YOUR IMPACT

Issue 3 / Summer 2022

London Health Sciences Foundation

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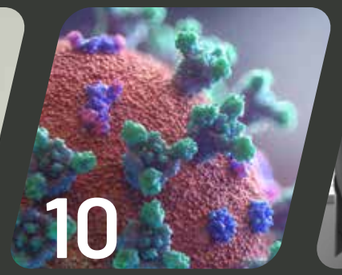
London Health Sciences Foundation witnessed extraordinary generosity this past year. Despite whatever strains or stresses that continued to be felt, your commitment to others only grew as fundraising records were broken, yet again.

For the summer issue of YOUR IMPACT, we've curated another batch of inspiring and informative stories coming straight from the care teams at London Health Sciences Centre. There are scientists bringing artificial intelligence into cancer research. Facilities are expanding to address the explosion of youth seeking mental health support. And what makes each and every one of these life-changing projects possible is the donors supporting a vision of wellness. Thank you not just for choosing to care, but for caring unequivocally.



MESSAGE FROM THE PRESIDENT & CEO

When you look outside, what do you see?

It's summer in London, so of course, this means construction season. Roads are closed. The commute home is hotter. Engines idle impatiently as the person in the hardhat and reflective vest spins their sign from Stop to Slow and back again.

Crossing guards are waving along the last of the school children whose sporadic nature is challenged by the necessity for ten seconds of caution as they cross from curb to curb. A straggler, not wanting to be left behind, darts to catch up with his friends but the crossing guard stops him with a smile and a lesson as traffic resumes.

Landscapers are out in force, slogging bricks and soil and shrubbery under the scorching sun. Roofers bake on rooftops. Postal workers trudge through the rain.

But what if I told you that construction worker was an organ donor who saved a mother of two? That crossing guard? They're participating in a drug trial helping scientists unlock the secrets of cancer. And after the loss of her sister three years ago, the postal worker now advocates for mental health awareness.

Stories like these are not as rare as one might think. As someone fortunate enough to lead a driven and passionate team, I am constantly reminded of people's capacity and commitment to make a difference. I am reminded it's not the size of the gift that matters but the gift itself—the meaning and intent behind someone's willingness to improve the life of another. It is the recognition of our shared humanity.

At London Health Sciences Foundation, I have the privilege of watching and facilitating change on a scale I still sometimes find difficult to fathom. And with this change comes hope—hope for a healthier future. However, without those who inspire us, who galvanize our resolve, who move us to act, hope is just a word. It's people who give it power.

London is full of these powerful people. They are anyone who's ever lent a helping hand. Anyone who's listened with a compassionate ear. Any person who's held concern for someone else's welfare closely and carefully enough to want to do something about it.

So, you know what I see when I look outside? I see heroes.

Yours,

John H. MacFarlane, BBA, LL.B, MPA
President & CEO
London Health Sciences Foundation

SOLVING THE EQUATION FOR STROKE CARE

Every patient's journey is different. The most effective treatments are tailored to each patient's specific needs and getting the full picture of their situation is key to achieving the best possible outcomes. Thanks to a prestigious clinical fellowship made possible through donor support, LHSC's Regional Stroke Centre is equipping patients to make informed decisions about their unique treatment options.

Dr. Maria Bres Bullrich

Inviting the world's top minds to work with teams at LHSC helps develop breakthroughs with lasting impact for our patients–and donor funding is a vital piece of that puzzle.

For neurologist Dr. Maria Bres Bullrich, these opportunities were limited in her home country of Argentina. But a clinical stroke fellowship established through donor support allowed her to join the LHSC stroke team in 2019 and begin work on improving the patient experience.

"I was eager to explore innovative treatments like endovascular thrombectomy, or EVT, with such an exceptional team," shares Dr. Bullrich. "This procedure revolutionized stroke care, significantly improving recovery in patients with ischemic strokes."

Thanks to a series of successful clinical trials from 2015 onward, patients have continued to benefit from EVT, with the number of procedures increasing each year. But there was a missing part of the equation. Despite this being a highly effective treatment, 15-20 per cent of these patients do not survive. Dr. Bullrich wanted to know why.

"It was clear basic characteristics were impacting how a patient might progress," Dr. Bullrich says. "These included clinical indicators like age, stroke or cardiovascular history, or imaging results from CT and other diagnostic tests. It was important to find a way to use this data to improve patient outcomes."

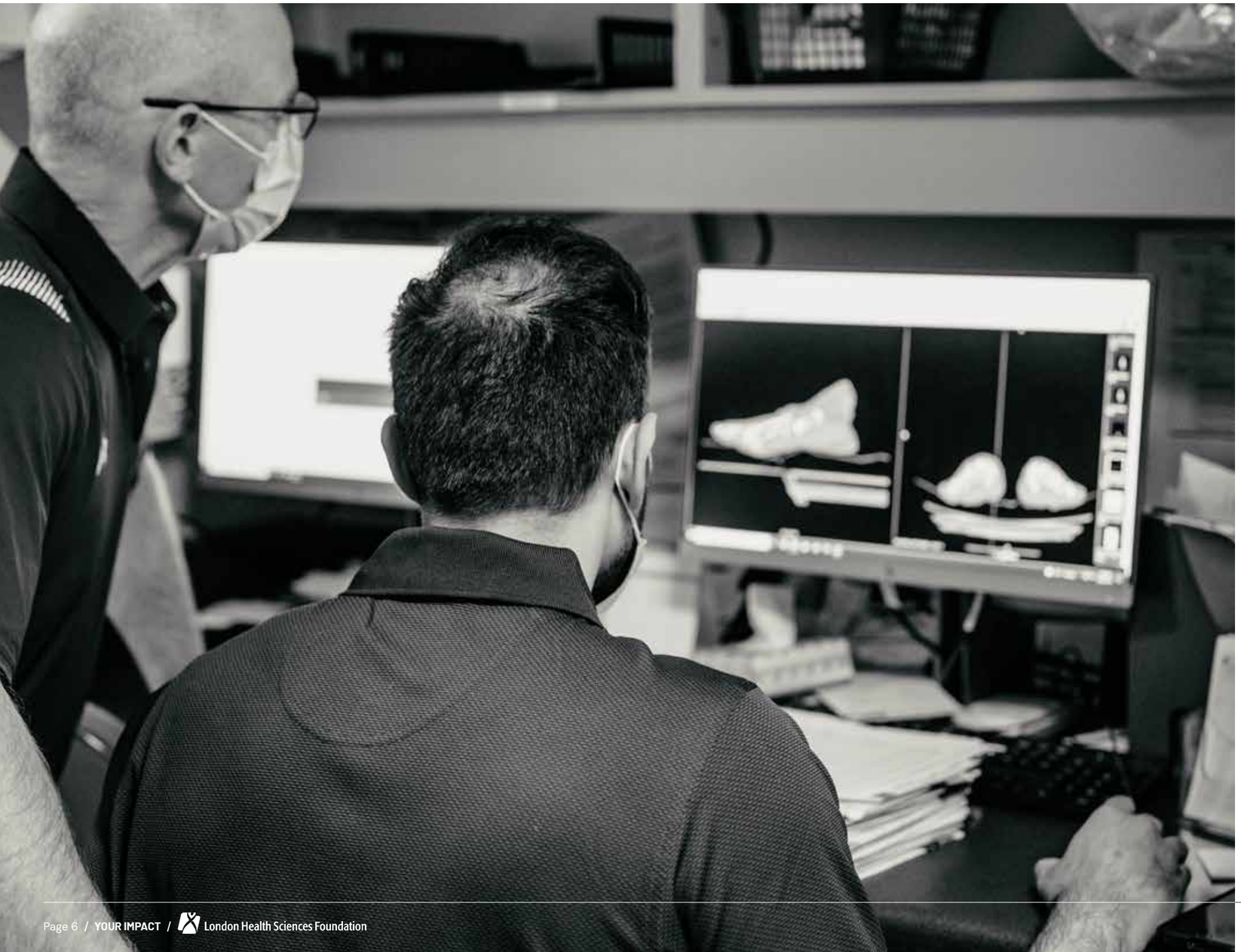
Looking back at 400 previous patients, Dr. Bullrich compiled a set of key indicators as the basis for a first-of-its-kind online calculator. This predictive tool uses patients' individual data to generate a standardized score that determines their risk of mortality within 90 days in patients undergoing EVT and helps guide conversations with patients and families.

"From the very start of a patient's journey, we can have a clear picture of what to expect and personalize stroke care to each patient's needs," Dr. Bullrich says. "Quick decision-making is critical, and having the most accurate information to make those decisions is a comfort to our patients and their families during even the most stressful moments."

By supporting these fellowships, donors create immense possibilities for promising researchers like Dr. Bullrich to make a real difference for patients at LHSC and beyond.

"This support helps us to develop our full capacities, to go as far as we can and are willing to go to provide the best possible patient experience across Canada and worldwide. I am eternally grateful to the donors who created this opportunity to advance stroke care for future patients."

BRAND NEW EQUIPMENT LETS PATIENTS PUT THEIR BEST FOOT FORWARD



Armed with aging x-ray machines and treating an average of 80 patients per day, the orthopaedic surgeons at London Health Sciences Centre's (LHSC) Fowler Kennedy Sport Medicine Clinic–a leading centre for sports and exercise medicine–rely on the accuracy and functionality of their technology. But when that technology falters, there's a ripple effect on the patient experience, which can be disruptive to patient flow.

Through a recent $1M gift from passionate supporters of Fowler Kennedy, the clinic is set to receive two new state-of-the-art x-ray machines.

"In orthopaedics, we're trying to understand what's happening inside the body," says Sarah Padfield, executive director at Fowler Kennedy. "Imaging has become a basic requirement to properly care for patients."

From recreational pickleball enthusiasts to professional athletes on the NBL's London Lightning, the team at Fowler Kennedy helps people of all ages stay active. To diagnose and develop a plan of care for patients, surgeons, primary care physicians and physiotherapists need to understand what's happening inside the body. According to Fowler Kennedy's medical director, Dr. Robert Litchfield, about 90 per cent of patients coming in to meet with an orthopaedic surgeon require an x-ray.

"With so many people coming through our doors for an x-ray each year, we want to ensure our patients are getting the best care possible," Dr. Litchfield says. "This means having access to the best healthcare technology available."

Through its partnership with LHSC and Western University, Fowler Kennedy hosts a fully integrated team offering primary care services, physiotherapy and diagnostic services in one location. And since all the services required to get people being active again are on-site, Fowler Kennedy gives patients a unique, fully-comprehensive experience.

"Fowler Kennedy couldn't have become the type of organization it is without donor support," says Padfield. "Our donors see it as an investment and are continuing to keep health care in London on the map."

The new machines, set to be installed and ready by late summer 2022, will provide more efficient and accurate imagery for patient diagnoses. As with all technology, x-ray units evolve and improve each year. So, with machines that match the standard of LHSC's technology, Fowler Kennedy now offers better quality imaging and system reliability.

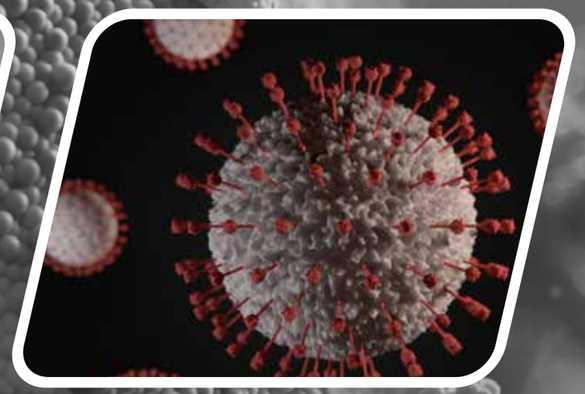
"We are forever grateful to our donors who play such a huge role in making what we do possible," Dr. Litchfield says.

Having access to advanced, dependable technology means the team at Fowler Kennedy can put all their focus on optimizing the patient experience, ensuring that every person who comes through their doors can put their best foot forward on their way out.

Dr. Robert Litchfield and Sarah Padfield

YOU HAVE THE POWER TO SAVE A LIFE

LEADING EDGE COVID-19 RESEARCH AT LHSC



In 2021, Dr. Michael Silverman, Dr. Seema Nair Parvathy and Karen Broadhurst were contributing clinical researchers to the World Health Organization (WHO) Solidarity Study investigating the outcomes for patients with COVID-19 who were treated with repurposed antivirals. This landmark random clinical trial enrolled thousands of patients from across the world. Preliminary findings, which were published in the New England Journal of Medicine (NEJM), show treatment with existing antivirals did not significantly reduce mortality, need for ventilation or hospital stay duration in COVID-19 patients.

As part of another Canadian sub-study to the Solidarity Trial, researchers identified modest improvements in hospitalized COVID-19 patients treated with Remdesivir. This was recently published in the Canadian Medical Association Journal (CMAJ), where key findings include preventing the need for mechanical ventilation and improved recovery compared to those who received standard care alone.

Final results of this study have just been reported in the Lancet and confirm that Remdesivir reduced mortality and the need for invasive ventilation in patients hospitalized with COVID-19. This study was a remarkable collaboration involving researchers from 35 countries, highlighting the importance and versatility of global collaboration.

HIGH PROFILE PUBLICATIONS

- WHO Solidarity Trial Consortium. Remdesivir and three other drugs for hospitalised patients with COVID-19: final results of the WHO Solidarity randomised trial and updated meta-analyses
- Canadian Treatments for COVID-19 (CATCO)*; for the Association of Medical Microbiology and Infectious Disease Canada (AMMI) Clinical Research Network and the Canadian Critical Care Trials Group. Remdesivir for the treatment of patients in hospital with COVID-19 in Canada: a randomized controlled trial
- Economic evaluation of remdesivir plus supportive care versus supportive care alone alongside the Canadian treatments for COVID-19 (E-CATCO) randomized trial: a cost-effectiveness analysis
- WHO Solidarity Trial Consortium. Repurposed Antiviral Drugs for Covid-19 — Interim WHO Solidarity Trial Results

JOURNALS OF DISTINCTION

NEJM: NEJM is cited more often in scientific literature than any other medical journal, and has the highest Journal Impact Factor of all general medical journals.

CMAJ: As a peer-reviewed general medical journal publishing cutting-edge, thought-provoking research, CMAJ continues to have substantial impact on health care around the world.

THE LANCET: For two centuries, the goal of The Lancet has been to improve people's lives through science while at the same time increasing the overall social impact of science.

KEEPING PEOPLE HEALTHY

Innovative research and collaboration are vital components for how health teams at LHSC build upon and improve the standard of care. Our scientists and clinicians continue to be on the forefront of discovery, and face every challenge with one goal in mind: keeping people healthy.

KEEPING CONNECTED: EXPANDING ACCESS TO YOUTH MENTAL HEALTH CARE


Dr. Elizabeth Osuch


New therapy space


Research space

According to Dr. Elizabeth Osuch, founder and physician lead at London Health Sciences Centre's (LHSC) First Episode Mood and Anxiety Program (FEMAP), COVID-19 has been devastating to youth.

A first of its kind in Canada, FEMAP has been providing enhanced mental health services to London's youth between the ages of 16 and 25 for more than a decade. But as demand for FEMAP's services grew and grew, so did the need to accommodate it. And during the pandemic, that already high demand for help increased by more than 100 per cent.

Thankfully, plans for expansion were already in progress, an undertaking completely funded by donors. And with 2021 being yet another year in and out of lockdown, the team was laser-focused on having the new facility at 54 Riverview Ave. ready for in-person treatment as soon and as safely as possible.

"First and foremost, we are now able to double the capacity of the number of patients we see," Dr. Osuch says.

In the past, group sessions often had to be booked offsite due to lack of space. This change in routine, of being required to walk from one facility to another, had the potential to disrupt some people's sense of security. Therefore, as a program dedicated to providing a youth-friendly environment, it was important to be able to hold group sessions in-house.

"For young people who may have experienced trauma earlier on in life, consistency is essential in the therapeutic relationship," Dr. Osuch states.

But apart from increased patient volume, to continue FEMAP's vision of innovating youth mental health care, the next generation of specialists also needed room to learn and grow.

"We have the ability to bring more trainees on-board than we could before," Dr. Osuch continues. "We can accept more residents and interns from a wider range of disciplines such as psychiatry, psychology and social work, which is very exciting."

Larger, dedicated group space on the main level, and trainee/research offices above—integration is at the heart of the new facility's design. One such example is the installation of a one-way mirror in one of the therapy areas. Reflective on one side and transparent on the other, this seemingly basic addition broadens FEMAP's training capabilities by providing the opportunity to observe therapy sessions led by trained and trusted experts.

"We're always looking for the right ingredients for how we can do things better," Dr. Osuch says.

With 54 Riverview now open and welcoming patients through its doors, youth are back receiving the support they need. And taking the idea of expansion even further, Dr. Osuch and the team at FEMAP are exploring the digital space as a way to help integrate youth mental health care into everyday life. By offering accessible, approachable mental health care, FEMAP is trying to establish a method of maintaining regular contact with its patients beyond the walls of its facilities.

If the pandemic revealed anything, it was our inherent need for connection. Our families, our support systems were suddenly thrust apart due to an invisible threat. For London's vulnerable youth population, the feeling of being cut-off and the anxiety felt en masse was crippling. However, as FEMAP continues along the leading edge of discovery, improving upon its own processes every step of the way to meet its patients where they are, as Dr. Osuch puts it:

"How do you not do something like this?"

SOME HEROES WEAR HARD HATS

JOHN PAUL | CONSTRUCTION SITE SUPERVISOR | DONOR | LONDON, ON

At LHSF, not all of our heroes wear scrubs. With support from donors like John Paul, our patients can receive the care they need through life-changing initiatives such as ground breaking research, state-of-the-art equipment and specialized care with personalized treatment options.

BE A HERO. Donate today at **lhsf.ca**

London Health Sciences Foundation

THE COMFORTS OF COMPASSION: **ONE FAMILY'S GIFT TO IMPROVE THE PATIENT EXPERIENCE**

Growing up, Susan Palmer never imagined the future impact cancer would have on her life. After losing both parents to the disease and watching her cousin go through over 75 rounds of chemotherapy, Susan and her siblings are no strangers to the intense, brutal battle fought by people with cancer around the world.

Adam and Erma Clarke were both diagnosed with cancer many years apart, and sadly, eventually, succumbed to their disease. But Susan remembers her mother speaking about the caring relationships developed with health staff at the London Regional Cancer Program (LRCP) as well as their local hospital in Stratford. She also remembers the immense pride Erma took in giving back to others who were experiencing the trauma of cancer by way of a legacy gift in their Will.

The chemotherapy unit at LRCP has become increasingly busy over the years. While a heavy day in 2016 meant treating around 100 patients, the unit now sees an average of 130 per day. However, with hospital resources stretched thin, the Clarke family recognized how the chemo suites were lacking the necessary equipment for patients to relax before and during their treatments.

According to Jacqueline Canning, clinical manager of the chemotherapy unit, the biggest challenge faced by patients receiving chemotherapy at LRCP today is wait times. There simply are not enough resources to treat the number of people needing care. As a result, patients spend many a long hour sitting in the waiting room, only to be brought in to sit through their treatment, which can sometimes last more than eight hours per session.

Adam and Erma both noticed the quality of the chairs during treatment. They simply weren't comfortable. When waiting for cancer treatment, the Clarkes believed you should be waiting in a chair that makes it easy to rest and relax. This became the focus of their gift, choosing to donate soft, functional chairs to the chemotherapy suites at LRCP–chairs that made patients feel more at home.

Six new chemotherapy chairs and two televisions were purchased to give patients a more tolerable experience. In total, the chemotherapy suites are now home to 44 chairs and beds. And while the Clarke family has already made such a significant impact on making patients with cancer more comfortable, their legacy has only just begun.

Today, Susan is working on her passion project alongside a close friend who is undergoing cancer treatment herself. These two brave, creative women are writing a children's book involving a rather unique perspective on cancer treatment. Once published, young people will be able to read this story while awaiting their own treatment, finding strength and comfort in the knowledge that they are not alone.

GOING THE EXTRA MILE FOR A BETTER LIFE

It's an obscure disease despite its aggressive nature. In support of London Health Sciences Foundation (LHSF), the Insley family created Murray's Miles, an annual fundraiser honouring the life of Murray Insley, who died from esophageal cancer in 2017. As Canada's only advocacy group for a disease with a staggering mortality rate, heightening awareness and community support is critical.

"We bring people together to raise funds for esophageal cancer in Canada," says Murray's daughter, Dr. Nicole Insley. "Anyone who's had experience with this disease knows how deadly and aggressive it really is."

Dr. Richard Malthaner, thoracic surgeon at London Health Sciences Centre (LHSC), says it's one of the most lethal cancers humans get.

"The symptoms are so ordinary that people don't get checked right away," Dr. Malthaner says. "So, by the time they bring anything up to their family doctor, it's already advanced to stage three or four, when survival is far less likely."

Having better access to ultrasound imaging to assist with early detection is crucial for patients who would otherwise face a gruelling combination of chemotherapy, radiation and surgery.

"Patients go through a lot with this disease, so trying to make things better for them is our focus," Dr. Malthaner states.

He says community awareness is vital for early detection. With point of care ultrasound (POCUS) machines, doctors can diagnose and treat patients faster and more efficiently. For anyone visiting LHSC experiencing persistent acid reflux or trouble swallowing, a quick scan could make all the difference in the world.

Murray's Miles wants to support people and families who have been affected by this terrible disease. And after last year's event nearly tripling its $10,000 goal, the event is well on its way. To date, funds have gone toward securing more POCUS machines in hopes of providing better outcomes for those who might not yet know of their condition.

"Ultimately, the funds will support anything to decrease the burden of disease and improve patients' quality of life," Dr. Malthaner says.

Increasing awareness of this exceedingly fatal form of cancer will prompt a community toward early detection. And to that end, the inspiring efforts of events like Murray's Miles as well as the compassionate donors in our community are supporting more efficient treatment and a better life for patients living with the extreme difficulties of esophageal cancer.

Together, we're giving families more time with their loved ones—what is its own special kind of medicine.

ALL THE RIGHT DATA: AI HELPING INNOVATE CANCER CARE

Dr. Pencilla Lang

Radiation oncologist, Dr. Pencilla Lang, tells patients she's not a crystal ball. She says she can't predict the future but she can make a pretty good guess.

Dr. Sarah Mattonen & Karen Eddy

Over the past few years, there's been massive interest in the application and integration of artificial intelligence (AI) within medicine. And as advancements have continued to speed along, more areas of medicine are seeing the benefits of computer assisted technology.
As such, the team at London Health Sciences Centre's (LHSC) Gerald C. Baines Centre for Translational Cancer Research have been breaking new ground by bringing AI into cancer care.

"AI can be used to solve a number of problems," Dr. Lang says. "One of the ways it can help is by building models or algorithms that allow it to make certain predictions, just like how you or I can make a guess."

There's a certain level of consistency with AI, too, which is a big part of its appeal. Because whether we like to admit it, humans aren't perfect. Doctors, like anyone, can make mistakes. They can have different opinions from one another, and experiences that shaped those opinions. In a way, by focusing solely on the data entered into its algorithms, AI can help keep us objective.

So, with the full and generous support of donors, Dr. Lang, Dr. Sarah Mattonen and Karen Eddy were brought on to begin building the Baines Centre database, a comprehensive tool allowing researchers to perform analysis using imaging data as well as clinical demographics. From CT scans to PET scans to x-rays, the team is sifting through image after image to streamline workflow for researchers and map out treatment plans for physicians.

"Our focus right now is predicting treatment toxicity and outcomes for patients with lung cancer and head and neck cancer," Dr. Mattonen, an imaging scientist at the Baines Centre, explains.

And since imaging plays such a vital role in both the diagnosis and treatment planning of these diseases, you need someone who can accurately and efficiently collect, analyze and enter all the right information into the system.

"I'm kind of like a keeper of the data," says Karen Eddy, the Baines Centre's database builder.

Don't let her quiet demeanor fool you, Karen's work is as necessary as it is painstaking. By organizing hundreds of patient scans, Karen is helping ensure more people have access to personalized care. As Dr. Lang is quick to point out, without the technology they're building, it's a one-treatment-fits-all approach, which is simply not tenable for patients affected by cancer.

"With this tool, we want to create detailed patient pathways and treatment plans specific to the individual," Dr. Lang says enthusiastically.

Because after all, it's not just about living but living well.

YOUR DONATIONS BY THE NUMBERS

HERE'S HOW YOU MADE
A DIFFERENCE LAST YEAR

20,833 DONORS

43,437 GIFTS

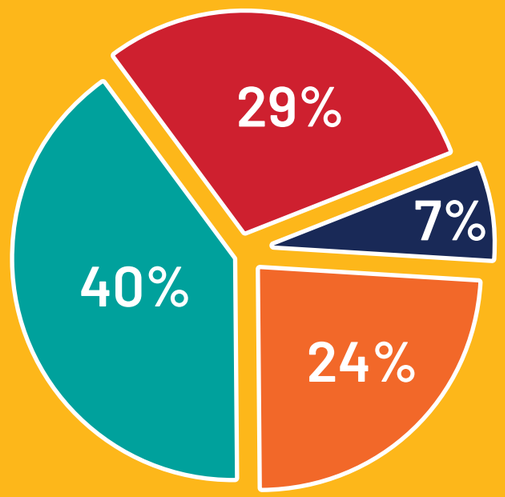
Direct donation designations

Patient Care & Equipment **40%**

Research **29%**

Highest Priority Needs **24%**

Education/Fellowship **7%**



$28 MILLION TOTAL REVENUE GENERATED

View the audited financial
report at lhsf.ca/accountability

YOUR IMPACT

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