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Best friends

THE PET MAGAZINE OF THE ONTARIO VETERINARY COLLEGE

TOBY'S JOURNEY

THE VALUE OF CLINICAL TRIALS **12**

Plus

UNIVERSITY of GUELPH

IMPROVE LIFE.

Dr. Jeff Wichtel (Photo by Dean Palmer Photography)

FROM THE DEAN, ONTARIO VETERINARY COLLEGE

I recently observed a veterinary team in OVC's Intensive Care Unit helping a cat in distress. This beautiful feline – someone's beloved companion – required advanced medical treatment and expertise. In that moment, he received the exact care he needed to survive, recover and eventually return home. I paused to reflect on the many variables contributing to his positive outcome. In addition to medical expertise, skills and equipment, this animal's life depended on something else: collaboration.

Each day, OVC improves lives because our veterinary teams, student veterinarians, faculty, researchers, administrative staff, donors and supporters work together in pursuit of a common goal: helping animals and the people who love them.

In this issue of *Best Friends*, you'll see many examples of collaboration at OVC. From partnerships with human hospitals and interdisciplinary teams that enhance pet health to community relationships that enable OVC to support Indigenous communities and underserved people and pets, each day brings new opportunities to grow our collective impact.

It is our privilege and our calling to care for pets. And it is our duty to ensure that care remains available tomorrow by training new veterinarians. Right now, Ontario is facing a shortage of veterinarians. Prior to COVID-19, veterinarians were retiring from the profession faster than schools could train new students. The crisis intensified during the pandemic as pet adoptions – and veterinary patient caseloads – spiked. The future of veterinary medicine depends on creative solutions and on continued collaboration.

In the last issue of *Best Friends*, we told you about OVC's Collaborative Doctor of Veterinary Medicine Program (CDVMP), a partnership program with Lakehead University. By working together with Lakehead, OVC will be able to increase admissions and train more veterinarians. In the months ahead, you'll hear more about our multimillion-dollar capital project to build a new Medical and Surgical Learning Centre, where student veterinarians, including those enrolled in the CDVMP, will hone their skills and train to become the next generation of veterinarians.

Bringing this project to life will require continued collaboration and a shared vision for the future of veterinary medicine. As supporters of OVC Pet Trust, I know you share our vision. I am grateful for the vital role you play in ensuring that the pets we love can live longer, healthier lives.

Thank you for your ongoing and dedicated support.

Dr. Jeff Wichtel
Dean and Professor
Ontario Veterinary College
University of Guelph

ABOUT OVC PET TRUST

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, healthcare 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 2024, OVC is ranked first in Canada, third in North America and among the top 10 worldwide for veterinary science by the Quacquarelli Symonds' World University Rankings.

TO LEARN MORE OR TO DONATE VISIT PETTRUST.CA

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On cover: OVC patient Toby. Photo credit: Katie Duncan.

Alison and her dog Dudley. Photo by Kinsey Winger.

FROM THE DESK OF OUR MANAGER

Growing up in a small town near Guelph, I was always aware of the Ontario Veterinary College; I drove by this institution and knew that this was where animals came for the most specialized care, and students for the most advanced veterinary education. As time went on, I learned about OVC Pet Trust and how research improves the lives of the animals we love. I had a sense of the good work that goes on here at OVC, but when I began my new role as Manager of OVC Pet Trust, it became apparent that I had only scratched the surface.

On my first day, I toured the Health Sciences Centre and began to understand the true scope of the work done here. I saw the spaces where students learn and practice their clinical skills, learned about research underway that helps to save lives, watched veterinarians caring for patients in the Intensive Care Unit and met many staff members and students who all share one common goal: advancing care for animals.

Within my first few months at OVC Pet Trust, my family dog experienced a medical emergency. He was losing his ability to walk and needed emergency spinal surgery. When we arrived at OVC, we met with the veterinary team in a patient space funded by OVC Pet Trust. Being in a room funded by the very program I'm managing was a unique experience. During his stay, our dog benefitted from many other clinical spaces and resources that now exist because of our supporters. Since that time, he has made a full recovery, thanks to the care he received at OVC. I experienced first-hand the impact that your donations make. As a worried pet owner, it brought me great comfort knowing that our dog would receive the best care in a setting that puts our pets' comfort and needs first.

In this issue of *Best Friends*, you'll see a snapshot of the incredible work happening at OVC each day with the support of OVC Pet Trust donors. I am truly humbled to be a part of this organization. As I continue to learn about the many ways in which animal lives are being improved, I am inspired by the generosity of our supporters.

OVC facilities, discoveries, education and care continue to evolve because of you, our supporters. Thank you for your dedication to animals and to improving life for the pets we love. I look forward to what lies ahead as I continue my journey at OVC Pet Trust.

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

OVC MEWS

UPDATES FROM THE ONTARIO VETERINARY COLLEGE

OVC LAUNCHES REGISTERED VETERINARY TECHNICIAN INTERNSHIP PROGRAM

OVC's new Registered Veterinary Technician (RVT) Internship Program is a one-year paid post-graduate program that will provide unique experiential training for RVTs seeking opportunities to improve their knowledge and skills in various clinical settings. The program offers experience with large and small animals in a variety of settings, with an aim to enhance each RVT's expertise and prepare them for lifelong learning.

RVT Interns will gain nursing and clinical skills applicable to general veterinary medicine, and a variety of service-specific skills. Interns will work closely with service RVTs, interns, residents, student veterinarians and faculty.

OVC's first RVT Interns begin this summer and will work within all four hospitals; the Companion Animal Hospital, Large Animal Hospital, Animal Cancer Centre and Smith Lane Animal Hospital.

OVC FACULTY MEMBER RECEIVES CVMA TEACHING AWARD

Dr. Melissa MacIver, assistant professor of small animal surgery in OVC's Department of Clinical Studies, has been awarded the 2023 Teacher of the Year Award from the Canadian Veterinary Medical Association. The award is presented annually to one professor at each of the five veterinary colleges in Canada. Recipients are selected by veterinary students, recognizing a professor who most inspired them through their approach to the subject, teaching methods and enthusiasm.

Dr. MacIver graduated from OVC's Doctor of Veterinary Medicine (DVM) Program in 2013. She obtained her board certification from the American College of Veterinary Surgeons in 2020 and joined OVC as an assistant professor in 2019. Her primary interests include orthopedic surgery, minimally invasive surgery and stem cell therapy. She is passionate about teaching and presenting complex topics in accessible and interactive ways.

MacIver says her goal is to encourage students to consider orthopedics as a potential career path, so she prepares lectures to keep classes as lively and fun as possible. "To be nominated by my students and know that I'm reaching them in ways that I'd hoped for is the greatest reward for this work."

Dr. Melissa MacIver and her dog, Bauer, a rescued Labrador-Retriever from Texas

DR. SONJA FONFARA APPOINTED AS RESEARCH CHAIR IN FELINE HEALTH

OVC researcher and professor Dr. Sonja Fonfara has been appointed as Research Chair in Feline Health at the University of Guelph. As the inaugural chairholder, Fonfara will play a leadership role in enhancing feline research and medicine to improve cat health.

Fonfara is a board-certified companion animal cardiologist with extensive teaching and research experience. Her research focuses on cardiac remodelling associated with aging and cardiac disease. Working closely with OVC faculty, graduate students and international collaborators, Fonfara examines a range of factors impacting feline cardiac health.

The Research Chair in Feline Health was established in 2023 and enabled through generous donor contributions, including support from the estate of Suzanne Szabolcs and gifts in memory of Cynnocene Kauffman and Shelagh O'Brien. As Chair, Fonfara is charged with maintaining and enhancing an internationally recognized program of research excellence and collaboration in feline medicine, with the overall objective of improving feline health and well-being.

HONOURING ROLAND BROWNING WATT, KC, RECIPIENT OF THE OVC LEGACY MEDAL

OVC is pleased to share that Roland (Roly) Browning Watt is the recipient of the OVC Legacy Medal, an award that recognizes outstanding voluntary and philanthropic efforts that contribute to OVC's work to improve life by creating healthier futures for animals, people and the environment.

Roly has made tremendous contributions to OVC Pet Trust and its mission to advance veterinary learning, pet healthcare and innovation in companion animal medicine. He is known in the broader community for his 40-year career as a lawyer focusing on wills and trust law. He is also known for his philanthropic work for other causes, especially seniors' care and other institutions, like Upper Canada College, North York General Hospital, the Royal Ontario Museum and Rosedale Day School.

Roly is also an animal lover. Inspired by his love for cats, beginning with his precious feline Annie, Roly has brought his boundless positive energy to the OVC Pet Trust board since 2007. He served as the Gala Committee Co-Chair for OVC's most successful gala. He is also a major donor, contributing generously to Companion Animal Hospital renovations.

Dr. Jeff Wichtel, OVC dean, shares, "As a valued champion, donor and volunteer, Roly has had an extraordinary and enduring impact on the Ontario Veterinary College and, in a fundamental way, helped shape its future. For that, we will be forever grateful."

L-R: Dr. Charlotte Yates, president and vice-chancellor, University of Guelph; Roly Browning Watt, KC; Dr. Jeff Wichtel, dean, OVC; and Jason Moreton, vice-president (external), University of Guelph. Photo by Kim Robinson.

DR. JIM PETRIK NAMED TIER 1 CANADA RESEARCH CHAIR IN TRANSLATIONAL HEALTH AND CLINICAL RESEARCH

Dr. Jim Petrik, professor in the Department of Biomedical Sciences at OVC has been appointed as Tier 1 Canada Research Chair (CRC) in Translational Health and Clinical Research.

Petrik is the co-director of the Bench to Bedside Institute for Translational Health Research and Innovation at the University of Guelph. He brings 20+ years of cancer research to his CRC appointment, which will be supported by $1.4 million in federal funding over seven years to advance research initiatives exploring therapies for advanced stages of ovarian and pancreatic cancers.

Petrik's One Health therapy development approach recognizes that both companion animals and humans suffer from many of the same spontaneously occurring diseases and share similar living environments that could aid or impede the new therapy uptake. His novel approach to restoring adequate blood supply to tumours enhanced the uptake of anti-cancer therapies and resulted in complete eradication of cancer in the lab. Currently, this approach is undergoing a clinical trial with canine cancer patients at OVC's Health Sciences Centre and human trials will follow within the year.

Intercepting Cancer Signals

OVC RESEARCHER'S NEW MELANOMA TREATMENT STRATEGY COULD LEAD TO BETTER CANCER OUTCOMES IN DOGS

Written by Caitlin Ford

WHAT IS CANINE MELANOMA?

Canine melanoma is a type of cancerous tumour that affects dogs. These tumours are typically found in a dog's mouth or nail beds, but can appear anywhere on their body. It is a fairly common diagnosis, and many dogs are referred to the OVC Mona Campbell Centre for Animal Cancer each year to undergo specialized treatment. However, this cancer can spread very quickly, making it hard for veterinarians to treat.

To tackle this pressing issue, a research team led by Dr. Anthony Mutsaers, veterinary oncologist, cancer researcher and associate professor at OVC, is studying this disease on a cellular level. His team's goal is to improve treatment outcomes and extend the life expectancy of dogs diagnosed with melanoma.

OVC Mona Campbell Centre for Animal Cancer

"When people hear the word, 'melanoma,' the first thing that usually comes to mind is the type of skin cancer that people get from the sun, but dogs can get it too," says Mutsaers. "It's actually one of the most frequent causes of canine malignant oral tumours."

In humans, melanoma is most often caused by sun damage and ultraviolet (UV) exposure, but this is not the case in dogs. The cause of canine melanoma is largely unknown—although the risk is higher in older dogs and among certain breeds, such as black labradors and chow chows.

THE PROBLEM: CANINE MELANOMA CAN EASILY DODGE CANCER TREATMENTS

Human melanoma is highly curable if caught and treated early; however, canine melanoma is often diagnosed at a later stage, and behaves aggressively. This cancer can spread quickly into a dog's lymph nodes, lungs and elsewhere, which makes treatments like chemotherapy ("chemo"), vaccination, radiation or surgery less effective. While all of these treatments may extend the lifespan of a dog with melanoma, this cancer is highly invasive, and survival rates are often low.

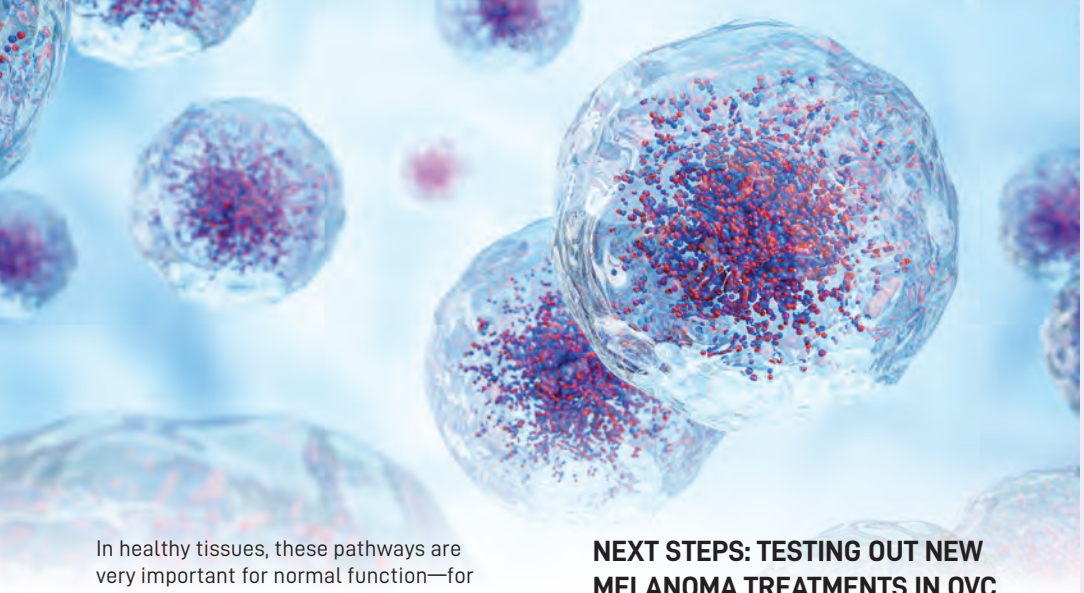
"Canine melanoma is notoriously very hard to treat because of how fast it spreads, and how resistant it is to chemo options," says Mutsaers. "Even when veterinarians use a combination of treatments, the prognosis for canine melanoma is generally poor."

Current treatment options target and kill rapidly dividing cancer cells, but they do not get to the root cause of the issue. In contrast, Mutsaers' team is researching ways to prevent the tumour cells from growing and spreading, by using drugs that block cell signalling pathways.

HOW DO CELLS COMMUNICATE?

Signalling pathways are a series of proteins inside the cell that help them communicate and function. Proteins on different parts of the cell called 'receptors' receive messages from other cells, or the environment, that tell the cell what to do. Once "turned on" by these messages, the signalling pathways start a series of chemical reactions within the cell, which are vital for cell growth and survival.

"I like to think of cell signalling pathways as an hourglass," says Mutsaers. "You have lots of different inputs from the environment that bind to receptors on the cell. Then, these inputs get funneled through a narrow pathway and the result is a wide range of different outputs."



In healthy tissues, these pathways are very important for normal function—for example, signalling pathways that instruct cells to repair themselves after an injury. But in cancer tumours, the pathways are 'upregulated', which means that they are working in excess, allowing cancer cells to divide, grow, thrive and spread faster than cells in healthy tissues.

"Since canine melanoma resists chemotherapy, we want to try to block the pathways that help the tumour grow and survive," says Mutsaers. "My lab is researching this concept to better understand these cancer pathways and improve the way melanoma is treated."

THE SOLUTION: FIGHTING CANINE MELANOMA PATHWAYS WITHIN THE CELL

A core pathway in canine melanoma tumour spread is called 'mTOR/PI3K'; Mutsaers' research team has been studying the impact of a drug treatment that blocks this pathway on cancer cell growth. In a recent lab study, they treated canine melanoma tumour cells with a combination of the common chemo drug, carboplatin, and an mTOR/PI3K inhibitor drug.

"Carboplatin is the go-to chemo drug for melanoma cases in veterinary practice," says Mutsaers. "We wanted to see if combining it with an mTOR/PI3K inhibitor drug would have any impact on the number of cancer cells that chemotherapy would kill on its own."

Using lab-grown cancer cells, the team introduced different doses of each drug and used a scientific process called 'flow cytometry' to study the cells. They found that when the cells were treated with both drugs, the cancer cells were killed at a greater rate than if they were just treated with chemotherapy.

In 2021, this research was published in *BMC Veterinary Research*, and Mutsaers says that the improved chemo response they saw with these drugs points to a promising direction for the future of canine melanoma cancer treatment.

NEXT STEPS: TESTING OUT NEW MELANOMA TREATMENTS IN OVC PETS

Building on these early findings, Mutsaers' team recently began a clinical trial with dogs referred to OVC for melanoma. They are studying the impacts of drugs called tyrosine kinase (TK) inhibitors, which block important receptors that utilize the mTOR/PI3K cancer pathway. These drugs have been used in the past to treat other types of canine cancers, but their use in melanoma has not been widely studied.

Owners can enroll their dogs into the trial if they have been diagnosed with canine melanoma—whether it has spread, or the tumour is contained to one spot. Participating dogs will receive a TK inhibitor drug, and the research team will watch the tumour for several months to see if this treatment prevents it from growing and spreading.

"Our goal as a lab is to study the impact of these drugs on how melanoma tumours grow and change in the dogs that come into OVC," says Mutsaers. "Since we saw a beneficial improvement with the pathway inhibitor drug in our lab study, this project gives us a chance to confirm our findings as we treat dogs with a TK inhibitor."

Mutsaers says that OVC Pet Trust funding is fundamental to this work and in getting dogs with melanoma into the lab for treatment. Though the work is ongoing, Mutsaers says that the early results are an important starting place for future research on canine melanoma, and possibly other canine cancers. Ultimately, his team hopes to help get better melanoma treatments into veterinary offices, so dogs who are diagnosed have a better chance of surviving.

"Understanding how we can translate research findings to clinical results is at the crux of what we do, and getting this work into veterinary clinics is not easy," says Mutsaers. "But our team is dedicated to finding a revolutionary treatment option for this aggressive and chemo-resistant cancer."

Common Signs of Canine Melanoma to Watch For:

1. A lump on your dog's mouth, lips, tongue or gums*
2. A lump or blister-like rash on your dog's skin*
3. Changes to your dog's mouth or face structure (e.g., swelling, loose teeth or blood)
4. Changes to your dog's feet and toes (e.g., swelling, colour change or loose toenails)

*Some melanoma masses are dark or pigmented. Others lack pigment and appear as pinkish (similar to gum tissue) and are referred to as amelanotic melanoma.

If you notice any of these signs in your furry friend, contact your vet!

How do Traditional Treatments Work?

Veterinarians may use any of these treatments on canine melanoma:

- **Chemotherapy:** Medicine that causes cancer cells to stop growing and die.
- **Radiation:** A machine that delivers high-energy x-ray waves to a cancer tumour. These waves can damage and kill cancer cells to prevent the tumour from growing or spreading.
- **Surgery:** A veterinarian can remove the melanoma tumour and tissue from the areas around it via an operation.
- **Melanoma Vaccine:** This vaccine elicits a targeted immune response against cancerous melanoma cells but only works if the cancer has not spread to other parts of the body.

a day in the life

of the Kim and Stu Lang Community Healthcare Partnership Program (CHPP) at Kettle and Stony Point First Nation

Written by Katie Duncan

Dr. Lynn Henderson, director of the Community Healthcare Partnership Program, and her dog Violet. All pet photos by Katie Duncan.

Down a foggy stretch of road in southwestern Ontario, you can hear the roar of Lake Huron from the Kettle and Stony Point Health Centre parking lot. Home to just over 2,000 Anishinabek people, the community of Kettle and Stony Point is named for the perfectly round rock formations dotting the shores of the lake, eroded over millions of years. Called kettles, they're unique to only three locations in the world. According to knowledge keepers, oral historians of First Nations communities, the kettles are eggs of Thunderbirds who bring healing rains to communities in exchange for safekeeping of their sacred nests. They are culturally and spiritually significant to the Anishinaabe.

9 a.m.

On a Thursday in late November, healing and wellness are the reasons for a busy parking lot at the health centre. The Kim and Stu Lang Community Healthcare Partnership Program (CHPP) team has been in Kettle and Stony Point for the week, providing veterinary health services to pets of First Nations community members who live within or near the community.

CHPP helps made-vulnerable communities by improving access to veterinary care services for companion animals. The term "made-vulnerable" emphasizes systems that create inequity, rather than the people experiencing them. Developed in 2019 with funding from Kim and Stu Lang, CHPP brings together veterinarians, registered veterinary technicians, students and community partners to provide primary care in a collaborative care model to Indigenous communities, people experiencing housing insecurities and sheltered animals.

During their elective rotation, students have the opportunity to broaden their perspectives, understand cultural differences and increase awareness of barriers to care that made-vulnerable communities face. Students learn about building relationships with people across cultures and are asked to reflect on their own lived experiences. This is reinforced during pre-departure training, delivered by seasoned members of the CHPP team.

"Current final year Doctor of Veterinary Medicine (DVM) students participating in CHPP clinical rotations don't have a ton of background in community medicine, cultural safety or reflexivity training that would prepare them for working in these communities," explains Lynn Henderson, director of CHPP. "Before we leave, we explore the basics of these principles and our own privilege and bias, which invites students to consider themselves and their approach to clinical practice in a different setting."

A kettle rock from Stony and Kettle Point. The formations are culturally and spiritually significant to the Anishinaabe. Photo by Dave McIntosh.

These teachings are discussed through debriefing sessions held every evening and a reflection assignment required at the end of rotation.

Starting September 2024, the DVM curriculum will be updated across the first three phases to explore these topics and integrate them into veterinary training. The team is also developing an online Indigenous Cultural Safety course with help from a grant from the University of Guelph Learning Enhancement Fund. The course is being developed with guidance from Dr. Angela Mashford-Pringle, an Indigenous Public Health Researcher from the University of Toronto.

During week-long rotations, the CHPP team spends the first two days performing spay and neuter surgeries. Today, the team has spent a portion of their morning converting their temporary surgical space into a clinic for pet wellness visits, offered over the final two days of their stay. The team comes prepared to work in any setting – churches, community centres, portables and parking lots.

This week there are eight veterinary students from Phase 4 of the Ontario Veterinary College's (OVC) DVM program completing a clinical rotation with the team, in addition to seven staff and a volunteer veterinarian and veterinary technician. They drove from Guelph to Kettle and Stony Point together on Monday. Four days into the experience, they work together with ease to get clients in the door and begin the process of initial paperwork.

10:30 a.m.

Three appointments arrive to kick off the day's wellness visits.

Mister is an orange cat with big green eyes. Student veterinarians Ellen and Jessica greet his owner and lead them to one of the open examination tables. The team starts by asking each owner the same standard set of questions about the patient's history including his regular activities (indoor/outdoor), other animals he may encounter and any medical history. Today Mister will get his vaccinations updated and have a nail trim.

Toward the back of the room, student veterinarians Jonathan and Aaron are starting an examination for Jägermeister, a small mixed-breed dog who is here today to get his vaccinations up to date. From start to finish, students are exercising many of the core skills they learn in the DVM program.

Today they're practicing some of the most fundamental skills in their clinical training: communicating with clients, taking a patient history, gauging an animal's comfort level with physical exams, working cohesively and delivering the basic services effectively.

Mister arrives at the CHPP clinic for annual vaccinations and a nail trim.

11:30 a.m.

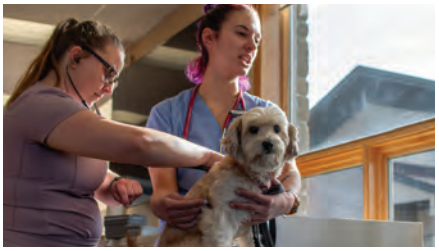
Nug and Bean are being taken care of by DVM students Melanie and Elizabeth. Bean was in earlier in the week to be neutered, so the team is happy to see him recovering well. Nug is here to get an ear infection looked at, in addition to getting his annual vaccinations.

Dr. Lynn Henderson helps Jonathan and Aaron collect a blood sample from Jägermeister. For students, practicing these routine, hands-on skills is invaluable.

Most appointments today will be for similar reasons: annual check-ups, preventive care, vaccinations, microchips and acute care for conditions such as ear infections. Occasionally, there are appointments related to quality of life, and euthanasia is available in community with the team when needed. In remote Indigenous communities, the nearest veterinary clinic is sometimes hours away, leaving a significant barrier to some of the most basic aspects of primary veterinary care.

"Often the medical services we provide are what we might refer to as 'routine' – vaccinations, examinations, deworming – but to the people we serve, these services are priceless," Henderson describes. "The privilege of being part of that will never get old."

In conversation with Melanie, she notes the educational value of providing hands-on care through her CHPP rotation. Her schooling began at the height of the COVID-19 pandemic, requiring much of her phase's clinical teaching over the first two years to be delivered online. Rotations like these offer students in her year a chance to apply hands-on learning with repetition.



Nug has his heart rate assessed by Elizabeth while Melanie speaks with his owner.

11:45 a.m.

A tiny mew from the back of the room comes from Lucky, a new kitten who is here today to receive his first vaccinations and microchip.

Lucky sits on the exam table while student veterinarians, Ellen and Jessica, scan his newly implanted microchip, which will help if he gets lost while outdoors.

DVM students Ellen and Jessica work together to hold him comfortably and place the microchip between his shoulder blades. After it's placed, they check to make sure the chip can be read and give aftercare instructions to his owner.

1 p.m.

In the afternoon, Bear, Baby, Ivy and Jack arrive with their owners for wellness checks, which will take place outside.

"Appointments can take place anytime and anyplace, especially with larger dogs who might be reactive or nervous," Henderson explains. "We have to be ready to pivot and prioritize the patient."

Outside, Jonathan and Aaron work with Bear, an older lab who is here today to get assessed for itchy and irritated skin and a possible ear infection. In asking basic questions about what and how much Bear eats in a day, the team can have a valuable conversation about his diet that could benefit his skin health.

1:30 p.m.

Nearby, Bear's housemate Jack, is getting a squishy lump on his belly assessed by Ellen and Charlotte. His owners are advised to keep an eye on the lump for changes in size or shape. The team will see him again when they return to Kettle and Stony Point in the spring.

Jonathan and Aaron examine Bear, while in the background, Ellen and Charlotte examine Jack. The team can pivot for the benefit of the patient, whether that's doing an exam outside or in the backseat of a vehicle.

5 p.m.

A cheerful woman named Chunk arrives to deliver food. She and a lovely group of local women cater meals to feed the CHPP team while they're here on rotation. The students agree they've never been so well-fed.

As supper ends, Henderson and CHPP faculty member, Lauren Van Patter, move to sit at the head of the table. The chatter dies down and the team begins its evening debrief. The students reflect on feelings from the day, noting that they often had to reach out to experienced veterinarians in the room to work through more complex medical cases involving heart murmurs, coughing and skin issues. They acknowledge the creativity required to think quickly and adapt when an animal needs to be seen outdoors or isn't comfortable with some clinical practices.

The students acknowledge the discomfort that comes with recognizing their privilege, while seeing a client struggle to pay for services their pet needs. In the moment, Henderson reminds them: "You may not be able to do everything here for them today, but there may be something they can do," she says. "Send them out the door with some sort of action they can take and implement at home."

The feedback session ends on a powerful note. Before arriving, students were asked to look up the terms of the treaties from the cities where they're from. They've come prepared to give an overview of their hometown's treaty name and historical timeline, which Indigenous peoples are affected, and what geographic area it covers. After everyone has shared, Van Patter asks the students their thoughts on territorial acknowledgements, which are verbal or written statements that acknowledge the Indigenous history of a location, often used at the opening of meetings or events.

Students acknowledge the benefits and drawbacks of land acknowledgments, recognizing that the intention is good, but *how* the statements are used should be thoughtfully examined. The sentiment around the table is universal: territorial acknowledgements should be more than words, but should signify an intention towards learning, reconciliation or action. The team agrees that, without action, allyship is performative.

For Henderson, these moments signify the critical thinking students are doing to come full circle during rotation.

"Students are leaving with recognition that we all hold biases and pre-conceived ideas about other people and the world around us," she says. "This is totally normal and a part of the first step on a lifelong journey towards knowing yourself and serving others authentically."

She adds, "Hearing the thoughts and ideas from the students who participate in these experiences alongside our team is so rewarding. We often see a transformation in how students perceive themselves as future clinicians, and the clients in front of them. Sometimes these transformative moments are subtle, and only evident to the keenest of observers; other times we see them in the profound comments or emotions they express during their time with us. I love being part of this phase of their learning journey."

Waves of Relief for Canines with Cancer

Dr. Brigitte Brisson teams up with the SickKids Research Institute to explore non-invasive treatment for canine bone cancer that may also benefit children

Written by Becky Rothwell

In 2022, George, a nine-year-old labradoodle, developed a tumour in his front leg. He was diagnosed with canine osteosarcoma - a type of bone cancer. His owners sought relief for their beloved companion, who experienced acute pain and lameness as a result of the lesion but was not a good candidate for amputation, the standard of care procedure for osteosarcoma.

George was enrolled in an ongoing study funded by OVC Pet Trust at the Ontario Veterinary College (OVC) trialling the use of ultrasound technology to treat bone cancers. Five days after his first treatment, George was able to run and play without lameness. His story sparked hope and promise for this novel study – the first of its kind in Canada.

Canine appendicular osteosarcoma (OSA) is a bone cancer that affects the limbs of dogs. The most common of all canine bone tumours, OSA is typically seen in older, large- and giant-breed dogs over the age of eight.

Sadly, OSA has a poor prognosis: by the time tumours are visible on radiographs, the disease has usually spread (metastasized) to other areas of the body. 15 per cent of dogs diagnosed with OSA have lung metastasis at the time of diagnosis, and 90 per cent experience metastasis within one year of diagnosis.

Because of its metastatic nature, treatment for OSA is palliative rather than curative. In addition to pain management, the recommended treatment is amputation of the affected limb to address the painful lameness, followed by chemotherapy to attempt control of metastatic spread of tumour cells. Still, this aggressive treatment approach may only extend lifespan by two years in 20 per cent of dogs. Without amputation, most dogs typically live for two to six months because bone tumours are extremely painful and effective medical pain management can be challenging.

These disheartening realities have prompted the exploration of novel treatment approaches to better palliate dogs with appendicular OSA. Dr. Brigitte Brisson, a surgeon at OVC's Companion Animal Hospital and a professor of soft tissue surgery, is leading the way.

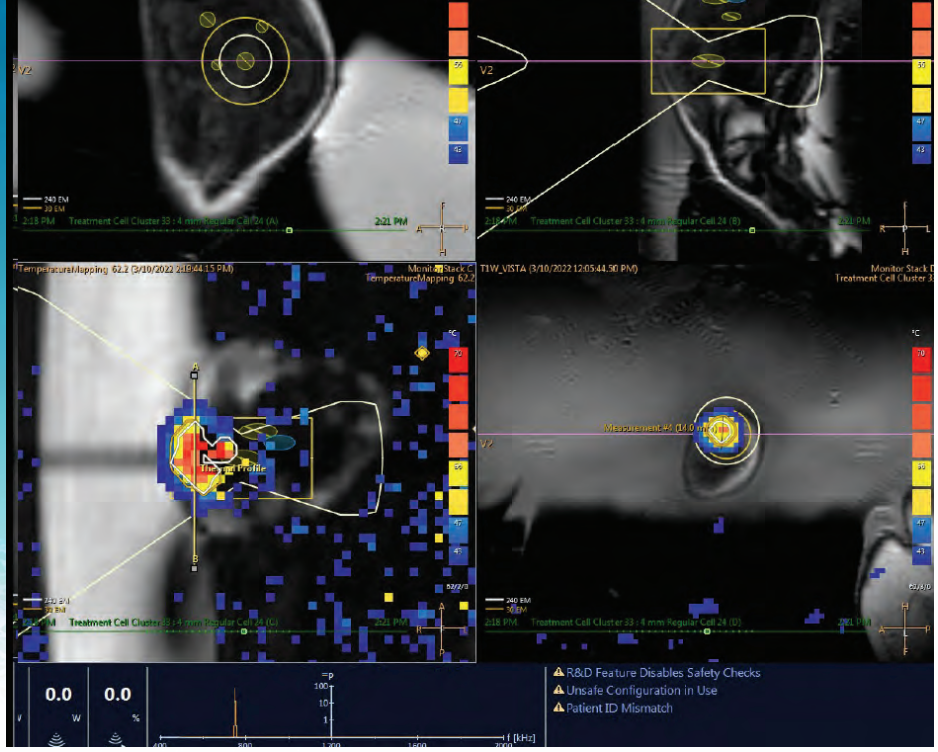
Fighting Cancer with Ultrasound

Brisson's research and clinical expertise lies in the area of minimally invasive surgery (MIS) and interventional procedures. Currently, she is collaborating with medical professionals and researchers from The Hospital for Sick Children (SickKids) to trial a non-invasive treatment for canine appendicular OSA using High-Intensity Focused Ultrasound (HIFU) – the same treatment that benefitted George, the labradoodle. George was the first patient to enroll in Brisson's study. Although he passed away of an unrelated condition after several months, the treatment dramatically reduced his pain and provided good quality of life during the remainder of his time with his family.

HIFU uses high-intensity ultrasound waves to destroy targeted cells in the body. HIFU can treat deep tissues minimally invasively and without the need for a skin incision, minimizing recovery time.

Much like a magnifying glass is used to focus sunlight, HIFU is used to focus soundwaves onto a lesion. The targeted, high thermal energy from the ultrasound waves heats cancer cells, resulting in irreversible cell death. HIFU waves can be targeted to an area ranging from a few millimeters (the size of a grain of rice) to up to several centimeters (the size of a softball) with HIFU beam steering. Temperatures rise to above 60 degrees Celsius, where cell death typically occurs within seconds.

George the labradoodle



An MRI image displaying thermal mapping indicating treated vs. untreated cells[1]

Brisson and a team of clinical and research collaborators at SickKids use magnetic resonance imaging (MRI) to guide the delivery of HIFU treatment. MRI offers high-quality images of the bone structures and enables real-time thermal mapping of the body's tissues to monitor tissue heating, ensuring cell death where desired and reducing the risk of overheating adjacent non-tumour tissues such as the overlying skin.

HIFU has been used infrequently in canines to treat a small number of soft tissue sarcomas, as well as hepatocellular adenoma (a type of benign liver tumour) and mast cell tumours. Brisson is the first researcher in Canada to trial HIFU on canine OSA patients and the first to trial it as a palliative option for canine patients that are not otherwise candidates for amputation.

"For some pets, amputation and chemotherapy are simply not possible," says Brisson. "Pet parents may not wish to have their pet's leg amputated and sometimes orthopedic conditions in other limbs preclude amputation as a treatment. In these instances, we're looking for ways to better palliate pain and target existing cancer growth. By shrinking tumours with HIFU treatment, we can dramatically reduce a patient's pain, which improves their mobility and overall quality of life."

George the labradoodle is positioned for HIFU treatment. Photo by Ashleigh Martyn.

Benefits Beyond Tumour Reduction

In addition to directly killing cancer cells and shrinking tumours, HIFU may also stimulate the immune system in canine patients with OSA.

"HIFU treatment appears to promote an immunogenic stimulation effect known as an abscopal effect," says Brisson. "The exact mechanism is not known, but when part of a tumour is killed but left in the patient like after HIFU, the immune system appears to be stimulated and this can slow or even stop the development of metastasis. We don't know whether this translates in all tumours or all species, but the benefits for dogs with OSA could be significant."

In this way, HIFU could also prove beneficial for dogs who are candidates for amputation. Administering HIFU prior to surgery may provide an immune system boost to help suppress further spread of OSA in the body.

Could HIFU Help Children with Similar Tumours?

MRI-guided HIFU has been used in humans for several years to treat soft tissue tumours, such as uterine fibroids and prostate cancer. More recently, it has been used at SickKids to treat certain types of benign bone tumours, called osteoid osteoma, in children as young as seven years old.

Because OSA is genetically similar in dogs and humans, Brisson and SickKids researchers seek to understand whether HIFU could also be used in pediatric patients diagnosed with cancerous tumours.

"There is translational potential for this research," says Brisson. "We know that OSA manifests similarly in children as it does in dogs. So, could we take the knowledge we gain from our canine studies and apply it to benefit children in the future? OSA is an incredibly painful, life-threatening disease. It's worth exploring."

What's Next?

Brisson and the team at SickKids have welcomed another dog into the study since George passed away, and SickKids scientists hope to use the study to inform future research. Recruitment remains open for dogs who may benefit from HIFU, both prior to amputation and as a palliative treatment for pain.

"Currently, we're approaching MRI-guided HIFU treatment as a palliative option for dogs with OSA, but we can't say with certainty that palliation will always be the end-goal," says Brisson. "Could HIFU offer a therapeutic or curative treatment option in the future? Our early results are promising. Only time will tell."

To learn more about Brisson's study and how to participate, please email **ovc.clinicaltrials@uoguelph.ca.**

George and his owner, Jelena

1. Brisson B., Waspe A.C., Wong S., den Otter-Moore I., Kerr C., Macsemchuk C., Sin V., Temple M.J., Drake J.M., "Magnetic resonance-guided high intensity focused ultrasound (MRgHIFU) to treat canine appendicular osteosarcoma: Preliminary results", 8th International Symposium on Focused Ultrasound, Bethesda, MD: Oct. 23-27, 2022 (oral).

THE VALUE OF CLINICAL TRIALS:

TOBY'S JOURNEY

Written by Becky Rothwell

By age 14, most dogs know a thing or two about veterinary visits. But few are as experienced as Toby, a 14-year-old Yorkshire terrier who has quickly become one of the most well-known patients at the Ontario Veterinary College (OVC) Health Sciences Centre (HSC).

Toby during his EEG in May 2022. Photo credit: Charly McKenna.

Toby in January 2024. Photos by Katie Duncan.

Toby is one of many pets who has benefitted from OVC's Clinical Trials program. He came to OVC in March 2022 after experiencing unusual episodes at home. Sometimes, upon waking or hearing a sudden noise, Toby would startle and lose his balance. To explore potential causes for the episodes, Toby's family veterinarian referred him to OVC for an MRI with the Neurology Service.

That MRI would begin an unexpected and invaluable journey at OVC for Toby and his owners, Lisa and Ryan.

Toby's MRI showed no obvious changes in his brain to explain his startle episodes, and veterinarians recommended that he enroll in an ongoing study with OVC's Clinical Trials team that uses Electroencephalography (EEG) to assess whether 'seizure-like' episodes are actually seizures. Before he could enroll, however, his owners had to address an unexpected and serious finding on his MRI: a malignant carotid body tumour (a cancerous growth in the blood vessels near the carotid arteries).

OVC's Oncology Team took over Toby's care and successfully removed the mass; however, Toby's episodes worsened after surgery. Triggered by stimuli such as a door opening or sudden movements, he was now having 10 to 15 episodes per day.

Lisa and Ryan decided it was time to enroll Toby in the EEG study led by Dr. Fiona James, associate professor in the Department of Clinical Studies, veterinary neurology specialist and director of the Comparative Epilepsy Program at OVC. Charly McKenna, a PhD student in James' lab, runs the study and uses video recording and EEG, a non-invasive test that measures electrical activity in the brain using small electrodes.

Funded by OVC Pet Trust, the Natural Sciences and Engineering Research Council of Canada (NSERC) and the American Kennel Club (AKC) Canine Health Foundation, the study accepts dogs between six months and six years of age experiencing episodes resembling seizures. The study aims to confirm whether seizure activity is happening, classify the types of seizures dogs may be experiencing, and see how well they respond to therapy.

"Seizures are one of the most common neurological problems in veterinary medicine, and epilepsy is the most common brain disease in dogs," says James. "Diagnosing epilepsy can be challenging because pets may experience many types of non-epileptic events. Further, some movement or behavioural disorders can be mistaken for epilepsy. But diagnostic clarity is important, as true seizures often require treatment."

In May 2022, Toby arrived at OVC for an EEG with James' research team. A neurological exam was performed to assess his mentation, gait, posture and reflexes. To ensure Toby's comfort and mitigate concerns surrounding his other health issues, he was sedated with the assistance of the OVC Anesthesia Service. While sedated, small acupuncture-like needles were used to place 12 electrodes into his scalp, which were bandaged in place. When Toby awoke, he had multiple seizure-like episodes, which were captured on the EEG and video recording. His observation period lasted two hours, after which the electrodes and bandaging were removed.

Based on Toby's EEG, he was diagnosed with epilepsy. His episodes were, in fact, seizures. Toby was prescribed an appropriate anti-seizure medication for his condition, and his episodes stopped within 24 hours.

Toby's owners, Lisa and Ryan, were thrilled to have a clear diagnosis and path forward for their beloved canine companion.

"It's wonderful that after just one dose of the proper medication, Toby is no longer having these troubling episodes," says Lisa. "Thanks to this clinical trial, Toby was able to get the medication he needed and hopefully his participation will help other dogs who are experiencing the same thing."

Despite this step forward in Toby's journey, he would return to OVC a few days later for another emergency, unrelated to his previous visits. Toby experienced the acute onset of vestibular signs, including uncontrollable rolling. Toby had suffered a stroke. He was cared for by OVC's Emergency and Neurology teams before returning home, where Lisa and Ryan helped Toby as he regained his ability to walk.

Since his first visit to OVC, Toby has been acquainted with nearly every team of OVC specialists: emergency and critical care, oncology, neurology, ophthalmology, internal medicine and clinical nutrition.

"Being nearly 15 years old, Toby has complex medical conditions that had to be considered during hospitalization and assessment for other, new problems," explains Lisa. She says participating in the study – and having access to so many experts under one roof at OVC – helped her to make informed decisions about Toby's care.

"Thanks to OVC's specialized care, Toby pulled through his life-threatening conditions and made a full recovery. OVC has exceeded our expectations; we cannot thank everyone who was involved in Toby's care enough."

Toby is one of nearly 100 dogs who have participated in James' study. Data and findings from her work will be shared in the coming months on the OVC Clinical Trials website (https://ovcclinicaltrials.uoguelph.ca/).

About Clinical Trials at OVC

James' studies are a subset of the many studies in OVC's Clinical Trials program, which conducts research involving client-owned animals with the goal of advancing both animal and human health. Studies aim to increase our understanding of disease processes and identify the most effective therapies and practices for various conditions.

From cancers to cardiac diseases to psychiatric disorders, companion animals and humans share many diseases, and they live in the same complex environments. For these reasons, naturally occurring diseases in companion animals present an almost perfect model for the development of new disease treatments.

At any time, there are over 30 studies recruiting for various conditions, and more than 400 companion animals participate each year.

"As a part-time graduate student and the research manager of the Clinical Trials program, I know first-hand the impact of working with families like Toby's," says McKenna. "I am incredibly grateful for their commitment and support of our program. We are all working towards a common goal - advancing animal and human health."

To learn more about clinical trials at OVC, visit **https://ovcclinicaltrials.uoguelph.ca**.

A Note from the *Best Friends* Editorial Team:

Sadly, Toby passed away prior to the publication of this issue of *Best Friends*. OVC Pet Trust is incredibly grateful to Lisa and Ryan, Toby's loving guardians, for allowing us to share Toby's journey with *Best Friends* readers, many of whom may relate to the challenges and triumphs of caring for pets with complex health struggles. OVC is honoured to play a role in helping beloved pets like Toby. We know he will be cherished and missed always, and we hope this story will serve as a small part of his legacy and a reminder of the light and love that he brought to all who knew him.

How to Train a Veterinarian:

Navigating the Academic Pathway to Veterinary Practice

Written by Katie Duncan

Standing on the front steps of the Ontario Veterinary College (OVC), you can feel the history steeped in the building's 19th century façade. In contrast, the modern additions to the left at the Lifetime Learning Centre (LLC) indicate that change and innovation build upon tradition and convention.

The College's footprint takes up an entire city block, housing four departments and a working hospital treating large and companion animals. However, what goes into teaching the students in this space goes further than just its walls.

Inside the front doors are collections of artifacts from classes long since graduated, surrounded by the bustling of students training in very different circumstances today. On any given day, you might see students observing the art of client communication in suites equipped with two rooms that feature a window between them so students can watch or practice client communication with professors and peers. In the lab across the way, some students will be learning hands-on skills using models to clean teeth or practice suturing.

Doctor of Veterinary Medicine (DVM) students at OVC are trained over four one-year phases. Here, students have diverse opportunities for hands-on experiential learning and interdisciplinary training in on-site facilities for companion and large animals.

Luca Defilippis stands on the front steps of OVC's main building facing Gordon Street. Defilippis wears his blue coat, which DVM students receive during OVC's Blue Coat Ceremony, symbolizing the start of their training. He will exchange his blue coat for a white one at the end of Phase 3. Photos by Katie Duncan.

Luca Defilippis,

Phase 1, Class of 2027

Luca Defilippis's journey to becoming a veterinarian started before he ever stepped foot in OVC. For him and many aspiring veterinarians, there was value in gaining some core animal experiences as a high school student and undergraduate to strengthen his application.

"From a very young age, I started growing my experience with animals, starting with fostering animals, which led to a job at PetSmart, and eventually, to working alongside some of the most brilliant veterinarians and technicians in an emergency hospital setting," Defilippis says. "My experience applying [to OVC] was definitely stressful, but what got me through was keeping my goals in mind and pushing forward despite adversity."

During the first year, students like Defilippis are introduced to some of the core sciences required to solve problems, think critically, and evaluate information using anatomy, physiology, biochemistry, histology and pathology. At the same time, they begin to develop the professional skills that guide the ethics, morals and scientific principles that a veterinarian needs to work with animals and communicate with clients.

By the end of Phase 1, students have already developed some proficiency in core veterinary techniques used to evaluate small and large animal health. This includes identifying normal and abnormal tissue, safely conducting routine exams, working with clients to establish relevant medical history for patients, handling surgical instruments and basic suturing.

"I greatly appreciate the opportunities we get in Phase 1 to work directly with cows and horses in the barn and dogs through skills practice," Defilippis explains.

"Everything feels like it is starting to click and relate back to each other, and it is a great feeling being able to understand and think about things that directly apply content covered in lectures in a real-life setting."

Tula Sifling from Phase 2 stands in the Lifetime Learning Centre outside of the client communication suites where students learn to communicate with pet owners while also getting to observe their professors and peers.

Tula Sifling,

Phase 2, Class of 2026

Tula Sifling knew from an early age that she wanted to be a veterinarian.

Sifling was born with an autoimmune disorder that meant her body could get really sick in response to severe infections. The disorder meant she spent time among many doctors, one of whom left an impression. While pretending to be a puppy at a doctor's appointment, her doctor played along and pretended to be her veterinarian. After that, she never wanted to be anything else.

Originally from Rochester, New York, Sifling has attended the University of Guelph as an international student, starting with her undergraduate degree. She bolstered her application to the DVM program – which accepts anywhere from 20 to 25 international students per year in each cohort – by gaining experience working in veterinary clinics, a zoo and shadowing equine and dairy veterinarians. The day she found out she had been accepted to the DVM program she had spent the previous night on-call in the Large Animal Hospital helping with surgery.

As a Phase 2 student, Sifling and her peers will learn how to use pharmaceuticals, order proper diagnostic testing, treatments and preventative medicine, make evidence-based decisions when interpreting test results and apply that information to a case, and develop treatment plans.

They are working to expand their professionalism and understand their legal and ethical responsibilities, while also learning about disease control and spread among domestic species.

"This year, we're learning about a lot of the drugs and diseases that we will be faced with as veterinarians," Sifling reflects.

"Pathology is one of my special interests, so it's been amazing to be provided with specimens on a regular basis where we get to practice identifying and describing lesions. I believe this is also a very valuable skill to have for thorough physical exams and necropsies as a clinician."

She's hoping to use this knowledge in her summer position at a local clinic and an upcoming trip with Global Vets to Costa Rica and Panama.

In Phase 2, students are expanding their hands-on skills by becoming familiar with dermatology and neurology, learning and applying emergency management knowledge, understanding reproduction for common domestic animals and expanding their surgical skills to include draping, hand scrubbing, gowning and gloving.

One of Sifling's favourite aspects of Phase 2 has been the training in anesthesiology.

"We learned and practiced the important nerve blocks on both large and small animal patients, which is an important part of making patients comfortable and safe during surgical procedures as a clinician, so I really appreciated the ability to practice these skills early on," Sifling says.

Kiara Seow stands outdoors in front of the OVC Health Sciences Centre.

Kiara Seow,

Phase 3, Class of 2025

Kiara Seow, in Phase 3, finds the sheer number of paths a veterinarian can take within their field to be the most interesting aspect of her career.

"I am most passionate about small animals and exotics, community outreach and emergency medicine specialties," she says. "It's an important goal of mine to increase access to care for exotic species in Ontario, which is limited right now."

Phase 3 has offered Seow a larger window to learn about and understand the work that goes into treating exotic animals.

"My favourite course this year has been comparative medicine," Seow says. "Learning about reptile, avian, and small mammal species I wish to work with in the future as a veterinarian has been extremely exciting and intriguing."

By the end of Phase 3, students will be able to identify and describe common diseases across a variety of species, know and select what tests are needed to make a diagnosis, provide treatment and prevent disease, understand the business concepts they require for their own veterinary practice and identify and evaluate welfare issues. Phase 3 also marks the first time students will apply their surgical theory skills on real-life patients, which they do in groups of three to perform spay and neuter operations on companion animals.

"The most exciting part of third year has been connecting the dots to come up with diagnoses based on everything we've learned this year and the foundation of knowledge we've built over the previous two years," she says.

For Seow, the transition between Phase 2 and 3 was more challenging than expected. On top of demanding course loads, students are organizing some of the key clinical experiences they will have in Phase 4.

In the summer between the third and fourth phase, students complete an eight-week externship at a veterinary clinic, which is often their first opportunity to self-direct their learning and apply their skills in a large or small animal clinical setting before starting clinical rotations in Phase 4.

This summer, Seow will travel to Cranbrook, British Columbia for her externship.

"The clinic is located in an area that does not have emergency hospitals nearby, which means they do a lot of on-call emergencies and surgeries that a typical general practice clinic wouldn't do," Seow says.

"I am most excited about being able to experience interesting cases and surgeries while experiencing rural medicine."

Lauren Bowers stands in the surgical and anaesthesia wing of the OVC Health Sciences Centre.

Lauren Bowers,

Phase 4, Class of 2024

During Phase 4 of the program, students enter one of four areas of emphasis that they want to focus their practice on: small animal, rural community practice, equine or food animal. The courses they will take in their final year are primarily hands-on with core and elective rotations that help students gain experience and practice what they've learned.

Lauren Bowers's experience in the DVM program was altered by the COVID-19 pandemic. From the beginning of Phase 1, all learning was moved fully online. That led her to appreciate the in-person, hands-on experiences of Phase 3 and 4 even more.

"My favourite part of this year is treating real patients each and every day, being in person surrounded by amazing mentors and my classmates, and being able to focus my learning on my passions, which include surgery, emergency medicine and treating working dogs," she says.

Bowers finished her externship in Australia, with additional Phase 4 placements on different coasts of Canada, giving her the chance to travel and experience veterinary care in diverse locations globally.

It wasn't until Bowers entered her fourth year and experienced an emergency that she realized the cumulative effect of nearly eight years' worth of schooling and practical placements.

"During an external elective, I had an extremely critical patient present to the emergency room, and I was quickly tested on what to do," Bowers explains. "Without any time to think, I answered my mentor's questions and jumped right in with the team to revive this animal. After the chaos subsided, I realized all the knowledge I needed was right there in front of me and all those hard years of training helped save a life. This moment was pivotal for realizing my potential as a future veterinarian and proved how crucial all the hands-on training is."

During her undergraduate degree and veterinary schooling, Bowers served as an Infantry Officer in the Canadian Armed Forces (CAF), something she says benefitted her in training as a veterinarian.

"Working in the CAF taught me teamwork, leadership and how to work efficiently and effectively in a highly stressful, fast-paced environment," she explains.

"I truly attribute my resiliency and ability to perform well in an emergency setting to my career in the CAF, both of which are incredibly important skills as I enter into emergency medicine in the spring."

When asked what pet owners should take away about how veterinarians are trained, Defilippis wants to reassure them that OVC's education is rigorous, and constantly evolving, equipping students with the tools and knowledge to serve their patients effectively.

"From the very start of the program, we are fully immersed in the world of veterinary medicine. Whether that be hands-on training, client communication simulations, emotional intelligence training or comprehensive lectures. There is an understanding among veterinary students, as future practitioners, that we have a duty to keep our understanding of the field current and relevant. We are always learning what is new and developing in the world of veterinary medicine, in these walls and beyond."

Pamela and her Chesapeake Bay retriever, Roxie, who is a canine blood donor. All photos by Katie Duncan.

GETTING TO KNOW...

Pamela Longworth

When cat and dog patients at Ontario Veterinary College (OVC)'s Health Science Centre (HSC) receive lifesaving blood transfusions, it's thanks to a renewable stock of blood products available through OVC's blood donor program. The program has a roster of approximately 30 cats and 70 dogs, all coordinated to make regular donations. With their donations, OVC clinicians perform medical procedures, including upwards of 500 blood transfusions each year. One unit of cat blood can help up to two different cats, and one unit of dog blood can help up to four different dogs. *Best Friends* caught up with Pamela Longworth, a Registered Veterinary Technician (RVT) who has worked with the blood donor program for more than 15 years. For the past two years, she has coordinated the canine side of the blood donor program. She took some time to speak with us about the program, how she got here and the important role RVTs can play in veterinary medicine.

What do you do in your role as OVC's blood donor coordinator?

I am responsible for stocking fresh, high-quality blood products for our patients at the HSC, by collecting blood donations from screened donors and processing blood products in house. I make sure that we always have enough blood products available to our patients in need and routinely assess our hospital's needs for canine and feline blood products and replenish stock as required.

As part of my role, I coordinate appointments for our program, both for routine blood donations and screening appointments. After the dog or cat has donated blood, I process the blood to make products for our hospital. A few other responsibilities I have are to make sure patient records are up-to-date, used blood products are documented and equipment is maintained. Every day is different, and I'm lucky to work with so many great colleagues to help me with the donor program, including RVTs and Animal Care Attendants.

What happens at a donation appointment?

We have appointments for our dog donors almost every day. Sometimes dogs get dropped off for their appointment, and sometimes their parents stay with them. We have a lot of happy, friendly dogs that will work for treats, which is important because we always want their experience of going to the vet to be a positive one.

Each appointment starts with a physical examination and blood test to make sure the dog is hydrated and healthy and to confirm it's safe for them to donate blood. We use a freezing cream that takes time to set. Along with the help of mom or dad or another RVT or animal care attendant, the dogs are gently held on their side, to keep them still and comfortable with someone petting their head. The donation itself takes up to seven minutes.

Many families have been in our program for several years, and the dogs stay with us until they're about seven. It's always great to get to know them and to form a connection and a bond with their family.

Why did you pursue a career as an RVT?

I grew up loving animals and I always wanted to work with them. In high school, I wanted to be an equine massage therapist. I wasn't aware of RVTs until a good friend who was a year ahead of me in school decided to do it. It was the first time I heard of the veterinary technician program, and the next year I decided to enroll too. I work with that friend at OVC today!

I'm so glad I found it, because RVTs are resilient, hard-working people who have an opportunity to play a significant role in animal healthcare. OVC is wonderful at recognizing the value we provide.

RVTs wear so many hats, from nursing care to anesthesia, to dispensing and delivering medications. They can take radiographs, get lab samples, educate clients, and help with animal behaviour. Often, we are the link between clients and veterinarians. It's a challenging and rewarding career that promotes personal and professional growth.

What do you love about your work?

I get to spend the day with happy, friendly pets and people who donate their time to save the lives of other animals. The human-animal bond between owners and their pets is amazing. It's rewarding to come into the waiting room to get the dogs, because to them, I am 'the treat lady' and they are really excited to see me.

I love my job because each day is different. I love figuring out what works for each dog and cat as an individual. A single approach doesn't work for everyone. For a dog to trust me and cooperate with me while I take a unit of blood is truly special.

Pamela and her team prepare canine donor, Shay, for a blood donation appointment.

Do you share your home with animals?

I have a dog named Roxie, a Chesapeake Bay retriever who is also a blood donor. We like to hike and spend time with family and friends.

How can pet owners get involved in the donor program?

We are very lucky to have a waitlist for canine donors. Most people come to us by word of mouth because families in the community and OVC staff and students spread the word. Having said this, we are currently working through our waitlist to seek out more universal donors. We are especially looking for Dobermans as they possess a rare and needed blood type.

For canine donors, we look for large, friendly, healthy dogs between one and five years old, weighing more than 25 kg (55 lbs). Just like humans, dogs have different blood types. A-negative is the universal blood type in canines. Some dogs that are typically A-negatives are Cane Corso, Dogue de Bordeaux, Flat-coated retrievers, Greyhounds, Irish wolf hounds, German shepherds, boxers and mastiffs. Donor dogs have to be on a cooked or kibble diet, and we typically ask that they give blood every two to three months.

As part of their participation in the program, OVC provides some complimentary services like yearly bloodwork, nail trims, heartworm testing and prevention, and owners leave each donation appointment with a bag of food and treats.

Veterinary Social Work:

A Unique Service to Support Owners When Pets Get Sick

Written by Becky Rothwell

iStock Photo credit: knape

The human-animal bond is a cherished relationship. Pets are members of our families who enrich our lives with unconditional and unspoken love.

Our compassion and care for them is endless.

The emotional and ethical challenges that arise when a beloved pet becomes sick can deeply impact pet owners and their families. Since 2020, the Ontario Veterinary College (OVC) has offered a support service to clients that few animal hospitals have in place: Veterinary Social Work.

Sarah Bernardi is a registered veterinary social worker. She supports pet owners and patient care teams across OVC's Health Sciences Centre (HSC), including the Companion Animal Hospital, Animal Cancer Centre, Large Animal Hospital and the Emergency and Critical Care Service.

"Animals are deeply woven into the fabrics of our lives," says Bernardi. "During times of crisis, people often need help to navigate the complex emotions, pressures and decisions they're facing. I'm able to provide a broad range of support and am honoured to help people during these journeys."

iStock photo credit: franckreporter

What is Veterinary Social Work?

Veterinary social work is a discipline that supports the human-animal bond. Established more than two decades ago, the profession has gained popularity in recent years as the value of the veterinary social worker becomes more widely understood by pet owners and clinicians alike.

Veterinary social workers have a deep understanding of the emotional connection we share with animals, the many benefits of this connection, and the range of concerns that pet owners may experience during a pet health crisis.

Veterinary social workers are members of the multidisciplinary patient care team and work across a range of animal industries, from zoos and farms to shelters and animal hospitals. They hold specialized knowledge in human-animal interactions, animal welfare issues, psychoeducation and mediation. In companion animal care, they work alongside veterinarians to support both pet owners and the veterinary team where needed. At OVC, this position is funded entirely by OVC Pet Trust.

Sarah Bernardi, Veterinary Social Worker.
Photo by Becky Rothwell.

Supporting OVC Clients

As a member of the patient care team at OVC, Bernardi is available to guide pet owners through their worry, stress and grief when family pets experience health emergencies.

"In essence, I'm here to support the human needs that arise in the relationship between humans and animals," she says, noting that many clients struggle both emotionally and cognitively when stress is heightened.

"During times of crisis, things like decision-making and communication can become difficult. Owners sometimes need help to understand the medical options that veterinarians are presenting, and they often benefit from having someone who can take the time to talk through the complexities of their situation and support them to make the best possible decisions for their pets."

Some of the services that Bernardi offers to clients may include:

- Providing emotional and decision-making support during emergency medical treatment, quality-of-life conversations and euthanasia
- Liaising between pet owners and the veterinary medical team by helping communicate questions, concerns and needs, and by assuring the medical team's information is presented in a manner that owners can understand
- Crisis intervention
- Being present before, during and/or after euthanasia depending on each client's preference
- Linking pet owners to additional mental health and community supports
- Providing confidential, short-term grief support

What Clients are Saying

"We found great comfort, support and compassionate understanding with Sarah as we continued to process the deep grief of losing our precious Dolly. Her counselling was beneficial, and it helped to talk with someone who truly understands and cares. This was an invaluable service offered to us at a time when we needed it the most."

—Patti and Alex Erdie, owners of beloved feline companion Dolly

iStock Photo credit: Nitiphonphat

Accessing the Veterinary Social Work Service

Clients of OVC's Companion Animal Hospital, Large Animal Hospital, Animal Cancer Centre and the Emergency and Critical Care Services can access counselling by emailing **sberna02@uoguelph.ca** or calling **519-823-8830**. For pet owners who have lost a beloved animal companion, Bernardi will often reach out personally to offer support. These services are confidential and free of charge.

"Veterinary social work is not a common offering at animal hospitals," says Bernardi.

"OVC's decision to launch this service for clients in 2020 was quite progressive, and based on the value it brings to both individuals and veterinary teams, I hope to see our profession become more commonplace in animal care settings."

YOUR GIFTS AT WORK

Each year, OVC Pet Trust invests more than $600,000 in new projects and equipment that advance the health and well-being of pets.

CAT HEALTH

Impact of Meal Frequency on Cat Metabolism

Dr. Adronie Verbrugghe

Dividing a cat's daily food into multiple small meals is generally recommended, as it is presumed that wildcats consume many small prey to meet energy requirements. However, the physiological and metabolic effects of multiple meals compared to one meal daily are largely unknown. Studies in other animals suggest meal frequency affects body composition and metabolism. Recent research in cats also suggests increased fat-burning and protein production when fed one daily meal. The current study aims to further explore how cats' bodies respond metabolically to meal frequency. Ultimately, this research could lead to better cat feeding recommendations, potentially reducing obesity, enhancing lean body mass and improving overall health.

DOG HEALTH

Evaluating Optimal IV Fluid Levels for Critical Care Treatments in Dogs

Dr. Alexa Bersenas

Critically ill dogs often experience dehydration and low blood pressure due to conditions like vomiting, diarrhea or internal bleeding. Traditional treatment involves giving fluids intravenously to restore blood flow and address dehydration. However, recent human studies show that too much fluid early on may negatively impact survival rates in patients with severe infections. This may be due to damage to the blood vessel lining, called the endothelial glycocalyx, which helps maintain vessel function. Hyaluronic acid (HA) levels, a marker of glycocalyx damage, were studied in dogs with severe infections, showing delayed increases after treatment. This suggests that fluid delivery may affect HA levels over time. Further research will investigate HA changes in dogs with severe infections and bleeding to determine if current fluid practices harm the glycocalyx, prompting consideration of alternative strategies.

Assessing Virtual Rehabilitation Post-Surgery in Dogs

Drs. Jason Coe and Cathy Bauman

With the rise of virtual care in veterinary medicine during COVID-19, there's a need for evidence-based research on its effectiveness. This study investigates virtual post-surgery rehabilitation protocols for dogs that have undergone Tibial Plateau Leveling Osteotomy (TPLO) to stabilize the knee joint following a ligament tear. Participants in this study will be randomly divided into three groups: Group 1 receiving the surgeon's standard post-surgery care; Group 2 receiving virtual rehabilitation alongside the surgeon's standard post-surgery care; and Group 3 receiving the virtual rehabilitation along with active communication via virtual weekly check-ins with a registered veterinary technician (RVT) as well as the surgeon's standard post-surgery care. The effectiveness of each rehabilitation method will be measured by assessing patients' thigh circumference, range of motion, activity monitoring, pain scores, client satisfaction, interactions with veterinarians, and complication rates. The study aims to determine if virtual rehabilitation, with passive or active

iStock photo credit: Olga Novikova

communication, effectively supplements standard care. This research has the potential to enhance pet owners' access to post-surgery rehabilitation and improve their experience as they support their pet's well-being – especially when formal physical therapy is not an option.

Exploring Gut Health with Ingestible Video Capsules

Dr. Alice Defarges

Pill-sized capsules carrying tiny cameras are increasingly utilized by veterinarians for the non-invasive diagnosis of gut disease in dogs. These capsules capture up to 20 pictures per second over a span of 20 hours, eliminating the need for anesthesia or intrusive procedures. While numerous studies have affirmed the procedure's safety and tolerance in dogs, image quality hinges on bowel preparation. This research project aims to compare three bowel preparation methods: a) overnight fasting, b) overnight fasting coupled with laxatives, and c) overnight fasting combined with a clear liquid diet. The study's objective is to identify the method that yields optimal images with minimal patient discomfort, providing veterinarians with a reliable diagnostic tool for assessing gut health.

Using Camera Capsules to Assess Gut Bleeding in Dogs Treated for Autoimmune Disease

Drs. Alice Defarges and Allison Collier

Dogs treated with steroids such as prednisone for diseases attacking the immune system, such as anemia and arthritis, can experience side effects including bleeding and ulcers. But these symptoms can also be a sign of another health-related issue, and it can be difficult to determine the root cause. Researchers have launched a new study that will employ small ingestible camera capsules to assess gut-related issues in dogs to help veterinarians further understand and treat disease in the future.

Exploring Non-Invasive Treatment for Drug-Resistant Canine Epilepsy

Dr. Fiona James

Epilepsy is the most common brain disease in dogs, with some developing drug-resistant epilepsy (DRE), where seizures don't respond to medication. Vagus nerve stimulation (VNS), a therapy commonly used in humans, sends electrical signals to the brain via the neck, significantly reducing seizures. While the implantable VNS device is costly and requires surgery, a non-invasive alternative, transcutaneous cervical VNS (tcVNS), offers a simpler wearable option for canine epilepsy treatment. Previous research demonstrated measurable results of tcVNS on healthy dogs. Now, researchers aim to evaluate its effectiveness on dogs with epilepsy. The subjects in the study will wear activity monitors to track their brain and heart activity before and after treatment. The study will analyze changes in electrical patterns to determine if tcVNS reduces seizure activity. If successful, this could pave the way for further trials, offering hope for more effective treatment of drug-resistant epilepsy in dogs.

Assessing the Effectiveness of Surgical Interventions on Short-Nosed Dog Breeds

Dr. Ameet Singh

Short-nosed and flat-faced dog breeds such as French bulldogs, boxers, and Shih Tzus are increasingly popular, yet their endearing features often come with health challenges affecting their quality of life. Brachycephalic Obstructive Airway Syndrome (BOAS) is a common concern for these breeds, impacting their breathing and necessitating lifestyle adjustments, including exercise limitations. Surgical intervention to open the airway by removing excess soft tissue from the mouth and nose is frequently recommended. To date, the effectiveness of these surgeries in improving dogs' activity levels has been primarily assessed through subjective means, such as questionnaires and documenting surgical complications. In this project, researchers aim to address this gap by utilizing wearable accelerometers, a novel technology in veterinary medicine that can objectively measure activity levels in dogs to assess the impact of BOAS corrective surgery on activity levels and sleep disturbances.

Harnessing MicroRNAs to Predict Lymphoma Outcomes in Dogs

Dr. Darren Wood

Lymphoma is a common cancer in dogs, typically treated with chemotherapy. While remission occurs in many cases, resistance to treatment is common, leading to relapse and limited survival time. Predicting treatment response is challenging. Previous studies have indicated that microRNAs, blood particles responsible for gene regulation in the body, become dysregulated with cancer. In this study, researchers aim to confirm the accuracy of using microRNAs collected during diagnosis to predict tumour type and treatment response. If successful, this method could streamline diagnosis, improve treatment decisions for dogs with lymphoma and enhance the efficiency and value of diagnostic materials, which benefits both clinicians and pet owners in managing the disease.

COMPANION ANIMAL HEALTH

Advancing EEG Technology for Veterinary Epilepsy Diagnosis

Dr. Fiona James

Electroencephalography (EEG) is the gold standard test for diagnosing seizures/epilepsy in dogs and cats. EEG records real-time brain activity with small scalp electrodes, helping confirm seizures and monitor brain activity before and after events. Understanding epilepsy and effective medications benefits both pets and humans. While EEG technology has become mobile, most systems remain bulky and limit mobility for small animals like Yorkshire terriers or cats. OVC Pet Trust funding will enable the purchase of the Explore+ device, which weighs only 27 grams and is no larger than a deck of cards. It records up to 12 hours wirelessly, clips to a collar and allows normal behaviour. With integrated electrodes, it is comfortable and improves animal welfare. Despite limited veterinary data, Explore+ shows promise for veterinary clinic and home use.

Banking on a Brighter Future:

OVC VETERINARY BIOBANK OFFERS HOPE FOR PETS AND PEOPLE

Written by Lisa McLean

Deirdre Stuart often meets people and pets in her clinic when they're facing a cancer diagnosis, and emotions and stress levels are high.

"I have been through cancer and various options and outcomes with my own pets," says Stuart. "Everyone who works at OVC can relate on some level, and it helps to have people around who know what you're going through."

Stuart is the coordinator of the OVC Veterinary Biobank, formerly the Companion Animal Tumour Sample Bank, at the University of Guelph's (U of G) Institute for Comparative Cancer Investigation (ICCI). Her position is funded by OVC Pet Trust through the Smiling Blue Skies Cancer Fund. With her previous training and experience as a veterinary technician, Stuart is responsible for identifying biobank participants and collecting samples with client consent.

"We have some really amazing patients and clients, and the majority of clients are happy to participate, despite the difficult situations they're facing" says Stuart. "Through their experience here, they are offering hope to another pet, another family, down the road. The biobank offers a starting point for a lot of research. That is a meaningful legacy."

What started as a small tumour bank in 2009 has now become Canada's largest veterinary biobank. Samples are available to industry and academic researchers at U of G and beyond.

WHAT'S IN THE BANK?

Once a pet is identified as a suitable candidate for a biobank deposit and owners have consented, the biobank works with the veterinary team to collect samples such as blood, urine or tissue as part of the pet's regular standard of care. While the biobank's focus has been on collecting samples from cancer patients, the team has recently expanded its scope to include pets with other diseases and conditions such as epilepsy. The biobank also stores blood samples from healthy companion animals (dogs and cats) for comparative analysis.

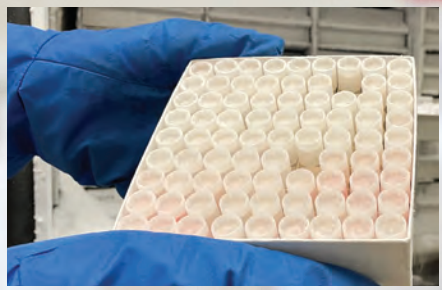
"Biobank samples never interfere with a pet's medical diagnosis, and we have protocols to ensure we are not taking too much or adding unnecessary procedures," says Stuart.

Samples are processed and stored in ultracold -80 Celsius freezers or preserved as microscopy slides. Each case is assigned a unique number and the corresponding clinical information for each sample is anonymized and stored in a database.

The bank is overseen by Drs. Geoffrey Wood and Michelle Oblak, co-directors of ICCI. Wood says having access to such a variety of samples and clinical data leads to important work that improves the lives of companion animals.

"The idea of a bank, where we're accumulating cases over time, allows us to have a larger number of samples that better represent the full spectrum of a disease condition," says Wood. "It would be almost impossible if we had to start a project and then wait to see what cases came in."

The OVC team has collected specimens from nearly 2,000 cases, totalling more than 30,000 samples. The growing library of resources has allowed for significant advancement in researchers' understanding of cancer, and the newly expanded scope looks to do the same for other areas of companion animal disease.



Biobank samples including blood and some tissues are stored in ultracold freezers. Each sample tube is given a unique barcode for management.

BETTER DECISION-MAKING TOOLS

The clinical information attached to each biobank sample holds valuable data to inform decision-making. Data may include details such as the pet's diagnosis, the subclass or grade of the tumour, the pet's age and any additional health conditions. Researchers compare this data with other pieces of the puzzle, including treatment approaches and efficacy.

"If our knowledge from past cases suggests that a pet coming in today has a good chance of a long, healthy recovery, we can advise it might be worth the time, the cost and the effort to pursue treatment," says Wood. "And if we can tell that something looks bad and treatment is unlikely to help, everyone can feel more secure in a decision to take a palliative route."

Studies based on biobank resources have also helped to identify knowledge gaps. For example, OVC researchers were able to determine that grading osteosarcoma (bone cancer) tumours is less effective than grading other tumour types. This information is helping to drive the development of new strategies for understanding osteosarcoma.

Similarly, reviewing biobank data from dogs previously diagnosed with lymphoma (a cancer of the lymph nodes) revealed that, although most dogs respond to chemotherapy, it is difficult to predict how effective the overall treatment will be or how long each dog will live after treatment.

CANCER AS A ONE HEALTH PROBLEM

One Health – a concept reflecting the intersection of environmental, human and animal health – influences much of ICCI's work.

"Our primary focus is pets, but we need to remember that they breathe the same air and drink the same water as the humans they live with," says Wood. "Pets are also probably sharing a good amount of our food and sleeping in our beds, too."

He notes that companion animals commonly develop health conditions that also affect humans such as obesity, diabetes and endocrine problems.

Some of the cancers that OVC researchers study are common in pets and rare in humans. For example, hemangiosarcoma (cancer of the blood vessels) is common in dogs, but tissue samples from those tumours in humans is relatively rare. Having access to rare tumour samples and other biological materials like blood helps support translational cancer research.

Tissue samples from surgically removed tumours are loaded and prepared for ultracold storage.

Essential tools in the biobank sample collection kit include (left to right); gloves, cassettes for holding tissue samples, weigh boat, scalpel, tissue biopsy punch, cryovials (for ultracold storage) and blood collection tubes.

DNA SEQUENCING FOR ANIMAL CANCERS

Human cancer researchers are using tools such as DNA sequencing, which helps researchers to identify mutations that disrupt normal cell growth in humans. OVC has been developing the same tools for some animal cancers.

"The underlying biology behind it is that all cancers have mutations in DNA, and it turns out many of the mutations are similar across multiple species, including cats and dogs, and sometimes horses and cows," says Wood. "Many of the drugs that are becoming available for humans are directed against specific DNA mutations, and not necessarily the cell type or body location of the cancer."

OVC researchers have sequenced three different cancer types so far, including hemangiosarcoma, osteosarcoma and bladder cancer.

"As we continue to develop this work at OVC and with other institutions that have high power DNA sequencing, there's more opportunity for the veterinary cancers to help inform studies on human cancer, and to make room for a two-way exchange of data," says Wood.

And, as technology continues to improve, samples stretch farther because researchers require less material. Wood's current research interest is in using blood microRNAs, which are promising biomarkers that help predict outcomes in dogs diagnosed with osteosarcoma.

Kali, pictured here with her collected samples, was recently diagnosed with an oral tumour. She participated in both the veterinary biobank and a surgical oncology clinical trial with Dr. Michelle Oblak. Photo by Katie Duncan.

"Our plan is to expand this sequencing work to include more cancer types and compare across humans, dogs, cats and even horses, birds and other animals," says Wood. "All of this work is possible because of the growing number of samples we are able to access from the biobank."

SIX DEGREES OF SEPARATION

by Suzi Beber

Suzi Beber founded The Smiling Blue Skies ® Cancer Fund in 2001 after losing her Golden Retriever, Blues, to lymphoma. To honour his memory, and in gratitude for the care he received at OVC, Smiling Blue Skies has raised more than $3 million to support OVC Pet Trust's quest to find more and better ways to deal with canine cancer.

Photo by Lisa Lauf.

Smiling Blue Skies was off to a great start this year. A new fundraising event was hosted by Coastal Canine Hydrotherapy and Fitness Centre, located in beautiful Errington, on Vancouver Island. Thanks to Carolyn and Dennis and their team for including Smiling Blue Skies in their 10th anniversary celebrations, which included an amazing barbecue and pool games, and, of course, gifts for everyone.

In a previous "Six Degress of Separation" column, it was amazing to look back and realize that I was first introduced to the Errington pool in 2005, when it was known as "Vital K9." Blues' son, BB King, became the help mate and healing companion to his best buddy, Abbey, owned by Joanne and Bill, who had required complex surgery following an accidental meeting with a rabbit hole. As part of Abbey's recovery, following 15 casts of different colours, she participated in regular water therapy sessions when Chrissie and Jens, the pool's original owners, first offered the very best in veterinary rehabilitation and hydrotherapy up island.

Now, here we are all these years later, and we are so thankful that Carolyn reached out to us to include Smiling Blue Skies in their anniversary event, even creating a special month of fundraising, raising over $1,000, and counting.

Back in 2012, I wrote about another "Six Degrees of Separation," when I told the story of a special rescue dog named "Chance," a Golden Retriever, who was blessed to be adopted by Sharon and Bob, back in Guelph. That led to them getting a Border Collie bred by Robin and Craig, who owned "Bogey the Wonder Dog," who some of you will remember too. In a full circle moment, I found out that Sharon, now a renowned agility judge, will be coming out to Vancouver Island this July to judge the Capital Comets agility trials. The Comets have been ongoing supporters of Smiling Blue Skies for many years, and this year will be extra special, with friendships forged so many years ago coming together again for competitive fun and fundraising. Last summer's event raised $7,000!!

Eromit AIRcademy's Western Cup Dock Diving Challenge in Quesnel, British Columbia will be back again in August, with their terrific Tennis Ball fundraiser and raffle for Smiling Blue Skies.

Thank you so much to Hill's Canada for their generous donation of $10,000!! In 2023, they sold 9,881 units of their new product, ONC Care, and $1 from the sale of every single unit was donated to The Smiling Blue Skies Cancer Fund!!

We are also grateful to Deb Brunner-Walker, who raised almost $5,000 in 2023 through sales of her delicious honey (almost 600 pounds!)

Thanks to your support, WE have raised OVER $3 million, supporting a variety of studies and grants, the coordinator's position for the veterinary biobank, and there are more special projects on the horizon! Stay tuned.

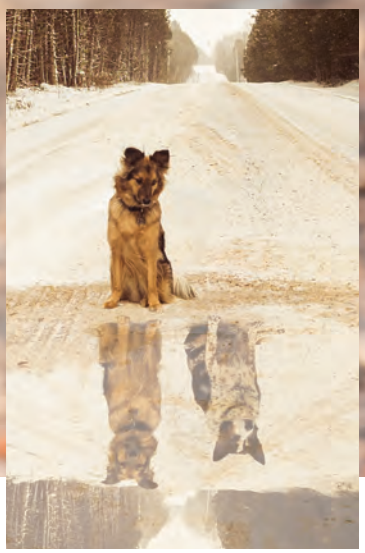
Long live blue skies where Hope is a kite, and dreams really do come true.

Photo by Joanne Fraser.

"THERE WILL ALWAYS BE SMILING BLUE SKIES" smilingblueskies.com

PETS IN MEMORY

"What we have once enjoyed, we can never lose. All that we love deeply becomes a part of us." – Helen Keller



In Memory of Tipsy (2006-2022): A special moment with her friend, Squishy. All photos by Simone Herrlinger.

It was a cold winter morning when I had to let my Tipsy go. I called her my little old lady. At 15.5 years old she was still doing well - that was, until two days earlier. She suddenly stopped eating, was vomiting and was not herself. Her eyes had lost their sparkle and her steps had lost their bounce. I kept begging her to get better. She didn't.

I sat with her during the night trying to absorb all the feels and smells and make these memories last forever. I decided to take her on one last road trip. She loved car rides; whenever I asked her if she wanted to go, her ears perked up, her butt wiggled and she tilted her head to one side. But when I lifted her into the car that morning, she just laid down. She looked at me with her big brown eyes, and I could tell that they were just so tired.

Instead of our road trip, we drove to the clinic with her head resting on my hand. She had no energy left. I looked at the clock: 15 minutes until we would be at work. These were my last 15 minutes with her. The closer we got, the heavier my heart felt. It hurt. I knew it was time, but I didn't want it to be.

We arrived at work, and I coaxed her up and lifted her out of the car. She found some strength when she arrived, walking over to everyone with a slight tail wag to say hello - or perhaps goodbye. We slowly walked through the clinic, and she laid on her bed exhausted. I sat with her and thanked her for being such an amazing dog, friend and companion. I gave her an injection to make her relax and I cradled her in my arms until she fell asleep. Then while kissing her forehead, I let her go.

The next day was the hardest. I woke up and saw her empty bed, and it hit me all over again. Walked past her dog bowl and didn't have to fill it, went through Tim Hortons and only ordered two Timbits instead of four, and when I looked in my rear-view mirror she wasn't there. My heart felt like it had the biggest hole.

In 2019, I had started doing yearly mini senior photo shoots with Tipsy. She was going gray, her eyes were cloudier and her cheekbones more prominent, but she kept going! She was on two different types of pain medication as most of her spine was fused, but she still jumped out of her kennel at the end of the day. In January, I created a memorial photo for her. Looking back, it was exactly one month before I had to say goodbye.

I know how lucky I was that she made it to 15.5 years of age, but it's just never enough. What I wouldn't give for just one more day, one more time holding her soft paw, one more time where she would follow me wherever I went, just one more time...But ultimately one more was not worth it when she was suffering. As much as I wanted to hang on, I owed it to her to let her go peacefully.

As veterinarians, we play such a big role with end-of-life discussions and euthanasia. We know how difficult this decision is to make, how hard it is to go through and how hard it is after it's done. We are here to support clients during this process and hope you feel comfortable reaching out.

Rest easy baby girl. You are so loved and oh so missed.

Dr. Simone Herrlinger, DVM

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 www.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.

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PET TRUST PALS

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

1


2


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1. In November 2023, OVC student veterinarian, Nicole Iarusci, raised $3,000 in support of OVC Pet Trust through Punk4Paws, a live concert fundraiser. Punk4Paws has raised more than $9,000 since 2018. Pictured left to right: Sandra Valeriote, Pet Trust Administrative Assistant, Nicole Iarusci, DVM class of 2025, and Alison McLaren, OVC Pet Trust Manager.
2. Dr. Sandra Watzin (OVC graduate) and Mr. Jeff Gardiner were married on August 26, 2023. They asked their wedding guests to make a donation to OVC Pet Trust in lieu of gifts. To date, they have raised more than $4,300! Their dog Carson was a very special guest at their wedding. Congratulations Sandra and Jeff!
3. On January 20, 2024 students from Global Vets hosted the first of two days of Discover Vet School, a lecture series for students interested in what veterinary school looks like. Funds raised from this event support Global Vets, who will volunteer in Africa, Asia and South America in summer 2024 on projects related to animal health and welfare, as well as human and ecosystem health. OVC Pet Trust was proud to sponsor Global Vets this year.
4. OVC Pet Trust participated as an exhibitor at the Ontario Veterinary Medical Association (OVMA) conference at the Westin Harbour Castle in Toronto. The event hosted 1,140 attendees consisting of veterinarians, veterinary technicians, hospital staff and students. OVC Pet Trust collaborated with the OVC Alumni Association to host a successful reception with close to 100 alumni and OVC Pet Trust supporters in attendance.

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