





PRESENTS

A HANDSHAKE THAT CHANGED THE WORLD



CASE'

WRITTEN BY NICK GREEN

APRIL 22 - MAY 18, 2025

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Dalhousie University DAL MAGAZINE Fall/Winter 2024

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Dalhousie University operates in the unceded territories of the Mi'kmaw, Wolastoqey, and Peskotomuhkati Peoples. These sovereign nations hold inherent rights as the original peoples of these lands, and we each carry collective obligations under the Peace and Friendship Treaties. Section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights in Canada.

We recognize that African Nova Scotians are a distinct people whose histories, legacies and contributions have enriched that part of Mi'kma'ki known as Nova Scotia for over 400 years.





The Food Security Project



More than ever before, students are relying on campus-based food security programs.

With your support, these student-run services provide a lifeline for those in need. Right now, your gift will have triple the impact, thanks to the continued match by J&W Murphy Foundation.





MESSAGE FROM THE PRESIDENT, DR. KIM BROOKS

FALL 2024

"I saw rock and roll future and its name is Bruce Springsteen."

Music journalist Jon Landau famously wrote that line in 1973 about his first time seeing Springsteen in concert. Having been lucky enough to experience a few Springsteen concerts myself, I understand the enthusiasm.

Knowing what we know now about the incredible career "The Boss" would go on to have, Landau's observation seems downright prescient, but his predictive powers were limited at best. Had he seen the actual future that night, he surely would have been shocked to discover that, just two years later, he would become Springsteen's producer and manager, and that their partnership would span five successful decades. Even in moments of great clarity, the future is always full of surprises.

I'm not sure I've ever made a prognostication quite as bold as Landau's; if I have, it surely turned out wrong. But the beauty of being part of a university is that you don't need much in the way of speculative skills to get a glimpse of what the future might have in store. It's all around us every day at Dalhousie.

Universities are tasked with the future's concerns like no other segment of our society. Each year, Dalhousie welcomes thousands of new students on the cutting edge of social movements and generational change. They inspire those of us charged with their education to help prepare them not just for *this* world but the one they themselves will help create. In labs, studios, and workspaces of all stripes, Dal researchers are challenging orthodoxy and forging new frontiers as they rethink and reimagine our society: how we fuel it, how we feed it, how we make it fairer and more favourable for everyone. And as we collaborate with partners in government, industry, and other sectors on lifting Nova Scotia to new heights, we have an opportunity to connect our community contributions to the continued growth and success of our province like never before.





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It can be easy to lose focus on the future in a present-tense world. This past year has seen more than its share of hand-wringing about the state of our universities, particularly in light of international enrolment challenges across Canada and globally. As I write this, Dalhousie is working through its own budget shortfall. The problem of how to sustainably support higher education in this country is real, and it will require real work to settle it out. But if we focus all that work on the ledger books and don't find ways to engage people in the inspiration and discovery and joy that universities create on our campuses and in our communities, then we risk failing to forge the kind of bold future that we wish for our students and our society at large.

And if that task can seem daunting in the face of current circumstances, let's remember where we've been. Because here's the thing about that "rock and roll future" line: it's become so famous that it's overshadowed the first part of the quote, where Landau wrote how that night in Boston he also saw "rock'n'roll past flash before [his] eyes." It wasn't that Springsteen's concert excited him with something entirely new, but that the experience reminded him of how and why he fell in love with music in the first place. Even the article's title, "Growing Young with Rock and Roll," cheekily acknowledges how sometimes we find our way into the future by way of reflecting on the past.

I find that idea reassuring, and not just because Dalhousie has been forging future possibilities for more than 200 years now. It also means the experiences all of you have had with Dalhousie—as students, as alumni, as faculty and staff, as supporters—hold an important place in this conversation. We know we can build a better future for our university, our province, our country, and our world because we all have stories about how Dalhousie has helped shape our own futures for the better.

This magazine has been telling stories just like that for many years now. Starting next year, it will start telling them a little bit differently, connecting them with readers like you in exciting new ways. (See AnnMarie's note, page 4.) I hope you'll continue to see some of the Dalhousie you know in these stories, but I also hope they inspire you about the future with the same passion and enthusiasm as a truly great concert—one best experienced singing at the top of your lungs.



SPECIAL ANNOUNCEMENT: DAL MAGAZINE IS GOING DIGITAL

A letter from the editor

Dear Reader,

Thank you for reading *DAL Magazine*!
For the past 40 years, our team has worked to keep you connected to Dalhousie. It's an absolute pleasure to share your stories, to help spread the word about the transformative work Dal's alumni, faculty, staff, and students do each day to make the world a better place. We've been grateful to have readers

like you join us on that journey.

As you've surely noticed, the media land-scape has been shifting dramatically over the past years. In some ways, that shift has been positive. Technology enables us to tell stories in rich ways that extend beyond the page—using video, audio, or other forms of online journalism—and to share them with the world via social media and other digital channels. The more challenging shift we've seen is the steady increase to the costs associated with printing and mailing a magazine to your door.

Together, these two factors have brought us to the difficult but exciting decision to relaunch *DAL Magazine* as a digital-only publication. This means the issue you now hold in your hands, Fall/Winter 2024, will be the last to be delivered in print.

Beginning in 2025, DAL Magazine will arrive at your electronic doorstep—your inbox. We plan to continue delivering the inspiring stories you've come to expect several times a year, keeping you up-to-date and informed on all things Dal in a more environmentally friendly and fiscally sustainable way. We also aim to take advantage of the potential to tell stories in new ways a fully digital incarnation affords us.

You're not going to want to miss what we've got in store, so we invite you to update your email address with us by scanning the QR code or visiting the link below.

We can't wait for you to join us on this new journey with *DAL Magazine!*

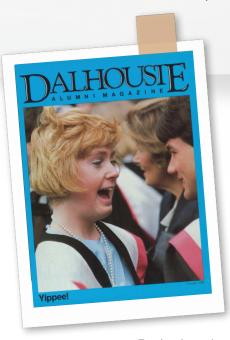
Sincerely, AnnMarie MacKinnon Editorial Manager, *DAL Magazine*

Sign up here to make sure you don't miss an issue of DAL Magazine!









Don't miss an issue! SIGN UP HERE: https://alumniapps2.dal.ca/alumni_update/

NEWS

Dal plans new residence to meet growing student housing needs

Dalhousie plans to begin site preparation for a new student residence in Halifax next spring to increase student housing capacity on campus.

The six-storey facility, expected to open in 2027, will accommodate approximately 200 students and be located behind the Dalhousie Arts Centre in the heart of Studley Campus.

Dal's Board of Governors approved proceeding with the detailed design of a new residence at a meeting in late August. A project design and construction.

"Last fall, we committed to breaking ground on new student housing within 24 months. Twelve months later, we are excited to announce this new residence, which aims to provide students with more housing options and support the growth of vibrant, sustainable communities in our province," says Dalhousie President Kim Brooks.

Dalhousie is required under its funding arrangement with the Province of Nova Scotia to add near-term capacity and have plans to provide accommodations for at least 15 per cent of its student population. The construction of this new residence will achieve that target based on current enrolment.

The chosen site for the new residence, an L-shaped piece of land bordering Henry and Seymour Streets, provides a central on-campus location close to University Avenue and other Dalhousie buildings.

Housing options will include furnished one-bedroom nano-units, standard one-bedroom units, and other configurations equipped with in-suite kitchen, bathroom and possibly laundry facilities—addressing feedback from students for more apartment-style options for on-campus living.

"We know that many upperyear students who wish to live near campus are challenged to find housing. We heard what students were interested in and are excited to offer more housing options that will appeal to upper-year and mature students," says Linda Parker, assistant vice-president of housing and campus connections.

To make room for the residence, a collection of small houses known as Mini-Residence that currently sit on part of the site will be removed in spring 2025 following the current academic year. Dalhousie's Environmental Health and Safety Office and the Dalhousie Faculty Association, currently located on the site, will be relocated to new spaces prior to construction.

While the total cost of construction has yet to be determined, the project will ultimately be financed using external debt and repaid through residence fees. Further details will be shared as we move through the project design phase.

—Matt Reeder



Howard Clark

Remembering Howard Clark, Dalhousie's ninth president

Howard Clark never subscribed to "ivory tower" thinking about universities.

"Dalhousie is a part of the community, is there to serve the community, and really is an integral part of the metro region, of Nova Scotia, of Canada," he told *Dal Magazine* in 1987, one year into his tenure as Dalhousie University's ninth president and vice-chancellor.

"...it does that in a number of ways: obviously, through its teaching and research, but in many other ways as well. The whole question of what that relationship is and should be is a very important one. But the belief that we are here primarily as an institution that serves society, I think, is one we have to re-emphasize all the time."

Dr. Clark, who passed away in August at the age of 94, served as president through nine crucial years in Dalhousie's history. It was a tenure with its share of issues and concerns, as is often the case over a decade of university history: underfunding worries, physical campus challenges, labour relations disagreements.

But underneath all that, his era saw a Dalhousie charting a course towards the 21st century, and to a university that would be more global, more interconnected, and more inclusive than ever before.

In a memorial message shared with faculty and staff, current President Kim Brooks put it this way: "Much of the Dalhousie we recognize today begins to take shape under his leadership."

—Ryan McNutt

New doctoral scholarship program to expand PhD opportunities

Dalhousie has established the new \$3.2-million Dalhousie Research Excellence Scholarship to support PhD students and increase their enrolment over the next three years. In 2025, approximately 30 new doctoral-level entrance scholarships will be awarded, valued at up to \$35,000 per year for four years. Some of the scholarship funding will prioritize support for Mi'kmaw researchers, primarily, as well as other Indigenous communities, and the African Nova Scotian community.





There are more than 800 PhD students currently enrolled at Dal. Dalhousie Research Excellence Scholarships are expected to increase this number, adding significantly to the university's research enterprise. The initiative delivers on a key element of the university's strategic plan, Third Century Promise, and is designed to increase research impact and enhance opportunities for innovation and commercialization.

Impact funding for the Dalhousie Research Excellence Scholarship was secured in early 2024 through an application submitted as part of the Integrated Planning process that was supported by all of Dalhousie's Faculties. Dalhousie's current PhD student support is funded from several sources, including the university's Killam Trusts endowment, a more than \$190-million fund that contributes roughly \$5 million



A wildfire rages at night in Mentone, California.

annually towards student scholarships and supports. Dalhousie is one of just five universities in Canada with a Killlam Trusts endowment and holds the largest share of the funds.

"This is about attracting and supporting Dalhousie's next generation of leaders," says Adam Donaldson, dean of the Faculty of Graduate Studies (acting) at Dal. "PhD students are at the forefront of research and innovation: their work can have a significant impact on local, national, and global challenges."—Mike Fleury

Dalhousie Research Excellence Scholarships are expected to increase the number of research students, adding to the university's research enterprise.



Research reveals global increase in wildfires due to climate change

Researchers have made a direct link between climate change and the increasing frequency and intensity of wildfires around the world, while also linking the fires to thousands more smoke-related deaths over the last several decades.

In two separate papers, research teams from Dalhousie University, Belgium, the UK, and Japan studied the extent of wildfires and their effect on human health, finding worsening outcomes for both. In fact, the team estimates that there were fewer than 669 wildfire smoke-related deaths annually in the 1960s, but that that rose to 12,566 a year in the 2010s.

One study, published in Nature Climate Change on Monday, compared wildfire models with and without the effects of climate change, showing an increase in the occurrence and strength of wildfires in many regions, especially in sensitive ecosystems in African savannas, Australia, and Siberia.

The findings, however, point to large regional differences.

In Africa, where up to 70 per cent of the global burnt area is located, there was a marked decline in wildfires, due largely to the increase in human activity and land fragmentation that makes it harder for fires to spread.

Conversely, in forested areas such as California and Siberia, the number of fires is increasing, due to longer periods of drought and higher temperatures linked to climate change.

"The study is important because it shows and quantifies the influence of climate change on increasing wildfires worldwide, especially given the impacts of wildfire on society and its feedback to climate change," says Dr. Sian Kou-Giesbrecht, an associate professor in Dalhousie's Department of Earth and Environmental Sciences who conducted and analyzed the simulations of the Canadian fire model and co-authored both reports.

—Alison Auld



More Dal med grads opting for careers in family medicine

This year, students graduating from Dalhousie Medical School are opting for careers in family medicine in impressive numbers.

Half of the graduating class began their residency training in family medicine this past summer, marking a significant increase since 2018 when only 25 per cent of the class chose to enter a career path in family medicine.

Dalhousie's Family Medicine program has also seen success, once again filling all available residency positions—a remarkable feat, especially considering the expansion of its residency seats from 70 in 2022 to 91 in 2024.

While many programs nationwide face challenges in filling positions, this accomplishment is not merely fortuitous but rather the result of systematic changes implemented five years ago. "By intentionally integrating family physicians as educators and role models in the undergraduate curriculum we aimed to shift perceptions," says Dr. Kath Stringer, head of Family Medicine.

In 2023, the Faculty of Medicine formed a Family Medicine Specialty Committee. The committee, led by Dr. Stringer and comprising various leaders across the Faculty of Medicine, continues to identify and find solutions to the multifactorial barriers students face in choosing family medicine as a desired career.

The committee's work is integral to the Faculty of Medicine's strategic plan, *Realizing Our Ambition*, which affirms the university's commitment to advancing family medicine education and recognizing family medicine as a specialty of choice.

These efforts are yielding significant results as this year's matching numbers illustrate.

"The choice to pursue family medicine reflects our learners'

dedication to the field and embodies their profound understanding of the pivotal role family medicine plays in health care," says Dr. David Anderson, dean of the Faculty of Medicine. "I congratulate each of them on making this very important decision and want to express sincere gratitude to the dedicated staff and faculty who helped achieve this impressive accomplishment."

—Jane Gaffney

Dress code, flexible: A presidential robe reimagined

Convocation ceremonies are steeped in tradition, much of it stretching back centuries. When it comes to what the president wears for the occasion, though, there's a surprising amount of freedom to modernize.

While gowns and hoods are expected at Dal ceremonies, presidents get to choose their own decorative design elements to be laid over the standard robe.

"I was looking through Dal archives at past presidents and there was so much variety between each one," says Julia Sommerville, a Costume Studies student who created a new Dal presidential robe design this year as part of her honour's project.

Sommerville was recommended to Dal President Kim Brooks for the project by one of her instructors. The president was seeking an updated design to better reflect the land where Dalhousie is situated, the values of the institution she leads, and her own identity.

The ceremonial garment created by Sommerville over the course of nine months and introduced as part of spring ceremonies at Dal does just that.

"I am honoured to wear the robe today, and I thank Julia for her extraordinary care and concern in its design and production," said President Brooks in opening remarks during the Faculty of Arts and Social Sciences convocation ceremony in May. Sommerville attended as a guest. She graduates next spring.—Matt Reeder

New project aims to make Atlantic Canada a green hydrogen research hub

Researchers from Dalhousie University are collaborating with the National Research Council of Canada (NRC) on a two-year, \$500,000 project that could help make Atlantic Canada a hub for green hydrogen innovation.

Drs. Mita Dasog and Michael Freund of the Department of Chemistry are leading the project that aims to identify and test promising catalysts that could serve as alternatives to the costly precious metals used in the production of green hydrogen.

The bulk of the project's funding comes from a \$352,000 grant awarded through the NRC's Materials for Clean Fuels (MCF) Challenge program. The MCF program is for collaborative research and development and is funded through the

Dr. Kim Brooks wears her new presidential robe.





NRC's Collaborative Science, Technology and Innovation program. Remaining funding will come from Natural Sciences and Engineering Research Council of Canada and partners.

"Canada and the Province of Nova Scotia have identified green hydrogen to play a crucial role in meeting net zero goals," says Dr. Dasog, an associate professor and Izaak Walton Killam Memorial Chair. "Hydrogen burns cleanly to produce thermal energy and/or electricity. It has the potential to decarbonize hard-to-abate sectors such as material and chemical manufacturing industries, heavy-duty transport, shipping, and aviation."

Dr. Dasog hopes that the project will result in advancement towards making next generation electrolyzers that are cheaper and water-quality resilient. "Given the local interest in green hydrogen, it is also important that we create a path to manufacture electrolyzers without significant backlogs," she says. "Moving away from precious metals will help mitigate some of the challenges associated with their supply chain."

"Everyone wants to produce green hydrogen cheaply," she adds, and proving that it is possible to lower the cost of electrolyzers by lessening their dependence on rare materials should help increase the Atlantic region's adoption of green hydrogen. The NRC's hydrogen research has primarily taken place in Ontario and British Columbia, so the project also provides a chance to train grad-



Green hydrogen is produced with the help of renewable energy sources such as wind or solar.

uate students and other highly qualified personnel from the Atlantic provinces. This project will help strengthen the collaborations between Dalhousie and NRC labs and build a path toward future opportunities to advance green-hydrogen technologies.—Kenneth Conrad

Free finds: Dal hosts first Free Store

Few residence room luxuries are as coveted as the mighty mini-fridge—and when it's free of charge, well, you'd better get in line, as hundreds of students did at Dal's first-ever Free Store event in August.

Students could be seen popping their heads out of line to count where they were compared to the 25 fridges on the floor. But it was more than just fridges up for grabs. There was kitchenware, household items, school supplies and much more.

Planning and coordination for the Free Store had been underway for months. Items were collected from students during residence move-out last April and from faculty, staff and additional groups across campus, such as the Dal Bookstore during a summer donation drive.

"As someone who is coming from out of province and can't bring a ton on the plane, it was great to be able to grab things like a [full-length] mirror. It's also so easy and accessible on campus," said Sophia Russell, a second-year student in Dal's Law, Justice and Society program.

Students could pick out three items each. Among the most popular were kettles, fans, shoe racks, laundry baskets, hangers and power bars. Altogether, the items had an estimated resale value of \$10,000.

"We're so excited to facilitate all of these items being available to students for free," said Alexa Goodman, Dalhousie's sustainability manager. "This week is also about showing proof of concept. We want to keep hosting in the future—yearround if we can find the space.

There are many opportunities to reuse items bound for landfills, and programs like the Free Store and Dal Surplus Materials makes it possible to create a circular economy at Dal."

The Free Store program's initial objectives were to divert one tonne of goods from the waste stream and serve 200 during the pop-up. Instead, 3.5 tonnes were diverted and the store had more than 700 visitors.—*Tanis Trainor*

Dal prof changing the way we think about accessibility in the classroom

In a time when so many courses, meetings, and workshops are delivered online, it may be surprising to learn that accessibility is still a huge hurdle for many event organizers. Dal Computer Science Instructor Gabriella Mosquera wants to change that.

"The web works in such a way that it guarantees anybody anywhere, regardless of the device they use, can consume the same information," Gabriella says. "I incorporate that same principle into my teaching philosophy. Any student, regardless of ability, can succeed in my courses."

Gabriella, who is one of 10 Dalhousie instructors awarded a university-wide teaching award from the Centre for Learning and Teaching this year, follows Universal Design for Learning (UDL) when designing her courses. UDL is a teaching approach that considers the needs and abilities of all learners, not just a select few.

For Gabriella, this can mean captioning video content and providing flexible options for quizzes, projects, or papers to giving students full autonomy over their schedules and rethinking how students engage with the concept of a classroom. For Gabriella it is not solely about filing a seat; instead she focuses on configuring classroom experiences to include in-person, online, synchronous and asynchronous adventures.

Jeremy Dutcher wins 2nd Polaris Prize

Faculty of Arts and Social Sciences alum Jeremy Dutcher (BA'13 in Music and Social Anthropology) has won the 2024 Polaris Music Prize for his album, *Motewolonuwok*. Dutcher is the first person to win the prestigious prize twice, first clinching it in 2018 for his debut album, *Wolastoqiyik Lintuwakonawa*.

An 11-member jury selected the record as the best Canadian album of 2024, based on artistic merit. Dutcher was chosen from a shortlist of 10 acclaimed finalists which included The Beaches, Allison Russell and Charlotte Cardin. The winner was picked by a jury made up of journalists, broadcasters and bloggers from across Canada. The prize was awarded at Massey Hall in Toronto in September.

"Six years ago, this award changed my life. I have to give unending gratitude to this music

Jeremy Dutcher performs live at Dalhousie in 2022.



quoted.

Dal experts in the news.

CBC Racism, mistrust remain barriers to political aspirations in N.S., say Black candidates

"It's been abysmal."

-Isaac Saney

Co-ordinator, Black and African Diaspora Studies

THE STAR *New frontier for carbon capture* "As a scientist, I'm skeptical, but I'm also optimistic."

—Dr. Dariia Atamanchuk

Department of Oceanography

CBC Tiny microbe named after Halifax found in Bedford Basin

"... we like to think of them as fertilizers of the sea."

-Sonja Rose

PhD candidate, microbial physiology and maritime biogeochemistry

VICTORIA TIMES COLONIST Gap between richest and the rest leads to disappointed citizens: economist

"Disappointment occurs when actual events fall short of expectations."

-Dr. Lars Osberg

Department of Economics

NATIONAL POST Shark sightings have Nova Scotians watching their toes

"I start to the hear the Jaws music and turn around."

—Dr. Jeff Kirby

Department of Bioethics (retired)



NEWS

community, please keep your hands going for all of these nominees," Dutcher said when he accepted the award live at the ceremony presented by CBC. "To bring forward art and music in this land, in our languages, with our esthetics—all I have to say is we are shining for you, now go shine for other people." —Alison DeLory

Dalhousie ranks 65th globally for tackling some of the world's biggest issues

Dalhousie scaled new heights in this year's Impact Rankings from Times Higher Education, placing 65th out of 1,963 universities.

That's an increase of 35 spots from last year and marks Dal's best placement yet in the annual global rankings that measure how well universities are doing in supporting the UN's Sustainable Development Goals (SDGs).

The rankings offer an opportunity for universities around the world to provide input to showcase their work in up to 17 areas of sustainable development — each aligned with one of the UN's 17 different SDGs. For the second year in a row, Dalhousie participated in all categories.

Indicators for each SDG focus on broad areas of research, stewardship, outreach, and teaching.

This year, Dalhousie placed 11th overall in Canada out of 24 participating universities and ranked among the top 10 universities in the country for five individual SDGs. It placed in the top 100 globally for six SDGs.

Dal's top-ranked SDGs for 2024 were:

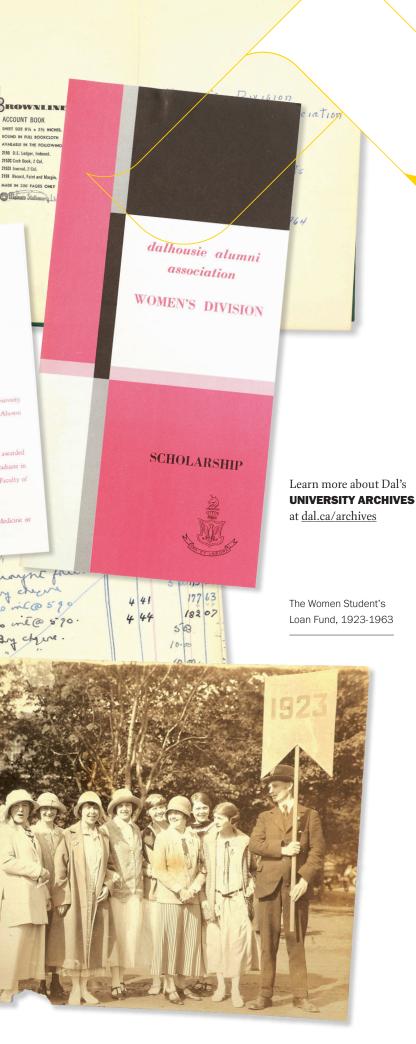
- Life Below Water (SDG 14): Ranked 14th globally, 2nd in Canada.
- Zero Hunger (SDG 2): Ranked 30th globally, 5th in Canada.
- Life On Land (SDG 15): Ranked 44th globally, 6th in Canada.
- Clean Water and Sanitation (SDG 6): Ranked 58th globally, 7th in Canada.
- Good Health and Well-Being (SDG 3): Ranked 73rd globally, 3rd in Canada.
- Partnerships For the Goals (SDG 17): Ranked 89th globally, 12th in Canada.

"Dal is committed to advancing the UN SDGs," says Dal President and Vice-Chancellor Kim Brooks. "Rankings will always be less important than the great work we do here to make the world a better place. Nevertheless, our inclusion among top universities is a testament to our global impact and to the hard work of extraordinary colleagues."—Matt Reeder

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found

Forty years of providing help over that final mile

In a letter enclosed with a cheque for \$70, the final payment on a student loan provided by the Dalhousie Alumnae Association, the sender's gratitude is heartfelt. The \$330 loan had enabled her to continue her post-graduate psychology studies in 1950, but what she had received was "a good deal more than money—there was sympathy and interest—things that cannot be measured or repaid." Another alumna had managed to repay \$130 of her \$250 loan within four years of graduating, after which her payments ceased. A decade later she wrote to explain that personal circumstances had made it impossible to meet her obligations and that she was currently completing medical school while raising two children and working as a part-time instructor. She was so glad to be doing what she "thought was impossible in 1942" when she'd left Dalhousie, and someday hoped to finish paying off her loan. In response, the Alumnae Association congratulated her on her energies and ambition and cancelled her debt.

The Women Student's Loan Fund was established in 1923 after Jennie Eddy's generosity had built Shirreff Hall, obviating the Alumnae Association's founding mandate in 1909 of housing female students. As early as 1921, Eliza Ritchie (Class of 1887 and past president of the Association) spoke to alumnae about turning their efforts toward establishing a fund for directly supporting women students, as the money already raised by countless bazaars, musical teas, and lectures was more than enough to both handsomely furnish the new residence's library and help to maintain it into the future.

Over the next few decades more than 40 women received loans of between \$100 and \$300, significant sums considering that in 1925 residence and tuition fees together were less than \$500. In 1946, when the Alumnae and Alumni associations merged and the Women's Division was created, the new by-laws stipulated both their continued fundraising for the Alumnae Students' Loan Fund and the control of those funds by the division.

By the mid-sixties the Loan Fund was being underutilized, with few if any applicants. It was rolled into a nascent scholarship fund and in 1967 the alumnae proudly presented the university with a \$10,000 endowment for the Dalhousie Alumni Association (Women's Division) Scholarship. Over the next six decades they continued to raise money to provide bursaries, awards, and prizes for women students. In a letter acknowledging an alum's final loan payment, the convenor notes how happy the division was to have provided her "the necessary help over the last mile." The number of "last miles" made a little easier first by the Alumnae Association and then the Women's Division are too many to count. But the race is far from over and the Dalhousie Women's Connection—the newly named and revitalized body—is at the ready.

–Jennifer Lambert ■



RESEARCH ROUNDUP

By Alison Auld and Andrew Riley



A dog's nose knows

Dogs on the scent... of trauma Healthy
People, Communities,
and Populations

Dogs' sensitive noses can detect the early warning signs of some dangerous medical conditions and now scientists say they may even be able to sniff out an oncoming post-traumatic stress disorder (PTSD) flashback.

A Dalhousie-led study showed that some PTSD service dogs could detect these episodes via a person's breath. Dogs can help patients by alerting to and interrupting episodes when their companions are struggling with their symptoms. If dogs could respond to stress markers on the breath, they could interrupt episodes at an earlier stage, making their interventions more effective.

The multidisciplinary scientists recruited humans who have experienced trauma as scent donors and two dogs—Ivy and Callie —skilled enough to complete the study.

Ivy and Callie were presented with a series of samples to see if they could accurately detect stress compounds in breath. Ivy achieved 74 per cent accuracy and Callie achieved 81 per cent accuracy.

RESEARCHERS:

Laura Kiiroja, Dr. Sherry Stewart, Dr. Simon Gadbois

Most plastic pollution linked to 56 companies Sustainable Ocean

Researchers have drawn a clear, quantifiable link between plastic production and plastic pollution, while also determining that companies producing single-use consumer goods disproportionately contribute to the problem.



A volunteer cleans up the shoreline

The international team determined that 56 global companies are responsible for more than half of all branded plastic pollution, with the top five producers being Coca-Cola Company, PepsiCo, Nestlé, Danone, and Altria/Philip Morris International.

The five-year analysis used data from almost 1,580 audit events in 84 countries, where volunteers cleaned up waste and documented the brands collected.

More than 50 per cent of the recovered plastic items were unbranded, highlighting the need for better transparency about production and labeling of plastic products to enhance traceability and accountability.

RESEARCHERS: Dr. Tony
Walker (Dalhousie), University
of California, University of
Tasmania, Break Free from Plastic,
Portland State University, Silliman
University, 5 Gyres Institute,
Massey University, Estonian
University of Life Sciences,
DePauw University, Smithsonian
Environmental Research Center,
Stockholm University, University
of Exeter.

Simple intervention eases seniors' sleeping pill dependence Healthy People, Communities, and Populations

Seniors taking sleeping pills can significantly reduce their dependence on the medications and improve their sleep with a simple intervention that is safer and more effective, but unfamiliar to many.

Dalhousie researchers evaluated whether specially designed information packages mailed directly to seniors' homes in New Brunswick could help them reduce their need for sleeping pills, while also helping them get a better sleep.

Two groups received different information packages (Sleepwell or EMPOWER) outlining ways to reduce usage, while a control group didn't receive anything by mail.

The researchers found that more people receiving the Sleepwell package stopped or reduced their use of sleeping pills compared to the other two groups. About 26 per cent in the Sleepwell group stopped taking sleeping pills altogether by six months. For EMPOWER, the rate was 20 per cent and in the control group it was 7.5 per cent.

RESEARCHERS:

Dr. David Gardner, Dr. Andrew Murphy, Dr. Malgorzata Rajda (Dalhousie), University of New Brunswick, Monash University



Dr. Kyle Wilby

Study empowers
Nova Scotia
pharmacists to
directly prescribe
HIV prevention drug
Healthy People,
Communities, and
Populations

Canadians have access to a drug that prevents HIV infection, but it's not getting into the hands of those who need it most. Health researcher Dr. Kyle Wilby, director of Dalhousie's College of Pharmacy is tackling the issue by collaborating with policymakers to make Nova Scotian pharmacists among the first in the country with the ability to prescribe the lifesaving medication.

While antiretroviral therapies have significantly diminished the dangers of HIV, the virus is still very much with us. Statistics Canada counted 1,833 new diagnoses in 2022, a 25 per cent increase over 2021. And Canadians continue to die of the virus—133 in 2021.

Dr. Wilby, saw a solution at the pharmacist's counter. Embedded in every neighborhood, he says pharmacies provide ready access to health professionals who specialize in the proper use of medication. He says giving them the power to prescribe the drug is a natural fit with their expanding role relieving pressure on taxed health care systems.

RESEARCHERS: *Dr. Kyle Wilby*

Researcher tackling violence against women from inside Nova Scotia's health care system Healthy People, Communities, and Populations



Dr. Alexa Yakubovich

Community health researcher Dr. Alexa Yakubovich is addressing Nova Scotia's high rate of violence against women by embedding within IWK Health to work more closely with front-line health professionals.

According to Statistics Canada, 44 per cent of women who have

had an intimate partner relationship report experiencing abuse. To get closer to the issue, Dr. Yakubovich has started a new program funded by Canadian Institutes of Health Research that allows her to work directly with programs that are most likely to see patients experiencing violence.

Her initial goal is to understand initiatives currently in place at the IWK and other organizations to link them and maximize their impact. She also aims to develop processes to capture reported violence safely and privately on health records to reveal the scope of the problem, identify programs most likely to treat patients experiencing violence, and better connect patients with support.

RESEARCHERS:

Dr. Alexa Yakubovich

Hydrologist positioned to take a global lead in atmospheric carbon dioxide removal Climate Tech and Clean Energy

While pursuing research aimed to restore Nova Scotia salmon habitats, Dalhousie hydrologist Dr. Shannon Sterling made a discovery that allowed her to take a leading role at the forefront of carbon dioxide removal science. It also opened the door to the launch of CarbonRun, a promising carbon dioxide removal company that she launched



Dr. Shannon Sterling



Dr. Karen Foster

with co-founder and Dal alumnus Dr. Edmund Halfyard.

Drs. Sterling and Halfyard had been trying to save what remains of Nova Scotia's wild salmon stocks by studying the addition of limestone to rivers, a process that combats their acidification. Emerging studies showed that adding the alkaline materials also had the potential to enhance the absorption of CO2 from the air. The coincidence was a major "aha" moment—they could revive habitats while counteracting global warming.

The strength of CarbonRun's science has attracted major global attention, including the Frontier Carbon Removal Fund which was founded by companies like Google, Meta, and Shopify. Frontier made an advance market commitment, a pre-purchase of carbon credits to provide a significant financial boost to advance and scale CarbonRun's research and operations.

RESEARCHERS:

Dr. Shannon Sterling

Dalhousie sociologist to cultivate network to reduce Canadian agricultural emissions Sustainable Food Systems

Canada has committed to cutting agricultural emissions by 30 per cent below 2020 levels by 2030. It is an ambitious goal that's going to take significant commitment and collaboration from farmers and the 2.3 million people employed in Canada's agri-food systems that generate seven per cent of the country's gross domestic product.

It's a diverse group whose livelihood often depends on tight margins and the use of fossil fuels. Introducing policies to pursue a net-zero future is not a straightforward task. This is where Dalhousie sociologist Dr. Karen Foster comes in.

Dr. Foster has been selected to lead a \$1.9-million initiative supported by Agriculture and Agri-Food Canada and the Social Sciences and Humanities Research Council to develop a new national research network that supports an equitable transition to net-zero in Canadian agriculture and its periphery industries.

 $\textbf{RESEARCHERS:}\ Dr.\ Karen\ Foster$



events.



Dal at Pride Parade

Dalhousie departments, student groups, and allies, uniting under the banner of inclusion and respect, participated in Halifax's Pride Parade.



Seven Feathers Crosswalk

A powerful symbol for Indigenous Peoples—the eagle feather—was added to Dal's Agricultural campus as part of a Seven Feathers crosswalk, marking another step Dal is taking toward reconciliation while acknowledging the legacy of residential schools in Canada.



Campaign Launches Across Canada

In six locations across Canada, alumni, friends, and benefactors came together to celebrate the launch of Bringing Worlds Together, the university's \$750-million fundraising campaign for transformational change.





Syliboy at Dal Art Gallery

At the Dalhousie Art Gallery, an exhibition this spring and summer called *Alan Syliboy: The Journey So Far* showcased the artist's extraordinary creative odyssey.



Mentorship Program Reception

Alumni learned about the Dal Alumni Link—Dal's alumni mentorship program—at a cocktail-hour mixer.





Armoyan's Guest Lecture

Canadian business icon and notable Dal alum George Armoyan (BEng'83) shared his recipe for success—humour, humility, and hard work—with Dal students at a guest lecture.



Shannex Announces Gift to Dal

Shannex has committed \$2 million toward healthy aging research to create the Shannex Chair in Artificial Intelligence and Healthy Aging. The chair will support research in Dal's faculties of Health and Computer Science.



MacKay-Lyons Honoured at Convocation

Renowned architect and notable Dal alum Brian MacKay-Lyons (BSc'73, BEDS'77, BArch'78, LLD'24) (centre) was awarded an honorary degree at Spring Convocation 2024.

AND MORE!



DAA at Alumni DaysBoard members of the Dalhousie Alumni
Association came back to Dal to celebrate
Alumni Days.



Frank Lovely's Golden Eagle Award
Dr. Frank Lovely (DDS'59) received
the Dalhousie Golden Eagle Lifetime
Achievement Award for remarkable and
longstanding connection and commitment
to the advancement of academic excellence at
Dal. He's pictured with sons Drs. Greg Lovely
(DDS'85) and Doug Lovely (DDS'88).

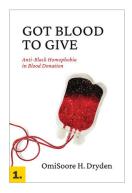
WANT TO RECEIVE EVENT INVITATIONS?

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read_watch_listen_

Dal alumni and faculty share their books, television shows, films, webinars, and podcasts.



1. BOOK

Got Blood to Give: Anti-Black Homophobia in Blood Donation

By Dr. OmiSoore H. Dryden

Narratives around blood—whose is spilt and whose is of use—are inextricably entwined with the story of anti-Black racism and homophobia, according to Dr. OmiSoore Dryden. Using both storytelling and theory, her new book tackles how these issues manifest in the health-care system.

2. PODCAST

Writers at Woody Point: As I Begin to Tell This

By Joel R. Burton (MA'05)

This wide-ranging podcast celebrates 20 years of the much-loved Writers at Woody Point literary and music festival, featuring Shelagh Rogers, Michael Crummey, Lawrence Hill, and many others.

3. BOOK

Attic Rain

By Samantha Jones (BSc'06)

This volume of poetry forms an account of living a life of resilience in a world hung up on normality. The poems explore day-to-day scenarios of childhood and adulthood from the perspective of someone who lives with obsessive-compulsive disorder.

4. BOOK

Soar

By Dr. Ketan Kulkarni, Christopher Morris, Francis Yoo

A fable about a young eagle who must leave his comfort zone to discover for himself a life he finds fulfilling, *Soar* asks readers to question their biases and assumptions and reflect on how to live in alignment with their own values.

5. PODCAST

Regenerating Pasture Land

By Claudiane Ouellet-Plamondon, P.Eng. M.Sc. Ph.D.

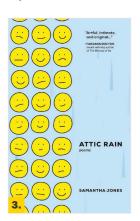
Ouellet-Plamondon discusses "Regeneration, Sustainability, and Syntropic Farming in South America" an article that appeared in *Resource* magazine about an experiential learning program based around sustainable bamboo agriculture. https://shorturl.at/MIckF

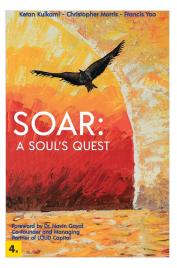
6. BOOK

Garden Inventories: Reflections on Land, Place and Belonging

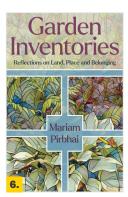
By Mariam Pirbhai (BA'94)

How long does it take to be rooted in a place? When Pirbhai embarks on planting a garden, she discovers that plants and people are not so different from one another both can be transplanted or uprooted, can colonize and invade, and be naturalized.









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Nominations are open for the 2025 Aurum Awards

Help us celebrate the innovators and visionaries who are making a difference around the world.

Nominations close January 16, 2025

dal.ca/aurum







Save the Date!

DAL ALUMNI DAYS

May 22-24, 2025

dal.ca/alumnidays







PEOPLE

DUANE JONES (MIM'14) works in information management and communications for Dal's Faculty of Medicine, but this is just one his identities. He's also an artist, designer (his clothing line is "Art Pays Me"), podcaster, co-chair of Canadian Art Foundation, and father. His interests may be many but they share a common focus – sharing ideas and building community.

24 HOURS

8 A.M. I just finished walking and feeding my Labradoodle boys (Zeke and Oreo) and I'm making a traditional Bermudian Sunday breakfast of codfish and potatoes for the fam. **10 A.M.** I start prepping for a visit to the George Dixon Centre on Brunswick Street in Halifax. I won an open call to design a public art piece there that merges my passion for art, design, and basketball into one. The piece will be applied to three basketball courts and is part of a revitalization project to celebrate the rich history of Uniacke Square and the community's deep love for



basketball. My oldest daughter, Ava, wants to explore a career in art and has collaborated with me on a mural for the Halifax Mural Festival. I want them to be able to see firsthand what that kind of a life can look like.

1 P.M. I head home to grab a quick lunch and ask my youngest daughter, Ella, if she wants to shoot some hoops with me at the court on our street. She's been playing since the age of five, but recently started playing competitively and it's fun watching her develop the same obsession for the game that I have.

5 P.M. Natasha (my wife) and I

start planning supper and decide to order a combo pizza from Kenny's. Combo is a classic Cape Breton topping mix she introduced me to that consists of mushrooms, green pepper and pepperoni.

7:30 P.M. After supper I squeeze in an hour or two of editing a series of interviews with the winners of the 2023 Creative Nova Scotia Awards for the *Art Pays Me* podcast.

10 P.M. Natasha and I are on the couch and watching the latest episode of Sunday night HBO "prestige tv."

6:30 A.M. Zeke and Oreo are up and raring to go on their walk, so I take them and start preparing for my day job in the Faculty of Medicine.

YS ME O





TOP: Duane recording MIDDLE: Outlining art for the George Dixon ball courts BOTTOM: Duane, Ava, and Ella LEFT: Duane and Ava





LESLIE MCCARTHY (MN'20) is on the path to WPATH certification to improve transgender health

aster of Nursing alum Leslie McCarthy was working as nurse practitioner in primary health care when she realized she and her colleagues had insufficient information and training when it came to transgender health care. "I was approached by a client and felt I was ill-equipped to provide them with affirming care. I spoke with a colleague who was able to point me in the right direction and that experience prompted me to pursue World Professional Association for Transgender Health [WPATH] certification," she says.

Originally from Amherst, N.S., McCarthy moved to Cape Breton 20 years ago and works at Nova Scotia Health's Cape Breton Regional Hospital. She was inspired by a nurse practitioner there to apply to the Master of Nursing program at Dalhousie and graduated in 2020.

Her goal as a health-care professional is to ensure equity in health care and create meaningful change.

"Without constantly interrogating the way things are, and being willing to tear down our barriers, things will always be the way they are," she says. "Recognizing my privilege as a cis hetero provider, I understand that we might not be able to dismantle existing systems, but we

can do our part to be more knowledgeable in our field and offer care that is equitable."

She is now closing in on the goal of becoming certified by WPATH. McCarthy has completed all requirements for certification and is awaiting a final examination, choosing to specialize in both mental and physical health.

"The WPATH provides a full-bodied understanding of how intersectional issues can disproportionately affect members of the transgender community, starting with the social determinants of health and how to integrate best practice and evidence-informed care into my own practice," she says.

The program aims to eliminate barriers to transgender health by training participants to complete WPATH assessments, prescribe and monitor gender-affirming hormones, and complete surgical readiness assessments.

"Working in primary care was very busy with a diverse range of patients. I treated a few trans folks and realized I didn't have as much information as I needed and there were huge gaps in their care," she says. "All people deserve the best care we can provide. With that in mind, I wanted to advance my knowledge in transgender health, so I took preliminary courses, spoke to people with lived experience and eventually, I took more advanced courses with the goal of becoming WPATH certified."

After working in primary care, McCarthy pursued a career specializing in psychiatry and mental health. She completed the certificate in Mental Health and Addictions for Nurse Practitioners through the University of Toronto as well as the advanced WPATH education. She also recently incorporated a business, Chrysalis Health and Wellness. McCarthy chose the name because of the symbolism of the cocoon and how it speaks to working through things in our own time, both with mental health and gender-affirming care. When the practice opens in 2025, she will provide mental health care, transition affirmation, and some newer neuromodulation therapies.

She says her passion for advancing causes of equity, diversity, and inclusion was sparked by her time at Dalhousie. "Dal opened my eyes to a bigger reality. Prior to coming to the university, I was working in a very small region. Dalhousie broadened my knowledge base for sure. I really enjoyed my experience here."

When she has spare time, she loves to hike and travel, enjoying challenging, multi-day hikes with her family. Her daughter Grace McCarthy is finishing her first year in Kinesiology, continuing the Dal legacy. Grace is inspired to go into the health care field and get WPATH certification as well.—Dawn Morrison

"We can all do our part to create meaningful change"



All his life, **DAVID KERR** (BSc'19, MBA'23) has been looking for ways to have the kind of positive societal impact his mother has had.

remembers the many evenings she spent volunteering with school board advisory committees in Toronto, advocating for better education for all and taking extra time to help any parents and students who needed advice. He also recalls how often she took him out of the country to get better when he was sick with asthma and allergies.

"She's always told me to do the right thing," Kerr says. "But more importantly, she's always embodied that."

Kerr is embodying that spirit in his own way. As soon as he completed the Corporate Residency MBA Program at Dalhousie, he established the Sealy Thrive Bursary. He says he was motivated by his Dal experience, but even more by his mother. "Sealy is my mother's maiden name," Kerr says. "It's a thank you to her for all the years she spent raising me and my sister, and the ways she has helped anyone who needed it."

Much like its namesake, the Sealy Thrive Bursary makes education more equitable, in this case by providing financial support to BIPOC students pursuing an MBA. Kerr, who served as MBA Society VP of equity, diversity, and inclusion, knows firsthand the difference that bursaries can make for students. By starting his own, he wants to help clear a path for other students to succeed.

"One of the most valuable things I've received in my life is someone validating my potential and helping me get where I am going," he says. "I want students to feel that they're seen and to know that someone is helping them."

For Kerr, time was of the essence. He understood from his financial management professor, Rick Nason, that the dollar today is stronger than the dollar tomorrow. That inspired the 30-year-old to launch the bursary now instead of waiting until he was more established in his career. "I knew that I could make donations and let it build over time," he says. "That would give it a strong foundation for growth."

Now a business development coordinator with the Nova Scotia Health Innovation Hub, Kerr continues to make contributions to the bursary. He wanted to surprise his mother with the bursary once it was fully self-sustaining, but she found out about it before he could share the news. "She's really grateful and immediately started brainstorming ways to help fund it," he says. "I'd be happy to know that, 20 years from now, the bursary is still there and helping students, just as she has. I think supporting the next generation is the most important thing we can do as alumni."—*Emm Campbell*

"I want students to feel that they're seen and to know that someone is helping them."





DAMILOLA IDUYE (MN '16) finds joy in working with community, whether it's with students or clients.

HER BACKSTORY: Damilola Iduye began her nursing career in Nigeria more than 20 years ago. After completing her three-year nursing diploma in Nigeria, she worked as a nurse before heading to university to earn her Bachelor of Nursing Science degree. In February 2012, she moved to Nova Scotia to join her husband. After hitting numerous roadblocks in obtaining her nursing license in Canada, an experience common to many internationally educated nurses, she decided to pursue a Master of Nursing (MN), Health Policy Practicum Stream, at Dalhousie as a pathway to obtaining professional recertification in Canada.

Iduye knew early on in her career that she wanted to be in academia. During her master's degree, she took up teaching assistant (TA) roles in different nursing courses and completed the Centre for Certificate in University Teaching and Learning program for graduate students. She says this was her formal entryway into academia, and the skills and experience she gained at this time prepared her for the career path she's on now. In particular, her experience as a TA for two community health nursing courses with Dr. Adele Vukic, her MN Advisor, shaped her interest in nursing education. After graduating, she taught nursing at the Nova Scotia Community College, Truro campus, before joining the Dalhousie School of Nursing in September 2017. Iduye was promoted to Senior Instructor in 2021.

Iduye says that while she considers herself an educator, she also values the importance of working in clinical settings. She maintained her clinical practice as a

registered nurse (RN) at Shannex Vimy Court until 2018 and at the Colchester East Hants Health Centre, where she worked at the Medical Day Unit before joining the Public Health Department in 2021.

HIGHLIGHTS: It was in 2019 that Iduye decided to undertake more studies to gain knowledge and develop skills and competencies in public health practice, education, and research. She opted to get a second master's degree in public health from the University of Edinburgh, Scotland. Despite the challenges of completing the degree virtually because of the COVID-19 pandemic, she went for it, and her timing could not have been more perfect. Working in public health was a dream job for Iduye, so the pandemic was a catalyst for a shift in career.

"Everything just aligned," Iduye says.

When she describes herself, she says she's a public health educator, a public health researcher, a community advocate, as well as a registered nurse. "I wouldn't change anything about my career path. Working in the community just makes sense to me."

In September of 2022, Iduye resigned from her public health nurse position at Nova Scotia Health and took an educational leave from Dalhousie to temporarily relocate to Ontario to pursue her PhD in Public Health Science at the Dalla Lana School of Public Health, University of Toronto. She returned to Nova Scotia in September of 2024 and jumped right back into the classroom.

WHY I DO IT: Iduye says the highlights of her career at Dal are the students. Whether she's the primary instructor for a class or working collaboratively with other instructors, taking the role of clinical preceptor or tutorial lead, she makes sure she's there when students need extra support. She believes providing an appropriate learning environment and opportunity is essential for success. Being a relational educator and striving to foster a conducive atmosphere for a positive learning experience is her core principle for teaching.

She describes her students as an embodiment of knowledge. "Part of my teaching philosophy is viewing the student as a co-contributor or a co-constructor of knowledge because they're not coming into the program from a vacuum—they have life experience, and they have knowledge."

When asked what the best part of her work is, there's no hesitation. "The best part is seeing my students graduate," Iduye says. "Working with students is a privilege. Seeing the growth, the maturity, the readiness to become a nurse, and then seeing them walk off that stage as a new grad brings me so much joy."

—AnnMarie MacKinnon ■

"I love my students, and I love being in a space where I can support the next generation of nurses. At the same time, I love connecting with clients in the community. Bringing the clinical experience into the classroom allows me to connect the dots."





Better with age

Older adults have better health outcomes when they age in their homes and communities. From smart homes to reimagined communities, Dalhousie researchers are working to make that possible.

By Emm Campbell

Every month, Faculty of Computer Science Associate Professor **Dr. Derek Reilly (PhD'09)** gets together with older adults in the community for activities such as pingpong, dancing, and miniature golf.

These get-togethers are not all fun and games, however. At least not for Dr. Reilly. He is one of several Dal researchers who are participating in ABLE Village, a multi-university study that is exploring how digital technology can support healthy aging. The ping-pong, dancing, and miniature golf—all of it is happening in the realm of virtual reality (VR). Dr. Reilly is using these get-togethers to look at how that technology changes, or even enhances, the way that older adults engage in socialization, creativity, and movement.

"We're seeing older adults who want to sit down while they are playing a game or who have issues with using controllers due to arthritis," Dr. Reilly explains. "Most of the gaming apps they are using haven't been designed with accessibility and universality in mind."

This is where Dr. Reilly's expertise in humancomputer interaction comes into play. The observations and feedback he gathers at each get-together are informing new guidelines he is developing for creating more inclusive VR gaming apps. He plans to use these guidelines to design and launch his own proof-ofconcept app through ABLE Village. This work could, quite literally, be a game changer.

"We have seen that these apps have the potential to reduce the barriers for participating in social and

physical experiences among older adults, and that participation could have significant benefits for their physical, emotional, and mental health," Dr. Reilly says. "But there are a range of issues we will need to address, like eye strain and sensory conflict."

Dr. Reilly's work represents a new era for the field of healthy aging. For years, it was dominated by companies promoting extracts, supplements, and other products making specious claims about turning back the clock. Today, it is more scientifically rigorous and innovative, and Dalhousie University has played a lead role in that shift. Across the university, researchers are working to better understand the environmental and genetic factors that contribute to frailty both in older age and across our lifespans. They are exploring ways to make our communities more accessible and create smart homes that can detect daily patterns that signal cognitive or physical decline. They are also advocating for systemic changes in how health professionals view and deliver care to older adults.

These efforts reflect how complex and multifaceted the concept of healthy aging is. But they have two key aims: to keep older adults on a healthy trajectory so they can age in place in their homes and communities as long as possible; and to find ways to get people back on track when health issues result in hospitalization. This work is also helping Dal attract more partners, researchers, and students who are equally invested in exploring what healthy aging means and how best to achieve it.



Dr. Kenneth Rockwood (PGM'91) is at the fore of Dalhousie's efforts. The former Kathryn Allen Weldon Professor of Alzheimer Research is a world-renowned expert on geriatric medicine and frailty whose work is reshaping the delivery of acute care among older adults during hospitalizations. He co-developed the Clinical Frailty Scale, a first-of-its-kind tool for assessing the degree of frailty among older patients that has been adopted internationally. He has also conducted studies demonstrating the value of physical activity in preventing or reducing dementia and in preventing decline in health during hospitalization.

Dr. Rockwood's work is driven as much by his concerns about the ageism and pessimism that he has witnessed in the treatment of older adults as it is by demographic trends that necessitate new approaches to care. In 2021, the first wave of baby boomers turned 75 and many more will reach that milestone in the years to come. That creates significant challenges for the world and for Atlantic Canada in particular. For one, that is the age at which most of the diseases of old age accelerate. At the same time, more than 22 per cent of the region's population is 65 or older—a percentage that not only surpasses that of any other region in the country, but is also going to grow. That will have ramifications for our health-care system in terms of demands and costs, and the impacts will ripple through society.

"We are not fully prepared for that," Dr. Rockwood admits. "That's on people like me, who were not persuasive enough with our arguments, our data, or our approach to show that we have to adapt. But it is also great to have a voice that says we need to change things and here's how we do it."

Dr. Rockwood is working toward systemwide change that would, in his words, effectively "geriatize" routine care. He wants to see more medical students become geriatricians

LEFT: Dr. Kenneth Rockwood speaks with a client. and more doctors exposed to geriatric expertise in delivering care. That will require more encouragement and expansion of programs. For example, Dal is currently restricted to no more than three geriatric fellows every two years. By increasing these numbers, he believes it will be possible to address the fact that acute care is often a source of net harm for many older adults.

"In acute care, we often commit the great sin of treating the one thing we feel to be important when patients are presenting with four or five issues," Dr. Rockwood explains. "But we're trained to do that and we evaluate hospitals based on the most responsible diagnosis they can make when a patient shows up. What I want is for doctors to see opportunity—to be able to look at older patients and know immediately what to do for them or, failing that, to have on-site access to a skilled geriatrician who can help them."

Dr. Olga Theou is taking a slightly different approach to looking at the issue of frailty. The Canada Research Chair in Physical Activity, Mobility, and Healthy Aging with the Faculty of Health's School of Physiotherapy is interested in what happens across the entire lifespan that can contribute to or compromise someone's ability to stay healthy.

"We see some people who age very successfully and others who develop significant health problems at a very young age," says Dr. Theou, who co-developed the Pictorial Fit-Frail Scale with Dr. Rockwood, a tool that uses simple visual images to assess a person's level of fitness-frailty. "We're doing frailty studies among people as young as 20 to try and better understand the factors











TOP: Dr. Shaun Boe, professor and associate dean of research with the Faculty of Health.

BOTTOM: Dr. Mikiko Terashima,

associate professor and dean of research and global relations with the Faculty of Architecture and Planning individualize approaches based on each patient's needs instead of approaching older adults like they all have the same needs."

Through this lifespan approach, Dr. Theou is identifying interventions that can promote healthy aging. Her main interest is the benefit of physical activity. Through clinical and population-based studies in collaboration with Dr. Rockwood and other researchers, she has found that regular activity boosts health and reduces or defers frailty among older adults.

"When I say physical activity, I don't just mean exercise, like when you go to the gym," Dr. Theou explains. "I mean how much you move during the day, how much time you spend sitting down versus standing—so more like daily activities. These activities have one of the biggest overall impacts on our health. Many of the people that we see who are 100 years old and very healthy are more likely very active and doing lots of things during the day."

It is not just physical activity that contributes to healthy aging—it's also the places we live. That's what Dr. Liesl Gambold, an associate professor with the Department of Sociology and Social Anthropology, has found through her research. She's been looking at retirement communities in Europe specifically designed for older 2SLGBTQIA+ populations and has noted their popularity and positive impact among members. However, these populations remain underserved in Canada and Nova Scotia despite the presence of retirement communities that cater to a wide range of different demographics.

"We know that 2SLGBTQIA+ retirement communities are needed and desired because when homes were opened in Berlin and Stockholm, not only were all the available spaces filled, but there were also sizeable waitlists," Dr. Gambold says. "What I found was that even if you have family support, people feel more vulnerable as they age. Being in a place where you can be out and live authentically helps to reduce that feeling of vulnerability in terms of emotional, psychological, or physical abuse."

Dr. Gambold has also been looking at other ways that countries support healthy aging in the home and the community that could be readily and cost efficiently adopted here. For example, there are community facilities such as public parks and gardens and soccer fields in countries like Vietnam and Iceland that offer dedicated free time each week for older adults to engage in physical activity. There are Scandinavian countries that provide tablets to older populations so that regular health check-ins can be done. "It takes government



support to make initiatives like these happen, but they have been shown to improve quality of life for older adults," she says.

But what if your entire home could be equipped with technology that monitors and warns of declines in your health? That's what Dr. Raza Abidi is working on. The Faculty of Computer Science professor and director of kNowledge Intensive Computing for Healthcare Ecosystems (NICHE) Research Group is developing an AI-driven platform to support ambient assisted living, a concept that involves equipping homes with smart sensors to capture data on an individual's everyday activities such as when they wake up, when they take their medicine, and when they go for their daily walk.

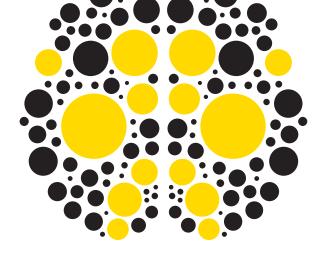
"We have developed a set list of activities to capture, monitor, and assess using artificial intelligence that do not involve capturing audio or video," Dr. Abidi says. "By establishing baseline patterns, we can then see if there are any long-term changes in the times or frequency of activities, interpret how or why they are happening, and provide necessary recommendations and proactive interventions that could help keep people in their homes. From a societal and family standpoint, this project has the potential to be transformative."

Equally transformative is the work being done by **Dr. Mikiko Terashima (MSc'10, PhD'11)**, associate

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WE NEED TO LOOK AT OUR AGING POPULATION AS AN OPPORTUNITY.

DR. KENNETH ROCKWOOD, (PGM'91)





professor at the School of Planning and the associate dean of research and global relations with the Faculty of Architecture and Planning. She leads the Planning for Accessibility, Equity and Community Health (PEACH) research unit. Unique among planning schools, this team of dedicated faculty members, students, and community partners is training a new generation of planners to think about healthy aging in communities. It is also encouraging better planning practices by engaging individuals with lived experiences on the challenges they face in navigating the built environment in their communities.

"When it comes to accessible and inclusive environment, older adults and persons with disabilities are the experts. We gather data on their perspectives and then we ask them for their suggestions on how to improve the design of their communities," Dr. Terashima says. "For example, we are creating a 3D model based on these suggestions and show the research participants what our environment could look like if their

suggestions were incorporated—what it would look like if we've got it right. Then, planners can learn from the visualized knowledge and make changes to enhance accessibility."

According to Dr. Terashima, safety issues—
and traffic safety issues in particular, such
as unplowed sidewalks and traffic lights that
change too fast—pose challenges to many older
adults in navigating the built envnironment in
the community. Other factors such as sidewalk
widths and accessible parking spaces at places like
supermarkets can also make daily activities and

errands difficult for older adults, or persons with different types of disabilities, if they are not designed with their abilities and needs in mind.

"Once you start looking into these challenges, you realize they are all related, and that they have a profound impact not just on the ability to get into or use a space, but also navigating the whole journey from home," Dr.







Dr. Raza Abidi and Dr. Olga Theou



persons with disabilities who benefit; it's everyone."

Even as Dal researchers continue to make progress on issues related to healthy aging through their own projects, there is a strong interest in increased collaboration both across the university and with community partners to garner more insights and deliver more solutions. That interest is being fostered in part by Shannex, which operates several long-term care and residential facilities. It made a \$2-million gift through **Bringing Worlds Together** to create the Shannex Chair in Artificial Intelligence and Healthy Aging. The chair will work with the faculties of Health and Computer Science to develop predictive models to enhance the safety and well-being of older adults, as well as strategies for enhancing long-term care systems and health outcomes. The gift will also support the creation of the Shannex Research Lab in AI and Healthy Aging, which will promote interdisciplinary collaboration and research on health and frailty among older populations.

"Shannex is interested in the predictive potential of artificial intelligence to create solutions that will optimize care delivery and enhance resident experience in their facilities," says Dr. Shaun Boe, professor and associate dean of research with the Faculty of Health. "At the same time, they are also interested in the preventative side of healthy aging so that people who come to their facilities can live there independently longer, enjoying a better quality of life. That means we are both helping them deal with the current aging crisis and preventing the situation from getting worse."

The Shannex research lab will be co-located in the university's Collaborative Health Education Building with an equally bold new initiative scheduled to open in fall 2025—the Dalhousie Healthy Aging and Frailty Hub. With infrastructure funded by the Canadian Foundation

for Innovation and Research Nova Scotia, the hub will take an interdisciplinary approach to better understand the aging process, bringing together expertise in geriatric medicine, physiology, rehabilitation, neuroscience, cognitive science, and computer science.

"We are going to collect data about the body, people's behaviour, frailty levels, cognition, and biomarkers, plug that into predictive models, and identify the factors that are changing the trajectory of healthy aging," Dr. Boe says. "Based on that data, we can develop strategies to get people back on track and incorporate technology such as sensors to monitor adherence and progress, and how well the strategies are working. But the real goal is to scale the interventions we develop for the benefit of the community."

There is much more healthy aging research and education underway at Dalhousie, and even more is planned both in response to the current crisis and to prevent future ones from happening. There are also visions for what success will look like. For Dr. Rockwood, it means doing more for people in the community. That could include hospitals sending more acutely ill patients home, where they are likely to receive better care, or retirement communities that give as much priority to accessibility and public spaces for activity and socialization as they do private spaces.

"We need to look at our aging population as an opportunity," Dr. Rockwood says. "When we meet their needs, we not only find new ways to tackle an international health crisis, but we also get more people talking about what else can be done to solve an issue that is not going away."

Dr. Theou agrees, adding that, "We have medicine and technology that allow us to live much longer. The key is to ensure that doesn't mean we live with reduced ability. That is why the research we are doing at Dalhousie is so important. It will lead to solutions so that most people can age healthy in their home and their community."





Spawning

Solutions

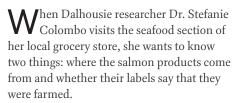
Wild seafood production has been depleted by overfishing, making aquaculture more important than ever. Dalhousie researchers are advancing ways to make the practice more sustainable to feed the world.

By Emm Campbell

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IT'S SOMETHING THAT PEOPLE PUT IN THEIR SMOOTHIES. IT'S EASY TO GROW AND IS A COMMERCIAL PRODUCT ALREADY.

DR. STEFANIE COLOMBO



"My browsing habits have helped inform my research," explains Dr. Colombo, the Tier II Canada Research Chair in Aquaculture Nutrition with the Faculty of Agriculture. "I've published two studies that looked at the nutritional content between wild and farmed salmon and I found that the differences are due to species, not whether it was farmed."

If that news is surprising, you might also be surprised to know that nearly half of the world's seafood is produced through aquaculture, which is expected to surpass wild seafood production by the end of the decade. In Canada, aquaculture production grew from 50,000 tonnes with a value of \$234 million in 1991 to 166,000 tonnes with a value of \$1.3 billion in 2022.

This growth is not being driven so much by consumer preferences as it is by necessity. For years, wild seafood stocks were healthy and sustainable, able to naturally replenish themselves after being harvested. But that has changed dramatically over the past 30 years. There are approximately three billion people worldwide who rely on fish and seafood as a key source of protein each day.





Dr. Ramon Filgueira at work in the Aquatron

That demand has led to rapid depletion of wild seafood.

"The Food and Agriculture Organization of the United Nations says only two-thirds of our wild fisheries are considered to be in a healthy state," Dr. Colombo explains. "The reality is we have overfished and if we want to continue having fish from the ocean, then we need to farm a majority of our seafood."

The question is how to farm that seafood in a sustainable way that meets both worldwide demand and our nutritional needs. That is what Dr. Colombo and researchers across Dalhousie are trying to answer. Her work is focused on addressing one of the biggest challenges facing the aquaculture industry: how to produce nutritious feed for farmed fish at a sustainable cost. For the most part, feed has been made with fish meal and fish oil harvested from wild fish—an irony not lost on Dr. Colombo. She is exploring opportunities to replace those ingredients with new ones, such as spirulina—a bluegreen algae rich in proteins and antioxidants that helps prevent cell damage.

"It's something that people put in their smoothies," Dr. Colombo says. "It's easy to grow and is a commercial product already. We're testing that in salmon and doing immune trials to see whether they do better with this than their regular diet."

Dalhousie Faculty of Science researcher Dr. Ramon Filgueira is also exploring opportunities for enhancing aquaculture production. He is applying his extensive expertise in sustainable management of coastal aquaculture sites to enhance shellfish production, specifically mussels. He says increased farming of bivalves, such as mussels and oysters, offers opportunities for enhancing both food security and ocean health.

"Unlike, chicken, pig, or even salmon, you don't need to feed farmed bivalves because they are filter feeders," Dr. Filgueira explains. "All you have to do is provide them with a habitat and they'll feed on phytoplankton and detrital organic material, which helps clean the water. That makes them the greenest animal protein we can produce. So, when we talk about our CO2 footprint and what we should eat to be more sustainable, bivalves should be the first option."

However, Dr. Filgueira says climate change is posing challenges for farming mussels in the region. Water temperatures around Prince Edward Island, where most mussels are produced in Atlantic Canada, are gradually getting warmer—a trend that places significant stress on populations and increases the risk for a mass mortality event. Dr. Filgueira wants to prevent that from happening. He is working with academic

and industry partners—including Dal's Aquatron—to develop more robust mussel seeds that can thrive in warmer water. One approach involves identifying genes and physiological characteristics that will lead to improved hatchery production. Another involves producing triploids, mussels engineered with an extra chromosome that contributes to faster growth and increased attachment to farming structures. That extra chromosome, he notes, renders these mussels sterile, meaning they cannot impact wild populations.

"Using the environmentally friendly protocol we developed for growing different families of triploid mussels, we will explore how they cope with heat stress and then use a data platform we are developing to identify the genetic factors that are contributing to better survival rates and increased growth." Dr. Filgueira explains. "Once we have that, we will be able to create new, more resilient families of triploid mussels."

Dalhousie Faculty of Science Associate Professor and Tier II Canada Research Chair in Ocean Chemistry Dr. Carolyn Buchwald is taking a different tack in aquaculture research. A chemical oceanographer with an interest in nutrient cycling, she is identifying ways to enhance sugar kelp growth from seed stock with funding though the Ocean Frontier Institute's Seed Fund. Rich in



minerals and antioxidants, seaweed is widely consumed in Asia. It's also a key ingredient in probiotics and nutraceuticals and is used as a food stabilizer.

"It can be used in a lot of products, so it is very versatile, but it also offers the potential for us to replace Asian-sourced seaweed in our diet, which contributes to food security," says Dr. Buchwald.

Sugar kelp starts off being grown in a hatchery, and then is outplanted into the ocean during winter when the nutrients it thrives on are at their peak. Using Dalhousie's Aquatron, Dr. Buchwald is assessing which factors—water sterilization, nutrients, and light—promote quicker, better hatchery growth. This will enable farmers to get their kelp in the ocean in time to benefit from the natural seasonal cycle, and shorten the time in the hatchery, which is their most cost-intensive part of

TOP: Dr. Colombo MIDDLE: Dr. Buchwald and researchers examine sugar kelp

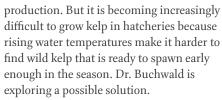






IT CAN BE USED IN A LOT OF PRODUCTS, SO IT IS VERY VERSATILE, BUT IT ALSO OFFERS THE POTENTIAL FOR US TO REPLACE ASIANSOURCED SEAWEED IN OUR DIET, WHICH CONTRIBUTES TO FOOD SECURITY.

DR. BUCHWALD



"We're doing something called forced maturation where we collect kelp that was not ready to spawn, cool the sea water in the Aquatron tanks, and mimic the fall light cycle so that they produce their spawning tissue," she says. "That means we can spawn them earlier in the season."

Dr. Buchwald adds that a more robust sugar kelp crop not only contributes to food security, but also a stronger economy, enhanced marine biodiversity, and a healthier ocean. "Sugar kelp produce oxygen, so they're taking up CO2 and they're aerating the water," she says. "But the fact that they are taking up nutrients is also important because excess nutrients can lead to harmful algal blooms, which consume oxygen and block out sunlight."

As potentially beneficial as these three lines of research are, there is an opportunity to bring them together in an ambitious new initiative that could result in a more sustainable and affordable approach to aquaculture that also increases production. With support through **Bringing Worlds Together**, Drs. Colombo, Filgueira, and

Buchwald plan to explore the potential of integrated multi-tropic aquaculture (IMTA). This natural approach to aquaculture mimics the ocean's ecosystem, where different species provide nutrients for others. In other words, finfish in an IMTA farm would be fed a high-quality diet made from kelp and the waste they produce would then nourish both shellfish and kelp, creating a closed loop.

"Right now, aquaculture is essentially done on a one-input-and-one-species basis, so it is very monoculture focused," Dr. Colombo explains. "With IMTA, the waste that finfish produce creates an opportunity to grow other things, so the feeds need to be designed with output in mind. That makes it a more efficient approach to aquaculture."

It is also more ocean friendly, according to Dr. Buchwald. "A lot of fish farms have to fallow their fields because the carbon and nutrients produced make the areas anoxic, or low oxygen, and the sediments become sulfidic," she says. "By integrating kelp and shellfish, those nutrients and carbon are taken up and that makes growing fish more sustainable."

Although IMTA is not a new concept, it is a difficult one to implement successfully on a commercial scale. Farm operations require both extensive knowledge about marine organisms and multiple licences to meet local regulations. The Dalhousie research team plans to create an experimental IMTA site in Nova Scotia so that local producers can test approaches before launching commercial operations.

"Essentially, this would be a hub where industry can engage us in research projects to take what they are doing and make it a more integrated approach," Dr. Colombo says. "It's a timely undertaking because there is increasing interest in combining kelp and shellfish production on a commercial scale to get two harvestable products."

If successful, Dr. Colombo hopes that the approaches generated at Dalhousie will result in more farms working together on integrated, commercial-scale aquaculture projects across the region. She also believes the team's work could have far-reaching impacts through the solutions that are developed and the training that will be delivered to students and farmers.

"Aquaculture is more welcomed in other parts of the world," Dr. Colombo says. "Part of the idea with IMTA is that it could be adopted in places like Central America or Africa. Ideally, we could produce a blueprint that enables countries to become more self-sustaining instead of importing food, which would go a long way to addressing food security issues everywhere."



Meet the researcher who thinks about water so you don't have to **BY RYAN MCNUTT**

The average Canadian household uses 223 litres of water every day. Drinking, cooking, bathing, washing—it all adds up.

For the more than 200,000 Halifax residents served by the J.D. Kline Water Supply Plant, that water flowing through their taps and pipes comes from Pockwock Lake. Located just north of the historic African Nova Scotian community of Upper Hammonds Plains, it could easily be mistaken for just another sparkling gem in Nova Scotia's impressive collection of waterways. You'd never think, from the scenic view, that millions of litres of that lake water are being pumped out of the lake each day to be treated, piped to residences and businesses across the municipality, and returned—after treatment, of course—to start the journey all over again.

Dr. Graham Gagnon thinks about it. A lot.



"Most people don't have to know much about where the water in their tap comes from—they just assume it's there," he explains. "We don't always think about it in the same way we would a bridge, or a building, but there's a reason the water industry is filled with engineers. It's because the problems they're solving are systems problems: they're technical, they're 24/7, often expensive, and require professional judgement."

When it comes to water professionals across Atlantic Canada and beyond, Dr. Gagnon and Dalhousie's Centre for Water Resources Studies have become not just a critical resource but a foundational partner to utilities like Halifax Water and the Atlantic First Nations Water Authority. The centre's work with these organizations is longstanding and multifaceted—hardly a typical researcher-for-contract relationship. From drinking-water safety to wastewater testing for infections like COVID-19, Dr. Gagnon and a cross-disciplinary team of researchers work every day to help solve a wide range of water-related science and technology problems.

The person at the centre of that enterprise has more than just water on his mind. Dr. Gagnon has been both a Canada Research Chair and an Natural Sciences and Engineering Research Council Industrial Chair. He's generated more than \$50 million in research funding, co-authored more than 200 journal articles, and has been feted with major industry awards; most recently he was elected as a fellow to the prestigious Canadian Academy of Engineering. His research programs have trained over 250 students—alumni who now are playing leadership roles in water science and safety across Canada and globally. And though he's an engineer by trade, he's now serving as dean of Dal's Faculty of Architecture & Planning, helping to forge a stronger, more unified future for the two disciplines through the same relationship-based approach that's defined his entire career.

"He has an incredible ability to connect the dots that nobody else sees," says Dr. Wendy Krkosek (PhD'13), acting director of environmental health & safety with Halifax Water and an alum of Dr. Gagnon's lab. "We've been in meetings with organizations that you would not expect to have any connection with a water utility and, all of a sudden, he's found this link that connects two-and-two together and can help forge those relationships."

The first time Dr. Gagnon remembers thinking about our relationship with water was on the farm.

He comes from an agricultural background; his dad was an "aggie" grad from the University of Guelph. And from the time he was 10 years old or so, Dr. Gagnon worked summers on his uncle's Ontario farm. It was a small operation—mostly corn, plus a few animals, such as cattle. Then, one summer, the water went bad.

"His neighbour was improperly disposing of agricultural waste, and it contaminated all of the wells in the area," recalls Dr. Gagnon. "It was the first time I understood a bit about how all these things fit together."

"WE LIVE IN CANADA. WE'RE A WEALTHY COUNTRY. WE SHOULD BE ABLE TO SOLVE DRINKING WATER PROBLEMS."

He says he finds that people who work in water almost inevitably have a story like his—some personal experience where what was once taken for granted suddenly becomes all-important, and the personal, practical, and policy implications spill out from there. "It changes the discourse of a community or a business really fast when you don't have water," says Dr. Gagnon.

That can be the case anytime a city or community experiences a failure in their water infrastructure or when residents are told they must boil their water before consuming it. Thankfully, most of these are short-term issues—but there are also many communities across Canada, a large number of them remote or Indigenous communities, where water restrictions and boil orders are routine and regular, with wide-ranging and long-term impacts.

"Those types of narratives stick with me," says Dr. Gagnon, retelling stories of meeting local leaders struggling with community water issues. "We live in Canada. We're a wealthy country. We should be able to solve

drinking water problems for communities. This shouldn't be something that's insurmountable."

The Centre for Water Resources Studies was founded in the early 1980s, back when Dal's Faculty of Engineering was part of the Technical University of Nova Scotia (TUNS). Dr. Gagnon, who trained as an environmental engineer, joined the faculty at Dalhousie in 1998, just after the TUNS/Dalhousie merger. Given his research interests in water, he quickly started collaborating with the centre and, in 2010, became its director.

"The centre has long-standing relationships with a number of partners, where we think strategically about how we collaborate over multiple years," he explains. "But then there are the unexpected projects that come our way, where someone hears about something we've done, reaches out and we're like, 'Hey this could be interesting to work on."

Like when the COVID-19 pandemic hit, for example, and the centre collaborated with public health officials in Nova Scotia to develop a wastewater surveillance program for early and accurate detection of SARS-CoV-2. Or back in the 2000s, when the Dal Student Union sought to reduce bottled water consumption on campus and raised questions about the potential of lead traces in campus drinking water; one of Dr. Gagnon's students produced a study that guided Facilities Management in developing a robust water fountain replacement strategy, and which later informed Halifax Water's own lead service line replacement program.

The Halifax Water relationship is one of the longstanding pillars of the centre. Dr. Gagnon has been working with the local utility for close to two decades now on a wide range of projects. At the moment, this includes work in areas like UV disinfection, technology replacement, and helping Halifax Water prepare for how climate change is going to affect water treatment and management in the decades to come. Just this October, Halifax Water announced that they've piloted the world's first municipal scale UV LED reactor for wastewater treatment—conducted in partnership with Dr. Gagnon and team.



"It's a really unique partnership with Graham and with the other partners in the NSERC grant," says Dr. Krkosek. "It's more of an open-ended journey we're on together, where with each five-year plan we have ideas of where we think we're going to go, but it inevitably takes us in different directions as we adapt and plan for the future."

The partnership also allows students to get involved in real-world situations, notes John Eisenor (BEng'99, MASc'02), Halifax Water's director of operations and, like Dr. Krkosek, one of Dr. Gagnon's alumni. He knows personally what that kind of experience can offer. "I had the opportunity to work in research at the J.D. Kline plant as a student, and getting exposed to Halifax Water, getting to know the staff, it kind of solidified my desire to want to work for a water utility, and Halifax Water in particular."

"He gives people leadership opportunities," adds Dr. Lindsay Anderson (BEng'11, MASc'13, PhD'23), also a centre alum who is now a water quality manager with Halifax Water. "He lets people run with their ideas, helping them find the connections and interact with the partners to come up with solutions. He provides a great space for creative thinking."

Manda Tchonlla (B'Eng'22) knows that creative space quite well: she has been an

intern, a master's student, and is now a PhD student with the Centre for Water Resources Studies. She's currently studying water contaminant detection technology and echoes the what the centre's alumni have to say about working with Dr. Gagnon.

"He creates an environment for me to grow," she says. "No matter what stage of your career you are in, he gives you the space to become the person you want to become... he's not trying to teach researchers to be just like him. He wants you to figure out who you can be."

HELPING OTHERS FIGURE OUT WHAT'S POSSIBLE LIES AT THE HEART OF HIS WORK

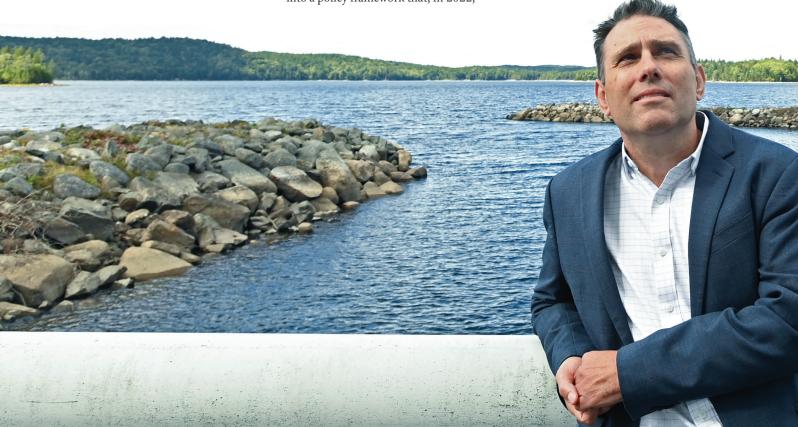
That ethos of helping others figure out what's possible lies at the heart of one of the projects Dr. Gagnon is most proud of: his collaboration with the Atlantic Policy Congress of First Nations Chiefs (APC).

Dr. Gagnon first started working with the APC in 2009 to develop a comprehensive water management strategy for the Atlantic region, one that would grow Indigenous leadership and self-determination in water services. Over time, the partnership evolved into a policy framework that, in 2022,

produced an agreement to transfer water and wastewater services for 17 First Nations communities from Indigenous Services Canada to the newly formed Atlantic First Nations Water Authority (AFNWA).

Earlier this year, the AFNWA and Dalhousie received a \$4.3 million investment through an NSERC Alliance-Mitacs Accelerate grant—funds that will not only further improve the quality and sustainability of Indigenous water infrastructure but help train a new generation of Indigenous and non-Indigenous professionals for the water authority's long-term success.

"Graham's guidance was so important to the establishment of the AFNWA," says Chief Wilbert Marshall of the Potlotek First Nation and current AFNWA board chair. "In our early years, he was our principal advisor, believing that our vision was the best course of action for our communities. Now, 15 years after we first reached out for his advice, the AFNWA is operational in our communities. We have taken control of decision making from the federal government, seen increased investment in our infrastructure, and begun to see improved water quality and service."





"The chiefs deserve all of the credit for advancing this project," says Dr. Gagnon. "I'm really happy that I was able to rely on my water expertise to help provide advice and insight and steer them to different leaders in the water community to help them achieve that vision of establishing a water authority."

James MacKinnon (BSc'11, MPA'20), AFNWA's director of engagement and government relations, calls Dr. Gagnon "a dedicated listener" who has been an integral part of the authority's success.

"He always seemed to have time to take a phone call or a meeting to provide his advice," he says. "I wasn't one of Graham's students during my time at Dalhousie, but I've learned so much having worked closely with him these last 12 years, I feel like I was. We couldn't have asked for a better partner to build the AFNWA."

That approach to partnership and relationship-building helps explain how, more than two decades after joining the Faculty of Engineering, Dr. Gagnon found himself as dean of an entirely different faculty.

Dr. Gagnon first got a taste of university administration in 2018, when he was hired for the part-time role of associate vicepresident research. It was a chance to dig

into Dal's research operations from a systemwide perspective, helping solve problems and open doors for colleagues across the university. That experience made him open to considering other opportunities, which is when he was approached about the dean's role in Architecture & Planning.

"HE CREATES AN ENVIRONMENT FOR ME TO GROW."

The Faculty was going through some real struggles; Dr. Gagnon compares it to how many businesses and organizations found their extremes heightened amongst pandemic-era modes of working and communicating. There were tensions between the Faculty's two schools and real doubts about their shared future together.

"We wanted someone who could look at our Faculty with fresh eyes, somebody who could bring the experience of administration from a different academic discipline," says Dr. Mikiko Terashima, an associate professor of planning who served on the decanal selection committee.

"I was really interested in the idea of leading a Faculty through change," says Dr. Gagnon. "I'm not an architect or a planner, but I do know the municipal space in which both those disciplines have to operate. And my different background allows me to focus mostly on being an academic leader and asking questions that aren't specifically about the disciplines, but more, 'What conversations do we need to create here? How can I help support this team, these people, in advancing their ambitions?'"

He dove into the task, organizing extensive one-on-one and group engagements with faculty to try and identify the best opportunities for moving things forward. Research quickly became a key priority, and since he became dean not only has research output grown but the Faculty is now developing a new PhD program. There's much more work to do, and at some point, he does want to see the Faculty's leadership return to someone from within its own disciplines. But, at the moment, confidence in a shared path forward is growingperhaps best embodied by the fact that Dr. Gagnon's initial short-term appointment has now been renewed for five more years.

"He's got a strong enough personality to have tough conversations, but he treats everyone fairly and equally," says Dr. Terashima, who has since taken on the new role of associate dean, research & global relations. "It's helped us get out of that feeling of being 'stuck' and to focus more





on the future, on the possibilities and the positives of what we can do together."

Dr. Émélie Desrochers-Turgeon is a new addition to the Faculty, having just joined the School of Architecture in early 2024, and she notes the energy Dr. Gagnon has helped curate.

"Because it's not a big Faculty, he's able to actually meet with people and be more accessible, and I think that's served him well," she says. "He shows support for early-career faculty and is genuinely interested in developing research trajectories; he wants research to serve our local community and global communities too."

"IT'S ABOUT RELATIONSHIPS, AND THOSE RELATIONSHIPS RELY ON TRUST."

Water might be the ultimate example of where those perspectives meet—a locally managed resource that literally spans the entire planet. "My environmental ethos has always been that view of 'think globally, act locally," says Dr. Gagnon.

Little surprise, then, that the impacts of climate change are at the top of his personal agenda when it comes to the biggest and most urgent topics in the field. "Climate change is impacting our water supply now; it's obvious and it's clear, from algal blooms to impacts on groundwater because of sealevel rise. We're going to have very different decisions to make around treatment, quality, and quantity than people did 50 years ago, and they're going to get more complex 10 or 20 years from now."

Then there's population growth—a particularly pertinent topic in Nova Scotia. After stagnating for over 20 years, the province's population has grown by more than 130,000 since 2015, the steepest increase in generations. "It's a very positive thing for Nova Scotia," says Dr. Gagnon, "but it brings challenges in many respects, including water, whether that's straining capacity in urban centres or intensifying pressure on septic fields. As neighbouring counties grow, there will be more questions: where is the wastewater going to go? Where do I treat it? Do we need more water plants?"



Dr. Gagnon, right, with Dr. Lindsay Anderson, Dr. Wendy Krkosek, John Eisenor

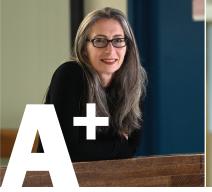
He expects there to be a lot more of those one-off calls to the Centre for Water Resources Studies in the years ahead, not to mention the deepening of their core partnerships. He's excited, though, because he knows the ethos at the heart of what the centre does—and so much of what he does—holds strong.

"It's about relationships, and those relationships rely on trust," he says. "Our

partners invest not only in the idea that we are going to do good science and come up with good ideas for the water community, but that we are going be good allies. That spirit flows through every person we have here, and it's why you see our alumni going out and doing so well in the industry. It's because we work as a team, and we work in partnership."











Blue: Dr. Sachin Seth Grey: Dr. Jennifer Stamp Orange: Dr. Matthew Schnurr Gold: Dr. Marion Brown

WHAT DEFINES TEACHING EXCELLENCE?

The Dalhousie Alumni Association Faculty Award of Excellence in Teaching recognizes instructors for their outstanding teaching and educational leadership. It's one of many university-wide teaching awards that recognizes commitment to equity in education, graduate supervision, course development, collaborative teaching, and student teaching. First awarded in 1997, the award has had 28 recipients over the years. The inaugural recipient, Dr. Sampali (Srini) Srinivas was commended for his genuine interest in students, a quality that prevails among recipients today.

Four of the recent winners of the award come from very different disciplines: **Dr. Sachin Seth**, the 2023 winner, is in the Faculty of Dentistry; **Dr. Jennifer Stamp**, who won in 2020, teaches in the Department of Psychology and Neuroscience; **Dr. Matthew Schnurr** of the Department of International Development Studies won in 2019; and **Dr. Marion Brown** from the School of Social Work took 2024's award.

But despite their different areas of interest and backgrounds, they all share qualities that make a difference in the lives of their students. Here, they share in their own words how they approach teaching and the themes that emerge to create a roadmap that any new or seasoned instructor can incorporate into their classroom.

Instructors are typically teaching something that they've spent years studying and researching themselves. Students are attuned to the keen interest their instructors possess for their field of study, but also to the **passion** they have for sharing it with others.

"There's something energizing for me in being with students and going into the classroom. I can feel it rise up in me. I get excited. That has stayed consistent. I never have to question if I am going to be engaged or be interested or bring that life to the classroom."

—Dr. Marion Brown

"I don't teach anything that's boring. If it's boring, then I don't understand it. Or if it's important and boring, I need to find a way to make it interesting."—Dr. Jennifer Stamp

But interest and passion alone don't necessarily mean that someone will excel in teaching. To stand out, an instructor has to understand their own **teaching philosophy**, to reflect and intentionally connect what is being taught with how it's being taught.

"The philosophy that I've always used is to create a safe and welcoming environment for my students. It's not possible to learn where you just don't feel comfortable asking questions. I also believe that a big part of any curriculum is the role modeling that we do. I want my students to see how I interact with not only them, but with other colleagues and start to emulate that. I recognize that my students are going to be my colleagues in the profession of dentistry one day, so there's no time like the present to start teaching them like that."—Dr. Sachin Seth

"It's about the three Cs—curiosity, connection and collaboration. If I can make a student curious, then I've done at least part of the job. And if they're curious, there's a possibility for connection, even in a big class. And then everything that I've done of value since I started teaching has been done in collaboration with students."—Dr. Stamp

"I always start with what I call community commitments or what some people call group guidelines. Some people might say we all need to speak freely. Well, what do we mean by that? Yes, we want free but how are we going to handle it when we hear something that's a different version of free? I help flesh that out and get more and more people talking, sharing their perspectives. Every class, I'm looking for everyone to speak because the less we speak, the easier it is to not speak again."—Dr. Brown



Philosophies evolve over time. And along with them, both expectations and realities. More often than not, **new perspectives** have to be changed and embraced over time.

"I think something that a lot of new educators struggle with is wanting to be liked. When I first started teaching, I thought the way to be a good educator was to be liked. While I still believe that's very important, my priority has shifted now from being liked to being respected."—Dr. Seth

"One of the things that has transitioned is my comfort in not having all the 'answers.' In social work, we are teaching critical thinking and how to question authority, status quo, and assumptions. So it's fair when students ask me about my assumptions and my status quo, and challenge me on the hierarchy that exists in the classroom. In the early years, that shook me. Now, it's a lesser version of a shake, a tweak, and I bring the parallel—between hierarchies in society and in the classroom—right into the course."—Dr. Brown

"I started off with the idea that simulation-based exercises—which are popular in professions like medicine and management—were only suited for professional degrees. Through experimentation, I came to learn that such immersive exercises can also enhance interest and help students hone skills in large undergraduate classes."—Dr. Matthew Schnurr

Once the philosophical stage is set in the classroom, students can be invited onto it. The concept of **flipping the classroom** names a teaching style that each recipient practices.

"In a traditional classroom, you listen to somebody monologue and then you go home and work on problems on your own. It makes much more sense to flip that and work on problems with the person who can do them the best, which is your professor."—Dr. Stamp

"I use elements of the flipped classroom to engage students in different ways versus just lecturing at them. I am very lucky that I have a hands-on course, so it does make for a very easy flipped classroom, in which I can have demonstrations and videos and show students different things outside of standing there."—Dr. Seth

"A lot of the classes that I was teaching would end with student agreeing on lofty goals—we need more participation, inclusion, sustainability. These buzzwords are so attractive because everyone can agree on them in principle, but they often mean very different things depending on the politics of the person championing them. I tried to get creative about how we can try to prompt students to think more critically about how to translate these aspirations into what those types of buzzwords mean in practice."—Dr. Schnurr

"Because I teach a practice class, students engage in simulations, some of which are recorded. Students watch themselves back and they can see when they use their hands more, they can see when they lean forward, when they sit back or when their lower lip wobbles a little bit because something comes close to home for them. Then I ask them to reflect on what they observe in themselves, and it's wonderful learning."—Dr. Brown

For students to participate, they require access and inclusion. On one hand, **universal design** principles create environments where students have equal opportunities to learn and engage. On the other, **accommodations** remove barriers that might exist to participating in these opportunities.

"You can't accommodate one student with anxiety, another who is blind, and then another who is deaf. But you can design a program that's accessible and barrier free. In the beginning, the Faculty of Science asked us to record all first-year science lectures. I thought, 'I'll try it, but no one is going to come to class, marks are going to drop, and I'm going to have to rescue them before the exam.' That didn't happen. They all came to class. They watched the videos again. The EAL students slowed me down. The busy students sped me up. The single parents listened to me while cooking supper."—Dr. Stamp

"When it comes to teaching psychomotor skills, there's a theoretical aspect of it and then there's the skill of picking up a handpiece and actually drilling something. A principle that I have adopted is that not everyone learns at the same pace and everyone develops at different times. In my course, I allow the opportunity for students, if they had failed any of the assessments, to show me at the end of the year that they can do it."—Dr. Seth

"In our research on the effectiveness of simulation-based learning, we found that the inclusion of digital tools provided an alternative forum where students could participate even if they did not feel comfortable speaking in the large-group. Students told us that these online forums also created opportunities for collaboration and facilitated knowledge building."—Dr. Schnurr

The importance of trust in any learning environment cannot be understated. Trust requires openness, vulnerability, and **humility**.

"I am more honest now than I used to be about sharing my own struggles and vulnerabilities. I also think a lot more about teaching attitudes. I try to emphasize to students the value of humility and compassion and that these attitudes can be cultivated and honed. I try to share the lessons I have learned about navigating scholarly spaces. Many of us feel intimidated in university settings. I think that humility can be a strength as it can provoke self-reflection that can generate new insights about our place in the classroom and in the world."—Dr. Schnurr



"It is a huge privilege to be invited into people's lives. That the primary tool that we have [in social work] is ourselves: we don't have technical stuff; we don't have machinery. We take in information; we analyze it and then we try to be a resource to people. Never take yourself out of it: know yourself, know what you believe, know your limitations: know your skills, know your strengths. Bring all of who you are to the class of social work. Also bring humility because you're not going to know it all, you're not going to be able to 'solve.' It's about coming with confidence and competence, and also humility."—Dr. Brown

"I talk about the big three—depression, anxiety and substance use. I've been doing this for years and I always use the term "they" when I'd talk about people who have these disorders. At one point, I stopped and said "I." People were surprised that I told them. I'm sure somebody had confided me that day and that's probably what prompted it. I don't hide stuff if it's relevant, right?"—Dr. Stamp

Through their own studies, instructors have experience posing research questions, collecting data, drawing conclusions and making recommendations in their field. This approach lends itself well to the classroom where the question is now about the learning process—how do students learn best? Framing the educational experience as a **research question** itself is a mindset these recipients have benefited from.

"As a PhD student, I received excellent training in the skills of research. But I learned little about how to become an effective teacher. As I sought out those with expertise in teaching and learning, I realized that I could use the skills I had as a researcher to experiment with and assess the learning impacts of different approaches. This exposure to the scholarship of teaching and learning has made me a better educator. I am always searching out new opportunities to combine these realms. I think my research makes me a better teacher and my teaching makes me a better researcher."

—Dr. Schnurr

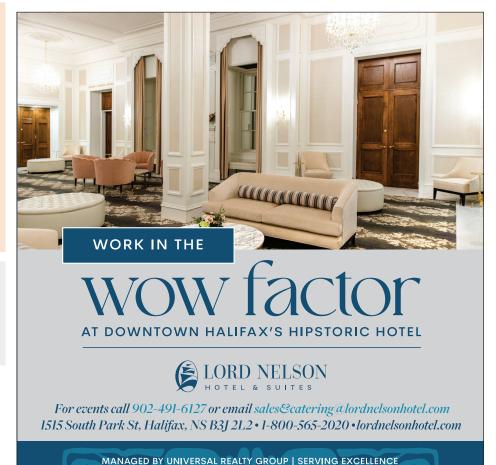
"If we can take an evidence-based approach to our research as scientists, we should also be making evidence-based decisions about how we teach. I go to the literature and to colleagues, and resources like the Centre for Learning and Teaching."—Dr. Stamp

Instructors have dozens to hundreds of students in their classrooms every year. But the relationship doesn't end after the final class or assessment. Instructors **care** about students long after they leave the classroom and are thankful for opportunities to reconnect.

"It's a real privilege to be able to engage with university students because you get to encounter people at a unique time in their lives, when they've broadening their horizons and are open to all these different ideas. It's always gratifying to connect with students later on and see where their learning has taken them."—Dr. Schnurr

"I just wonder what they do and what they've done with what they learned. I hope they're doing the same thing I am."—Dr. Stamp

"I have the opportunity regularly to go into a room filled with faculty and alumni. It's always so nice to see people who are happy with what they're doing. It's the best thing you could ask for, right? [What I say to them is] First and foremost, I hope life has been good to you. I hope the education that we provided you has at least given you foundation for what will be your rest of your life professionally, because at the end of the day, that's all we do in universities: provide our students with a foundation of learning. Lifelong learning is part of the game here. I hope we've given students that ability to learn, also instilled a passion for the profession."—Dr. Seth





CLASS NOTES

For additional class notes, visit dal.ca/alumni/news-and-spotlights/class-notes

1960s

'63

voyage aboard the Expedition Ship *Polaris* this summer, **Dr. (Col) Ronald D. Harris**(BSc) met chief scientific officer of *Polaris*, **Dr. Megan Coggins**. A conversation about oceanography quickly turned to their university experiences, where they learned they had both attended Dalhousie

University. Harris describes the meeting as "happy, a true coincidence and a display of the small-world aspect of living on this blue planet."

While on a 15-day Great Lakes

1970s

'73

In 2020, amid the global pandemic, **Robert Bethune** (BSc) graduated from Masters International University of Divinity with his Doctorate in Theology. After years of teaching medical laboratory technology and working in microbiology and molecular epidemiology, this is a whole new career focus for Bethune.

'77

Sharon Cunningham (BA) has been providing financial planning and tax advice to clients for 40 years. Since 2008, she has been a financial counsellor to employee members of Telus Health EAP. Cunningham announced her two-thirds retirement as of May 1, 2024. Going forward, she will only be available January through April.

'79

Jeffrey Round (BA), who studied English literature, music and theatre at Dal, has published his 17th book, *The Sulpher Springs Cure* (Cormorant Books). A Miss Marple-style mystery, it is dedicated to Round's mother, Loretta, and her parents, Abbie and Henry White, all of whom grew up in Hants County, N.S.

1980s

'84

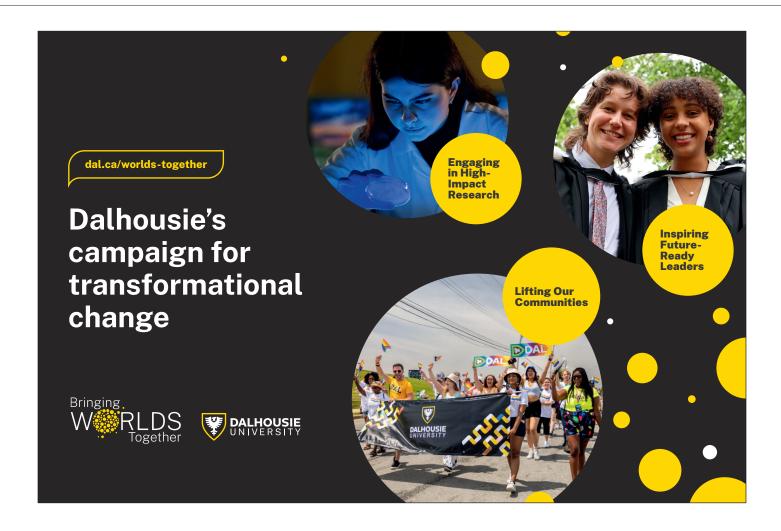
President and CEO of the University of the Cayman Islands, **Dr. Robert W.**

Robertson (MPA), has been named a principal fellow of the Higher Education Academy. This fellowship is awarded to individuals who demonstrate a sustained record of effectiveness in strategic leadership of high-quality learning and can show that the leadership has had extensive impact.

'86

Wendy Watson-Wright

(PhD) has been elected Chair of GESAMP (United Nations Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection), an interagency body that has





been providing independent authoritative interdisciplinary scientific advice for the UN system since 1969.

'88

Dr. Beverly Vincent (PhD)'s book, *Stephen King: His Life, Work and Influences* (Young Readers' Edition) has been published worldwide, Young

Readers' Edition) has been published worldwide. Young readers will explore this ultimate, illustrated guidebook, deepening their knowledge of the cultural phenomenon and the legacy of the King of Horror.

1990s

'91

Dr. Martin Gillis (DDS)

was presented with the Canadian Dental Association Distinguished Service Award at the 2024 CDA Annual Meeting in Toronto. The award is given to recognize outstanding contributions to the dental profession.

'99

After 20 years away, **Dr. Harvey Amani Whitfield** (MA, PhD'03)
returned to Halifax to become
the first Centennial Carnegie
Chair in the History of Slavery
in Canada at the University of
King's College, and a professor
of history at Dalhousie.

2000s

'01

Nick Tobin (BEng) has been appointed East Point Engineering's new president. With over 20 years of industry experience, his leadership credentials are further highlighted by his past roles as president of the Consulting Engineers of Nova Scotia (CENS) and as a Director for the Association of Consulting Engineering Companies Canada (ACEC), where he played a key role in shaping the future of engineering in Canada.



'03

Brenda Hogan (MBA) and **William Woodcock** were engaged to be married earlier this year. Their wedding took place in late summer 2024.



'04

Ameeta Vohra (BA) joined the International Ice Hockey Federation (IIHF) as part of the editorial team for the 2024 Women's World Hockey Championship that was recently held in Utica, NY. Vohra also received the silver award at the 2024 Atlantic Journalism Awards for her story "Searching for Healing in Africville," which was published in Saltscapes Magazine.

'05

James Sejjengo (MSW) has been promoted to director of services at Reena, an Ontariobased, non-profit organization that offers residential support, respite programming, counselling, therapy, and advocacy. Since its establishment in 1973, Reena now provides services to 32 group homes and over 60 supported independent living apartments across the Greater Toronto area.

Dal alum and current Interdisciplinary PhD candidate shalan joudry (MES), a L'nu (Mi'kmaw) and Europeandescent storyteller, has worked as a playwright, podcast producer, oral storyteller, actor, and cultural interpreter. Now, shalan is a director and producer, and her first short film, welima'q, had its world premiere at the Toronto International Film Festival. It also screened at the Atlantic International Film Festival in Halifax in September, where it won Best Atlantic Short Documentary.

Commander Daniel Rice (BEng) and Lieutenant-Colonel Andrew Brooks

(BEng'06) reunited while serving in Baghdad, Iraq, after being classmates nearly 20 years ago. Despite differing paths in the Canadian Armed Forces, Rice and Brooks's shared experience at Dalhousie prepared them well for challenging careers in service.

'06

Amanda Cluett's

(MA) business, Black Bow Gift Co., has opened a new studio in Dartmouth, N.S. Since 2019, Cluett has been honing her skill in gift-giving (through curated gift baskets and boxes), and now has a space solely dedicated to it.



'07

Since 2021, **Dr. Genevieve Breau** (BSc, MA'11) has been a lecturer in Public Health at the University of Greenwich in London, U.K. She spends her time off going to the Tate Modern and sees the occasional performance at the Royal Opera House.



Dal Schulich School of Law alum **Rob Richler** (LLB, MBA'07) was recently admitted to the partnership and named employment law team lead at Bernardi Human Resource Law LLP in Mississauga. Ont.

'09

Named 'Writer to Watch' by CBC Books, English alum Charlene Carr (BA) has secured a twobook deal for her novels Hold My Girl (2023) and We Rip the World Apart (2024). Hold My Girl was also an Amazon Editor's pick. Amazon Best Books of the Month, Publisher's Marketplace Buzz Book, was shortlisted for both the Thomas Raddall Atlantic Fiction Award and the Dartmouth Book Award, and has been optioned for adaptation to the screen by Blink49 Studios in partnership with Groundswell Productions.





2010s

'10

Courtney (Larkin) Wilson

(BMgmt) was named one of the Top 20 Under 40 by the Greater Moncton Chamber of Commerce in May 2024. This recognition celebrates Wilson's professional and community contributions, including being founder of the Happy Hour Club.



'12

Catherine Cottreau-Robins

(PhD), senior curator of archaeology for Nova Scotia Museum, was elected President of the Canadian Archaeological Association in May of 2024.

Dr. Sina Varamini (BEng, MASc'14) was awarded the prestigious Committee Excellence Award of the Year 2023 for his leadership of the Soils and Materials Committee (SMC).





'13

The road to sports marketer **Armaan Ahluwalia's**

(BMgmt'13) current job in F1 racing in England has included pit stops with the Winnipeg Blue Bombers and Kansas City Chiefs (where he earned a Super Bowl ring), and with the company that owns professional basketball's NY Liberty and Brooklyn Nets.

'14

In 2022, **Natalie Kassen** (BA) started Kassen Recruitment, a boutique accounting and finance recruitment firm located in

downtown Toronto. The firm now has over 20 employees and a very active job board, recruiting candidates from across Canada and the U.S.

'16

Connor Ross (BComm), cofounder and president of KOAT. AI—an AI-powered company providing real-time insights, threat detection, and actionable intelligence—has navigated a significant year of progress, marked by strategic milestones and a focus on building valuable partnerships.





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2020s

'20

Stacie Smith (BScK) was recently named the Emerging Leader for Atlantic Canada as part of the 2023 Canada's Volunteer Awards. Smith is a youth advocate from New Brunswick who helped improve youth mental health not just in Atlantic Canada, but across the nation.

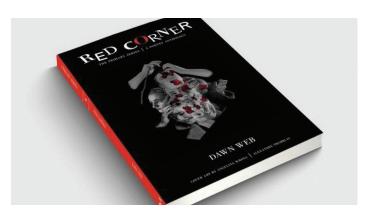
'22

Lixuan Wei (BComm) thanks Dalhousie for instilling confidence and courage during his studies, which has encouraged him to take his studies abroad to complete a masters degree at the University of Melborne in Australia. In his words, "When I came to Dal, it helped me to know that I

could also make something (of myself). If one day I can go back (to Dalhousie), I will become a researcher and embrace the university I cherish most."

Finn Magee (BComm) has been selected as a 2024 Rising Star by Insurance Business Canada, which recognizes the best young insurance professionals under 35.

Dawn Web's (BSc) book, Red Corner, is now on sale at Dal's Bookstore, Agricola Street Books, Venus Envy, Amazon Books, and Barnes & Noble, and is coming soon to Chapters/ Indigo. Web is also organizing spoken word events in Halifax, featuring poems from their book release to bring the artistic community together through words and entertainment.



'23

Dr. Muhammad Usman Asad (PhD) has graduated from Dalhousie's Department of Electrical and Computer Engineering. During his studies, he earned three international Best Research Paper awards and two Presenter awards. Following graduation, he joined Naval Fleet School Atlantic. Currently, he is volunteering for the IEEE Canadian Atlantic Chapter as vice chair and as event team lead in the PMI Nova Scotia chapter.





FUTURE ALUMNI

Seif Elbayomi

oving from Cairo, Egypt, to Halifax to study in Dalhousie's Faculty of Computer Science was a big adjustment for Seif Elbayomi (BCS'24). Not only was the weather (a lot) colder, but culturally and academically, he had a lot to learn. Thankfully, learning is something Elbayomi is very good at.

Now he's graduating with a Bachelor of Computer Science (Co-operative Education). He also completed a Certificate in Entrepreneurship and Innovation and earned Sexton Distinction by achieving a cumulative GPA of 3.85 or higher. He's also recently won the 2024 Digital Nova Scotia One to Watch Award for emerging talent from an underrepresented community who is making waves in the tech industry.

Such a high achiever could study anywhere in the world, but Elbayomi chose Dal. "What drew me to Dal was the tech sector in Atlantic Canada and the growth I saw happening here," he says. "That, plus the feedback I found online about how Dal's Computer Science program is always evolving; they're not just teaching the same old courses year after year. They're actively improving, keeping things relevant." To Elbayomi, it felt like an exciting opportunity to be in a place where tech talent and innovation were being prioritized.

While at Dal, Elbayomi thrived on the theoretical aspect of his education. "One course that sticks with me is the History of Computer Science," he remembers. "Learning the backstory of how the field evolved gave me a deeper appreciation for the discipline."

He credits all his instructors for having a significant impact on his studies and is particularly grateful to Dr. Alex Brodsky for teaching him about leadership and mentorship in addition to computer science. "Dr. Brodsky had this way of not just teaching the tools but diving into the theory behind them, which really clicked with me," he says.

Ever the hard worker, Elbayomi is graduating with a full-time job at Trihedral Engineering as a software developer for VTScada. He helps design and implement digital solutions, which he describes as challenging but rewarding work.

Moving on from Dal is bittersweet for Elbayomi. He will miss the sense of community he felt on campus, the lectures and lively discussions that often followed, and working with students as a TA. He's confident, though, that his studies prepared him for what's ahead: "My time at Dal really broadened my perspective and gave me a more well-rounded understanding of what it means to be a computer scientist."—Emily MacKinnon ■





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