



FROM THE DEAN

ABOUT

TRUST

OVC

As Dean of the Ontario Veterinary College (OVC), I'm thrilled to welcome you to the fall/winter edition of *Best Friends*. This season, I'm especially proud to share exciting news that reflects OVC's dedication to innovative training and compassionate care for pets and the people who love them.

We've officially welcomed our inaugural cohort of Doctor of Veterinary Medicine (DVM) students from Northern Ontario, made possible through the new Collaborative DVM program—a partnership between the University of Guelph, Lakehead University in Thunder Bay and the Government of Ontario. This initiative will help address the critical shortage of veterinary care in rural, remote and northern communities, preparing students to serve both companion and agricultural animals. With this expansion comes the need for new and enhanced training facilities at OVC and Lakehead, ensuring that our graduates continue to demonstrate the excellence expected from alumni of Canada's top veterinary school. Read more about OVC's capital campaign to build a new Medical and Surgical Learning Centre on page pages 4 and 22-25.

This issue also features Dr. Shane Bateman's efforts to add veterinary forensic science to our curriculum in the form of a new elective rotation for fourth-year student veterinarians. This novel training will improve our graduates' ability to identify and report animal cruelty and other legal issues concerning the care of animals; it is yet another example of the vital role veterinarians play in promoting and protecting the health of animals and people alike.

Around OVC, you'll often hear, "you've found your people"—those who understand and deeply appreciate the unique bond between humans and their animals, and the joy these relationships bring. We know and appreciate how difficult it can be to navigate the loss of a pet. Soon, OVC Pet Trust will launch a new series of pet loss support resources, including a series of short documentaries created by Canadian filmmakers about families navigating pet loss and how they've creatively and thoughtfully memorialized their beloved companion animals. Losing a pet is never easy, but I believe these resources will help many families at a difficult time.

This issue also honours two remarkable supporters of the Ontario Veterinary College who have been tremendous advocates for OVC Pet Trust and our mission of advancing veterinary research and pet health: Roland Browning Watt and Suzi Beber. Their generosity inspires the community spirit that OVC Pet Trust is built on – be sure to read about the honours we've been so privileged to bestow upon them recently in the OVC Mews on pages 5-6.

As always, I am happy to hear from you. Thank you for being part of our OVC Pet Trust community.

Dr. Jeff Wichtel, Dean, Ontario Veterinary College

As part of the Ontario Veterinary College (OVC) at the University of Guelph, OVC Pet Trust is Canada's first charitable fund dedicated to advancing pet health and well-being. We do this by raising funds to support innovative discoveries, health care and education that improves the prevention, diagnosis and treatment of diseases of companion animals. Since 1986, more than \$75 million has been raised to improve life for pets and the people who love them. As of 2025, OVC is ranked first in Canada and sixth worldwide for veterinary science by the Quacquarelli Symonds' World University Rankings.

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On cover: OVC Patient Faith (middle) with her siblings Aster (left) and Mateo (right) outside the University of Guelph's Mona Campbell Centre for Animal Cancer. Photo credit: Scott McQuarrie.



FROM THE DESK **OF OUR MANAGER**

It has been a busy few months in the OVC Pet Trust office, and we have so many exciting things to share with you! Through all the work we do, I am constantly inspired by the generosity of our supporters. Whether you are someone who supports us financially, by spreading the word about what we do or through taking a few moments to chat when you see us at events, it is all meaningful, and I appreciate it more than you know. OVC Pet Trust truly has the best community!

In this issue, you will read about a major project we are working on: the expansion of our Doctor of Veterinary Medicine (DVM) program, and our plans to build a \$44.5 million state-of-the-art Medical and Surgical Learning Centre to accommodate and enhance the training students receive. When looking at the various spaces that are required to train a veterinarian, something that stands out to me is the breadth of clinical skills that veterinary professionals require to do their jobs. Our students have much to learn in a short four years.

In addition to this major project, we continue to support our ongoing commitments at OVC. Last year, our community invested more than \$600,000 into research and equipment to advance veterinary medicine. Many of these studies are highlighted on pages 26-30.

Exciting things are on the horizon at OVC, and we couldn't do it without you. Thank you for your ongoing support, and for helping us to improve life for pets and the people who love them.

Alison McLaren Manager, OVC Pet Trust Ontario Veterinary College University of Guelph

OVC MEWS

NEWS + UPDATES FROM THE ONTARIO VETERINARY COLLEGE



NEW \$44.5-MILLION MEDICAL AND SURGICAL LEARNING CENTRE TO SUPPORT GROWING OVC CLASS SIZE, ENHANCING VETERINARY TRAINING AND GRADUATE READINESS

The University of Guelph has partnered with Lakehead University and the Government of Ontario to launch the Collaborative Doctor of Veterinary Medicine program (CDVMP), which aims to address the critical shortage of veterinarians in rural, remote and Northern Ontario. The Ontario Veterinary College (OVC) is welcoming 20 students – known as the "Northern Cohort" – in 2025, and 2026 into the Doctor of Veterinary Medicine (DVM) program. These students will complete all four years of their training in Guelph as Lakehead prepares its infrastructure to accommodate northern DVM students starting in fall 2027. Fueled by a \$34.2-million fundraising campaign, OVC will build a \$44.5-million stateof-the-art Medical and Surgical Learning Centre (MSLC) to accommodate expanded DVM class sizes. The new multistory facility will provide students with dedicated spaces to practice pre-surgical and surgical skills – including patient preparation, dentistry and post-operative recovery. Learn more about construction and ways to support this project at uoguel.ph/OVCMSLC.



OVC RANKS FIRST IN CANADA, SIXTH WORLDWIDE FOR **VETERINARY SCIENCE**

For the 10th consecutive year, OVC has ranked among the top 10 veterinary schools worldwide. The 2025 World University Rankings by Quacquarelli Symonds (QS) has put OVC in sixth place – up two spots from 2024. The QS rankings are based on academic reputation, employer reputation and research impact. As a world-renowned veterinary college, OVC continues to be at the forefront of research, innovation and animal care. OVC has also maintained its position as the top-ranked veterinary college in Canada, and fourth ranked in North America.



U OF G AWARDS HONORARY DOCTORATE TO LONGTIME VOLUNTEER FUNDRAISER AND HUMANITARIAN -**ROLAND BROWNING WATT**

The University of Guelph and the Ontario Veterinary College (OVC) proudly awarded Roland (Roly) Browning Watt, K.C., a Doctor of Laws, honoris causa, during OVC's Summer Convocation Ceremony on June 9, 2025. The honour recognized nearly five decades of volunteer leadership in fundraising at OVC and many other places. Roly joined the OVC Pet Trust Board in 2007 and has been contributing to its important work ever since. "It's no exaggeration to say that Roly has been instrumental in the development of OVC's signature hospital facilities and veterinary research program, but it's been truly heartwarming to learn about all the lives that he's changed for the better beyond all of us here at the College," says OVC Dean, Jeff Wichtel. In his convocation address in June, Roly inspired the graduating class and guests: "I have enjoyed a long career in the practice of law, but it is my volunteer work that has given me greater satisfaction. It fills me with joy and gratitude that I played a small part in all of this wonderful work."

OVC PET TRUST TO LAUNCH NEW PET LOSS SUPPORT RESOURCES

OVC LAUNCHES NEW PET WEIGHT CARE PROGRAM To address growing pet obesity trends, OVC has launched the Hill's Pet Nutrition Weight Care Program — a referral service to

help pets achieve and maintain a healthy weight. Studies have

shown that more than 50 per cent of pets in North America

are overweight, which can lead to joint pain, chronic diseases and shortened lifespans. Sponsored by Hill's Pet Nutrition,

OVC's new weight management program offers a holistic range of services to help cats and dogs. These services include in-person and virtual care, tailored nutrition plans and physical

therapy. The program is led by a multidisciplinary team of pet

weight care experts, who are passionate about improving the

quality of life for all pets. The weight care program is now open

for referrals for cats and dogs across Ontario, with the goal of

giving pet owners more quality years with their furry friends.

The Ontario Veterinary College (OVC) has partnered with award-winning Canadian documentary filmmakers to create a heartfelt series of videos called Always Near Me: Navigating Pet Loss. The series captures the diverse stories of six different families as they cope with the loss of a pet and find creative ways to keep their pet's memory alive. The films will be supplemented by a library of expert interviews with veterinarians, social workers/ mental health professionals, and researchers discussing the human-animal bond, pet loss and grief, and healing. The first episode launched on World Pet Memorial Day, June 10, with the full series launching on pettrust.ca in the coming months.. This series is made possible thanks to support from The Banjo Fund. Created in 2024 in memory of Banjo, a beloved Basset Hound, the fund supports OVC Pet Trust's mission to provide meaningful resources that benefit families navigating pet loss and the veterinary professionals supporting them on this journey.





Sydney and her late dog, Bella, from "Sydney's Best Friend", the first episode of Always Near Me: Navigating Pet Loss.

DECISION-MAKING TOOL TO SUPPORT CONVERSATIONS BETWEEN VETERINARIANS AND PET OWNERS

Choosing the best treatment option for pets can be overwhelming for pet owners – especially when veterinarians present several different scenarios. Things like a pet's quality of life, case complexity, treatment cost and success rates all play important factors in the decision-making process. A new OVC tool can help support pet owners and veterinarians through these sensitive conversations. A research team, led by Dr. Jason Coe, the VCA Canada Chair in Relationship-Centred Veterinary Medicine, has developed the Value Matrix, has developed the Value Matrix, which is a visual aid that presents all possible care options to pet owners in a simple graphic. By highlighting the advantages, disadvantages and costs associated with each clinical choice, this tool helps veterinary providers facilitate open, honest and informative conversations with their clients. across many different clinical settings. Ultimately, the Value Matrix puts the health and well-being of animals at the forefront of all veterinary decisions, ensuring that the process is informed and collaborative. Learn more about Relationship-Centred Veterinary Medicine and Dr. Coe's work at rcvm.uoguelph.ca.



OVC MICRO-CREDENTIALS ELEVATE THE ROLE OF VETERINARY TECHNICIANS ON CARE TEAMS

Micro-credentials are short, tailored courses that have become a popular tool for upskilling and filling workforce gaps. Through recent Government of Ontario funding, the OVC has launched a new micro-credential for registered veterinary technicians (RVTs), designed to help them take on more central roles within veterinary care teams. The program includes four courses offered through the University of Guelph's OpenEd platform including: Companion Animal Primary Care, Effective Veterinary Teams, Veterinary Health Care Delivery to Underserviced Communities and Equine Primary Care. Co-developed with key partners like the Ontario Association of Veterinary Technicians and RVT employers, these courses are specially designed to meet workforce needs. They are also entirely online, making them accessible to RVTs across Ontario. As RVTs face growing job demands, staff shortages and other stressors, this microcredential program offers an innovative solution to bridge skill gaps, empower learners and advance care for pets.



DR. SUZI BEBER, FOUNDER OF THE SMILING BLUE SKIES CANCER FUND, RECEIVES OVC LEGACY MEDAL

OVC is pleased to share that Dr. Suzi Beber, Founder of The Smiling Blue Skies Cancer Fund, has been awarded the OVC Legacy Medal in recognition of her significant philanthropic efforts in support of canine cancer research, equipment, facilities and positions at OVC. Since the founding of Smiling Blue Skies in 2001, the organization has raised over \$3.3 million, and Suzi has led these efforts. Suzi's work with Smiling Blue Skies extends beyond fundraising; she provides 24/7 support to anyone whose life has been touched by cancer. "Raising over \$3.3 million is an extraordinary achievement - one that has had a profound impact on advancing canine cancer research, treatment, and care for the beloved pets who mean so much to us all", says OVC Dean Jeff Wichtel. "The generosity of Suzi Beber and supporters of The Smiling Blue Skies Cancer Fund is not only transforming the future of veterinary medicine but also bringing hope and comfort to countless families navigating the difficult journey of a cancer diagnosis in their cherished companions."





Dr. Ameet Singh, a board-certified small animal surgeon and professor in the Department of Clinical Studies, along with Dr. Makayla Farrell, a second-year small animal surgery resident and Doctor of Veterinary Science (DVSc) student, are leading a clinical trial funded by OVC Pet Trust that focuses on surgical outcomes among brachycephalic dogs - those with short noses and flat faces, such as the French bulldog.

While these dogs are adored for their unique appearance and endearing personalities, some pet caregivers are unaware of the serious health issues that often accompany the anatomy of specific breeds that cause their airways to be obstructed. A condition known as brachycephalic obstructive airway syndrome (BOAS) is common among breeds like French bulldogs, pugs and Boston terriers. BOAS affects a dog's ability to

breathe properly, leading to a range of clinical signs including exercise intolerance, sleep apnea, heat stroke, gastroesophageal reflux and even life-threatening respiratory events.

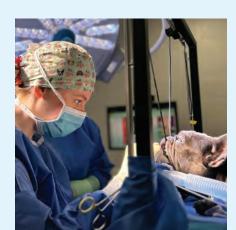
For Farrell, the clinical trial forms part of her DVSc research, a component of completing her advanced training to become a small animal surgeon.

"In 2024, French Bulldogs were ranked the number one most popular dog breed by the American Kennel Club," says Farrell. "Their popularity continues to rise despite growing awareness of the health concerns tied to their anatomy."

Singh and Farrell's research explores how surgical treatment for BOAS impacts a dog's quality of lifespecifically, their ability to be active and get restful sleep after undergoing the surgery that treats the airway obstruction. The surgery

itself involves carefully removing redundant soft tissue from the dog's airway to improve airflow, typically allowing dogs to breathe more easily, engage in physical activity and sleep more soundly.

"Dogs usually go home 24 hours after surgery," says Dr. Farrell. "They're on exercise restriction for about three to four weeks to allow their surgical sites to heal, but after that, most can return to their normal routines."



But how do you measure whether a dog is truly feeling better? That's where wearable technology comes in.

The study uses FitBark devices—small, lightweight sensors that function much like Fitbits for humans. These devices track movement and rest patterns around the clock, offering objective data on the dog's activity levels and sleep quality before and after surgery.

"Dogs wear the FitBark for at least two weeks before surgery, throughout their four-week recovery period, and again for two weeks after they've returned to their usual activity," Farrell explains. "The goal is to track improvements in both activity and rest, which are widely recognized in human medicine as quality-of-life markers."

Historically, outcomes for BOAS surgery have been measured through owner surveys, follow-up phone calls or clinical exams. While helpful, these methods often fall short due to their subjectivity; many owners become accustomed to their dog's breathing struggles and may not recognize the extent of their suffering.

"Using accelerometers, like the FitBark, lets us quantify how much a dog moves and how well they sleep, without relying solely on the owner's interpretation," says Farrell. "We're hoping to establish an objective, accessible way to assess outcomes after BOAS surgery."

The implications of this research go beyond just one breed or one procedure. By demonstrating the value of wearable devices in monitoring recovery and wellbeing, this trial could pave the way for broader use of accelerometry in veterinary medicine—especially in assessing chronic disease and treatment response.

"Ultimately, we're hoping to build a toolkit to better evaluate surgical outcomes," Farrell says. "In future studies, this could help us assess new surgical techniques or even explore translational applications in human medicine."

Though the data collection is still ongoing, the team plans to publish their findings in late 2026 or early 2027.

For Farrell, this trial is more than just a research project—it's an opportunity to combine her passion for surgery with her curiosity for clinical innovation. Her experience at OVC has not only sharpened her technical skills but also opened the door to high-impact, interdisciplinary research.

"I'd encourage DVM students considering a research path to explore the opportunities here at OVC," she says. "There are so many exciting projects underway, and it's incredibly rewarding to contribute to work that directly improves animal welfare."

The importance of this work is underscored by the growing public concern for brachycephalic breed welfare. As their popularity continues to soar, so too does the need for veterinary professionals who can offer meaningful, science-backed solutions.

"People love these dogs," Dr. Farrell reflects. "And they deserve to live full, happy and healthy lives. If we can help give them that—if we can help them breathe easier—that's everything."

To learn more about
Clinical Trials at OVC, visit
OVCClinicalTrials.UoGuelph.ca.



Dr. Makayla Farrell with OVC patient Wasabi.



MEET RONIN: A BOAS SUPERHERO

Ronin, a five-year-old pug, participated in the BOAS clinical trial in September of 2024. His guardians, Brian and Linda, knew when they adopted Ronin from a local shelter that he would require medical attention for his obstructed breathing, particularly due to his loud snoring. They enrolled him in Singh and Farrell's study and were surprised to learn about the extent of his breathing impairment. After surgery, Ronin's quality of life improved dramatically.

"We discovered that Ronin's sleep had been compromised more than we realized," says Linda. "His measured sleep quality difference before and after surgery was quite pronounced."

"From our perspective, the study meant we had data to gauge the changes in his quality of life – beyond our observations. He was an active little dog before the surgery, and we now describe him as being 'turbo charged' because he is able to run without getting winded and chase his ball or chase his sister in their daily zoomies! It was very worthwhile for us to be involved and have Ronin participate."



Animals, like people, can be victims of crime.

The world of veterinary forensic science blends medicine and law to investigate the cause of animal injury or death. A forensic veterinarian is part doctor, part detective: their efforts are rooted in several medical specialties including pathology (how the nature and causes of disease affects cells, tissues and organs in the body) and toxicology (the study of the adverse effects of chemicals in the body). Their mission? To investigate clues, assemble information and puzzle pieces, and gather and preserve evidence to ultimately find the truth and advocate for animals.

"There is a societal expectation that veterinarians are able to recognize and act when they encounter or suspect crimes against animals," says Ontario Veterinary College (OVC) professor Dr. Shane Bateman. "Veterinary forensic science helps protect animals by giving them a voice when they can't speak for themselves."

We sat down with Dr. Bateman – professor, critical care specialist and animal welfare advocate.
When he isn't training student veterinarians, interns and residents, delivering life-saving care to patients in OVC's Intensive Care Unit (ICU), teaching students in lectures, or leading community engagement programs, you may find him creating a mock crime scene to educate the future generation of veterinarians.

Read on to learn what Dr. Bateman wants pet owners to know about this important topic and how his newest endeavour aims to equip the next generation of veterinary leaders to be frontline protectors of animal and human welfare.

What is Veterinary Forensic Science?

Veterinary Forensic Science is a branch of the profession that harnesses a veterinarian's scientific and medical expertise into various aspects of the legal system. Forensic veterinarians have additional training in understanding the legal system and many other forensic science subdisciplines, such as forensic entomology, which uses insects to help determine the approximate time of death. We can use our expertise in civil matters (for example, a disputed insurance claim) or criminal matters that involve investigating cases of suspected animal abuse, neglect, or cruelty using medical and forensic expertise. Forensic veterinarians use their training to support investigations and prosecutions to help investigators, judges and juries understand the facts of the case and may be called upon to give their expert opinion about what may have happened. There is also a critical subdiscipline in wildlife forensic science that focuses on crimes against wildlife (e.g., poaching or trafficking of endangered species).

What does "Violence Link" mean?

The term "Violence Link" refers to the well-documented connection between animal abuse and other forms of violence – including intimate partner or gender-based violence, child maltreatment and elder abuse. Over the past few decades, researchers, law enforcement, and social service professionals have found that violence in a household rarely affects just one individual. Instead, it's often part of a larger pattern of harm. When animals are being mistreated in a home, there's a significantly higher chance that people are, too. Multiple studies have shown that in households where intimate partner violence occurs, animal abuse is present in up to 70 per cent of cases. Abusers may harm pets to exert control or intimidate others in the home. In some cases, animals are used as pawns to prevent victims from leaving dangerous situations -because they fear their pet will be hurt or killed if they go. Children who grow up witnessing or committing acts of cruelty to animals may also be more likely to engage in violence later in life. This is why early intervention matters so much.

How can veterinarians help?

Veterinarians, like teachers and social workers, are in a unique position to notice warning signs. A pet with unexplained injuries, repeated trauma, or signs of neglect might be the first visible clue that something is wrong in a household. By recognizing and reporting these signs, veterinarians play an essential role not only in protecting animals but also in potentially preventing further harm to people. Understanding the Violence Link reminds us that the well-being of animals and humans is deeply connected. Protecting one helps protect the other - and creates safer, more compassionate communities for all.

What legal and societal obligations do veterinarians have in animal welfare and crime?

Veterinarians in Canada have both legal responsibilities and ethical duties when it comes to protecting animals from harm – and supporting overall animal welfare in our communities. Legally, in all Canadian provinces and territories, veterinarians are mandated reporters. This means that if a



Dr. Shane Bateman with OVC ICU patient Basil.

"ULTIMATELY, WE'RE HELPING FUTURE
VETERINARIANS BECOME NOT JUST EXCELLENT
CLINICIANS—BUT ALSO COMPASSIONATE
DEFENDERS OF ANIMAL WELFARE AND VITAL
PARTNERS IN COMMUNITY SAFETY."

veterinarian has reasonable grounds to suspect that an animal is being abused, neglected, or otherwise harmed, they must report it to the appropriate authorities, such as the provincial animal welfare service or the police. In some provinces, failing to report suspected abuse can even result in penalties or professional discipline. This reporting role is crucial, because veterinarians are often among the first people who see signs of abuse. An injured pet, poor body condition, or signs of chronic neglect may be more than just medical issues – they may be red flags for something more serious going on at home.

How can veterinarians make a difference?

Beyond their legal obligations, veterinarians also have strong ethical responsibilities. These are outlined in professional codes of conduct and veterinary oaths, which emphasize the veterinarian's role as an advocate for animal health and welfare. Veterinarians are expected to use their knowledge and judgment to promote the well-being of animals, prevent suffering, and act in the best interests of their patients even when that means stepping into difficult or uncomfortable situations. Importantly, these responsibilities extend beyond the clinic. Veterinarians are increasingly seen as part of a broader social safety net, working alongside child welfare workers, law enforcement, and social services. By speaking up for animals, veterinarians often help protect entire families who may be at risk. In short, veterinarians are not just animal doctors - they are frontline protectors of both animal and human welfare, with a duty to act when something doesn't seem right. Their compassion, training, and courage can truly make a life-saving difference.

Tell us about the new clinical rotation you've introduced.

forensic pathology colleague, Dr. Emily

Brouwer from the Animal Health Lab,

important new rotation for veterinary

Along with my amazing veterinary

we've introduced an exciting and

students at the OVC: the Veterinary Forensic Science Elective. This oneweek intensive rotation gives future veterinarians hands-on experience with the kinds of real-world cases they may encounter when animals are victims of abuse, neglect, or other forms of criminal harm. During the week students explore difficult but essential topics - such as non-accidental injury, animal hoarding, puppy mills, and even animal fighting or sexual abuse. They learn how to spot the signs of these crimes, how to document what they see clearly and professionally, and how to collect and preserve evidence that may be used in a legal case. Each day features small-group discussions and interactive workshops. For example, students might work through a mock forensic examination on a stuffed animal or cadaver, document injuries through photography and written reports while they investigate a 'mock' crime scene or practice their skills as 'expert witnesses' in a simulated courtroom setting. They also learn about the Violence Link. Importantly, the rotation also supports student mental health and well-being, acknowledging that exposure to disturbing case material can be emotionally challenging. Time is set aside for debriefing and discussion, and students are encouraged to reflect on the emotional impact of the work and how they can protect themselves and others that may be triggered by the work they are involved in.

How do you hope the new clinical rotation will benefit student learning?

Our goal is to prepare veterinary graduates to confidently respond when they suspect animal abuse. We want students to leave this rotation



Dr. Bateman teaches four student veterinarians during a "mock crime scene" exercise at OVC.

with a strong understanding of how to advocate for animals, how to navigate legal and ethical responsibilities, and how to communicate effectively with both clients and professionals. Ultimately, we're helping future veterinarians become not just excellent clinicians – but also compassionate defenders of animal welfare and vital partners in community safety.

Is there anything else we haven't touched on that you feel is important for veterinary professionals and pet owner communities to know?

Something I think is important to highlight is the power of working together. Veterinarians play a critical role in protecting animals, but we can't do it alone. That's why building strong, respectful partnerships with law enforcement, the criminal justice system, social workers, and community organizations is so essential. When veterinarians, police officers, lawyers, social workers, and animal welfare advocates all understand each other's roles – and know how to work together - we can respond to cruelty and neglect more quickly, more effectively, and with more compassion. Animals are safer, and so are the people around them. Education is key: the more we all know - about how to recognize abuse, how to report it, and how to follow the right processes - the more we can do. And when everyone involved is empowered to act, we raise the standard of animal welfare and protection for the entire community. In the end, protecting animals isn't just a veterinary issue – it's a community responsibility. When we come together, we do better: for animals, for families and for everyone.



Innovative Discoveries:

Snapshots of Recent OVC Pet Trust-Funded Research

Cutting-edge research at OVC improves the health and well-being of pets

At the University of Guelph's Ontario Veterinary College (OVC), researchers are seeking new, innovative ways to answer the most complex questions in veterinary medicine. From benchtop to bedside – and every step in between – OVC research teams are making key breakthroughs to advance research and knowledge. Whether it's a cancer diagnosis, a nutrition plan or a brain health discovery, these innovative projects were made possible by funding from OVC Pet Trust supporters, and are paving the way for better, faster and more advanced care for our companion animals.

'Treating' Your Pet Right

Dr. Deep Khosa, Department of Population Medicine

Treats are an important part of caring for pets, but finding the right balance between treating and overfeeding your pet can be tricky. Fortunately, OVC research is helping pet owners and veterinarians navigate treat feeding, to prevent weight gain and obesity.

Dr. Deep Khosa is a professor and academic coordinator for the Hill's Pet Nutrition Primary Healthcare Centre at OVC. Her research explores the role that treats play in pet owners' connection with their animal, to ultimately provide guidance on healthy treat use.

Dr. Khosa's research team (which includes PhD student Shelby Nielson) spent time talking with dog and cat owners to better understand why treats are so important in the relationship with

their animals. They found that treats help owners show love and affection, are an important training tool, and help strengthen the bond between humans and their pets. Many owners also expressed that, because treats are such a key part of this relationship, it can be hard to limit their pets' treat intake.

This research, in an-under explored facet of pet care, offers valuable insights for veterinarians helping clients manage their pets' diets and weight. By understanding the challenges pet owners face in limiting treats and the specific reasons why they choose to feed treats, veterinary teams can give better guidance to pet owners – paving the way for better treat-feeding practices that help dogs and cats live long, healthy lives.

"While treat feeding for our pets should not (and realistically cannot) be eliminated entirely, the goal is to strike a healthy balance between treating appropriately and overfeeding," says Dr. Khosa.

A 'Crystal Ball' for Cancer Prognosis

Dr. Geoff Wood, Department of Pathobiology

Finding out your furry friend has cancer can be a stressful and uncertain time. But promising new OVC research is exploring a molecular tool that could offer a better way to predict cancer outcomes in dogs.

Dr. Geoff Wood, OVC professor and co-director for the Institute for Comparative Cancer Investigation, is studying the role of microRNAs in two common types of canine cancer: osteosarcoma (bone cancer) and lymphoma (lymph node cancer.) MicroRNAs are tiny molecules that play a key role in cell growth and function; but diseases like cancer can cause

them to be overproduced, leading to higher levels of microRNA in the blood.

Dr. Wood's team recently published studies showing that certain microRNA levels in the blood are linked to how long dogs with these cancers will survive after treatment. Unlike traditional prognosis tools – which often rely on invasive biopsies – they found that blood microRNA can provide a more precise and accurate prediction for survival outcomes.

MicroRNA testing could revolutionize cancer treatment protocols, and Dr. Wood's team is now exploring ways to integrate this into standard cancer care. Ultimately, this innovative research aims to help veterinarians and pet owners make the best choices for cancer treatments and give dogs with cancer the highest quality of life possible.



Putting 'Heads Together' to Diagnose Seizures in Dogs

Dr. Fiona James, Department of Clinical Studies

Seizure disorders, like epilepsy, are one of the most common neurological problems in dogs. Unfortunately, the cause of seizures is not always clear. To improve the diagnostic process, OVC researchers are testing the use of a tool that's commonly used in human medicine.

OVC professor, Dr. Fiona James, is exploring how electroencephalography (EEG) can be used to diagnose seizures in dogs. EEG is the gold-standard test for identifying seizures in humans. It uses small sensors placed on the head to detect and record brain activity. This diagnostic test helps doctors map where seizures start and why they happen to ultimately guide treatment plans.

EEG is not commonly used in dogs due to the wide variation in head shape across breeds. To address this challenge, Dr. James' research has focused on finding the best placement for EEG sensors by creating virtual 3-D models of dog skulls using scans



from breeds like bulldogs, labradors, and greyhounds. These models enable researchers to test sensor placements for accuracy – an important first step towards standardizing EEG use for dogs.

While future studies on EEG use are needed, this research is an important advancement in canine brain health. By helping veterinarians better understand the patterns and locations of seizures in dogs, treatments and surgeries will be more targeted, which will lead to better health outcomes for dogs with epilepsy.

"It can be so frustrating for everyone – patients' families and veterinary care teams – when even multiple antiseizure medications don't provide good control," says Dr. James. "Diagnosis of epilepsy via EEG advances the

In photos: Dr. Fiona James teaches on the clinic floor at the OVC Health Sciences Centre.



possibility of more tailored and personalized treatment options – providing peace of mind for caregivers and better quality of life for patients."



"One day, maybe a month from now or another two years from now, when Faith's disease is no longer just an aside and we must let her go, she'll leave us as a warrior. It isn't lost on us now how lucky Faith is to have you [OVC Oncology team] in her life, and it won't be lost on us then that her bravery, strength and resilience was made possible by yours."



Faith's family and care team celebrate the completion of her cancer treatments with a ceremonial "bell ringing" in March 2025

Faith was adopted alongside her brother

between multiple homes across Ontario.

Mateo after both dogs had bounced

Malnourished and battling infections,

to wag her tail," Nikki recalls. "It took

Faith had yet to experience many truly

happy days. "She didn't even know how

almost a year for her to learn how. Now,

every time she wags it, we know she's

full of so much happiness that she just

claimed her role as the silent boss of

the household. From her chosen spot

over her humans and dog sibling Mateo

and newest Golden addition, Aster, with

demand attention. Her quirks—deadpan

stares when asked to obey a command,

on the family couch, she kept watch

gentle authority and the occasional

trampoline-like leap into the air to

a proud prance when walking, and

compassionate nose-nuzzles when

just a pet. "My husband Ricky and I

sensing sadness—make her more than

often say she's more human than some

Playful and intuitive, Faith quickly

has to let some out!"

people," Nikki laughs, acknowledging the utter joy and fountain of unconditional love all her dogs bring to their lives.

Nikki and her husband Ricky at OVC's Mona Campbell Centre for Animal

Cancer with their dogs Aster (left), Faith (middle) and Mateo (right).

The Hardest Days of Our Lives Turned into the

In October 2022, Nikki and Ricky's world was rocked when they discovered a lump deep in the muscle between Faith's neck and shoulder. Her veterinarian performed a fineneedle aspirate, a minimally-invasive procedure to obtain a sample of cells or fluid, which revealed that the lump was likely cancerous. Emergency surgery followed, but the mass couldn't be entirely removed.

The diagnosis was devastating: highgrade mast cell cancer, with signs that it had already spread to Faith's lungs. "That first month after diagnosis was

Nikki. "We cried constantly. We Googled way too much. We slept beside her on the floor. We were terrified."

It wasn't until their first virtual appointment at the Mona Campbell Centre for Animal Cancer at the University of Guelph's Ontario Veterinary College (OVC) that they began to feel hope. OVC opened the doors of Canada's first comprehensive cancer centre in 2012 thanks to generous support from OVC Pet Trust donors, with a significant estate gift from the late Mona Campbell, a longtime animal advocate. The state-of-the-art centre, part of the OVC Health Sciences Centre, offers the most advanced tools for cancer diagnosis, treatment and teaching, promoting collaborative clinical research for the benefit of all species, including people. Following Faith's initial appointment, Dr. Danielle Richardson, a veterinary oncologist at OVC, and her team, which

Most Hopeful



In photos: Faith receives chemotherapy treatment at OVC (left); Dr. Gabriella Allegrini meets with Nikki and Faith during a recent recheck appointment (middle); Nikki embraces Faith in the OVC cancer centre waiting room (right).

included oncology resident Dr. Gabriella Allegrini and oncology registered veterinary technician Geri Higginson, offered not only a detailed medical roadmap for Faith but also emotional support for Nikki and Ricky.

Nikki remembers the early days of Faith's diagnosis being unquestionably life-altering, full of the unknown and anxiety-inducing. She wondered how aggressive Faith's type of cancer was, how much time Faith may have remaining and what those days, weeks or months would look like for her family.

"The OVC Oncology team gave us space to be sad and scared; and then gave us hope. After that call, we felt like we could do this for our girl."

Faith was prescribed an oral chemotherapy drug designed to slow the progression of metastatic (spreading) cancer. The prognosis at the time was grim—a worst-case outcome could mean that Faith had just two to three months to live. "We thought that was it," says Nikki. "We cancelled our holiday plans. We threw her a 6.75-year birthday party because we didn't think she'd make it to seven."

But then, something incredible happened. Just one month into treatment, Faith returned to OVC for a follow-up chest radiograph, also known as an X-ray. The nodules in her lungs were gone. "We couldn't believe it," Nikki recalls. "It was the best news we could've imagined."

A Second Miracle

Throughout 2023, Faith visited OVC monthly for blood tests and radiographs to ensure the cancer hadn't returned. Miraculously, her lungs remained clear. "Every time we went, we held our breath," says Nikki. "And every time, we left with good news. We were living visit to visit, but each visit gave us more time—and more faith."

In early 2024, after a year of stable scans, Faith was taken off her chemotherapy treatments temporarily while her family travelled. When she was re-tested weeks later, her lungs were still clear. "It was like we got a second miracle," says Nikki. "To this day, there's no sign of cancer in her lungs."

But their journey wasn't over. In December 2024, a new lump appeared—this time near Faith's knee. The news was hard to hear: a second high-grade mast cell tumour, unrelated to the first, with likely spread to a nearby lymph node. Nikki was devastated.

"But Dr. Allegrini didn't hesitate. She coordinated surgery right away—even during the busy holiday season."

The surgery removed both the tumour and the affected lymph node. Despite narrow margins, the operation was a success, and Faith recovered smoothly. The team at OVC quickly laid out a treatment plan, and in January, Faith began three months of a new IV

a large dose of radiation is delivered in multiple smaller doses) to prevent recurrence.

Before starting radiation, a CT scan revealed a third suspicious mass in Faith's leg. Though test results were inconclusive, her oncology team opted to proceed with caution and treat it as cancerous, expanding the radiation zone to cover three areas. "The proactive approach taken by OVC gave us so much peace of mind," Nikki says. "They weren't going to leave anything to chance."

Faith finished her combined chemotherapy and radiation treatment in March 2025, and follow-up tests have shown that Faith is in remission. "She is thriving, and we couldn't be happier for this news," says Nikki. "We know that anything can happen, but we've learned that the cancer journey is more navigable than we imagined—especially with great care and a resilient pet."

Reflecting on their journey, Nikki and her husband describe their relationship with OVC as both a partnership and a friendship. "We trust them with everything," Nikki says. "We lean on them for medical care and expert guidance, and they trust us to care for Faith at home between appointments. When we feel helpless, it's that shared commitment that reminds us that we are not powerless. We're in this together."

Faith's primary clinician, Dr. Allegrini, echoes Nikki's sentiment. "It can be

like this," she says. "But with advanced diagnostics and a personalized treatment plan, we're able to navigate the uncertainty together and give pets like Faith the best possible chance at a full and happy life."

When asked what she would tell other pet parents who are on a cancer journey with their pet, Nikki says to trust your instincts and hang onto hope. "You just never know," she says. "Even if the initial diagnosis is terminal, connect with OVC and explore your options...sometimes the unexpected happens, and the worst part of the cancer journey may already be behind you."

Every Moment Feels Like a Gift

Faith's story is one of resilience, expert care and unwavering love. It's also a testament to the critical work being done at OVC to improve cancer care for pets. Through state-of-the-art diagnostics, cutting-edge treatment plans and a whole-team approach that centers the animal's well-being, OVC offers more than just hope—it offers

And for pet parents like Faith's, time is everything.

"Cancer is such a scary word, especially when it's your dog," Nikki says. "But OVC gave us more than just time with Faithwant to. Every moment we've had with her since that first diagnosis feels like a gift."

Faith with Oncology Registered Veterinary Technician (RVT) Geri Higginson

and Medical Oncologist Dr. Danielle Richardson at OVC in spring 2025.

Faith, now nine years old, remains the regal, stubborn, sweet, and clever dog her family first fell in love with—only now, she wags her tail with joy, pride, and purpose.

In a heartfelt letter to Faith's care team, Nikki reflects on Faith's journey with cancer and the profound impact it has had on her family.

"One day, maybe a month from now or another two years from now, when Faith's disease is no longer just an aside and we must let her go, she'll leave us as a warrior. It isn't lost on us now how lucky Faith is to have you in her life, and it won't be lost on us then that

the reason to embark on it, at least in Faith's case, isn't to conquer cancer but to comfortably live with it. That shift in perspective—from saving Faith from death to helping her thrive for as long as she survives—also changed the way we think about each of you. Although you do miraculously save lives, you also do many other things that are equally valuable regardless of the outcome of any treatment plan. Those actions don't just serve Faith extremely well along her journey, they make her story one of success no matter its length or ending."

Nikki believes a dog's love is the most uncomplicated love on earth and easily the world's simplest and yet most profound gift.

"We named her Faith before we knew the road we'd travel," she concludes. "But it turns out, that's exactly what we needed to get through it."



her bravery, strength, and resilience they gave us quality time. Snuggles on chemotherapy drug and five weeks of difficult for pet guardians to know was made possible by yours. One the couch, proud tail wags, belly rubs, fractionated radiation therapy (where whether they're making the right eye-opening lesson that we've learned and those signature side-eyes when we from Faith's cancer journey is that ask her to do something she doesn't



Why did you pursue a career in veterinary medicine and then go on to specialize as a veterinary internist?

I decided to be a veterinarian when I was in middle school. I have been passionate about animals for all my life. During vet school I loved a lot of different fields, so I decided to work in private practice first. I loved the contact with the pet families, but I discovered a passion for diagnostic procedures, endoscopy and more particularly minimally invasive procedures. That is why I chose to specialize in internal medicine. I also love people and by being an internist I can follow the same patients and their families and do my best to improve their quality of life. I hear a lot of young students are intimidated by the competitive admission of vet school. I just want to tell them to go for it! Studying can

be hard, but I never woke up in the morning thinking that I did not want to go to work since I am a vet. A veterinary degree opens a lot of different doors: private practice, industry and research.

What would you want pet owners to know about the field of internal medicine?

Internal medicine could be defined as the art of diagnosing diseases and offering a good quality of life to the patient. Being an internist implies you know about all the body systems, and you are able to figure out which system you should look at to improve the patient's health. Being a good internist involves: being a good listener (to gather clues from the family of the pet), being organized (to put the pieces of the puzzle together in the right order), being compassionate and open-

minded (understand the goals and needs of the pet and family), staying up to date in veterinary and human medicine discoveries (you need to think outside the box as lots of diseases are rare and have only been reported in people so far), being curious and brave (sometimes you need to try new techniques and new treatments), trying the find the least painful way to treat a patient (avoiding surgery for example). Internists rarely "fix" something (versus surgeons, who repair fractures, for example) but they can resolve a complicated puzzle and improve the patients' daily quality of life. Most of the patients of internists are older and have multiple diseases at the same time. Some have been present for a while, others are new. It is the job of the internist to figure out which one is responsible for the current clinical signs of the patient. It can become

complicated when treating one disease causes another to worsen. The internist is trained to look at the benefits and risk and make the best choice for their patient.

What would you want pet owners to know about translational medicine research?

At the Ontario Veterinary College (OVC), we believe it is essential to bridge laboratory research with reallife applications for both pets and humans. This is why we established an institute dedicated to creating this connection. Known as The Bench to Bedside Institute for Translational Health Research and Innovation - or B2Bi for short - the institute applies research findings to benefit the health and well-being of animals and humans. By participating in or supporting translational research, pet owners can contribute to important studies that benefit both their pets and the broader animal and human health communities. Getting involved with OVC, OVC Pet Trust and B2Bi can provide pet owners with updates on the latest breakthroughs in veterinary care, enhancing pets' quality of life. The B2Bi has been instrumental in facilitating the transfer of laboratory research into practical applications for veterinary patients.

Many diseases in animals are similar to those in humans, making pets valuable models for studying human illnesses. This creates a win-win situation: pets can receive advanced medical treatments, which can then be shown to be effective for human use. It is also important to note that clinical trials are not safety studies; for example, drugs already undergo safety evaluations prior to these trials. The primary goal in these studies is to demonstrate their efficacy.

What are your passion projects?

I have been developing the use of capsule endoscopy in dogs for more than six years. This new technology consists of giving patients a capsule the size of a vitamin pill that contains four miniature cameras. It has been used for more than ten years in people and has helped physicians diagnose disease without having to do invasive procedures. The capsule is administered per mouth and no anesthesia is required. The patient goes back home right after swallowing the

pill and goes on with their normal life. Thanks to OVC Pet Trust, we have done more than four studies to optimize the use of the same capsules in dogs and have four more studies ongoing. It has revolutionized veterinary gastrointestinal medicine: lots of patients can avoid invasive procedures because of this technology. It has also accelerated the diagnosis of patients, improving their outcome. My other area of interest is improving the diagnosis and monitoring of cats with kidney disease. I have been working on developing a urine test that could be done at home to avoid the stress of a veterinary visit for our feline friends.

What are your research interests?

I am interested in finding new ways to detect and treat diseases in pets with minimally invasive procedures. For that reason, I have been focusing on endoscopic-guided procedures. Endoscopy is a medical procedure that involves using a thin, flexible tube with a camera at the end to look inside a person's body, often to examine the digestive tract. It's a way for doctors to see what's going on without needing to perform surgery, helping them diagnose and treat various conditions. This often leads to quicker recovery compared to surgery. These procedures are difficult to perform in dogs and cats because of their small size compared to people.

What does the human-animal bond mean to you?

I believe the bond between humans and animals is incredibly unique. There

is indeed a special connection that exists between us and animals. They play a vital role in my life, bringing me joy, love, and a sense of fulfillment when I can improve their well-being. My dog has a sixth sense – before I even realize I am stressed or I need a cuddle, he is next to me ready to give me attention and cuddles. Grooming and riding horses is one of my passions. Being with animals has always been my happy place.

Do you share your home with animals?

I have two Flat Coated Retrievers, and they are related: Stanley is nine and a half years old and is the great uncle of West, our three-year-old. Stan is my "magical" dog – wise, quiet, always knows when you have a down moment. Stan is also a trooper – he had two diseases in the last two years that could have killed him, but he had the best team of veterinarians to take care of him. Thanks to my amazing colleagues at OVC, he is still with us, fighting against cancer. West is the young, goofy hyperactive dog – he lives at 300km/h like a chipmunk. He has not yet understood that squirrels don't disappear, but they climb trees. He gives the best kisses in the world. I am very proud of both my dogs who have saved multiple lives by being blood donors at OVC.

I am also lucky to share my life with two horses: Finny, who is the funniest and cuddliest boy; he likes licorice and mints, and he loves going to shows to be groomed, bathed, braided; and Leisl, a real "lady", very elegant and sweet. My favorite thing is to have getaway weekends with them at shows.



Dr. Defarges teaches on the clinic floor of the OVC Health Sciences Centre.

Connected by Cancer, United in Hope

Humans and dogs share more than companionship—we're biologically more alike than you might think. That includes the genetics and clinical features of osteosarcoma, a rare and aggressive bone cancer that primarily affects children and young adults, but is about 10 times more common in large and giant breed dogs than in people.

This past summer, the DOGBONe group (Dog Osteosarcoma Group – Biomarkers of Neoplasia) at the Ontario Veterinary College (OVC) hosted its first-ever patient-partner meeting. DOGBONe, co-led by Drs. Geoffrey Wood and Alicia Viloria-Petit—both leaders in comparative oncology research—is working to uncover genetic and protein biomarkers that could lead to earlier diagnosis of metastatic disease and better outcomes on both ends of the leash.

"I am both grateful and excited for the collaboration in research between canine and human Osteosarcoma that was demonstrated at DOGBONe. As an Osteosarcoma survivor myself, I am directly impacted by this work, and seeing specific therapies show promise in our four-legged friends makes me believe there is hope for better outcomes in the future for our children. Not only would better protocols benefit the livelihood of our children, our friends, and our peers, but knowing it could lengthen the time we get to spend with our pets warms my heart." - Kara Skrubis, osteosarcoma survivor and advocate.

Osteosarcoma survivors Molly and Kara Skrubis. Funded by OVC Pet Trust and the Ontario Institute for Cancer Research, DOGBONe brings together scientists, clinicians, patients, advocates, and pet owners to accelerate discoveries that improve outcomes for both species.

We asked attendees of DOGBONe's first patient-partner meeting what this research means to them. Here is what they shared.



Participants in the inaugural DOGBONE Patient Partner Meeting at the Ontario Veterinary College



"As a survivor and patient advocate, I am incredibly thankful for the research being done by DOGBONe. It was an awe-inspiring day to learn about translational research already improving the lives of many canines and humans. The day reiterated to me how similar nature's living creatures are and the sacredness of living in harmony with one another."

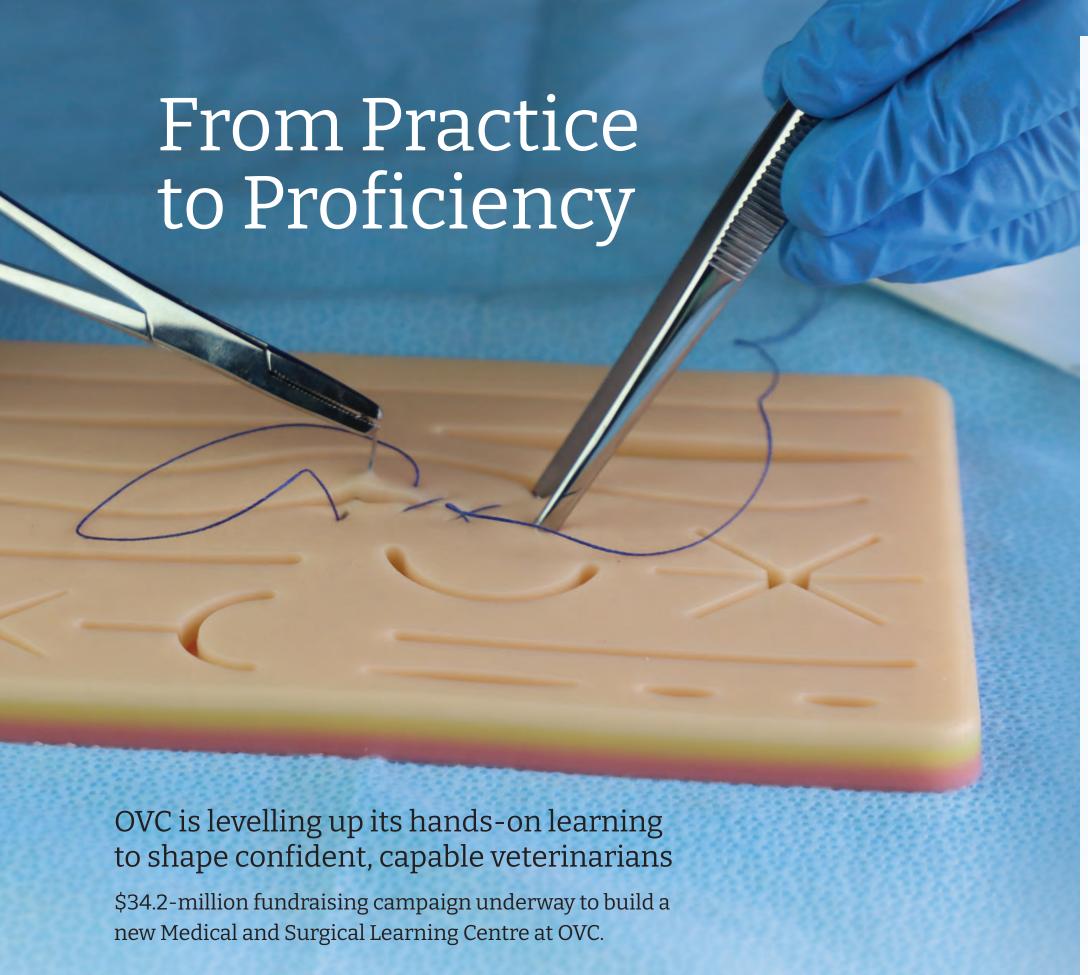
 Vlnesha Ramasamy, osteosarcoma survivor and advocate.

"As a parent who lost my child to osteosarcoma, I know the heartbreak of limited options. Since dogs face this cancer 10 times more often, comparative oncology offers a powerful path forward. Cross-species research can accelerate discoveries and lead to better treatments for both children and pets facing this devastating disease." — Christina Ip-Toma, Scientific Director for MIB Agents — a nonprofit organization that supports families affected by osteosarcoma, with her son Dylan, an osteosarcoma angel.





"We were saddened by the examples of osteosarcoma shared at the symposium, but thrilled to hear that the DOGBONe researchers have made significant advances in understanding and technological development. It is amazing to know that dogs, even in their plight, are contributing to a better world for humans. They are truly 'a man's best friend'." – Kung Huo, guardian of Milo, a canine osteosarcoma survivor.



Scrubbing in

On television, putting on a surgical gown may look easy — a fluid motion, a rustle of fabric, and the surgeon steps into the operating room. In real life, it is anything but. That smooth gesture is actually a series of practised deliberate moves — each essential to protecting the patient from infection.

It starts with a sterile gown, precisely folded on a table. The outside of the gown must remain untouched — it will come into contact with the patient, surgical instruments and the sterile field during surgery. This means the surgeon must pick up the gown by its interior, pinching and lifting it carefully so it unfolds in midair, and then slide their arms into the sleeves while keeping their hands fully tucked inside the cuffs. A shrug settles the gown into place over their shoulders, and an assistant secures the back ties.

Then comes gloving. With their hands still enclosed in the cuffs, they carefully ease each glove on — a precise, deliberate process that ensures all outside surfaces remain untouched — until they snap into place, sealed and sterile. Only then does the surgeon secure the front waist tie, their gown now fully secure.

Each individual step might sound easy enough — but for a first-year student veterinarian, the full process can feel like a high-stakes game of Twister.

Dr. Brigitte Brisson, professor of small animal surgery at the Ontario Veterinary College (OVC) and a board-certified surgeon at the OVC Companion Animal Hospital, has seen it all: trainees fumbling with exterior ties, scratching a forehead with a gloved hand, dipping a hand below waist level — small missteps with real consequences.

"Those movements might seem minor, but every time a surgeon breaks the sterile field, they risk contamination," says Brisson, who is the academic coordinator of clinical skills for the Doctor of Veterinary Medicine (DVM) program and has taught at OVC for more than two decades. "Contamination – or a major break in sterile technique – puts our patients' health and recovery at serious risk."

It takes patience, focus and repetition to master even fundamental skills like gowning and gloving. In veterinary surgery, no step is insignificant — each one contributes to keeping the patient safe.

All hands-on

Gowning and gloving are just two of the many clinical skills student veterinarians must master. Through routine, these skills introduce students to the precision and care required in veterinary medicine — a field where the details can affect an animal's safety and recovery.

Clinical skills are the hands-on abilities veterinarians rely on to safely and effectively care for animals. They span every area of veterinary medicine, from conducting a physical exam and drawing blood to managing anesthesia or repairing an injury in surgery. These skills cannot be learned from books or lectures alone. They are physical techniques requiring knowledge, precision and repetition — and they have real consequences when something goes wrong.

Take suturing: to close a wound safely, a veterinarian must hold the needle at the right angle, apply just the right tension, and place each stitch with exact spacing and depth. Too tight, and the tissue can die. Too loose, and the wound may not heal. A knot that slips can reopen the incision. In experienced



Dr. Brigitte Brisson teaches residents, interns and student veterinarians in an operating room at the OVC Health Sciences Centre.

hands, suturing looks routine, but it takes time and practice to perform with confidence and consistency.

Clinical skills bring knowing and doing together. Learning how to tie a surgical knot or hold a scalpel may begin with a book or video, but it takes practice to make it second nature. Until students learn the feel of it — until they have practised, corrected and repeated the motions — they may not be ready for the pressure of a real operating room.

In veterinary medicine, the margin for error is often slim. Whether it is stabilizing a colicky horse, diagnosing a cat with diabetes or preparing a dog for surgery, clinical skills are the bridge between medical knowledge and patient safety. They translate knowledge into safe, effective action.

Practice makes competence

The journey from fumbling with a surgical gown to confidently leading a procedure is neither quick nor easy — which is why, at OVC, clinical skills training follows a thoughtfully designed path starting in the very first year of vet school, called "Phase 1". This progression is thoughtfully structured to help students build competence step by step, setting them up for success.



Associate Dean Dr. Joanne Hewson says OVC's new Medical and Surgical Learning Centre (MSLC) brings key elements of clinical education together under one roof, mirroring the flow and complexity of veterinary practice.

Students learn to connect what they do with why it matters — especially when it comes to patient safety. For example, they are taught not just how to gown and glove, but why doing it precisely protects the animal under their care. Through repeated practice, they build muscle memory and learn to apply the skill with both purpose and confidence.

Early skills lay the groundwork for more advanced ones. "In first year, students receive training in instruments and suturing," says Dr. Brisson. "By second year, attention shifts to asepsis — keeping things sterile — and surgical techniques. By third year, when students begin participating in supervised live animal surgery, their focus moves to finesse, tissue handling, and efficiency."

To support this progression, OVC uses a combination of simulation models, video tutorials and supervised lab time. Students begin with simple models in low-pressure settings, then advance to more realistic simulations and, eventually, supervised procedures with live patients. Along the way, they receive feedback, correct mistakes and build the experience needed to perform with confidence and care, readying them for "day one competencies" — the skills and knowledge needed as a new veterinarian on the first day of their careers in practice.

"Research shows that students who practise skills repeatedly, starting with basic models and moving to more complex ones, gain competence faster," says Dr. Brisson. "We want them to treat animals well, complete surgeries in a reasonable time and — importantly — feel ready to practise independently on day one after graduation."

Blueprint for building clinical confidence

Mastering clinical skills takes focused practice, repetition, and close guidance — and the right learning environment can make all the difference. That is why OVC is building the new Medical and Surgical Learning Centre (MSLC),

a purpose-built facility designed to support students' progression from novice to confident clinician.

"We have done great work in retrofitted spaces," says Dr. Joanne Hewson, Associate Dean, Students and Academic at OVC. "Now, we will have a facility that reflects what modern practice looks like — and lets us teach accordingly."

The MSLC brings key elements of clinical education together under one roof, mirroring the flow and complexity of real-life veterinary practice. Student veterinarians will gain expanded access to simulation labs, surgical suites, an anesthetic prep room and specialized areas like a dedicated dentistry suite — each equipped with the tools and technologies they will use throughout their careers.

But just as important as what is in the building is how it has been planned. Thoughtful design makes room for focused learning: fewer distractions, more space to move, think and collaborate. A quieter, more spacious setting helps lower stress — making it easier to refine techniques, build confidence and develop clinical judgment through deliberate, repeated practice.

"Anesthesia and surgery can be highstress experiences for students," says Dr. Brisson. "These new spaces are more intuitive, efficient and better for collaboration. When students feel less overwhelmed, they learn better and gain confidence more easily."

The MSLC will also provide a permanent home for the Kim and Stu Lang Community Healthcare Partnership Program (CHPP), which connects student veterinarians with underserved Indigenous and urban populations and shelter dogs through spay/neuter clinics and other wellness care. CHPP gives future veterinarians experience in both clinical skills and culturally responsive care — a powerful combination for modern veterinary practice.

Within the MSLC, every aspect of the space reinforces how students learn — through hands—on practice, repetition and reflection. Over time, they come to understand each skill not as an isolated task, but as part of something

bigger: the safety, comfort, and recovery of the animals they treat. From gowning and gloving, to placing an IV catheter and intubating a patient for anesthesia, to more complex procedures, they are developing the competence and clinical judgement needed to to provide care that is safe, effective and compassionate from the very start of their careers.

"There's a saying in surgery: time is trauma," says Dr. Brisson. "The longer a procedure takes, the greater the physical stress on the patient. That's why repeated practice in clinical skills is so important — it helps improve recovery and outcomes for our patients."

The benefits of the MSLC go beyond student learning. Animals treated there through the spay/neuter program will benefit from quieter spaces, species-specific housing and less nearby foot traffic — all factors that help reduce stress during treatment and recovery.

For the profession, it means new veterinarians stepping into practice confident and ready to lead, meeting the growing needs of animals and their caregivers. And for the future of veterinary care, it means renewed focus on the clinical skills that safeguard animal health and deepen the bond between people and the animals they love.

Confident care begins long before the clinic — it is built in every practiced gesture, every steady hand, every moment of learning.

Editor's Note: OVC is currently fundraising \$34.2 million to build our new state-of-the-art Medical and Surgical Learning Centre (MSLC). Learn more about the project and how to support it at uoguel.ph/OVCMSLC.

"We have done great work in retrofitted spaces," says Dr. Joanne Hewson, Associate Dean, Students and Academic at OVC. "Now, we will have a facility that reflects what modern practice looks like — and lets us teach accordingly."

Student veterinarians practice clinical skills, the bridge between medical knowledge and patient safety, at OVC.





DOG HEALTH

Exploring infertility in breeding dogs

Dr. Michelle Caissie

Infertility in dogs is not yet fully understood. In other species, factors such as abnormal post-breeding inflammation and variations in the reproductive tract's resident bacteria (microbiome) have been linked to infertility. However, these causes of infertility have not yet been investigated in dogs. This research project thus aims to investigate the relationship between the microbiome, inflammation and infertility in breeding dogs. By comparing samples from fertile and infertile dogs, the team will determine if differences in the microbiome and inflammatory markers in each group exist. The findings will help guide breeders and veterinarians in their understanding and management of infertility in breeding

Which bowel prep yields the best gut photos in dogs?

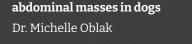
Dr. Alice Defarges

Veterinarians are using a new technology to diagnose gut issues in canines – a pill-sized camera that dogs can swallow called a video endoscopic capsule. The camera is non-invasive and takes 20 pictures per second as it passes through the dog's entire digestive system. However, the key to good photos of the gut is starting with an empty bowel. This project will help find the best way to clear a dog's bowel prior to starting the capsule endoscopy, by testing three methods. The researchers will review the quality of photos, and the dogs' tolerance to each of the three bowel preps to help inform a standard practice across veterinary clinics.

How bending affects orthopedic implants

Dr. William Hawker

Surgeries to fix bone fractures can damage the soft tissues that surround the injury, leading to poor healing outcomes for the animal. To combat this issue, many veterinarians have adopted a method called MIPO (minimally invasive percutaneous osteosynthesis), which uses implants to stabilize broken bones and causes less tissue damage. This study will explore the impacts of bending these implants on their overall strength and performance. Because these implants support the animals' weight, this research is important for understanding to help veterinarians make decisions about their surgical



"Glow in the dark" dye to assess

Dogs commonly develop masses in their abdomen. However, it can be difficult for veterinarians to know if they are cancerous without surgery. These surgeries are invasive and complex, so this study is testing a new technique to improve outcomes for dogs with these masses. The team will give a non-toxic dye to dogs 12-24 hours before the surgery. This dye makes tumours 'glow in the dark,' which can help veterinarians see the full extent of the tumour margins, remove it more completely, and tell whether it is cancerous or not. The results of this research will inform the future use of this technique to remove masses on the spleen and adrenal glands.

Exploring a blood pressure drug for dogs

Dr. Andrea Sanchez Lazaro

Phenoxybenzamine is a blood pressure drug that causes blood vessels to relax. This drug is widely used in humans but is not as commonly given to animals. In this study, the research team will test how this drug affects blood pressure in healthy dogs, when given by mouth versus injected intravenously.

The results of this study could inform the use of this drug to help dogs going forward – including to decrease surgical complications in dogs with adrenal tumours, treat high blood pressure, bladder problems and more.

Treating dogs with low blood pressure under anesthesia

Dr. Alexander Valverde

Low blood pressure is common in dogs that have been put under general anesthesia. One way that veterinarians treat low blood pressure is by giving the dogs a saltwater solution, called saline. This study will assess the effect of two saline treatments - one with 5% sodium, and one with 0.9% - on dogs who experience low blood pressure during general anesthesia. The research team will compare changes in blood markers between both treatment options to see which is better for the dogs. The results of this study will inform future treatments for low blood pressure during anesthesia.

Linking microRNA profiles to canine skin cancer

Dr. Robert Darren Wood

Mast cell tumours are the most common type of skin cancer in dogs. Research has been testing different cell features and molecular markers to predict which cases will spread and recur. One marker, called microRNA, controls the proteins in cells. Studies suggest that the presence of certain microRNAs can help predict diagnosis, response to therapy and survival rates – however there are still gaps in knowledge. This study will assess if certain microRNA profiles are linked to remission and survival in dogs with mast cell tumours. A better understanding of this link will help with disease treatment and prognosis.

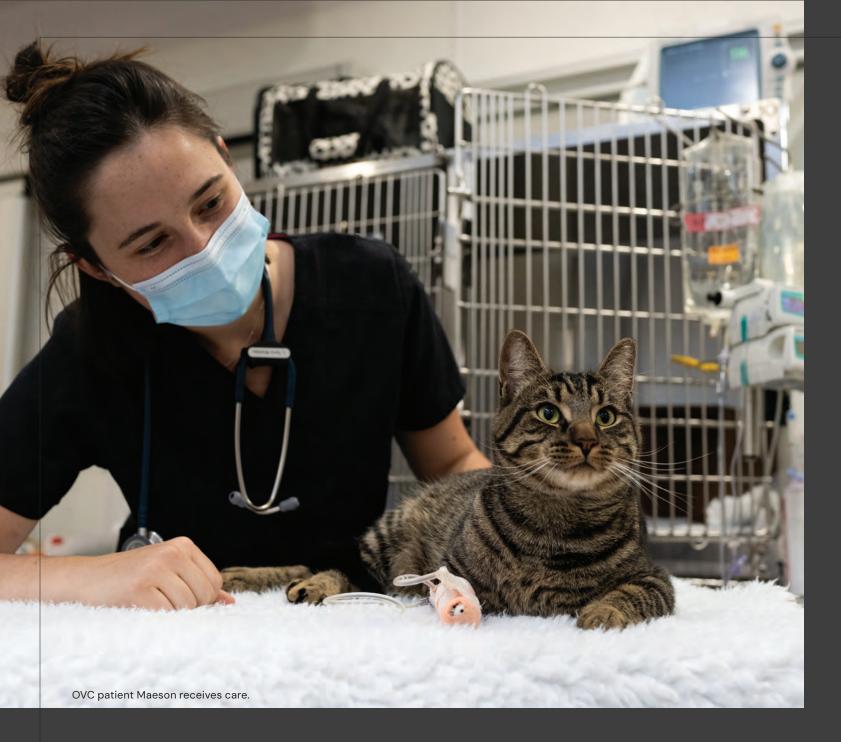
Decoding the aging dog brain with single-cell technologies

Dr. Ian Tobias

Student veterinarians, interns and residents learn in the OVC Intensive Care Unit (ICU) under the supervision of OVC Pet Trust-funded researcher and

veterinary criticalist, Dr. Shane Bateman.

Advances in veterinary care are leading to longer lifespans in dogs. But, with aging comes the increased risk for cognitive dysfunction syndrome (CDS). This condition affects many older dogs and causes changes to behaviour and problemsolving abilities. This research project aims to create a map of the cell types in the dog brain using an approach called single-cell RNA sequencing. This technique examines the gene activity in dog brain cells to understand how the cells change due to age or disease. This research will lay the groundwork



for future research in canine brain health, leading to better diagnosis and treatments for dogs with CDS.

Light therapy for the treatment of canine bone cancer

Dr. Alicia Viloria-Petit

Bone cancer is common in large breed dogs, and it has often spread by the time of diagnosis. Current treatment options are designed to delay the cancer spread, however they only extend the dogs' life by an average of one year. The purpose of this study is to test a novel drug called verteporfin, that is activated by red light and is believed to destroy cancer cells. The research team will test different verteporfin and light combinations to see what is most effective in killing the cancer cells. This treatment could reduce the bone cancer from spreading to the lungs, improving both treatment outcome and lifespan.

CAT HEALTH

One Welfare of community cats and their caretakers

Dr. Lauren Van Patter

Stray and feral cats are often looked after by people in the community, known as colony caretakers. With access to food, water, shelter and sterilization, these cats can have welfare levels that are similar to pet

cats – and caring for these cats can impact the wellbeing of caretakers. To better understand this intersection, known as One Welfare, the research team will conduct interviews with caretakers, and perform welfare assessments of colony cats during site visits. The results will provide insight into the barriers and opportunities to improve colony cat welfare, and support caretakers.

What is the true carbohydrate content in cat food?

Dr. Adronie Verbrugghe

The cat food sold in pet stores differs from the prey cats would catch in the wild -especially when it comes to carbohydrate content. Certain types of carbohydrates are thought to cause poor health outcomes like obesity and diabetes in cats. However, these details are not listed on cat food labels. This research aims to test the types and amount of carbohydrates in cat foods that are labeled for weight management. This study will provide a better understanding of the current landscape of cat foods for obesity, contribute to better nutritional management, and lead to industry guidelines to improve the health of

Avoiding overload in anemic cats after blood transfusions

Dr. Alexa Bersenas

Anemia is a condition caused by a shortage of healthy red blood cells, which can cause weakness and fatigue. A blood transfusion is often used to treat cats with severe anemia, but there is a risk for a complication called circulatory overload. Overload can be fatal, yet there is not a strong understanding about what puts cats at risk for this condition. This project aims to study anemic cats before and after they receive a blood transfusion, to observe if any test markers are linked to an increased risk for overload. By understanding risk factors, veterinarians will be able to better manage these cases and avoid overload.

COMPANION ANIMAL HEALTH

Equipment and Research

A "glowing" new imaging system

Dr. Michelle Oblak

An imaging technology called near infrared fluorescence (NIRF) uses dye and special wavelengths of light to make certain parts of the body 'glow' during surgery. This funding will be used to purchase a new system to advance the NIRF research happening at OVC. This equipment will measure the 'glow' of the dye in real-time, to show the veterinarians and researchers where the dye has been distributed. This system will be used in both lab research, as well as in clinical care with OVC patients.

Measuring proteins in veterinary cancer research

Drs. Courtney Schott & Geoffrey Wood

Proteins play a key role in the function of animals' cells. Changes in protein levels occur in cancer cells and are implicated in cancer development and progression. Through this funding, OVC researchers will purchase lab equipment to perform a technique called western blotting, which is used to measure proteins in samples. This technique is instrumental in cancer research and will help with discoveries aimed at improving cancer diagnostics, cancer prognostication and developing new treatment options for pets.

A new computing server to support OVC projects

Dr. Ian Tobias

There are many ongoing diverse and complex research projects at OVC. However, much of the computer analyses for these projects must be outsourced because there is not an in-house computing server with enough power to handle all the data. This funding will be used to obtain a high-performance server with faster processing, larger storage and greater memory capacity. This new equipment will be able to handle the needs of many researchers and reduce the need

for OVC researchers to outsource this part of their projects.

Digital microscope for bone cancer research

Dr. Alicia Viloria-Petit

There are many OVC research projects happening to better understand canine bone cancer – including studies to explore different treatment options and to understand cancer progression. To advance these research efforts, this funding will be used to purchase a new, advanced microscope. This equipment will speed up the research projects and improve the research outcomes with the goal of improving the life of pets living with bone cancer.

Antioxidant response in bird, cat and dog cancers

Dr. Geoffrey Wood

Pet birds have long lifespans and low cancer rates compared to humans, dogs and cats. This could be because birds produce higher levels of an antioxidant protein that protects the cell from damage called NFR2. Interestingly, cancer treatments – like chemotherapy and radiation – work by destroying cancer cells, and NFR2 can counteract cancer treatments by preventing cell damage. This research will explore the role that NFR2 could play in dog, cat and bird cancer treatment outcomes. The study results could have implications for cancer treatment in these animals, and lead to strategies like blocking NFR2 in animals undergoing cancer treatment for better outcomes.

Improved treatments for breathing issues in cats and dogs

Dr. Alex Zur Linden

Nasopharyngeal stenosis is a condition that causes a narrowing of the nasal passage and can affect breathing and quality of life of cats and dogs. Current treatment involves a surgery to implant a metal stent in the nasal passage, however these stents often fail due to poor fit and rigid material. To combat this issue, this research project will explore the use of flexible, silicone stents – often used in humans – in pets. These stents will be designed to ensure they are the correct size and

fit for cats and dogs. The research findings will advance treatment options available to pets and improve the standard of care.

VETERINARY TRAINING

Reflecting on clinical training

Dr. Carolyn Kerr

After performing complex clinical activities, self-reflection is an important exercise for veterinarians and student veterinarians to learn from their experiences, improve critical thinking skills and assess

their abilities. However, a formal self-reflection process is not currently part of veterinary clinical activities. This study aims to explore learners' perspectives on the process of self-reflection related to clinical tasks. The research team will analyze student feedback on which aspects of the reflection process are helpful in their learning journey, to inform future reflection exercises that will help promote veterinary learning.

What shapes professional identity in vet school?

Dr. Deep Khosa

Retaining veterinarians in the profession has been a longtime challenge, leading to workforce

shortages and gaps in animal care. The cause of these shortages is complex, but professional identity is an important factor that can predict whether people stay in the profession. A veterinarian's professional identity reflects how their values, strengths and goals align with being a veterinarian. This study aims to explore veterinary student ideas of professional identity during training and how this changes as they enter the early stages of their career. Understanding this can help faculty support students grow their identity while they are in veterinary school.





Honour a Best Friend and Give Back to Pet Health

Did you know that you can support OVC Pet Trust through our Pet Memorial Program?

Each year we send more than 45,000 memorial letters to pet owners who have lost a pet. Gifts made in honour or in memory of a beloved pet support advancements in companion animal health at the Ontario Veterinary College.

Thank you to everyone who chooses to give back to improving and advancing companion animal health and well-being in this meaningful way.

Visit our website to learn how to make a gift at pettrust.ca/donate

Share Your In Memory Story

Pets leave paw prints on our hearts.

Have you recently lost a beloved companion whose memory has been honoured with a gift to OVC Pet Trust?

Connect with us on social media or contact us via email to share your story.

Email: ovcpet@uoguelph.ca facebook.com/ovcpet X.com/ovcpettrust Instagram: @ovcpettrust

PETS IN MEMORY

In Memory of Molly (2011–2025) Molly and Me

It's been one week.

My eyes are watery, the screen is blurry, and my fingers struggle to find the keys. I feel like I can't breathe. Out of habit, I look under the table, and I'm surprised to see Molly, my Border Collie. I stare into her brown eyes. They seem bulgy, and her head is angled at a peculiar tilt.

She tries to get up, only to collapse on the floor. I run to her aid, but she shoos me away with the impatience of an aristocrat. She's up again and staggers about like a newborn colt. Her legs give out and I gulp back a sob. Still, she won't accept my help. Finally, we make it outside. I wait for her to pee, and she does. She looks around, then ventures down the street. I'm concerned, but I follow. I watch as she pitches and flounders, then somehow finds her footing. We continue in single file to the field, where she once played, chased, herded and scampered with kids and dogs, with balls and sticks, with pinecones and the occasional drone that she chased from one end of the field to the other. She tries to run, she falls, gets up and wobbles into the mist. I peer through the fog and discern her silhouette. She's struck her Border Collie pose as she waits for a tall skinny boy to throw a stick that's been placed at his feet.

We keep going. Her gait is improving. She looks back and gives me a hint of a smile as she attempts to trot down the dike. Every so often, she stops, stands as still as a stone, while giving her full attention to a blade of grass. Then as quickly as she stopped, she moves on. She greets her human and canine pals with what seems like forced enthusiasm. They watch

her go and I feel their sadness like nettles against my skin.

"Stop, Molly," I say, and she does. The cars race by and when there is a lull, we cross the street. Her pace quickens and I must run to keep up. We pass an elementary school.

"Hi Molly," the kids holler as they escape from a fire drill line-up and run towards her. I stand aside like a humble roadie, while the throng surrounds and caresses my little rock star.

"But we know her," the kids protest to the frazzled teacher as she herds them back into some semblance of order.

"Molly likes to herd," I say.

The kids laugh, the teacher smiles, and Molly smirks. I feel happy, but only for a moment. Their departing waves make me anxious.

Molly seems stronger and more confident as we continue our journey. She marches across busy streets, through forests and city plazas, under overpasses and over underpasses.

She steers me into our neigbourhood market district and gladly accepts greetings and treats from the staff at the stores. They smile and wave. Again, I sense a disturbing sadness.

Suddenly we're punching in the code to get into my mom's care home. Molly vibrates with anticipation. When the door finally clicks open, she saunters in with the aplomb of royalty and graciously accepts the adoration of her subjects. She politely disengages and trots off to see my mom.

"Good dog," says Mom, as she, too, waves good-bye.

Molly beckons me onward.

The labyrinth of trails snake endlessly along rivers, lakes, oceans and forest paths.

Molly beetles down steep embankments and splashes in frothing streams. She races through fields of tall grass, then like a rodeo horse, screeches to a stop. I follow her gaze and see white mountains jutting into a cerulean sky. Molly moves forward. She now trots like a Border Collie. Her fur floats in the wind and her tail feathers flutter. Her one ear is up, and her eyes are alert and curious. She's

"Wait Molly," I yell, into a cloud.

disappearing and I can't catch up.

But she's gone.

"What we have once enjoyed, we can never lose.

All that we love deeply becomes a part of us."

– Helen Keller

Contributed by Susan Cairns, Vancouver, British Columbia

Editor's Note: Susan's beloved Border Collie Molly passed away on January 17, 2025. She wrote this beautiful vignette after her lifelong friend made a donation to OVC Pet Trust in memory of Molly.



PET TRUST PALS

Connect with OVC Pet Trust on social media to share your stories and photos: Facebook (facebook.com/ovcpet), X (@OVCPetTrust) and Instagram (@OVCPetTrust).









- 1. In March 2025, 500 children and their families participated in Teddy Bear Surgery at the 2025 College Royal Open House Weekend, in its 101st year. A big thank you goes out to our incredible Phase 3 Doctor of Veterinary Medicine students from the OVC Class of 2026 for organizing such a fantastic, interactive event for the community: Meagan Wellon, Katie Gerstle, Caitlyn Murchison and Claire Johnston. Forty OVC student veterinarians volunteered their time to run the stations, which included physical exams, surgery and caring for each and every "stuffie" and Teddy Bear that needed treatment. Icing on the cake: the Teddy Bear Surgery crew won 1st Place for Best Overall Exhibit at College Royal! OVC Pet Trust was proud to once again support this year's Teddy Bear Surgery.
- 2. It was a fabulous day celebrating the 15th Annual OTS Dog Jog at the University of Guelph Arboretum this spring. Thank you to our incredible OVC students for organizing and hosting another successful event in support of companion animal health and well-being. This year, more than \$16,000 was raised in support of OVC Pet Trust. Thanks to all those who fundraised, participated and organized another wonderful Dog Jog.
- 3. Last fall, University of Guelph student Samantha Balsamo and Castello Ristorante hosted Paws for a Cause, a paint night in support of OVC Pet Trust. The fundraiser raised \$12,250 for companion animal health and well-being.

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