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BORN STRONG: THE 2024 MOLLY APPEAL

Born a micro-preemie, Sophie Landers is thriving thanks to medical research. Read more on page 14.

DALHOUSIE UNIVERSITY | FACULTY OF MEDICINE

molly appeal FOR HEALTH RESEARCH

REMEDY

MAGAZINE

SPRING/SUMMER 2024

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people.

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.

DALHOUSIE UNIVERSITY | FACULTY OF MEDICINE

PLEASE SEND NEWS, STORY IDEAS, COMMENTS, AND/OR ADDRESS CHANGES TO:

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FEATURES & STORIES

A MESSAGE FROM THE DEAN

Welcome to the Spring 2024 issue of REMEDY Magazine. I am grateful to share recent stories that define Dalhousie University Faculty of Medicine's journey towards meaningful change, made possible through your contributions.

The theme of transformation captures the spirit of the strides we have collectively made in the areas of medical research, education, and health care delivery. Your commitment to giving propels us toward new horizons, unlocking exciting possibilities and shaping the future of medicine.

This issue highlights the impact of your philanthropy on our mission of building healthier communities. From research facilities to classrooms, where the next generation of medical professionals receive excellent training, your support is driving transformational change.

As we navigate this journey of transformation together, I want to express my sincere gratitude for your dedication to the ideals of giving that extend beyond charity. They are investments in a future where health and well-being are not just aspirations, but tangible realities for all.

Kindest regards,

David R Anderson

DR. DAVID ANDERSON
Dean, Faculty of Medicine

MESSAGE FROM DR. EILEEN DENOVAN-WRIGHT

I am delighted to extend a warm welcome to each of you as we embark on an inspiring journey through the pages of our latest edition of REMEDY Magazine. It is both an honour and a privilege to share with you some recent remarkable stories and transformative achievements that have unfolded within our institution.

Within these pages, you will find stories that illustrate the tangible outcomes of your support. From the labs where our researchers tirelessly push the boundaries of medical knowledge, to the clinics where our clinicians implement innovative treatments, your commitment to transformative giving echoes across our institution, influencing every aspect of our mission of building healthier communities.

As we delve into the heart of transformative medical research, you will see the work behind our search for discoveries and advancements that your generosity has made possible. These breakthroughs not only enhance our understanding of various health challenges but also pave the way for novel interventions and solutions that stand to revolutionize patient care.

Thank you for being a part of our journey. Your support is the catalyst for transformation, and we are excited to share the incredible stories that unfold within these pages, showcasing the profound impact of your generosity.

With gratitude,

E Denovan-Wright

EILEEN DENOVAN-WRIGHT
Associate Dean Research, Faculty of Medicine
Dalhousie University

BRIDGING THE GAP

BIOMEDICAL INNOVATION FOR A HEALTHIER TOMORROW

By Dayna Park

Picture a state-of-the-art facility, designed to transform groundbreaking scientific discoveries into life-saving medicines. This facility operates under strict guidelines known as Good Manufacturing Practices (GMP), ensuring every step of the manufacturing process meets rigorous quality standards.

Inside, teams of experts meticulously cultivate and process biological materials, harnessing the power of living organisms to create cutting-edge therapies. Their products could be anything from vaccines that protect against diseases to novel cancer therapies. Every aspect of the facility is geared toward precision and safety, with advanced technology and rigorous protocols to guarantee the purity, potency, and consistency of the final products. From the sterile clean rooms where delicate processes unfold to the sophisticated quality control measures that scrutinize each batch, this facility represents the pinnacle of scientific innovation and medical progress.

In essence, it's a hub of hope and progress, where science and technology converge to create a healthier, brighter future for all.

Dalhousie and its partners are creating a biomanufacturing facility to bring this vision to reality. Their goal is to conduct pre-clinical studies and proof-of-concept studies that will ultimately translate medical discoveries into health solutions, bridging the gap between groundbreaking research and meaningful clinical applications.

The Atlantic Region, like the rest of Canada, is grappling with significant healthcare challenges including an aging population, rising rates of cancer and chronic inflammatory conditions, and increased vulnerability to infectious diseases. In response to these pressing issues, Dalhousie University's Faculty of Medicine, in collaboration with Nova Scotia Health, the IWK Health Centre, the Canadian Centre for Vaccinology, and Life Sciences Nova Scotia—have leased a production facility in Dartmouth that will allow them to make their vision a reality.

> **We have world-leading health research right here in Atlantic Canada, yet without the systems, facilities, or skilled workforce, this research stalls in the lab and never reaches the people who need it.**
>
> **Dr. David Anderson,**
> Dean of Medicine, Dalhousie University

THE CRITICAL GAP

Despite a solid track record of discoveries and innovations from our top researchers, previously home-grown medical breakthroughs often had to be tested and developed outside the province in order to develop lifesaving drugs or therapies. Many discoveries failed to progress beyond the research phase due to a lack of infrastructure, support, and the systems necessary to manufacture and test them.

The COVID-19 pandemic highlighted this gap, emphasizing the urgent need for pre-clinical studies and small-scale manufacturing facilities across Canada. This new facility is our solution to propelling medical innovations from discovery to clinical application.

What the pandemic taught us was that by prioritizing collaboration, industry partnerships, specialized facilities, and skilled personnel, we can shorten the traditional 15-year innovation pipeline significantly. This new biomanufacturing facility seizes this opportunity to accelerate the translation of research into real-world health solutions.

THE SOLUTION: A COLLABORATIVE BIOMANUFACTURING FACILITY

The new facility will be a catalyst for Atlantic-born medical breakthroughs to transform healthcare outcomes regionally, nationally, and globally. Researchers will be able to use this space to conduct pre-clinical studies to establish the safety and effectiveness of new therapies and pharmaceuticals and manufacture small batches for proof-of-concept and product testing. This testing, required to attract industry partners, will reduce our reliance on external facilities and organizations.

Our facility will also train highly skilled technicians and build a qualified workforce to support the world-leading researchers at Dalhousie.

BRIDGING THE GAP

The biomanufacturing facility is designed to be the ecosystem Atlantic Canada needs for medical innovation. It addresses the challenges researchers face in navigating the complex journey from discovery research to clinical trials. By providing a clear research pathway and resources they don't currently have access to, the facility empowers researchers to focus on what they do best—advancing medical discoveries that can change lives.

CRITICAL INFRASTRUCTURE:
SPECIALIZED SPACES AND EQUIPMENT

To enable world-class research and discovery, the facility will invest in purpose-built, fully equipped spaces. This includes a lab and small-scale GMP manufacturing facility, crucial for conducting the pre-clinical studies necessary to attract the funding for larger-scale clinical trials.

EXPERTISE AND SYSTEMS:
THE BRAIN AND BACKBONE OF THE FACILITY

Recognizing the diverse skillsets required for advancing medical discoveries, the facility will assemble leadership professionals and skilled support personnel. They will conduct research, manage projects, and work closely with partners at other emerging vaccine and therapeutics teams across Canada. The facility's teams will guide work through the research pathway, ensuring critical resources are available for successful translation from idea to finished product. The new facility will streamline the development process for new drugs, vaccines, and other therapeutic products.

TRAINING PROGRAMS:
GROWING A HIGHLY SKILLED, INDUSTRY-READY WORKFORCE

Collaborating with industry and corporate partners, the biomanufacturing facility will establish programs to train the highly skilled personnel the growing biomedical technology and life sciences industries require in Atlantic Canada. These programs will focus on moving bioscience research and innovation into clinical practice. By attracting top-tier talent, the facility will increase skilled workers in these fields nationally and support the growing bioeconomy in Atlantic Canada.

INNOVATION IS GOOD.
ACTIVATION IS BETTER

Dalhousie's I3V team—Infection, Immunity, Inflammation and Vaccinology—has a history of key discovery research. The biomanufacturing facility will be the catalyst to translate their findings into revolutionary, life-changing solutions. With specialized spaces, expertise, and support systems, this new space will guide promising discoveries from this group of researchers and others, through the biomedical research pathway, ultimately delivering critical health solutions.

THE TIMING IS RIGHT, THE TIME IS NOW

With Dalhousie's established expertise and a favourable environment of unprecedented federal financial investments, the time is ripe for this innovative opportunity.

The federal government has recognized Canada's urgent need to expand its domestic biomanufacturing capabilities and strengthen the Life Sciences sector, committing $2.2-billion in Budget 2021 to a Biomanufacturing and Life Sciences Strategy. This national investment will establish four biomanufacturing hubs across the country. Dalhousie is poised to be a key partner in three of these hubs, and our new Biomanufacturing facility will be critical to those partnerships. Philanthropic donations will be integral to fully realize the potential the new facility has to bring our research discoveries to fruition.

The collaborative biomanufacturing facility represents a beacon of hope for Atlantic Canada and beyond, addressing critical gaps in healthcare innovation. By providing the necessary infrastructure, expertise, and support, we aim to transform medical discoveries into solutions that improve health outcomes and save lives.

As Dalhousie's I3V team takes the lead, the facility will mobilize our best minds and resources to tackle the pressing healthcare challenges of our time.

You can have the best idea in the world, but if you can't find a way to turn it into a solution, it remains just that—an idea.

EXCELLENCE AND EXPERIENCE: DALHOUSIE'S I3V TEAM

The new GMP facility will initially focus on supporting Dalhousie's Infection, Immunity, Inflammation, and Vaccinology (I3V) research team, which has already made significant contributions to immunology, virology, and cancer biology.

Leaders in Canada, the I3V team holds more than 30 patents, has developed strong partnerships, and earned a reputation for vaccine development and evaluation. Their work ranges from developing vaccines for infectious diseases like pertussis and COVID-19, to creating groundbreaking cancer immunotherapies, showcasing the team's potential to revolutionize healthcare globally.

This team of more than 50 researchers has achieved remarkable milestones, including influential publications and a substantial research revenue. This facility aims to leverage their success to bring immunity innovations to people faster and more effectively.

THE TRANSFORMATIVE POWER OF VACCINES

LIFE-SAVING VACCINES' UNINTENDED BENEFITS IMPRESS EXPERT

By Laura Eggertson

When Dr. Noni MacDonald thinks about the global public health impact of vaccines, their indirect benefits are what she finds almost as impressive as the number of lives they save directly.

"Vaccines are why we have life expectancy that's so much longer than it was 120 years ago," says Dr. MacDonald, pediatrician, infectious disease specialist, professor emerita, and co-founder of the Canadian Centre for Vaccinology at Dalhousie University.

Vaccines are widely recognized as among the greatest advances in public health around the world. Childhood vaccines that prevent diphtheria, whooping cough, tetanus, and measles save an estimated 4 million lives every year. And COVID-19 vaccinations saved more than 14 million lives in 2021 alone, the World Health Organization reports.

But most people don't think about the indirect and often unintended benefits vaccines have, or their economic cost-savings, says Dr. MacDonald, who will be inducted into the Canadian Medical Hall of Fame this year.

"We don't use as much healthcare because we prevent disease," Dr. MacDonald points out. "When you get a vaccine and you don't get respiratory illness, you don't use antibiotics and we decrease pressure on antimicrobial resistance, and if I can prevent you from coming into hospital, you don't get hospital-acquired infections."

Just getting the influenza vaccine decreases the risk of atrial fibrillation—fast, irregular heartbeats that can cause strokes or heart failure—for example, Dr. MacDonald says.

Saving lives through immunization not only reduces costs on the healthcare system, but it also means people are alive to work and contribute productively to society, she adds. "No vaccine is perfect, but overall, the number of deaths prevented by vaccines is stunning," Dr. MacDonald says.

Investigations into the unintended benefits of vaccines are among the promising research projects Dr. MacDonald's Dalhousie colleagues, Drs. Tobias Kollmann and Nelly Amenyogbe, are pursuing. They're studying the Bacillus-Calmette-Guérin (BCG) vaccine for tuberculosis, which has the added benefit of increasing infants' immunity to infection. Their research is particularly important because it delves into the reasons different vaccines strengthen resilience and immunity, and how timing can affect vaccinations, Dr. MacDonald says.

"There are added benefits we did not anticipate in many vaccines. We're learning all kinds of things we didn't know before."

Two malaria vaccines recommended by the WHO are "game-changers" for preventing children's deaths in sub-Saharan Africa, says Dr. MacDonald, an advisor to the World Health Organization as a recent member of the Strategic Advisory Group of Experts on Immunization. As well, a newly approved vaccine against Respiratory Syncytial Virus (RSV) will also decrease hospitalizations and likely prevent deaths in the elderly, she [illegible]

Despite these advances, Dr. MacDonald has spent much of her career fighting vaccine disinformation and hesitancy and advocating for wider vaccine acceptance and equitable access to vaccines, in Canada and around the world.

The Global Vaccine Alliance (GVA) has begun to address vaccine inequity by providing vaccines for low-income countries, but middle-income countries are also disadvantaged. Although middle-income countries' GDP are too high to qualify for GVA aid, they often don't have the infrastructure to deliver vaccines effectively and many pay more for them than higher-income countries that can order in bulk.

She'd also like to see Canadians have more conversations about how to dismantle practical barriers to vaccines, like having to pay for parking at healthcare facilities that deliver vaccines, making elderly or technology-challenged people register for vaccines online, and restrictive hours that disadvantage hourly workers who must take time off work for appointments.

"Ease of access totally changes how many people get vaccines," Dr. MacDonald says.

She hopes the next advance in vaccine delivery will be the development of multi-component vaccines for adults, much like the combination vaccines (diphtheria, pertussis, tetanus) that already exist for children.

Combining an influenza, updated COVID vaccine, and the vaccine against RSV in one shot, for example, or one that also included the vaccine against pneumococcal pneumonia, would likely increase vaccination rates because people would not have to book multiple appointments for separate vaccines.

One of the biggest barriers to developing a single shot is getting an agreement between the different pharmaceutical companies that manufacture those various vaccines, Dr. MacDonald says. But she hopes to see those combination vaccines eventually.

"It would be a huge breakthrough if we could get one vaccine for adults that has three to five things in it—not three to five separate shots," Dr. MacDonald says. "That would be quite life-changing."

"There are added benefits we did not anticipate in many vaccines. We're learning all kinds of things we didn't know before."

BRINGING BACK THE BREAKTHROUGH BREAKFAST

CELEBRATING INNOVATION AND PHILANTHROPY

By Dayna Park

Photo by Caleb on Unsplash

In an exciting revival, Dalhousie University's Faculty of Medicine is proud to announce the return of the Breakthrough Breakfast! This series of events, designed to celebrate groundbreaking research and innovation, promises to deliver stimulating mornings of learning, networking, and advancing medical science over breakfast.

The incredible outcomes at the Faculty of Medicine would not happen without the time, training, expertise, and dedication of Dalhousie's researchers and educators. At the Faculty of Medicine, we are proud of the work they are doing and the impact it has on the healthcare system, our economy, and most importantly, the health and well-being of Maritimers, Canadians, and people all around the world. Medical research is a powerful economic driver, creating jobs and promising business opportunities, while training the people and attracting the investment that is building a knowledge-based economy in the Maritimes. Bringing innovation to the forefront of all we do is key to ensuring opportunities abound here at home.

ABOUT THE BREAKTHROUGH BREAKFAST SERIES

Each installment of the Breakthrough Breakfast series will highlight a different area of medical research, featuring esteemed researchers at the forefront of their fields.

From immunology and vaccinology to cardiac research and cancer, brain diseases and mental health, to healthy aging and frailty, the series spans a diverse spectrum of crucial medical topics. Each event will feature a panel of researchers, graduate students, patients, or community members who have contributed to or benefited from groundbreaking research.

Bringing together these high-impact researchers, strategic partners, business leaders, government representatives, and key community influencers, the Breakthrough Breakfast Series is an opportunity to hear about the real work happening behind the scenes in labs, clinics, and biomanufacturing facilities across the Dal Medicine community.

We have curated each event to provide attendees with an opportunity to learn about the world-leading medical research occurring at Dalhousie. In Ted-Talk style presentations, researchers will share insights into their latest projects, advancements in their field, and future possibilities. Attendees will be able to engage with experts, ask questions, and gain a deeper understanding of medicine's critical issues.

FOSTERING CONNECTIONS AND COLLABORATION

The Breakthrough Breakfast series is not only about knowledge-sharing but also about fostering connections. Attendees have the chance to meet like-minded individuals, healthcare professionals, and researchers. By creating a platform for collaboration, the event aims to strengthen the bonds between the academic community and the broader public.

FUTURE EVENTS

The Breakthrough Breakfast series is more than an event; it is a celebration of our collective power to drive change. Join us in supporting groundbreaking research and shaping the future of medical innovation.

Together, let's make each breakfast a stepping stone towards a healthier and more informed world.

The inaugural event focused on Infection, Immunity, Inflammation, and Vaccinology (I3V) took place on **March 26th at 7:30 a.m.** at the Canadian Museum of Immigration at Pier 21.

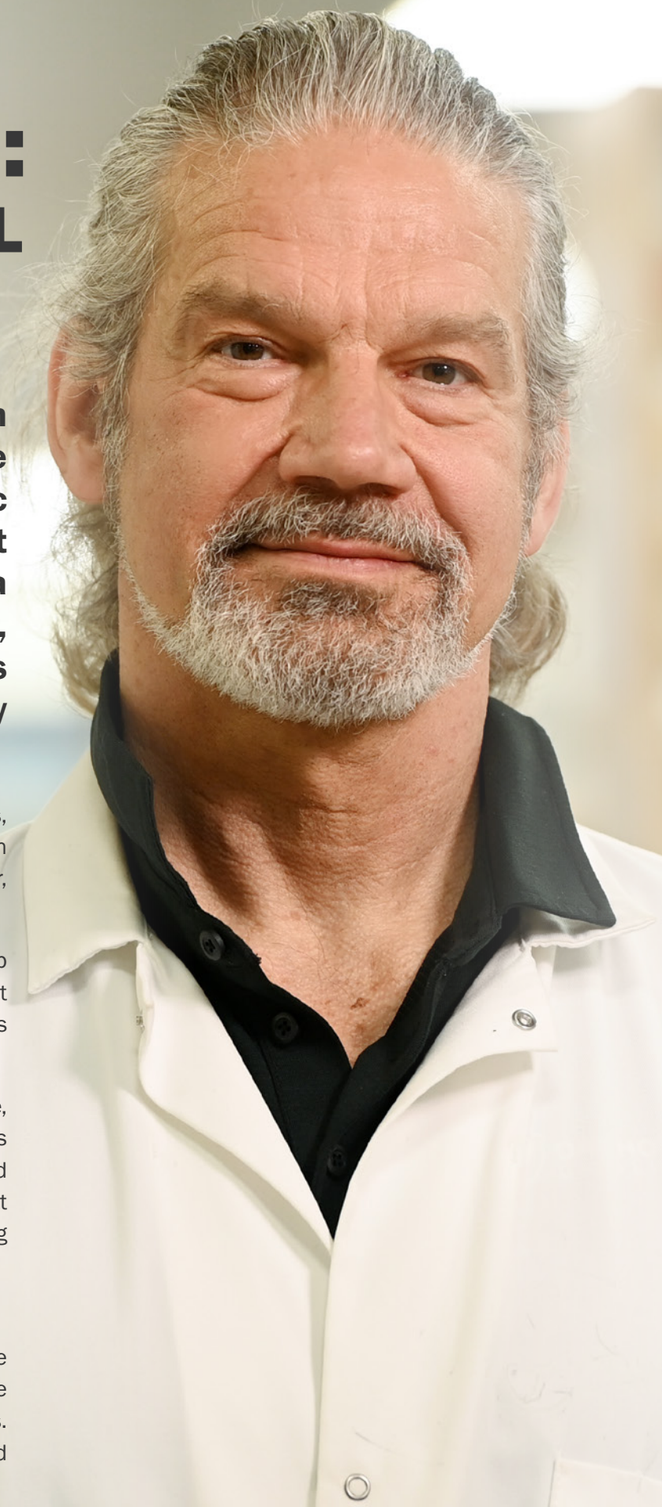
Upcoming Breakthrough Breakfast Events
June 25th – Family Medicine
September 24th – Healthy Aging and Frailty

To learn more about this and future Breakthrough Breakfast events at **https://medicine-advancement.dal.ca/news-events/events/.**

molly appeal
FOR HEALTH RESEARCH

BORN STRONG:
2024 MOLLY APPEAL CAMPAIGN

By Laura Eggertson



Dr. Tobias Kollmann is on a mission to end what he describes as the longest-standing, deadliest pandemic in human history. "It's the biggest health inequity," says Dr. Kollmann, a Dalhousie University professor, doctor, and researcher in pediatric infectious diseases. "Yet it's almost completely ignored—systemically."

Dr. Kollmann is not talking about COVID, tuberculosis, HIV/AIDs, or the 1918 influenza pandemic. He is describing the 5 million women and babies who die around the world every year, including 2 million infants who are stillborn.

"If you add up all these deaths, it adds up to one of the top three causes of death across the human lifespan, yet it receives 0.001 per cent of [research] funding and focus," says Dr. Kollmann.

Maternal and child deaths affect families across the globe, regardless of geography or socioeconomic status. Ending this pandemic might seem daunting, but Dr. Kollmann is unfazed by the scope of the challenge. "We have the tools to end at least 70- to 80-percent of deaths like this," he says, snapping his fingers. "Immediately. We can do this now."

BORN STRONG: INCREASING IMMUNITY

The solution, Dr. Kollmann says, is to boost a mother's immune systems before and during pregnancy. "Strengthening the mothers will improve the immune resilience of their babies. Improving newborn resilience will prevent the deaths and disabilities that result from infections, the leading cause of infant deaths," he says.

Dr. Kollmann has founded a global network of like-minded experts called the Born Strong Initiative. The initiative's goal is to drive research projects that will save lives by implementing solutions current technology and medical breakthroughs have already made possible.

Along with capturing and mobilizing data, and promoting improved vaccinations in mothers and babies, Born Strong also advocates for interventions such as breastfeeding.

FROM RESEARCH TO REALITY: PREGNANCY MONITORING SYSTEM

The 2024 Molly Appeal is supporting one of the projects Dr. Kollmann and his colleagues are proposing; the creation of remote home monitoring systems for pregnant women that would alert them, and notify health practitioners, about potential complications, and the risk of preterm labour.

The remote, real-time pregnancy monitoring system Dr. Kollmann and his team envision will be less expensive and non-invasive, compared to current blood and urine-based testing done in labs, and will be particularly important in rural locations where women do not have easy access to prenatal care. The new system will involve re-usable wearable devices, breath analyzers, and self-administered urine tests, to continuously assess maternal and fetal physiology.

This approach will allow more people to remain in their communities during their pregnancies—a particularly important shift in care in remote Indigenous communities, where women must often fly to larger centres during the last weeks of their pregnancy, far from family and community support.

Dr. Kollmann is excited by the major gains he believes the Molly Appeal can help make happen.

THE ESSENTIAL INGREDIENT: PHILANTHROPY

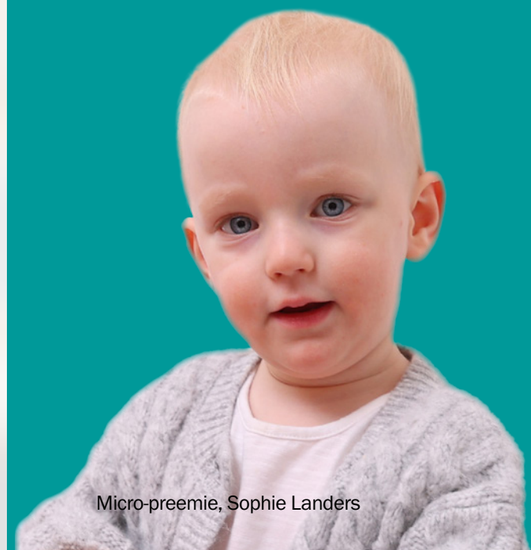
Together, Dr. Kollmann, his Dalhousie colleagues, and the Born Strong team intend to propel the maternal-fetal-infant pandemic to centre stage and raise funds to ensure we can move quickly to explore solutions.

We will make a change, says Dr. Tobias Kollmann, lead of the Born Strong Initiative.

BRINGING MOLLY'S VISION TO LIFE: RESEARCH IS THE BEST MEDICINE

The Molly Appeal is a community fundraising program that supports medical research at Dalhousie University's Faculty of Medicine. Molly Moore was a real person who held the spirit of philanthropy in her heart; she also cared deeply about local health research. Over 40 years ago, Molly took a simple but dramatic step. She gave one dollar to the Dalhousie Medical Research Foundation (DMRF), now part of Dalhousie's Faculty of Medicine. While not a woman of great means, she believed that if everyone made a gift to support medical research, together we could make an enormous difference.

For more information on the Molly Appeal or about this exciting research, please visit **MollyAppeal.ca**.



Micro-preemie, Sophie Landers

SOPHIE'S STORY

Emily Neil Landers, Sophie Landers, and Mark Landers.

Sophie weighed just 1 pound, 9 ounces when she was born in August 2021, nearly four months premature. Her whole body fit into her father's palm. Her tiny hand curled around the tip of his finger. The fragile newborn spent her first eight weeks in an incubator in the Neonatal Intensive Care Unit (NICU) at the IWK Health Centre in Halifax, connected to breathing tubes and monitors.

Baby Sophie holding her dad's hand in the Neonatal Intensive Care (NICU) unit after being born at 25 weeks gestation.

Even after she could leave the incubator, Sophie had to stay in the NICU as she fought to gain every ounce of weight, connected to oxygen for 99 days. For each one of the 115 days she spent in hospital, her parents fought alongside her, in their own survival mode.

"You are in that unit because your child's life is in danger," says her mother, Emily. "Every day we spent in that unit, we thanked science, we thanked whatever it is that you believe in, for her life."

Because Sophie was born at just 25 weeks gestation, her healthcare team warned Emily and her husband, Mark, that their baby would face intense oxygen requirements. Sophie was at risk for a brain bleed, heart problems, respiratory distress, lung disease or intestinal issues.

It was not a question of whether she would encounter one of those problems—the question was which one, and how severely it would affect her. Her biggest challenge was heart surgery.

Unlike in most full-term babies, an extra blood vessel connecting two major arteries to carry blood away from Sophie's heart did not close on its own. There was too much blood flowing into her heart, straining her under-developed lungs and increasing her blood pressure.

Doctors decided they had to intervene to close the open vessel, or duct, called Patent Ductus Arteriosus. Sophie weighed just two pounds when Emily and Mark watched a team wheel her off to an operating room.

"It was the worst day of my life," says Emily.

Every day, and during every new test, Emily willed Sophie to hang on. She sang and whispered to her baby: "You are strong, you are brave, you are kind, and you are very cute."

Finally, Sophie turned a corner following the surgery. She began to add weight. Mark and Emily and their mothers donned party hats. They celebrated every ounce and every week Sophie gained.

Today, Sophie is a strong, happy two-year-old. A healthcare team still follows her closely, but she is meeting her developmental milestones and making her parents proud and happy every day.

Sophie remains at risk for learning disabilities and breathing issues, but Emily and Mark are thankful for medical research and for the excellent care she received from her hospital team that brought her through those heart-stopping early months.

Now they hope the research Dr. Tobias Kollmann, Dr. Nelly Amenyogbe, and their colleagues are conducting will prevent other families from experiencing preterm births, and spare babies like Sophie from the struggle she experienced.

"I wish I could put into words what research like this means for families like ours," says Emily. "It's so encouraging to know that people are standing beside you with a feeling of hope."

REMEDY

DALHOUSIE MEDICAL SCHOOL OFFERS INNOVATIVE LEADERSHIP ELECTIVE TO RESIDENTS

NURTURING THE NEXT GENERATION OF HEALTHCARE LEADERS

By Kate Rogers

A new initiative at Dalhousie aimed at nurturing the next generation of healthcare leaders is empowering residents with invaluable skills in health and academic leadership.

The leadership elective is a four-week rotation for residents in any specialty and year of study that allows them to explore essential skills in healthcare and academic leadership, from managing change and processing emotion, to effective communication, recognizing implicit bias, becoming an effective coach, and addressing racism, discrimination, and conflict in the workplace.

Dr. David Bowes, Assistant Dean, Postgraduate Medical Education, developed the elective. Postgraduate Medical Education Curriculum Specialist Jenny Acuna and Evaluation Specialist Dr. Cindy Shearer co-lead the initiative.

“In medical school and residency, there’s increasing recognition of the importance of leadership skills and training,” says Dr. Bowes. “It’s very important to have physicians who are trained in leadership to improve educational and healthcare systems.”

Dalhousie first offered the elective as a pilot in the fall of 2022. After an enthusiastic response from the first cohort of residents, the leadership elective has become a permanent offering for postgraduate learners.

“We have to engage physicians in leadership and give them the tools that they need to be successful,” says Dr. Bowes. “The hope is that we’re going to be graduating trainees who are more engaged in leadership and able to change the world.”

A COMPREHENSIVE LEARNING EXPERIENCE

Residents participating in the elective receive a comprehensive learning experience, incorporating classroom-based workshops and leadership-based projects. Their projects have included:

- **Developing a multidisciplinary solid tumour clinic at the IWK Health Centre;**
- **Revising resident wellness programming;**
- **Assessing the impact of virtual healthcare on emergency department visits;**
- **Amplifying transgender and gender diverse perspectives of youth in Nova Scotia; and**
- **Developing and evaluating a nurse-led clinic for elective egg freezing.**

The support and collaboration of sponsors make the program possible, including Doctors NS, MD Management, and Scotiabank, who are committed to enriching the leadership journey of Dalhousie residents. Additional funding from donors interested in this important work will enrich the program and ensure more residents have access.

This year, thanks to Doctors NS, residents received the added benefit of professional coaching, delivered by non-physicians. This unique and highly valuable experience provides residents with feedback on their strengths and weaknesses and offers opportunities and solutions for improvement.

Dr. Courtney Gullickson, a practicing pediatrician and recent Dalhousie graduate, completed the leadership elective last year. With previous leadership experience, and a strong interest in the area, she saw the elective as an incredible opportunity for dedicated time in the curriculum to focus on skill development and to connect with other residents also engaged in leadership.

“I believe that leadership skills are used daily by physicians regardless of whether you hold a formal leadership position,” says Dr. Gullickson. “These are skills that we use to advocate for patients, navigate difficult conversations on the wards, and work within interdisciplinary teams.”

Dr. Gullickson says the elective also allowed time to reflect on physician wellness both on a systems level, and a personal level. She encourages residents to participate, even if they do not see themselves as a leader.

“I think every single resident could benefit from this elective and it’s a unique experience in the residency journey,” she says. “It acts as a great pause for reflection and is an opportunity to learn a new skillset that you can then apply to your clinical life.”

A VISIT FROM THE GENERAL

Although she has already completed her time in the program as a resident, Dr. Gullickson recently returned to emcee an especially important leadership elective session.

On a Tuesday afternoon in October, leadership elective residents, along with 80 others, gathered in the Tupper Medical Building at Dalhousie to hear from the Lieutenant-General the Honourable Roméo A. Dallaire. The author, public speaker, leadership consultant, international advisor, former Canadian senator, and founder of the Dallaire Institute for Children, Peace, and Security is perhaps best known for his courage and leadership as Force Commander with the United Nations Assistance Mission for Rwanda during the 1994 genocide.

General Dallaire, whose service earned him the Order of Canada, spoke with both humility and humour as he addressed the resiliency of healthcare professionals during the COVID-19 pandemic, and the importance of serving as physicians.

“You are entering a service to other human beings,” said General Dellaire. “Do not expect people to say, ‘Thank You.’ You will experience hurt, but that’s part of it. You are part of the process to make revolutionary changes.”

For an hour and a half, General Dellaire shared stories and anecdotes from his celebrated military career, and drew parallels between military and medicine, both critical areas of service. His firsthand accounts of managing complex and high-pressure situations, making critical decisions, and remaining resilient in the face of overwhelming adversity, proved not only inspirational but also highly instructive. General Dallaire underscored the indispensable connection between effective leadership, resilience, and personal well-being.

“Survive and thrive, and take control of the decision-making process,” General Dellaire encouraged the residents. “There is no better time to serve than now.”

IMPROVING PATIENT CARE

The presentation marked the end of the leadership elective for the second cohort of residents. Dr. Bowes is eager to build on the success of the first two years and hopes the work he is doing will make a difference.

It takes a lot of people to make the system better,” says Dr. Bowes. “But to be part of that and to introduce things that are going to improve physician training—that has clear impacts on patient care, and ultimately, on how the health system functions.

Lieutenant-General the Honourable Roméo A. Dallaire. Romeo Dallaire speaks to the class.

AI EMPOWERS EARLY DIAGNOSES

HOW ARTIFICIAL INTELLIGENCE IS HELPING PHYSICIANS DIAGNOSE SKIN CANCER

By Laura Eggertson

When social worker Marie Kavanaugh caught sight of a big yellow poster at the IWK Health Centre advertising a research study investigating skin cancer, she had no idea her impulse to enrol would save her life.

Kavanaugh had lots of moles, though none about which she was particularly worried. She thought the study, run by four third-year Faculty of Medicine students at Dalhousie, was a good way to get her skin examined just in case.

Madeleine Crawford and Rachel Dorey are two of the students who worked on the study, using Artificial Intelligence as a Melanoma Screening Tool in Self-Referred Patients, under the supervision of Dr. Peter Hull, a Dalhousie professor, researcher, and a dermatologist.

The study tested the ability of an Artificial Intelligence (AI) program to analyze scanned images of lesions and detect melanoma and other skin cancers, compared to the ability of dermatologists examining the same images.

The purpose of the study was to determine if the AI device, called FotoFinder Moleanalyzer Pro® Version 6.0, would work "as a screening tool to help alleviate the barrier patients are currently facing to have lesions of concern examined in a timely fashion," says Crawford.

In Nova Scotia, which has one of the highest rates of skin cancer in Canada, Crawford and Dorey knew one of the critical barriers to detecting melanoma early is that nearly 20 per cent of the population lacks a family doctor.

There are also long wait times to see a dermatologist, not only in Nova Scotia but throughout the Maritimes. The wait times are particularly troubling because skin cancer can spread quickly.

EARLY DETECTION KEY

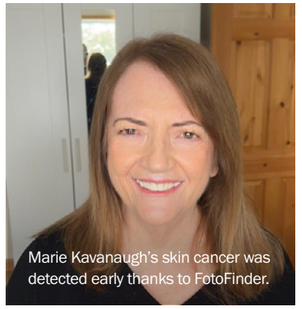
"Melanoma can potentially lead to death if it is not caught early and treated in its early stages," says Crawford. "However, when melanoma is detected in its early stages the prognosis is quite good and it is curable."

Kavanaugh was one of 318 participants in the study. Those participants had 381 "lesions of concern" between them. In total, 17 of those lesions were skin cancers, including 10 melanomas.

The study concluded the FotoFinder device was accurate in flagging cancers 74 percent of the time, comparable to the success rates of the dermatologists. The FotoFinder consists of a special camera linked to a computer via a software program whose algorithm is configured to recognize the characteristics of a cancerous lesion.

To Kavanaugh's shock, a freckle-like spot in the crook of her left arm was one of the early-stage melanomas the software identified. "I was called saying I had malignant melanoma and it had spread to the surface and I needed

Dalhousie students Madeleine Crawford and Rachel Dorey with the FotoFinder device.


Marie Kavanaugh's skin cancer was detected early thanks to FotoFinder.

to have surgery right away," Kavanaugh remembers.

Within about six weeks of having entered the study, a plastic surgeon had removed the lesion and some surrounding tissue. "I was very, very lucky to have been in this study," Kavanaugh says.

Early detection was "a game-changer" for Kavanaugh and could be for others, she says. "If I had not signed up, I would not have known I had a problem and I would never have known the seriousness of my situation."

Dr. Hull and the students believe the accuracy of the AI program could make it an important public health tool. They want Nova Scotia to set up clinics across the province where nurse practitioners could use the device to scan the lesions of patients who refer themselves to get their moles or lesions checked. The nurse practitioners could also excise suspect lesions.

"It would make the system highly efficient and highly cost-effective," Dr. Hull says of his proposed model. He anticipates it would cost less than $1 million in the first year to set up the self-referral centres, buy the equipment, and pay the nurse practitioners.

"What we're trying to do is diagnose melanoma really early, so we make a difference," he adds.

NS COULD LEAD

Nova Scotia would be the first province to adopt AI-assisted screening clinics if the provincial government opted to use this type of screening tool as part of the public system.

Other jurisdictions, including the United Kingdom and New Zealand, are already using AI-assisted applications to screen for skin cancer. In the U.K., general practitioners can access the technology, while in New Zealand, similar programs are available in private clinics.

Dorey, who worked on the study alongside Crawford and two other students, expects AI-enabled technology to improve and grow in usage throughout her medical career. That made her eager to learn to use the camera and test the program.

"Getting to see how AI can be used in a positive light to support dermatologists, primary care providers and patients to have access [to care] was very exciting," she says.

RESEARCH IN MEDICINE

The Sandy Murray Research in Medicine (RIM) studentships supported Dorey, Crawford, and their fellow students Kiyana Kamali and Olivia MacIntyre during the research project. The Allan and Leslie Shaw Research Fund also supported the study.

RIM students choose a mentored research project which they pursue throughout medical school, including an intensive summer internship. Through donor-supported funds, Dalhousie provides $5000 to offset the research project's costs.

RIM projects introduce medical students to the importance of research, in hopes of fostering their interest in clinical research throughout their medical careers. Crawford plans to continue to pursue research as a resident and beyond.

"Research is just so valuable in medicine in order to provide the best patient care, and this study really highlighted that," she says.

"Research is just so valuable in medicine in order to provide the best patient care, and this study really highlighted that," says Crawford.

DAUGHTER IDENTIFIES MOTHER'S EARLY SKIN CANCER

By Laura Eggertson

When Dalhousie medical student Madeleine Crawford began learning to identify suspicious lesions as part of a skin cancer study she was co-investigating, she didn't realize how close to home her new skills would take her. Crawford's mother, Elizabeth, heard about her daughter's work while Madeleine was back home in Stratford, PEI, visiting her.

"I asked her to do a skin check on me," says Elizabeth Crawford, who leads curriculum development for K-Grade 6 students for Prince Edward Island. To her mother's surprise, Madeleine Crawford found a tiny spot on her mother's calf that concerned her.

"You need to go check this one. I don't like it," Madeleine told Elizabeth.

Elizabeth Crawford booked an appointment with her family doctor. Because of long wait lists, she didn't get in to see PEI's only dermatologist to have the mole removed and biopsied for seven months. That's when she learned the tiny mole on her calf was an early-stage melanoma.

"I was actually surprised," Elizabeth Crawford says. "That one wouldn't have been on my radar."

While she waited to get the first mole removed, the senior Crawford was living with her daughter in Halifax. Madeleine Crawford continued to perform skin checks on her mother, and found a second suspicious mole.

That's when she got her mother to enroll in the Dalhousie study. Within five weeks of Elizabeth Crawford's enrollment, the study also flagged the second mole as needing an excision. Once it was removed and sent to pathology for a biopsy, it turned out to be benign.

"The (second) lesion enrolled in the study was examined, removed, and diagnosed long before the one using our standard healthcare system was—and that one ended up being the melanoma," Madeleine Crawford says.

The wait time to see a dermatologist in PEI highlights the importance of the early screening tools the Dalhousie study evaluated, Elizabeth Crawford says. Mother and daughter are thankful Elizabeth had a happy outcome.

"She was very lucky that I was able to advocate and educate her on the importance of doing skin checks, especially when we do experience a lack of access (to dermatologists) in Prince Edward Island," Madeleine Crawford says.

THE HEART OF EMERGENCY MEDICINE

A JOURNEY OF TRANSFORMATION WITH DR. RON STEWART

By Dayna Park

Dr. Ron Stewart (MD ’70) has built his legacy of innovation and transformation in the dynamic world of emergency medicine, where every moment counts. A visionary whose contributions have reshaped the landscape of emergency care, Dr. Stewart’s journey from practicing family medicine in Neil’s Harbour, a small outport community of Cape Breton, to his tenure as Nova Scotia’s Minister of Health, has made him the embodiment of dedication and service.

Dr. Stewart’s career spans over 50 years and across North America. From becoming the first medical director within the Los Angeles paramedic program to signing on as the founding Head of the Department of Emergency Medicine at the University of Pittsburgh, it was amidst the frenetic energy of emergency medicine that his passion for revolutionizing healthcare took shape.

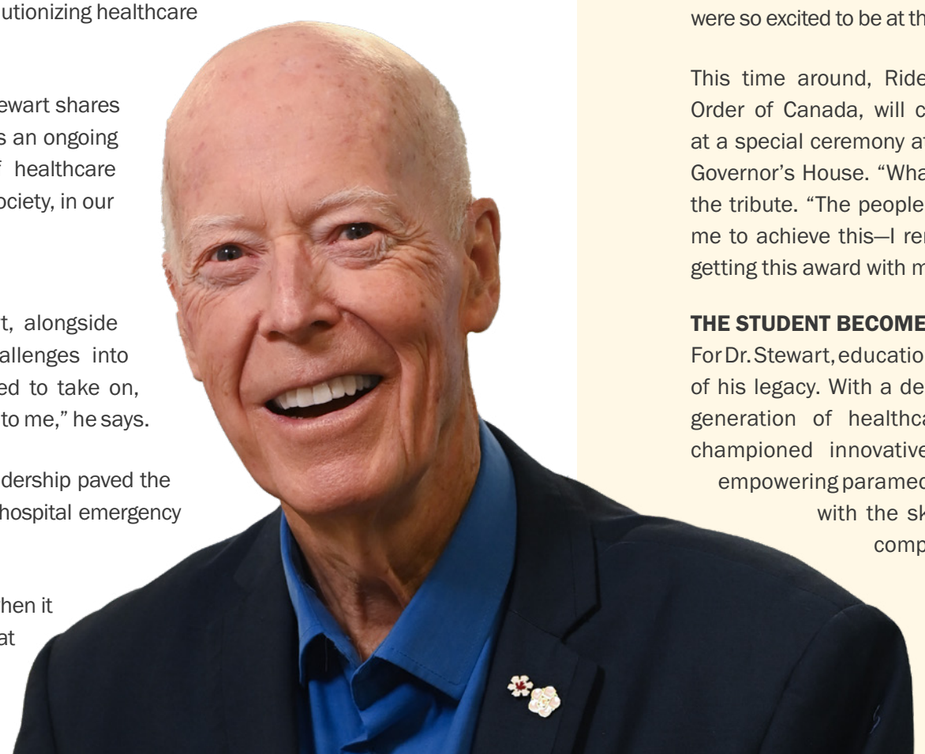
Reflecting on the theme of transformation in healthcare, Dr. Stewart shares insights drawn from a lifetime of experience. “Transformation is an ongoing process,” he remarks, emphasizing the dynamic nature of healthcare delivery. “It is shaped by lived experience, by what’s current in society, in our environment, and by learning.”

THE GRASSROOTS OF EMERGENCY MEDICINE

Building the foundation of emergency medicine, Dr. Stewart, alongside his colleagues, navigated uncharted territories, turning challenges into opportunities for innovation. A specialty no one really wanted to take on, Stewart felt pulled to emergency medicine. “The unknown calls to me,” he says.

As one of the early architects of paramedicine, Dr. Stewart’s leadership paved the way for groundbreaking advancements in trauma care and pre-hospital emergency services.

He does acknowledge now that ignorance may have been bliss when it came to the early days of developing new programming. “We were at the grassroots of emergency medicine, and we—maybe luckily—didn’t realize we were in the thick of it until I look back now,” he says. “We didn’t know enough to be scared, we just did it. Problems became opportunities and with the help of mentors and colleagues along the way, we were forced to come up with fresh ways to problem solve.”



AN ENDURING LEGACY

Dr. Stewart’s tenure as the Nova Scotia Minister of Health from 1993 to 1996 further underscored his commitment to affecting systemic change, culminating in the establishment of Emergency Health Services (EHS), the province’s paramedicine organization—a testament to his enduring legacy.

Honored as a “Hero of Emergency Medicine” by the American College of Emergency Physicians and recently elevated within the Order of Canada, Dr. Stewart’s accolades are evidence of his impact on the field. Yet, true to his humble nature, he attributes his achievements to the mentors and colleagues who shaped his journey.

On March 14th, Dr. Stewart was elevated in the Order of Canada at the Companion level—the highest tier of this great honour. Remembering his first induction to the Order in 1993, Dr. Stewart recalls how proud his family was of him. “My mother and sister cried,” he says. “They were so excited to be at the ceremony in Ottawa.”

This time around, Rideau Hall, which awards the Order of Canada, will celebrate Dr. Stewart locally, at a special ceremony at the Nova Scotia Lieutenant Governor’s House. “What an honour,” he says about the tribute. “The people in my life that have allowed me to achieve this—I remember them, and they are getting this award with me.”

THE STUDENT BECOMES THE TEACHER

For Dr. Stewart, education stands out as a cornerstone of his legacy. With a dedication to training the next generation of healthcare professionals, he has championed innovative curriculum development, empowering paramedics and physician assistants with the skills needed to navigate the complexities of emergency care.

In 2017, Dr. Stewart made a $1.3 million pledge to emergency medicine research at Dalhousie University. His commitment to giving back to his alma mater confirms his belief in the transformative power of philanthropy. Inspired by the legacy of his mother—a steadfast supporter of medical research through Dalhousie’s Molly Appeal—Dr. Stewart’s generosity continues to fuel advancements in healthcare education and research.

Reflecting on his legacy, Dr. Stewart defers the spotlight to the countless individuals who have shaped his journey, including his mentor Dr. Robert Scharf.

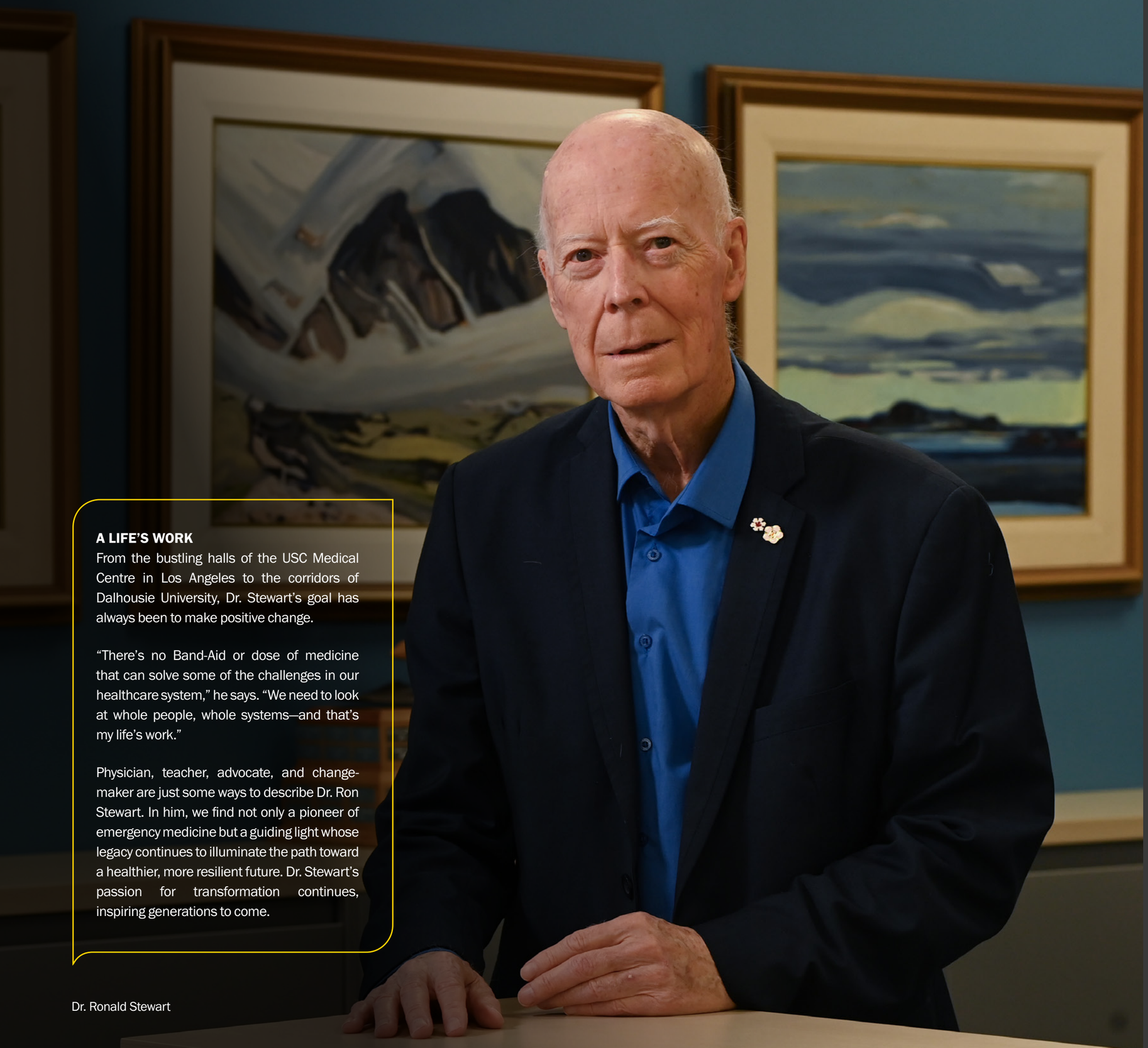
Dr. Stewart was heavily influenced by Dr. Scharf, an orthopaedic surgeon who was so distressed about the state of emergency medicine in the 1950s and 1960s that he gave up his medical practice to improve emergency departments and train physicians and non-physicians. Dr. Scharf became the Director of the Emergency Department in Halifax and Dr. Stewart became his disciple.

“I remember showing up at the emergency department wearing my white coat and carrying my black bag and I was terrified,” recalls Dr. Stewart. “He met me with a textbook in one hand and an X-ray in the other and said, “What do you think?” while pointing to a white spot on the film. I stood there mumbling and he says, “You’re right! It’s tuberculosis. Now, you’ll never forget what TB looks like.”

Dr. Scharf taught with innovative questions and came up with the answers with you, Dr. Stewart says. “I never forgot those moments and when it came my time to be a teacher, I followed in his footsteps.”

Dr. Scharf even followed Stewart to Los Angeles, at his invitation, to work as Director of Residency at the University of Southern California Medical Centre, the same hospital he worked at.

We became friends, and I was at his bedside at the end,” says Dr. Stewart. “Ultimately, I hope to have had the kind of impact on people that he did.



A LIFE'S WORK

From the bustling halls of the USC Medical Centre in Los Angeles to the corridors of Dalhousie University, Dr. Stewart's goal has always been to make positive change.

"There's no Band-Aid or dose of medicine that can solve some of the challenges in our healthcare system," he says. "We need to look at whole people, whole systems—and that's my life's work."

Physician, teacher, advocate, and change-maker are just some ways to describe Dr. Ron Stewart. In him, we find not only a pioneer of emergency medicine but a guiding light whose legacy continues to illuminate the path toward a healthier, more resilient future. Dr. Stewart's passion for transformation continues, inspiring generations to come.

Dr. Ronald Stewart

TIMELINE

1942 — Born, Sydney Mines, Nova Scotia

1970 — Graduates from Dalhousie Medical School

1970-1972 — Practices medicine in Neil's Harbour, Nova Scotia

1972-1978 — Emergency Medicine Residency, USC Medical Centre, California

First medical director in the Los Angeles paramedic program

1978 — Head of Emergency Medicine, University of Pittsburgh

Medical director for the Department of Public Safety of Pittsburgh

Founded the Center for Emergency Medicine of Western Pennsylvania to advance emergency care, research and training.

1987 — University of Toronto Faculty Member

Established a pain and trauma research lab

1998 — Dalhousie University Faculty Member

1993-1996 — Nova Scotia Minister of Health

Devised and implemented the Emergency Health Services (EHS) and central 911 dispatch system in use today

Created the first Tobacco Control Division within the Department of Health

1993 — Officer, Order of Canada

2006 — Order of Nova Scotia Inductee

2004-2009 — Director of Medical Humanities, Dalhousie University

Created Music-in-Medicine Program

2008 — Named Hero of Emergency Medicine by American College of Emergency Physicians

2023 — Elevated to Companion of the Order of Canada

ADVANCING MEDICAL RESEARCH THROUGH GRADUATE STUDENT SUPPORT

AWARD RECIPIENT UPDATES

By Dayna Park

Support for graduate students plays a pivotal role in driving innovation in medical research. Dalhousie University's Faculty of Medicine recognized this need and, in 2023, introduced a harmonized studentship process aimed at bolstering research excellence across the faculty. This initiative expands funding opportunities while streamlining the application process, providing essential financial support to the next generation of medical researchers.

The new scholarship application program revolutionizes the funding landscape for graduate students by allowing them to apply for multiple funding opportunities simultaneously. This not only improves efficiency but also eases the burden on students, allowing them to focus more on their studies and research endeavours than on the application process.

For the 2023-24 academic year, the Faculty of Medicine's Research Advisory Committee and the Scholarship and Awards Committee rigorously evaluated 85 harmonized scholarship program applications. They awarded 49 grants and eight honourary awards to graduate student research trainees for a total of $1.41 million in funding—much of which was generously gifted by Faculty of Medicine donors passionate about education and supporting students.

Jack Guthrie and Alexandra Nuyens, award recipients

Thanks to philanthropic giving, the recipients of these prestigious awards represent the brightest minds in medical research at Dalhousie, poised to make significant contributions to their respective fields.

Alexandra Nuyens, a recipient of the Kilpatrick Trust Award, expressed profound gratitude for the financial support that has lessened the burden of funding her education. As a part-time research assistant, this award relieved her financial stress and allowed her to immerse herself in her graduate studies. "This award has, and continues to have, a profound impact on my graduate education," says Nuyens. "I am very thankful for the opportunities I have been provided with."

Her research focuses on prostate cancer and patient outcomes with the Prostate Cancer Patient Empowerment Program (PC-PEP) as a cost-effective healthcare intervention.

Her future plans include attending medical school to become a clinician-researcher. In this role, she would be able to practise medicine and use her clinical experience to inform her research—a critical combination for patient-centered research.

Another standout recipient, Jack Guthrie, is conducting research on amyotrophic lateral sclerosis (ALS), a devastating neurodegenerative disease with no cure. Guthrie's innovative approach involves developing new models using stem cells derived from ALS patients, with the ultimate goal of identifying novel therapies.

Guthrie's dedication and perseverance have begun to yield promising results. His work holds the potential to revolutionize our understanding of ALS and pave the way for transformative treatments.

"Many graduate students, including myself, face difficult financial burdens during our degrees," says Guthrie. "Receiving the Dr. Jeff Sutherland Award has provided me much-needed financial assistance and has allowed me to devote more time and attention to my research."

Labs at Dalhousie's Faculty of Medicine are made up of diverse, creative, brilliant research trainees. They are the ones in the lab coats, running experiments, and finding solutions to health challenges—big and small. There is a critical need for more graduate trainees, students who are at the apprenticeship stage of their careers and need financial support to allow them to be dedicated to their work in the lab.

"The Faculty of Medicine is embarking on a new era, one defined by our commitment to impact and building healthier communities," says Dr. David Anderson, Dean of Dalhousie's Faculty of Medicine. "We cannot achieve impact without prioritizing the critical need of attracting and retaining the next generation of the best and brightest students—and to attract and retain, we must support them,"

Supporting graduate students not only helps individuals but is an investment in the future of medical research. Nuyens, Guthrie, and the other award recipients know the value of graduate student support—and do not take it for granted.

"Contributions from donors make a massive impact and fuel our passion for scientific discovery, instrumental in nurturing the next generation of medical researchers," says Guthrie.

By providing students with the resources and opportunities they need to thrive, Dalhousie University's Faculty of Medicine, and donors like you, are laying the foundation for groundbreaking discoveries that can transform healthcare and improve countless lives.

A DAL ALUM'S PATH TO MED SCHOOL

KAYLIN DEAN IS GIVING IT HER ALL

By Dayna Park

Kaylin Dean (MD'26) may have taken a winding path to medical school, but now she is where she was always meant to be. A first-generation university student, and descendent of the Acadia First Nation, Dean scored well on the Medical College Admissions Test (MCAT) on her first try—a rare achievement—and began Dalhousie Medical School at age 30.

A Dalhousie alumnus, Dean graduated with her first degree in performing arts in 2019. She spent years working in customer service and hospitality jobs before considering medical school.

Growing up, becoming a physician was not part of the dialogue in Dean's family. Being the first to graduate from high school and attend university was already a point of pride for her loved ones. Graduate school just wasn't on the horizon.

But after a lot of research and even more conversations, the narrative in Dean's head changed from, "Could I be a doctor?" to, "I'm supposed to be a doctor'."

MORE THAN MONEY

Dean's family is wildly proud and supportive of her journey to attend Dalhousie Medical School. Without experience with the post-secondary system, however, she's had to figure out how to get student funding on her own.

"We all know life is getting more and more expensive, and every time I buy something I can't help but add it to the debt running in my head," says Dean.

Receiving student funding has meant more than just vital financial support.

"That funding helps to feed me, house me, and gets me that coffee when I'm working a night shift in the emergency department. But more than that, it's knowing someone believes in me, that I am supported, and that I belong," she says.

Student funding has relieved some stress for Dean, who hopes to practice family medicine in Yarmouth, the central hub of her Indigenous ancestry.

A BARRIER TO SUCCESS

The health care system in Nova Scotia—like regions around the world—is fraught with challenges, including a shortage of qualified providers, long waitlists for services, and an under-representation among providers from equity-deserving groups. Financial barriers to completing a medical degree are one factor contributing to all these issues.

Kaylin Dean

The average medical school graduate amasses more than $160,000 in debt throughout the course of their studies. That debt affects graduates' decisions concerning what and where they practice.

With the help of Dalhousie's generous donors, the Faculty of Medicine is committed to supporting medical students, including awards dedicated to supporting underrepresented groups and people wanting to practice in rural areas of the Maritimes.

"The study of medicine is daunting, and a large contributor of that is the financial burden," says Dean. "Costs of living are rising, and it becomes a challenge not to worry about the debt waiting on the other side of the Hippocratic Oath. Our focus must be on our training. Scholarships and bursaries are an incredible weight off our shoulders."

Passionate about education and helping others, Dean is dedicated to making donors proud and committed to giving back to her community, just like those donors who support students.

"I'm giving it my all. They bet on the right horse," says Dean.

INDIGENOUS ADMISSIONS PATHWAY

Kaylin Dean didn't know about Dalhousie's Indigenous Admissions Pathway program when she was seeking admission and funding to Dalhousie Medical School. The faculty is working hard to amplify the program so more Indigenous students know they can access funding and support when they apply.

The Indigenous Admissions Pathway promotes education equity and addresses the unique challenges Indigenous peoples face in their pursuit of medical education.

The Indigenous Admissions Pathway is designed to identify and overcome barriers Mi'kmaw, Wolastoqiyik, Peskotomuhkati, and other Indigenous applicants encounter. For example, the Medical College Admissions Test (MCAT) poses a significant barrier for many Indigenous applicants. As such, it is considered an optional requirement under the Indigenous Admissions Pathway and alternative prerequisites are required instead.

Led by an Indigenous Admissions Subcommittee of Elders, physicians, students, residents, faculty, and community members, the Pathway prioritizes medical school applicants who demonstrate a significant connection to Indigenous communities in the Maritimes. The program also considers other applicants connected to Indigenous communities across Canada. Dalhousie embeds our commitment to Indigenous rights-holders in this approach.

Once Indigenous learners are in Dalhousie Medical School, they can access Keknu'tmasiek Ta'n Tel Welo'ltimk (We are Learning to be Well), an Indigenous-led program dedicated to recruiting and retaining them. This program aligns with the recommendations of the Truth and Reconciliation Commission of Canada and upholds the principles of the United Nations Declaration on the Rights of Indigenous Peoples.

Through Keknu'tmasiek Ta'n Tel Welo'ltimk, Indigenous applicants and learners can benefit from a range of supports, including pre-admissions advisors, cultural assistance, mentorship opportunities, advocacy, scholarships, bursaries, travel grants, and more.

Your support of these initiatives is crucial to advancing education equity and promoting the rights of Indigenous Peoples. We invite you to join us in creating a more inclusive and equitable medical education environment.

Photo by Sincerely Media on Unsplash

SHAPING THE FUTURE OF HEALTH CARE

DALHOUSIE UNIVERSITY'S MASTER OF PHYSICIAN ASSISTANT STUDIES PROGRAM

By Kate Rogers and Dayna Park

Dalhousie University's Faculty of Medicine has recognized the inaugural class in its groundbreaking Master of Physician Assistant Studies (MPAS) program at a special stethoscope ceremony.

Announced in 2023, this two-year program is the first in the Maritimes and provides students with the skills, knowledge, and training required to help them increase access to care and make a significant contribution to the health and wellbeing of Nova Scotians.

Marking the beginning of their journey into medicine, inaugural MPAS class members received their stethoscopes at an event where Dr. Kim Brooks, President and Vice-Chancellor of Dalhousie University, presided. The Honourable Brian Wong, Nova Scotia's Minister of Advanced Education, Elder Ann LaBillois, faculty, staff, and family and friends were also in attendance at the February 15, 2024, ceremony.

"The Master of Physician Assistant Studies has come at a critical time when the health-care needs of Nova Scotians have never been greater," said Dr. Brooks. "By providing a new pathway for health care professionals to serve their communities, it is our hope that this program will help alleviate some of the burdens faced by our health-care system and ensure that patients receive the care they need."

WHAT IS A PHYSICIANS ASSISTANT?

Physician assistants (PAs) are medical professionals capable of providing a wide range of health-care services under physician supervision. Originating in the United States in the 1960s, the first class of PAs in the Canadian Forces Medical Services graduated in 1984. Physician assistants have proven themselves invaluable assets in delivering safe, efficient, and quality health care.

Physician assistants can perform tasks ranging from patient assessment and diagnosis to treatment planning and surgical procedures, emerging as essential members of the health-care team.

Diwan Minocha, co-class president of the Class of 2025, is interested in how physician assistants can be a vital addition to an increasingly successful health-care system and plans to work in Nova Scotia upon graduation.

"The integration of physician assistants should be extremely positive on the health-care system especially in rural areas," says Minocha. "The whole idea is to extend the scope of the physician to alleviate the strain on the health-care system as much as possible."

The MPAS program at Dalhousie University is designed to provide students with comprehensive training in all aspects of clinical medicine. Through rigorous coursework and hands-on clinical experience, students will gain proficiency in pharmacology, surgical procedures, patient care, and more.

One of the distinguishing features of the program is its emphasis on practical training through clinical rotations in diverse health-care settings. From primary care clinics to emergency departments, students will

Diwan Minocha, MPAS student

have the opportunity to apply their knowledge and skills in real-world scenarios, preparing them for the challenges of modern health-care practice.

Dalhousie is Atlantic Canada's leader in training the highly skilled health care leaders. Clinical simulation is integral to the training of medical, nursing, physician assistant, and all other students across allied health professions. Simulation training facilities are housed in various locations across campus but are mainly concentrated in the Collaborative Health Education Building and are known as Dalhousie's Centre for Collaborative Clinical Learning and Research (C3LR)

A SURREAL CEREMONY

The stethoscope ceremony recognized the significance of the first class of MPAS students and how they will positively contribute to the health-care system in Nova Scotia.

"We have all worked very hard and come from very diverse backgrounds so receiving a stethoscope solidifying the fact that we are all going to be practising PAs in two years is surreal," says Minocha.

The Dartmouth General Hospital Foundation donated the stethoscopes, which Minocha said the whole class appreciated.

"We could not be more grateful for this contribution from the Dartmouth General Hospital Foundation," he says. "I would also like to thank the Nova Scotia Government, Nova Scotia Health Authority, Dalhousie University, and so many others who have worked tirelessly to get this program off the ground, and to welcome the first class of Physician Assistants in Atlantic Canada. I could not imagine the work that has gone into ensuring the success of this program, and of the students."

REFLECTING OUR COMMUNITIES

To ensure the physician assistant student body reflects the communities its members will serve, the Faculty of Medicine worked hard to ensure the equitable admission of Indigenous and African Nova Scotian people, who have historically faced barriers when applying to programs in the medical school. The new Indigenous Admissions and Black Learners Admissions pathways will increase admissions of these underrepresented groups, which in turn, will improve the health of Black and Indigenous communities in the province.

The MPAS program is currently accepting applications for the second cohort, beginning in January 2025.

MPAS class of 2026

LOOKING AHEAD: A GIFT IN YOUR WILL COULD CHANGE THE FUTURE OF HEALTH RESEARCH

Do you ever stop to consider how many future lives you change when you donate to health research today?

By leaving a gift in your will, you can have an even greater and far-reaching impact on the health of our community and the world.

A gift in your will is a special chance to set in motion a ripple effect that will last far beyond your own lifetime. Your bequest will allow some of the most talented researchers in the world to push the boundaries of innovation and find new and exciting ways to treat—even cure—diseases that affect each of us: cancer, heart disease, dementia, stroke and so much more.

The extraordinary strides that have already been made in health research—thanks to donors like you—will only multiply in the future with new technology, new discoveries and new research methods. But our research teams are relying on lasting, stable funding—the kind that's made possible through gifts in your will.

Will your gift be the one to unlock the cure for cancer? Will your legacy provide hope to millions of patients and their families? Will you touch countless lives, even generations of lives, with your generosity?

The possibilities are endless ... and it all begins with a gift in your will.

MEET CAROL

People often ask me why it's so important to donate to medical research. I can honestly tell them if it wasn't for research, I wouldn't be walking today.

In 1997, I was in a serious accident. The injuries to my leg were so severe I was told I was facing a full amputation.

But thanks to cutting-edge research taking place at the time, my surgeons were able to learn how to use a brand-new technique that ultimately saved my leg. I'm living proof research changes lives.

By leaving a gift in your will, like I have, to Dalhousie's Faculty of Medicine, you're affecting the lives of your loved ones and your community for decades to come. You might fund groundbreaking research that cures Alzheimer's, or immunotherapy that could help people beat cancer.

If you have questions or want to talk about where you'd like your gift directed, please reach out to me. I understand the difference you want to make, and I would love to chat with you about realizing your wishes to leave a lasting legacy through health research. **Reach out anytime!**

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DALHOUSIE UNIVERSITY | FACULTY OF MEDICINE

molly appeal
FOR HEALTH RESEARCH