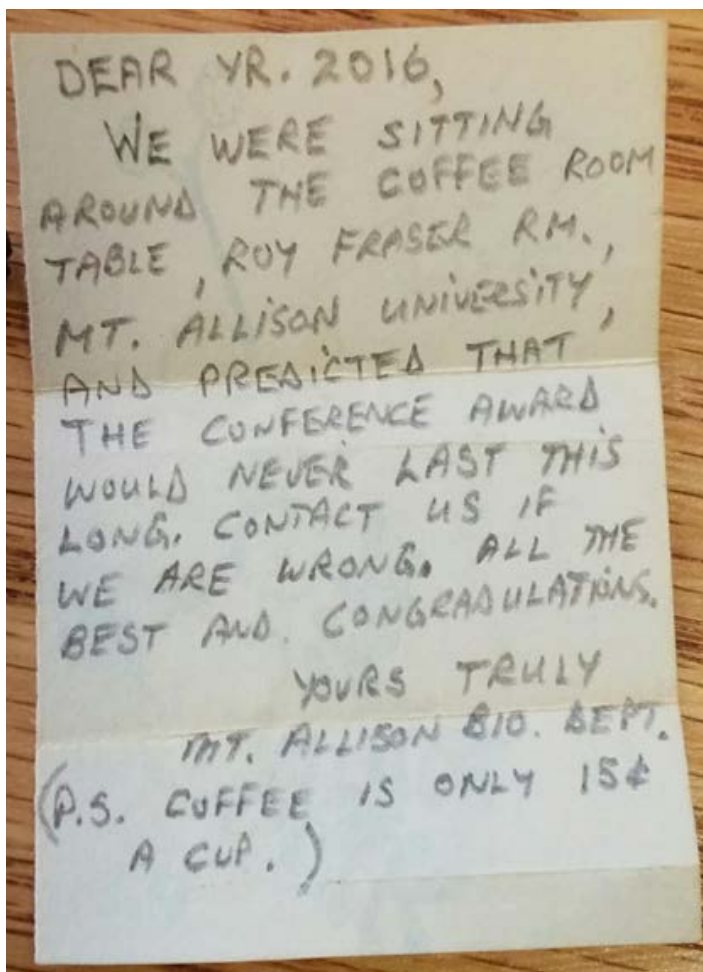
For over 50 years, Science Atlantic has hosted annual disciplinary and interdisciplinary academic student conferences coordinated by volunteer teams of professors and students. While all conferences have in common the opportunity for students to present their research, many conferences also have unique aspects, including field trips, industry events, and competitions.

These student-focused events continue to improve with each passing year, providing quality, professional venues for science students to share their research and be inspired by fascinating keynote speakers.

Science Atlantic events are often a student's first experience with academic conferences, and the benefits are immense. Conferences are essential in helping a student develop professional skills such as presenting their original research and preparing them for their future in science.

Blast from the Past

2018 Science Atlantic Biology Conference organizers found a note under the last engraving plate on the AUBC Best Paper plaque, donated in 1978 by the MtA BioMed Society.



“Dear yr. 2016,
We were sitting around the coffee room table, Roy Fraser RM, Mt Allison University and predicted that the conference award would never last this long. Contact us if we are wrong. All the best and congradulations [sic].
Yours truly,
Mt. Allison Bio Dept
(P.S. Coffee is only 15¢ a cup.)”

Conference Attendance



MSCS

October 13-15, 2017
University of New Brunswick, Fredericton

210



AUGC

October 26-28, 2017
Memorial University

91



AUPAC

February 2-4, 2018
University of New Brunswick, Fredericton

88

“One only needs to attend an Atlantic ChemCon conference to appreciate what primarily undergraduate universities are capable of.”

Chris Lavoie, Saint Mary's University Alumnus,
Dal Ph.D. candidate



AFB

March 9-11, 2018
Memorial University

113



SAEC

March 16-18, 2018
Mount Allison University

62



Psych

May 8-9, 2018
Dalhousie University

111



ChemCon

June 7-9, 2018
Saint Mary's University

134

Student Awards

Prizes are given at each student conference to recognize exceptional research and science communication skills. Additionally, several awards specific to each discipline are sponsored by industry as well as academic and research societies.

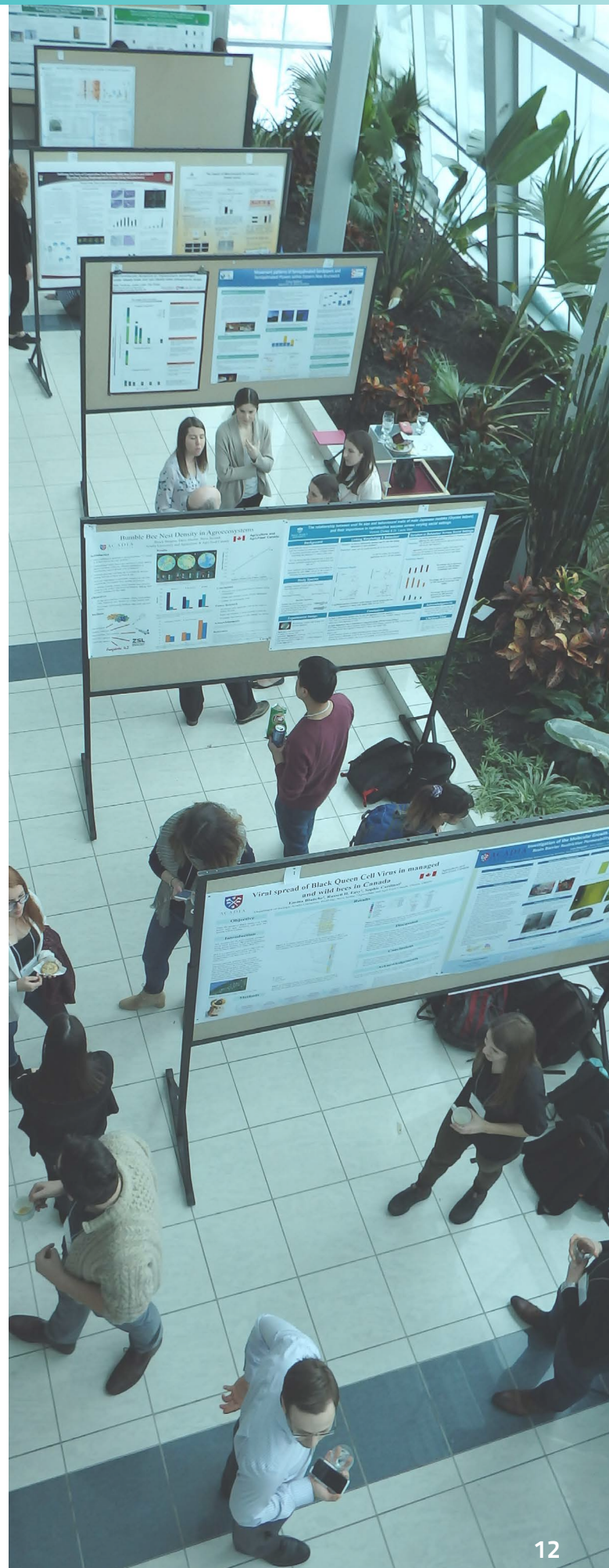
This year, 72 students earned awards at Science Atlantic conferences. You can view the winners in our Annual Student Awards Yearbook, available at sciatl.org/Yearbook2018.

Conference Support

Custom Designed Registration System

Based on feedback from Science Atlantic conference organizers and registrants over the last three years, a customized registration system was developed and tested over the summer and early autumn by Emily Cross, a Masters of Applied Computer Science student from Dalhousie. The system was first used by AUPAC in February 2018 and, after their success, officially launched for the rest of the winter/spring conferences.

The software simplifies the registration and online payment process for attendees, as well as collecting detailed registration information and abstracts for conference organizers in a way that meets the recommendations from previous organizers. The software also allows us to track award winners and manage attendance.



Our Legacy

Sara Klapstein's Science Atlantic Journey Comes Full Circle

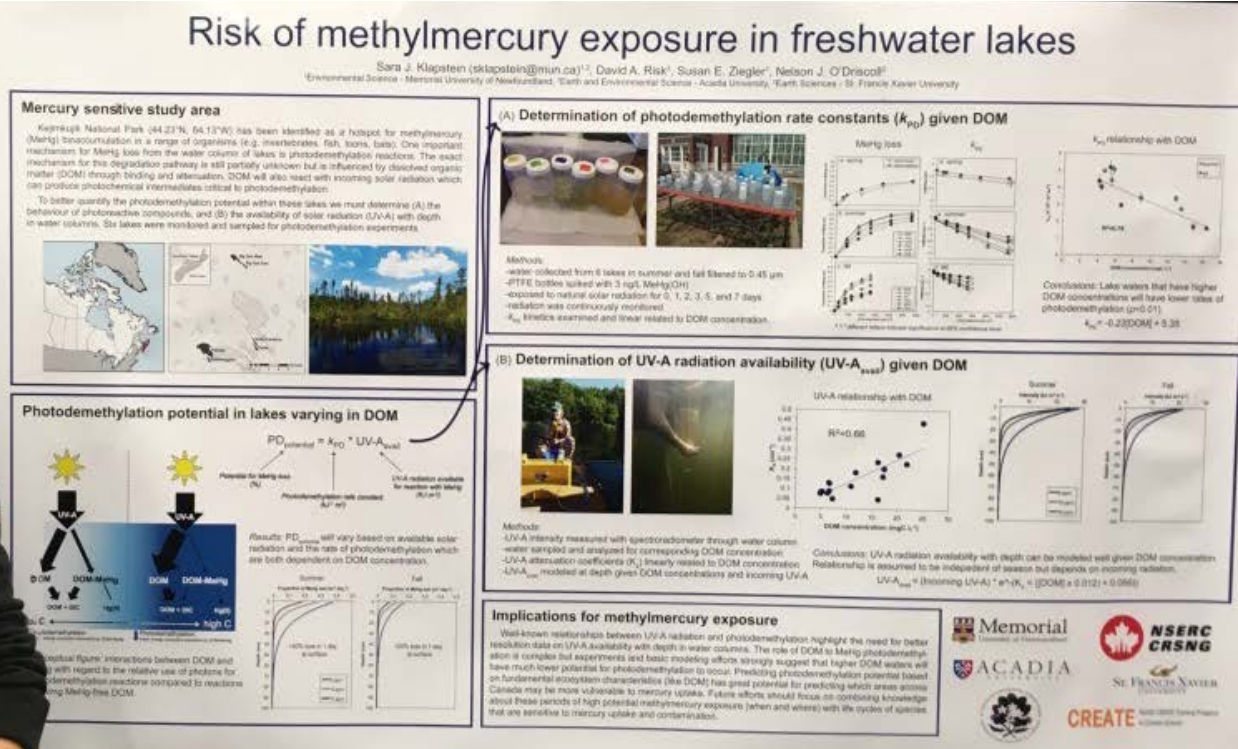
From first-year student at St. Francis Xavier University to postdoctoral fellow at Acadia University, Sara Klapstein's academic journey demonstrates the impact of Science Atlantic. When asked about her experience, her enthusiastic response is, "I've been to six Science Atlantics! Old enough to remember when it was called APICS."

Sara completed her undergraduate degree under the tutelage of Professor David Risk, former member and Past Chair of the Science Atlantic Environment Committee. Dave recognized Sara's keen interest, offering her a small research project and becoming her honours supervisor in her third year. Sara would later become his lab manager and help organize the 2014 Science Atlantic Environment Conference (SAEC), at which she also won best graduate oral presentation.

Sara is a strong advocate of student conferences. "These conferences are a wonderful opportunity to not only share research but also meet and form connections with other students and faculty in Atlantic Canada. Most of the universities are small and that is a strength of this conference, particularly the Environment Conference."

Sara is currently a post-doctoral fellow in Dr. Nelson O'Driscoll's CARE Lab at Acadia; the two initially met at a Science Atlantic conference. Sara says, "I know a lot of the professors from the various universities because Science Atlantic brings the universities together instead of dividing them. So many opportunities! I could go on and on..."

Now Sara is supervising honours students of her own and is a member of the Science Atlantic Environment Committee for faculty, helping to shape the next generation of Atlantic Canadian scientists.



Speaker Tours



Several committees partner with other organizations to host speaker tours of notable scientists. Each speaker visits a minimum of three different post-secondary institutions in Atlantic Canada, and lectures are free and open to all interested. The 2017-18 speaker tours featured talks on:

Chemistry Speaker Tour (co-sponsored with the Chemical Institute of Canada)

- *Chloride Accelerated Copper-Fenton Chemistry: Insights, Applications, and Implications*
Dr. Shine (Xu) Zhang, Cape Breton University

Geology (co-sponsored with the Atlantic Geoscience Society)


- *Does Buried Sedimentary Organic Matter Contain a Deep Biosphere Fingerprint?*
Dr. Todd Ventura, Saint Mary's University
- *Global Evolution of the Water Cycle*
Dr. Shannon Sterling, Dalhousie University

Physics and Astronomy (co-sponsored with the Canadian Association of Physicists)

- *Colliding black holes and gravitational waves: Studying the universe through fantastic messengers*
Dr. Harald Pfeiffer, University of Toronto
- *The Biggest Blowhards: Windy Supermassive Black Holes*
Dr. Sarah Gallagher, University of Western Ontario

Women in Science Tour (co-sponsored with WISE Atlantic)

- *Getting to the Root of the Problem* (research seminar)
Dr. Danielle Cox, Mount Saint Vincent University
- *The Mathematics of Puzzles & Games* (public lecture)
Dr. Danielle Cox, Mount Saint Vincent University



“I can’t express my gratitude for the opportunity to present at my first conference.”

Kate Woods, Dalhousie University, Frank S. Shea Memorial Award in Economic Geology, AUGC 2017

Financial Highlights

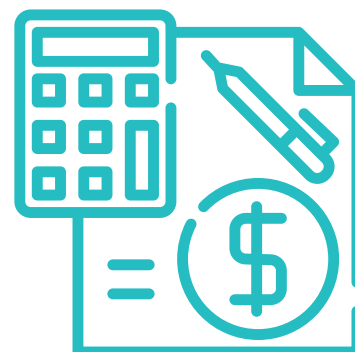
Assets & Liabilities

	2018	2017
Assets		
Cash and cash equivalents	\$ 37,199	\$ 76,536
Investments at market value	118,929	120,004
Receivables	77,765	50,879
Prepays	1,210	1,112
	\$ 235,103	\$ 248,531

Liabilities		
Payables and accruals	\$ 60,345	\$ 76,522
Committee funds	59,292	59,387
Deferred revenue	11,164	8,494
	130,801	144,403

Net Assets		
Unrestricted net assets	102,463	102,289
W.J Blundon Lecture Fund	1,839	1,839
	104,302	104,128
	\$ 235,103	\$ 248,531

View the full financial report
from Grant Thornton at
sciatl.org/2018-FinancialReport

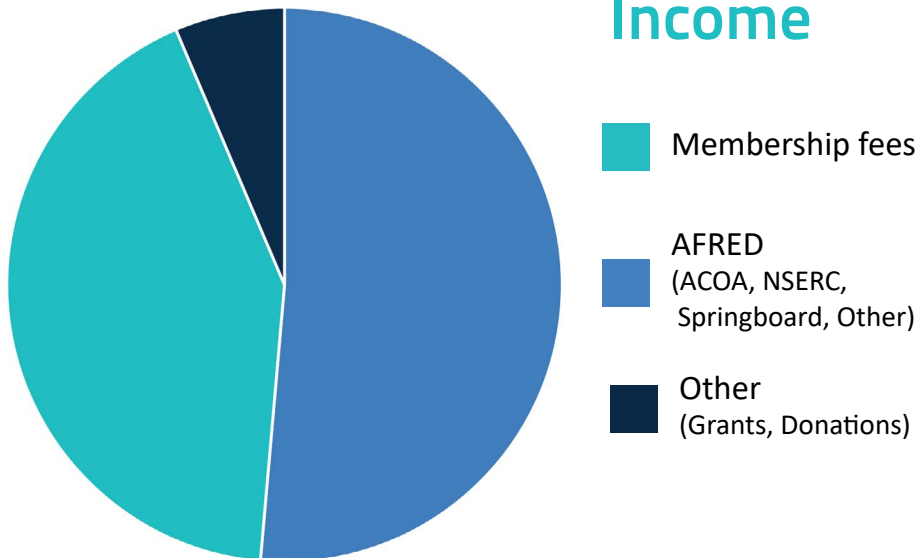


Income & Expenditures

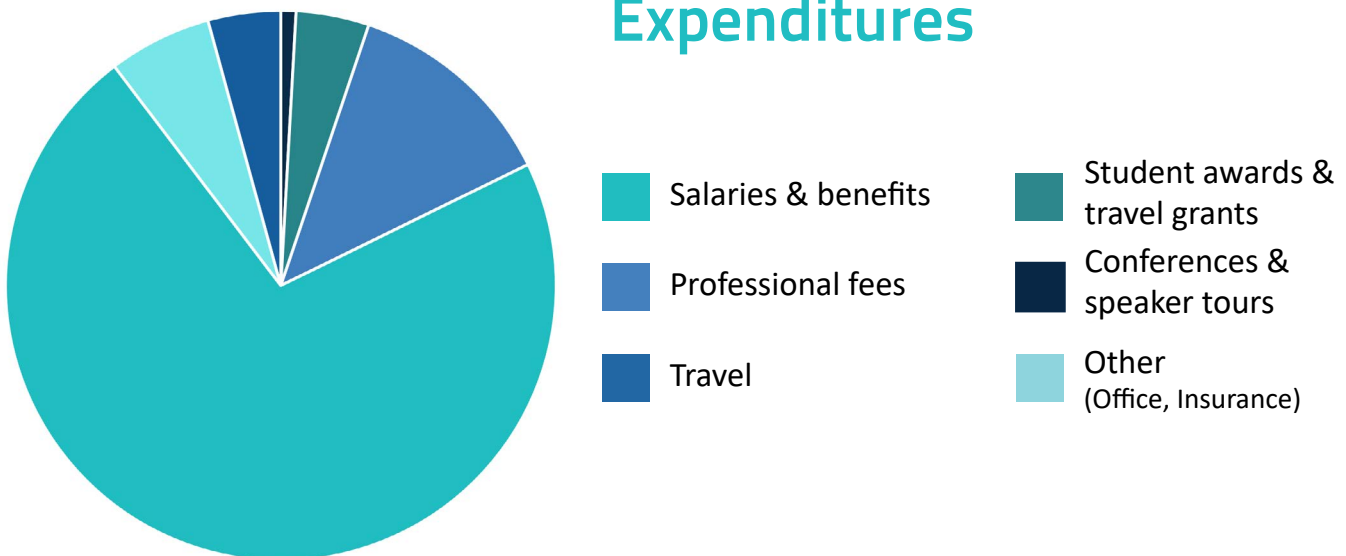
	2018	2017
Income		
AFRED (ACOA, NSERC, Springboard, Others)	\$ 159,075	\$ 141,562
Membership fees	130,670	129,531
Other (Grants, Donations)	19,806	36,073
	309,551	307,166

Expenditures		
Conferences and speaker tours	2,747	5,245
Student awards and travel grants	13,285	10,275
Professional fees	38,881	-
Salaries and benefits	222,494	247,039
Other (Office, Insurance)	18,755	28,653
Travel	13,215	10,758
	309,377	301,970

Income



Expenditures



Fee Restructure

Core funding for Science Atlantic operations is provided by our member institutions. After eight years of incremental adjustments to assess membership fees fairly across members, the 2017-2018 fee structure now distributes fees proportionately, based on each institution's FTE science student complement and faculty participation in Science Atlantic discipline committees. To reach this new balance, the minimum membership fee was dropped to 2012 levels, while the per student fee was increased for the first time since 2012.

Thank You, Sponsors!

ACENET

Alexander Murray Geological Club
Altius Minerals
Anton Paar
Aquaculture Association of Canada
Association of Psychologists of Nova Scotia
Atlantic Association for Research in the Mathematical Sciences
Atlantic Canada Opportunities Agency
Atlantic Geoscience Society
Atlantic Minerals Limited
Aurion Resources
Awake Chocolate
BioNB
Canada-Newfoundland and Labrador Offshore Petroleum Board
Canada's Smartest Kitchen
Canadian Association of Theoretical Chemists
Canadian Centre for Fisheries Innovation
Canadian Geological Foundation
Canadian Journal of Chemistry
Canadian Psychological Association
Canadian Science Publishing
Canadian Society for Brain, Behaviour and Cognitive Science
Canadian Society of Exploration Geophysicists
Canadian Society of Petroleum Geologists
Cape Breton University
 Office of the President
Cartwright Drilling
Chemical Institute of Canada, multiple divisions
 (Analytical; Biomedical; Inorganic; Organic; Physical, Theoretical
 and Computational)
Chemical Institute of Canada, Newfoundland and Labrador Chapter
Cooke Aquaculture
Centre for Ocean Ventures and Entrepreneurship
Dalhousie University
 Offices of the Vice President, Research, and Dean of Science
 Institute for Research in Materials
Elanco
ExxonMobil
Frontier Subsea
Geoscientists Canada
Golder Associates
Green Centre Canada
Green Imaging Technologies
Hickman Automotive Group
Husky Energy
Imperial Oil
InnovateNL
Lobster Council of Canada
Marathon Gold
Marriott Hotels
McGraw Hill Education

Memorial University

Biology Graduate Student Association
Conference Services
Department of Biology
Department of Chemistry
Department of Earth Sciences
Marine Institute
Offices of the Vice President, Research, and Dean of Science
Student Union
Undergraduate Chemistry Society
Mineralogical Association of Canada
Mining Society of Nova Scotia
Miramichi Striper Cup
Mount Allison University
 Department of Geography and Environment
 Office of the Dean of Science
 Geography and Environment Society
 Provost's Office Conference Fund
Nalcor Energy Oil and Gas
Natural Sciences and Engineering Research Council of Canada,
 Atlantic Regional Office
Nelson Publishing
Newfoundland Aquaculture Industry Association
New Brunswick Innovation Foundation
Nova Scotia Department of Energy
NSERC Women in Science and Engineering, Atlantic Region
Ocean Choice International
Ocean Frontier Institute
Pearson
Professional Engineers and Geoscientists
 Newfoundland & Labrador
Prospectors & Developers Association of Canada
Province of Newfoundland and Labrador
Rambler Metals & Mining
Research & Development Corporation
 of Newfoundland and Labrador
Ricanna Petroleum Consulting
Saint Mary's University
 Offices of the Dean of Graduate Studies and Dean of Science
Springboard Atlantic
Tata Steel Minerals Canada
Town of Sackville, New Brunswick
University of New Brunswick, Fredericton
 Offices of the Vice President Academic, and Dean of Computer Science
 Department of Mathematics and Statistics
 Marketing Office
 School of Graduate Studies
 Student Union
University of New Brunswick, Saint John
 Office of the Dean of Science
University of Prince Edward Island
 Office of the Vice President, Academic and Research
WJ Mullins

Get Involved

As a charitable association advancing science education and research at the post-secondary level, our goal is to bring together talented individuals and provide opportunities for them to learn from each other and inspire the next generation. We rely on partners, sponsors, and private donors to make this happen.

Your contributions help to:

- Fund student conferences in ten disciplines
- Provide travel assistance for students to attend these conferences
- Sponsor student awards recognizing excellence in research and science communication
- Fund regional lecture tours by notable scientists
- Support special projects that address regional science issues

As you learned from Sara's story, students attending our conferences are provided with opportunities that can help launch their careers. As well, for researchers and educators, our united effort strengthens their impact on science issues in the region.

The continued dedication and hard work of our members and partners inspired us every day to continue building a community that provides the best possible experiences for students and strengthens research in Atlantic Canada.

To find out how you or your organization can get involved, visit scienceatlantic.ca/donate/ or visit:

- scienceatlantic.ca/faculty/
- scienceatlantic.ca/students/
- scienceatlantic.ca/govind/



Our Team



Lois Whitehead
Executive Director



Emily Cross
Software Developer



Jasmine Golf
Marketing Consultant



Caitlynn Hines
Science Communication
Officer



Patty King
Special Projects Officer



Michelle McPherson
Program and
Membership Support Officer



Prasad Rajandran
Software Developer

Science Atlantic

connecting science education and research

www.scienceatlantic.ca

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