Best friends
THE PET MAGAZINE OF THE ONTARIO VETERINARY COLLEGE

PAWSITIVE BEGINNINGS
Starting your puppy off on the right paw

HEAL, BOY
how your pet may save your life one day
WHAT IS CANINE INFLUENZA (H3N2)?
Canine influenza (H3N2), more commonly known as dog flu, is an avian influenza virus (bird flu) that spread to dogs in Asia in the mid-2000s and more widely in some parts of the region, particularly China and South Korea. It was introduced to the United States in 2015, and has spread to multiple parts of that country. The first known canine influenza case in Canada was reported in early 2018, when two dogs who were imported from Asia to Essex County, Ontario, were diagnosed.

Influenza in dogs has many similarities to influenza in people. Most affected dogs develop typical flu-like signs such as coughing, fever and runny nose or eyes. While most dogs (like most people with human flu) recover uneventfully, a small percentage of dogs can develop serious, and even fatal, disease. As of Spring 2018, clusters of the outbreak have been confirmed in Windsor-Essex, Muskoka and Northumberland County, with an estimated 200 Canadian dogs infected with the virus as of late March.

HOW TO PROTECT YOUR DOG FROM CANINE INFLUENZA
• If your dog is sick, keep it away from other dogs.
• If you are out with your dog and see a sick dog, keep your dog away from it.
• If you have contact with a sick dog, wash your hands, and ideally change your clothes, before you touch your dog.
• Most dogs with influenza get over it on their own. As long as they are bright, alert, eating and don’t have yellowish nasal discharge, veterinarians typically do not provide any specific treatments beyond cough suppressants, if coughing is excessive.

• If your dog has signs that could be consistent with influenza (e.g. cough, nasal discharge, fever, runny nose or eyes) and you are taking it to your veterinarian, make sure you call the veterinary hospital first so that they can use measures to prevent exposure of other dogs to the clinic (e.g. admitting your dog directly to an exam room or isolation area).
• If your dog is sick and has been at a kennel, doggy daycare, puppy class or any other event, contact the owner or operator to let them know.
• If your dog is diagnosed with influenza or has signs consistent with influenza, it should be kept away from other dogs for four weeks, even if it appears to be healthy before the end of that period. Some dogs can continue to shed the virus for a couple of weeks after they recover.
• Canine influenza can infect cats, but the incidence appears to be very low.
• Vaccination is not a guarantee, but it can reduce the likelihood and severity of disease. Ask your veterinarian if vaccination is recommended for your dog.

What Pet Owners Need to Know About...
CANINE INFLUENZA

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SIX DEGREES OF SEPARATION
IN MEMORY: SULLY
BACK COVER
#PETTRUSTPALS
UPCOMING EVENTS

Take our 5 minute reader survey for your chance to win a $250 Ren’s Pet’s gift card generously donated by Ren’s Pet’s. We want your feedback. Let us know what you think of this issue of Best Friends. www.pettrust.ca/survey

Dr. Scott Weese is on an OVC Pet Trust-funded research project: www.vtag.com.
Dr. Weese’s blog, for more information and resources for pet owners and veterinarians: weese.on.ca.
GETTING TO KNOW...

DR. TOM GIBSON

SMALL ANIMAL SURGEON AND ASSOCIATE PROFESSOR

DEPARTMENT OF CLINICAL STUDIES

ONTARIO VETERINARY COLLEGE

UNIVERSITY OF GUELPH

Why surgery? I chose a career in surgery for the challenge and the creativity. You can do the same surgical procedure hundreds of times and you never really know what you may be faced with in the operating room. That’s the thing that terrifies me the most about surgery, but it’s also the most exciting. We get to fix pets; it’s very rewarding. I love seeing students, interns and residents get inspired by surgery. I was once a resident myself and second-guessed my skills; to watch our students learn, grow and progress is so much fun. Surgery can also be exhausting—physically, mentally and emotionally—and it can be devastating when, despite our best efforts, we don’t always win and we don’t always have the outcomes we would wish for all of our patients.

What projects are you currently working on? Right now I’m examining a novel drug delivery system for patients with postoperative infections along with a team of OVC experts. Implant-associated bone and joint infections occur when bacteria adhere to the plates and screws that we place in a pet’s body. These materials can become infected and form a biofilm, or a slime-like product, that resists treatment by many of our first-line antibiotics. We are looking at the possibility of using a gel containing antibiotics and enzymes to prevent surgical site infections that may result from our use of surgical implant. Some antibiotics that are most effective against resistant bacteria can cause damage to the kidneys. We are exploring the possibility of a local gel therapy that could be an option to proactively prevent an infection without having widespread side effects throughout a pet’s body.

What impact does OVC Pet Trust funding have on your research? I have been very fortunate to be involved in many projects that have been supported by OVC Pet Trust. Simply put, OVC Pet Trust is the life-line for the work we do here at OVC. If our work can have an impact on day-to-day cases that general veterinary practitioners see and treat, it makes it more meaningful for us as researchers and for the profession of veterinary medicine as a whole. Support from OVC Pet Trust positions us to be at the forefront of veterinary medicine and education and continue to be a centre of veterinary excellence in the world.

Tell us something about yourself that might surprise your colleagues. Twelve years ago I became interested in cycling. In 2010, I rode my bike across Canada to raise funds for the Coast to Coast Against Cancer Foundation, a national charity devoted to fighting childhood cancer. At the University of Guelph, our team has raised almost $250,000 for the organization via The Inside Ride, an indoor cycling challenge and fundraising event dedicated to raise money in support of children with cancer and their families.

Do you share your home with any pets? My family has a Boston Terrier x French Bulldog named Poppy, and a new addition, a Standard Poodle puppy named Henry. My wife (OVC Internal Medicine Specialist Dr. Shauna Blois) and I also have six-year-old twin (human) boys.

New research shows early socialization is believed to be critical to the healthy development of puppies. Socializing puppies is most important between the ages of four and 16 weeks, and involves helping a new pet become comfortable in their new environment by introducing them to many different types of people, spaces and places, pets, noises, sights, sounds and smells in a positive and controlled way.
Why is early puppy socialization important?
Early puppy socialization is believed to be critical to the healthy development of puppies. Socializing puppies is most important between the ages of four and 16 weeks, and involves helping a new pet become comfortable in their new environment by introducing them to many different types of people, spaces and places, pets, noises, sights, sounds and smells in a positive and controlled way.

Poor puppy socialization can result in fear and sometimes aggressive behaviour in dogs. Behaviour problems are a leading cause of breakdown in the human-animal bond, the relationship and positive connection between pets and their owners. It is estimated up to 50 per cent of owners say behaviour issues are the main reason for surrendering or giving up their pet to either friends, families or shelters.

A recent study from the Ontario Veterinary College (OVC) found puppies who attended puppy classes at less than 20-weeks of age were less likely to develop negative behaviour patterns or fear responses to normal events such as noises like thunderstorms and vacuum cleaners, behaviour patterns or fear responses to normal events that are heightened. Dogs with hearing loss are best matched with an owner who is home more often and can provide a fenced backyard and dedicated time to training.

"One of the main recommendations for pet owners as a result of our study is to take the opportunity to discuss all aspects of puppyhood with your family veterinarian – they are uniquely positioned to help," says Dr. Jason Coe, one of the study’s authors.

Are you thinking of welcoming a new puppy into your home?
If you are contemplating adding a puppy to your home, it is important to understand what you are looking for and what your expectations are of your new pet. Research has shown that the success of a human-companion animal relationship is influenced by whether an owner's expectations can be met by the dog and whether the needs and lifestyle of the owner and personality of the dog match. Owner expectations can relate to the time and effort required in caring for your dog (walking, training, veterinary visits), the role of the dog in the household (friend, protector) and the annual cost of owning a dog. Therefore, before choosing a new dog, it is beneficial to think about your schedule, your household members, living situation and the type of personality you would like your new dog to have.

Advice from the experts
If you have a new puppy or if you are considering a new four-legged addition to your home, OVC experts recommend considering the following:
- It’s important to remember that puppies have an optimal socialization period, during which it is imperative your new pet has positive exposure to new people, animals, experiences and locations. This socialization period ranges from the first four to 16 weeks of a puppy’s life.
- Positive exposure to different kinds of new experiences prepares puppies for the development of future social relationships and helps to prevent fear in new and unknown situations.
- Puppy classes provide an excellent opportunity for owner education and puppy socialization and a great way to avoid serious pet behavioural problems.

New pet checklist
Before deciding to get a new pet, it would be beneficial to consider a variety of factors including:
- Your lifestyle
- Time available to dedicate to your new pet
- Species differences
- Your current pet
- Your new pet
- Cost of pet ownership

Nancy Warner’s seven English Setter puppies, shown here, visited the Neurology Service at the Ontario Veterinary College in February for brainstem auditory evoked response (BAER) testing, an evaluation of the auditory pathway as sound is transmitted from the ear drum to the brainstem.

Puppy sound check
The Neurology Service at the OVC Health Sciences Centre specializes in providing advanced and emergency care to companion animals. The team sees and treats a wide range of disease and conditions in pets including epilepsy, spinal pain, weakness, gait changes, muscle and nerve disorders and a variety of congenital and degenerative nervous system diseases.

One service in particular the Neurology team provides is hearing tests, or brainstem auditory evoked response (BAER) testing. BAER testing is used to diagnose deafness in pets. Registered Veterinary Technician (RVT) Jennifer Colles is in charge of administering the hearing test and normally sees up to 165 dogs per year.

Puppies are given this test between six and eight weeks of age, once their hearing is fully developed. Testing puppies for deafness is important because early identification allows owners to provide targeted training, improving comfort and safety for their dog, and allows them to be equipped with more information about how to interact with and help their dog navigate their world. Hearing tests are also available for older pets that may develop a loss of hearing as they age. When deafness is not an inherited or age related problem, loss of hearing may also be an indicator of other health issues, such as a brain tumour, infection or trauma.

Dogs can be diagnosed with deafness in both or just one of their ears. Dogs who are deaf can live a normal life by using their other senses, such as smell and sight, which are heightened. Dogs with hearing loss are best matched with an owner who is home more often and can provide a fenced backyard and dedicated time to training.
Lulu and Tony start most days with a 10-kilometer run in their Toronto neighbourhood. The active, apricot Standard Poodle enjoys swimming, visiting her local dog park and spending time outdoors at their cottage. “There isn’t a squirrel in our neighbourhood that isn’t ours,” Julia laughs. “Lulu has a sweet personality and always makes us laugh. There is nothing better than when you find a tennis ball at the park that isn’t yours — that’s our Lulu.”

In June 2017 while visiting their family veterinarian, Dr. Lindsay Paterson at Rosedale Moore Park Veterinary Clinic, a small lump was found during Lulu’s annual wellness exam. Lulu was immediately referred to the Clinic, a small lump was found during Lulu’s annual wellness exam. Lulu was immediately referred to the Clinic, a small lump was found during Lulu’s annual wellness exam.

Lulu’s owners learned this was the case with their sweet Lulu. “Dr. Singh was not only caring for Lulu, but he also cared for us and what we were going through,” Julia reflects. “The fear of the unknown as a pet owner in these circumstances can be overwhelming. During a time when we needed support, he went above and beyond, communicating with us regularly. He helped alleviate our fears, kept us up-to-date and formed a plan about how we would proceed and navigate our dog’s diagnosis.”

At a follow-up visit in late August, a CT scan found that Lulu had an enlarged lymph node in her chest. Singh was successfully able to use a minimally invasive surgical (MIS) technique to remove the lymph node with a procedure called thoracoscopy. Thoracoscopy involves several tiny incisions into the chest to insert a camera and surgical tools to remove a mass; in this case, a lymph node. Minimally invasive surgery means just that — a surgery that is the minimal or causes the least amount of intrusiveness to the body, because large incisions are not necessary as in the case of more traditional open surgeries. In general, MIS is associated with less pain, a shorter hospital stay and fewer complications in both humans and animals. While MIS is often preferred for these reasons, it may not always be an option depending on the patient’s illness or disease. Lulu’s owners noticed a drastic difference in her recovery after MIS compared to her earlier surgery in June, which had been a traditional open procedure.

“Lulu improved so much more quickly following the MIS procedure in her chest. She came home the next day, and you’d never know she’d had surgery. She was able to return to her everyday activities much sooner,” Tony remembers.

“It’s truly amazing how this technology can help pets,” says Julia. “All of our friends at the dog park have heard about it from us because they know what Lulu was going through. We are so thankful and have seen the benefits of minimally invasive surgery first hand.”

The couple was so impressed with Lulu’s recovery that they are holding an event at their home this spring to promote the work of OVC Pet Trust and support advancing the clinical research area of MIS at OVC.

It’s been a tough haul, but the fight isn’t over yet. Lulu will continue to return to OVC’s Animal Cancer Center every three months for monitoring, where her family meets with Internal Medicine Veterinary Specialist Dr. Danielle Richardson, who is a special part of Lulu’s medical journey, helping to navigate their dog’s post-operative care to continue the battle against her cancer.

“It means everything to us that OVC helped our dog,” Julia and Tony both agree. “Lulu means the world to us. We are so thankful OVC was there to support us during one of the most devastating times in our life. It’s difficult to put into words how grateful we are OVC was there when our family needed it most.”

In 2017, Dr. Ameet Singh was named as one of 15 American College of Veterinary Surgeons (ACVS) Founding Fellows in Minimally Invasive Surgery. Dr. Singh has obtained additional training and experience in minimally invasive surgery (MIS) beyond the ACVS surgery residency training and devotes a major portion of his professional effort to the prevention, diagnosis, treatment and rehabilitation of patients undergoing MIS therapies and to research in the field of MIS.
What is Minimally Invasive Surgery?

Minimally invasive surgery (MIS) is common in human medicine, and more recently, in the veterinary world. MIS involves tiny incisions with scopes for doctors to see inside the body and remove organs, perform biopsies and other procedures. It is an alternative to traditional surgeries that involve making a large opening in the body; since the incision in MIS is very small, patients are usually able to recover faster and experience less pain when compared to “open” procedures.

MIS photo courtesy of Cancer Research UK / Wikimedia Commons.

RESEARCH SPOTLIGHT

The TALE of
Minimally Invasive Surgery
Advancing care for pet rabbits

Rabbits are the third most owned pet in North America, after dogs and cats. Rabbits have become a popular pet for many reasons. They have a friendly nature, they can adapt easily to living in smaller spaces like apartments or condominiums and, since most are indoor pets, they don’t necessarily need to spend time outside of the home.

Avian and exotic care is a special interest within veterinary medicine. Veterinarians who work in this area must understand the anatomy and health needs of a wide range of animals, many of which are not native to North America. From birds and reptiles, such as turtles, lizards and snakes, to companion mammals such as rabbits, ferrets and guinea pigs, avian and exotic specialists at the Ontario Veterinary College (OVC) provide diagnostic, emergency and advanced care for all sorts of species.

With rabbit ownership on the rise, they are now one of the most seen pets on the OVC Avian and Exotics Service – making up 30 to 40 per cent of the services’ total patients. “Rabbits are very social animals. They generally enjoy interacting with people and form close bonds with their owners,” says Dr. Hugues Beaufrère, OVC’s Chief of Avian and Exotics Service.

Dr. Beaufrère, along with OVC Avian and Exotics specialist-in-training Dr. Claudia Kabakchiev and small animal surgeon Dr. Ameet Singh, is currently investigating the safety and benefits of minimally invasive surgery (MIS) to spay rabbits. According to Beaufrère, health trends indicate there can be serious risks if rabbits are left unspayed. “Cancer of the uterus can be a very common disease in female rabbits,” says Beaufrère. “If they are not spayed there is up to a 70 per cent chance they can develop this type of cancer over their lifetime.”

Since rabbits are much smaller than other species, minimally invasive surgical options could prove to have its benefits. “Rabbits have a very different anatomy when compared to dogs and cats. The goal of our study is to determine if MIS spay procedures would be a better option for our rabbit patients,” says Beaufrère.

Beaufrère stresses the importance of size when performing surgery on smaller pets. “An incision that would be considered tiny in a much larger animal is actually a very big incision for smaller animals, such as rabbits,” adding that the ability to provide minimally-invasive options for these patients could decrease the size of surgical incisions by 50 to 60 per cent. It is for this reason that Beaufrère and his team are specifically looking at the use of miniature MIS equipment that is currently used in surgery for young children.

“At the end of the day, we hope to gain knowledge by determining the safest, most effective method for rabbit spay surgery, reduce patient health risks and provide the best evidence-based options for veterinarians and the growing number of rabbit owners out there.”

Three-week-old bunny patients’ first health check at OVC with registered veterinary technician, Sarah. Left to right: Burrito, Pumpkin, Russell, Bandit, Bun Bun and Pip.
It wouldn’t come as that much of a surprise that you’d be greeted by a couple of friendly “woofs” when you walk into the head office of Ren’s Pets in Guelph. Life-size letters on the wall above reception welcome guests to headquarters: “Passionate about pets and the people they own,” which not only serves as the company’s corporate mission, but also embodies the way of life for employees and customers alike.

When President Scott Arsenault started with the company seven years ago, there were three Ren’s stores. The premier pet retailer has grown to operate 16 stores across Ontario, with plans to open seven more this year and expand nationally across Canada in the coming years.

“Everyone who works at Ren’s makes a difference in the lives of pets – from accounting, to marketing, to the front lines. Each employee plays a role in the big picture of our business,” Arsenault says.

A couple of years ago Ren’s head office adopted a pet policy, where employees are allowed to bring their dog to work with them. While there are guidelines, morale has increased and job performance has remained intact and perhaps even improved. “Everyone is so much happier. When you walk by purchasing and see Pivot the dog treats support the training of rescue dogs

“Pets are our family members,” says Arsenault, who has three dogs and two cats of his own at home. “That belief is at the core of our business. We know our customers consider their pets to be an important part of their family and only want the best for them.”

Arsenault believes OVC is the premier location for discovery and treatment for companion animals in Canada and beyond. “If you are a pet owner, you know the high level of care a pet will receive when someone says they are taking them to the University of Guelph [U of G],” Arsenault says.

“Even if your pet hasn’t been referred to OVC for advanced or emergency care directly, the U of G will somehow have an influence on your pet’s life. Whether it be the advanced care for animals that is available in their hospitals, treatment options that may not be available today but will be tomorrow because of the innovative discoveries of their researchers, or the training and education provided to their graduates (the family veterinarians that work in our local communities), your pet probably has been or will be positively affected by OVC during its lifetime,” Arsenault says. “It may not be today; it may not be tomorrow. If you have a pet, they will most likely be touched by the work that’s being done at Guelph. How can you not support it?”

Ren’s has partnered with Don Cherry to exclusively sell a line of beef liver dog treats support the training of rescue dogs.

Locally, Ren’s works with humane societies within the communities in which they operate. They also strive to support organizations that value the bond between pets and the people that care for them. When they opened their fifteenth store in 2017, Ren’s partnered with Don Cherry to exclusively sell a line of beef liver dog treats in honour of fallen Canadian soldier, Corporal Nathan Cirillo, who was an avid pet lover and was killed in the line of duty at Parliament Hill in 2014. All proceeds from the sale of the dog treats support the training of rescue dogs.

Arsenault acknowledges $15,000 was a good start for their first-year of corporate support. “We play in the land of great at Ren’s. Our goal is to give up to $250,000 annually,” he says.

Visit your local Ren’s Pets store on this year’s National Dog Day (August 26, 2018) to support OVC Pet Trust.

Life on OVC’s Diagnostic Imaging Service

Animals of all shapes and sizes are referred to the Ontario Veterinary College (OVC) every day for specialized care. Some are sent for advanced tests which can involve state-of-the-art diagnostic imaging from highly-trained veterinary health care professionals.

The field of Diagnostic Imaging, sometimes known as Radiology, involves a series of different tests that take images of various parts of the body. Essentially, it is the science that uses various medical imaging techniques to diagnose and sometimes also treat diseases within the body, from chronic conditions like respiratory or kidney diseases to cancer.

Early diagnosis of disease in pets saves lives. Without diagnosis, there can be no treatment and no potential cure. For this reason, OVC’s Diagnostic Imaging (DI) Service is a critical hub delivering diagnoses and making recommendations on next steps in patient care. Early diagnosis of disease in all types of animals, their skills and training allow them to often lead to the development of new and mandatory safety training guidelines for the use of X-rays in veterinary medicine.

The service is located deep within the hospital and offers a variety of specialized medical imaging procedures including digital radiography (X-rays), ultrasound, fluoroscopy (real-time X-ray), CT scan and magnetic resonance imaging (MRI). On average the team sees 40 patients per day, both large and small animals, and each day is different. Diagnostic imaging is the most visual of all medical specialties, and veterinary radiologists are specially trained to evaluate and interpret images to diagnose disease in all types of animals. Their skills and training allow them to often find a needle in a haystack, and their expertise and knowledge is critical in creating care plans for patients.

Our writer went behind-the-scenes with Diagnostic Imaging resident and specialist-in-training, Dr. Monica Jensen, for a glimpse into the black and white world of radiology. Monica is a senior resident in the Doctor of Veterinary Science (DVSc) program, a post-professional degree dedicated to advanced clinical education and research. Monica’s DVSc position is one of several specialized post-training roles funded by OVC Pet Trust. The intensive training program will equip her with the knowledge and experience she needs to become a board-certified veterinary radiologist.

Monica spends the majority of her time performing ultrasound examinations and interpreting X-ray, CT and MRI images, and using these images to deliver diagnoses and make recommendations on next steps in patient care plans. Monica is also dedicated to her primary research project which is evaluating the presence and effectiveness of radiation safety training for student veterinarians and veterinary health providers in general practice. It is Monica’s hope that her work will lead to the development of new and mandatory safety training guidelines for the use of X-rays in veterinary medicine, as well as ensuring OVC’s training student veterinarians to be leaders in radiation safety in the workforce.
During the procedure Monica will take images real-time X-ray procedure called an esophagram. It is clear Monica is a pet lover; she has a passion for her job. "I feel so fortunate to contribute to truly every field in medicine that you can go from treating the smallest animals to the largest. I get to work with a wide range of animals I get to work with. It’s not obvious. “Most pet owners that visit OVC wouldn’t know my name or who I am. This is still an adjustment for me as I loved the relationships I developed with people and their pets when I worked directly with them in private practice,” Monica shares. "I remember watching my uncle work with animals and know he was making a difference in the lives of his patients who couldn’t speak for themselves, and I was hooked," she says. "I knew I wanted to make the same impact myself one day.”

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By February, a biopsy came back cancer: aggressive multicentric lymphoma. For Bosco’s owners, the news was devastating. “He couldn’t possibly leave us, because we had fallen so deeply in love with him,” Lynda remembers thinking.

On their vet’s advice, they turned to the Ontario Veterinary College’s Mona Campbell Centre for Animal Cancer. Bosco was immediately scheduled for 2.5 rounds of chemo at the facility, part of the University of Guelph. The family also agreed to enroll their mixed-breed rescue in several clinical trials, including one exploring whether a special molecular test can predict early enough how well dogs with advanced lymphoma are responding to their chemo, so they can be switched to a more effective drug if needed.

All this might sound extreme. The price tag for cancer treatments — surgery, chemotherapy, radiation and potentially another surgery if the cancer rebounds — can run $10,000 to $20,000. But Bosco’s treatment could save not only his life, it may save yours. Lymphoma in dogs is strikingly similar to non-Hodgkin’s lymphoma in people; the results of Bosco’s clinical trial could lead to better therapies for cancer in humans.

It’s just one of the diseases our pets may help us treat. Vets are collaborating with researchers in human medicine to study the genetics of a fatal heart disorder shared by dogs and humans. They’re working on epilepsy, and stem cell therapy for spinal cord injuries.

“Now, it’s one medicine. It always has been,” writes veterinarian Stephen Withrow on the website for the Flint Animal Cancer Center, one of the world’s largest, which he founded at Colorado State University. “One medicine. One cancer. One cure.”

But selling this to funding agencies and industry has been difficult, he says, “convincing big drug companies that we have relevant models that can be studied so much cheaper than human trials.” There’s also a risk that any adverse event might be species-specific — “on rare occasions,” he says, “cats don’t behave like people” — would slow down progress on human drug development.

So labs continue to use mice — not sweet, mixed breed family dogs — for research. Withrow says there’s still a role for rodent research. But, will our sensitivities to household pets hold us back from helping them, and ourselves?

The thing is, when researchers succeeded in mapping the first full genome of a dog in 2005 — Tasha, a female Boxer — they discovered humans share more of their ancestral DNA with dogs than with mice.

In fact, studies suggest that 85 per cent of drugs that appear promising when tested on the lowly lab rodent fail spectacularly when moved into humans. Of those that make it to Phase III — the final and priciest pre-licensing phase — only half are ever approved. Cancer drugs are the ones most likely to fail.

“Crucial genetic, molecular, immunologic and cellular differences between humans and mice prevent animal models from serving as effective means to seek for a cancer cure,” McMasters University researchers wrote in 2014 in the American Journal of Translational Medicine about the limits of animal models “to mimic the extremely complex process of human carcinogenesis, physiology and progression.” Dogs and humans, on the other hand, co-evolved. We live in the same homes, not sterile cages, we breathe the same air and are exposed to the same pollutants and pathogens that might trigger mutant cells that morph into cancer. Dogs are genetically diverse, just like humans, and have intact immune systems. Companion animals also develop tumours naturally and spontaneously, the same way we do. Some shared tumours — osteosarcoma, or bone cancers, mucosal melanoma, non-Hodgkin’s lymphoma, bladder cancer — can be so functionally identical it’s hard to know “dog” from “human” when looking at a biopsy.

Given the leap between mice and humans, the thinking now is, “maybe there’s a better stepping stone,” says Brian Lichty, of McMaster University’s Immunology Research Centre, who is collaborating with Ontario Veterinary College (OVC) researchers testing a breast cancer vaccine in cats.

The cardiovascular systems of dogs and people are also remarkably similar; veterinarians say. Canine dilated cardiomyopathy, a deadly disease that causes the heart to weaken, dilate and swell like a balloon near bursting can lead to congestive heart failure. OCM is the second most common form of heart disease in dogs — and the third most common in humans.

Yet dogs age and die five to eight times faster than humans, meaning the outcomes to studies testing new therapies can be known that much sooner, and at far less cost.

All this may give some animal lovers pause. “We understand why people may have this visceral and immediate reaction (to comparative medicine),” says Dr. Alka Chanda, chief of laboratory case management for PETA. In June, PETA supporters, wearing cat masks and crammed into cages, protested outside the OVC, adding, “The idea that we would want to expose our companion animals to the same pollutants and carcinogens that support testing in animals is abhorrent.”

Continues on next page.

Vets are collaborating with researchers in human medicine to study the genetics of a fatal heart disorder shared by dogs and humans. They’re working on epilepsy, and stem cell therapy for spinal cord injuries.
When the dog flinches with the first poke, then trode needles into Vallie's scalp, just beneath the skin. "Neuro," James quips as she inserts the first of 15 electrodes and students huddled in a circle around her, their jaws clenched. Today, Vallie is lying on a blanket, James, her residents and students huddled in a circle around her, their jaws clenched. Having seizure-like episodes for more than a year. She's not with it," her owner, Cheryl Parker, says. Dr. Fiona James bends down to stroke Vallie, a comparative oncology.

"The increase in the pet-animal-human bond raised pets almost to the level of children," however, Withrow says. People wanted — and those who had the wherewithal to pay hefty sums for it — whatever it took to keep their pets alive. "And so we raised the bar." Today, he says, "when I do these major surgeries — brain cancer, lung removal — I need critical care for these patients to survive, so chest drains and pain management, antibiotics, blood transfusion, anesthesia. All the supportive stuff came along at the same time."

Dr. Len Lichtenfeld, deputy chief medical officer for the American Cancer Society, says dogs with cancer are treated as compassionately, perhaps even more than children. "Nobody is taking a dog and putting him in a kennel in a room somewhere, never to be seen again, and experimenting on them," he says. "These are pets that are getting genuine care."

His own dog, an 11-year-old golden retriever, died of cancer last year, only weeks before he spoke at a U.S. National Academy of Medicine workshop on comparative oncology.

"Kia's been out to peel! I sound like such a mom." Dr. Fiona James bends down to stroke Vallie, a "Shorkie," or Shih Tzu-Yorkie mix. Vallie has been having seizure-like episodes for more than a year. She sometimes goes limp, like a noodle, other times rigid and dazed. "You can call her name, but you can tell she's not with it," her owner, Cheryl Parker, says.

Today, Vallie is lying on a blanket, James, her residents and students huddled in a circle around her, their heads pressed together. "There's no personal space in neons," James quips as she inserts the first of 15 electrodes into Vallie's scalp, just beneath the skin. When the dog flinches with the first poke, then the second, James orders "happy juice," a quick-acting, but also quick-reversing sedative. "She's conscious," James says, as the team resumes attaching the electrodes to Vallie's scalp, cheekbones and the base of her ears. "She just doesn't care."

These electrodes will feed brain wave data wirelessly to a camera and laptop. James has created an EEG backpack worn by the dogs, modified from those worn by children, that allows the veterinary neurologist and professor in the OVC's clinical studies department to monitor a dog's epilepsy while it is moving, even chasing a ball across a field, instead of trying to diagnose epilepsy with the dog heavily sedated or under anesthesia — which can abolish the very behaviours, the twitches or seizures, she's trying to catch.

Epilepsy is five times more common in dogs than in people and affects many types of breeds. The classic seizure for a dog is a generalized tonic clonic seizure. But dogs, like humans, also suffer absence seizures, where they blank out briefly, or partial seizures, "where you might have a little twitch, similar to the twitch you might get in an eyelid when you get tired and stressed," James explains. It can be difficult to distinguish these seizures — like the Boer James once treated who would shake his head vigorously from side to side — from a behavioural issue, like an obsessive-compulsive disorder.

Working with her predecessor, Dr. Roberto Poma, James decided to see whether they could record animal awake. "And we did that with a little Chihuahua who wore the cables when he was confined to a baby crib."

His nose twitches turned out to be absence seizures, the first time such seizures were recorded in a dog. After their paper was published, in 2010, James wondered, "Maybe we can go one step further. Maybe we can cut the cable."

She looked to the Hospital for Sick Children in Toronto, working with researchers in pediatric epilepsyology. She's got a grant, and is investigating brain activity in dogs suspected of having epilepsy. "They taught me a lot," James says of her collaborators in human child neurology at Sick Kids. Now she's giving back. Working with the mobile backpack on Rhodesian ridgebacks, James and an international team from Canada, Germany and Finland have discovered a new gene mutation in dogs that may help better diagnose and treat myoclonic epilepsy, one of the most common forms of epilepsy in children and adults. The disease causes rapid, jerk-like movements of the face, limbs or muscles, like the sudden spasms that jolt us awake at night.

"You can relax Maddie, you don't have to move, you can relax," O'Sullivan says softly in the darkened room as she moves the transducer around the dog's chest. O'Sullivan is an expert on dilated cardiomyopathy, or DCM, a disease that causes the heart's main pumping chamber, the left ventricle, to become dilated and baggy. The heart muscle becomes weak and flabby and struggles to pump blood around the body. In dogs, like people, it causes coughing and difficulty breathing from fluid retention.

Recently, O'Sullivan collaborated with researchers at the University of Washington, providing heart muscle samples from dogs that have died of DCM. The Washington team has identified a molecule involved in muscle contraction. In heart cells from dogs with DCM, it restored normal function. The same molecule improved muscle function in human cells.

For all this progress, though, it's comparativeness that holds out the most hope. Despite hundreds of billions of dollars of research worldwide, cancer still ranks among humanity's most lethal killers.

"These people who are looking for breakthroughs aren't interested in whether the breakthrough comes from a dog or a zebra fish," Dr. Larry Gluckman, professor emeritus at Purdue University said in a PBS documentary on comparative oncology released last year. "Just give us something we can work with that will help speed up the process of drug development, which is so long and expensive."

The OVC in Guelph is among the leaders in animal-to-human medicine and the only international member of a U.S. National Cancer Institute consortium of comparative oncology trials. The Mona Campbell Cancer Centre for Animal Cancer, which opened its doors five years ago this month, is where most clinical trials take place. There are vets, pain specialists, anesthesiologists, technicians, interns; a human-sized linear accelerator, chemo and oncology wards, and a tumour tissue bank with 18,000 samples. The college offers advanced cancer surgery — among other feats, Dr. Michelle Oblak is removing tumours burned deep into the brain cavity and rebuilding skulls with titanium mesh instead of helping muscle and skin grow a flap over the missing scalp. Vets are also testing treatments for the same bone cancer that killed Terry Fox, and immune therapy for melanoma.

...much of the research here would be impossible without funding from OVC Pet Trust, which has raised more than $35 million over the past 30 years.

Dr. Lynne O'Sullivan is also part of critical discoveries in "translational" medicine bridging humans and man's best friend. The day we visit, the veterinary cardiologist is performing an ECG on Maddie, a three-year-old golden retriever and service dog for people with anxiety and panic attacks. Maddie has had a heart murmur since puppyhood. O'Sullivan is checking for leaky valves, turbulent blood flow or congenital disease. Maddie is panting heavily, a sign she's nervous.

"You can relax Maddie, you don't have to work right now," O'Sullivan says softly in the darkened room as she moves the transducer around the dog's chest.
But as she points out, for those people who do have sarcomas (1,200 Canadians were diagnosed with soft-tissue sarcomas in 2013, according to the Canadian Cancer Society), “we haven’t really had anything better to offer them in the last 30 or 40 years. And it turns out some of the pathways that are disrupted in some of these tumours are not unique to sarcomas.”

Comparative oncology is already bearing fruit: Last year, the U.S. Food and Drug Administration fast-tracked an immunotherapy vaccine for osteosarcoma after a study in dogs showed those treated with the vaccine had a median survival of 956 days versus double the 442-day median survival given the standard treatment of amputation and chemo alone. And while vets have had to borrow from human oncology — using their chemo drugs, adapting the doses — dogs first tested in dogs are now being tested in humans and cats, bubbling up with promising early results. Bosco’s people are certainly hoping for time in months, not years, of chemo, he’s doing well, the early fatigue and weight loss no longer an issue. Tests have shown the cancer seems to be in remission, but the OVC is checking him monthly.

At 83 pounds, he’s a large dog. When Alex and Lynda watch television, Bosco rests his huge head in their lap, looks up at them, with his “soulful eyes,” Lynda says, “as if begging us to suspend our disbelief” and let him climb into their laps like a purse dog. He likes raw Brussels sprouts and ripe bananas and can’t settle down at night until everyone is home.

Funding is catching up as well. The trial testing genetically modified viruses to attack mammary tumours in cats was supported by funding from the Canadian Breast Cancer Foundation. The Terry Fox Research Institute is funding a vaccine trial for canine osteosarcoma. And much of the research here would be impossible without funding from OVC Pet Trust, which has raised more than $35 million over the past 30 years.

“One of the fundamental challenges facing us in human oncology is the fact that we are learning so much more about cancer — the structure of cancer cells and how they behave,” says Lichtenfeld, of the American Cancer Society, but there aren’t enough people enrolling in studies of experimental drugs.

“But by looking at our pets in clinical trials, we might get some very valuable clues,” he says, clues that can never come quickly enough. Bosco’s people are certainly hoping for time in months, not years, of chemo, he’s doing well, the early fatigue and weight loss no longer an issue. Tests have shown the cancer seems to be in remission, but the OVC is checking him monthly.

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The family has been told that the median life for Bosco once cancer treatments are over is 12 months. “So, half live longer than a year, half live less,” Lynda says. “We’re really hoping he pushes that year. But even if ‘biology and the gods’ should wish that he doesn’t, she says, “how cool that humans and dogs developed this relationship 30,000 years ago, and they might end up saving our lives.”

“Dogs and cats cannot naturally produce thiamine, so they require it to be a part of their diet,” Verbrugghe says. “Lack of thiamine over long periods of time can lead to poor health for your pet and can be fatal if thiamine levels are not identified and reversed,” she adds. Initial clinical signs of low thiamine levels can include vomiting, weight loss, lack of appetite and fatigue. However, when thiamine intake is not corrected, nervous system damage and cardiovascular signs will occur. Signs can worsen rapidly and lead to death in cases of severe deficiency.

Pet owners can search for the AAFCO statement on pet food labels. In North America, many commercial pet food manufacturers follow Association of American Feed Control Officials (AAFCO) guidelines when formulating diets, which are based on recommendations for adequate intake and recommended allowance by the National Research Council (NRC). While it’s an American standard, many pet food companies in Canada follow AAFCO.

It’s beneficial to keep the bag. Veterinary and higher-quality pet store brand food companies invest into the packaging of their products. “Most pet food stays fresher for longer if it’s kept in its original bag. Research has shown vitamins also remain intact in higher concentrations,” Verbrugghe says.

Nutrients on the pet food label can be confusing. If you select a pet store brand of food, most labels provide a minimum and maximum level of nutrients. Since nutritional content can vary from batch to batch, and ingredients may occasionally be switched, there can be differences. Diets sold by veterinarians are formulated more precisely and contain the exact same nutritional content from batch to batch, which is why the type of pet food is usually used in treating pets who have a disease or condition with specific nutritional requirements.

The ingredient list on a pet food label can be manipulated. Ingredients in pet food is usually listed according to weight, but sometimes manufacturers may split up protein or carbohydrate content to adjust it. It’s important to check ingredients when you have a pet with allergies.

Talk to your veterinarian for guidance and support. Your family veterinarian can help ensure the food you’ve selected for your pet’s diet is complete and balanced for their species and life stage.
Decoding Your Pet's BODY LANGUAGE

Not only is fear a threat to your dog's mental well-being, but it can also put them at a higher risk of developing serious behaviour problems such as aggression. Niel says aggression often has a significant impact on the human-animal bond, and can alter the way we interact and connect with our pets. It can also pose a significant safety concern and sometimes lead to surrender, or even euthanasia, of the animal.

Understanding animal body language allows pet owners to recognize their pet's patterns and needs,” Niel says. “It allows owners to provide an environment that reduces stress and fear and gives them the opportunity to avoid potentially dangerous situations for pets and people.”

While understanding pet body language is important, recent research results from Niel’s group revealed that there are certain fear behaviours that are challenging for many owners to recognize, while others are more reliable, such as body posture, ear and tail position, and relatively subtle behaviours such as lip licking and avoiding eye contact. The research also found that most dog owners were good at rating dog fear and aggression, but surprisingly, a relatively high percentage were unable to correctly identify examples of moderate to severe fear and aggression. Niel says further research is needed to understand whether these owners are truly unable to identify dog fear and aggression, or if there is also some reluctance to negatively label dogs. This may be particularly true for dogs that show threatening behaviour without actually trying to bite – Niel’s study also showed that more than 25 per cent of participants were unable to correctly identify dogs showing threatening behaviour. But Niel says fear in pets can unexpectedly turn into aggression, and that reading these signals is key to adapting to your pet’s needs.

“If you think about human behaviour we know that people are different when it comes to the activities they like to be involved in, and their thresholds are different for certain stimuli like noise and activity. Some people may enjoy attending a noisy music festival, or interacting with active children, some may not, and dogs are the same,” Niel explains. “In some cases a dog might be exposed to a number of triggers that the owner is unaware of, which results in feeling threatened and responding aggressively to protect themselves. However, if the owner was able to recognize the subtle, early signs of fear the situation might have been avoided before it escalated.”

The ultimate goal of Niel’s work is to prevent and reduce fear in dogs. By teaching pet owners to understand their animal’s needs and recognize when their pet is showing signs of fear and potential aggression. For example, if a child approaches a dog and a pet owner can identify early physical signs of fear, they can make adjustments, change the environment and make it safer, more positive experience for their dog, the child and themselves.

“Pet owners can use body language signals to avoid problems early. The ability to recognize how your dog reacts in certain situations is key.”

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“Pet owners can use body language signals to avoid problems early. The ability to recognize how your dog reacts in certain situations is key.”

Facial expressions. Posture. Gestures. Eye movement. Touch. The use of space and odours. From researchers to career coaches, magazine articles to blog posts, modern science tells us that it is often what we don’t say that can leave the greatest impression, but have you ever wondered what you can understand from your own pet’s body language? Body language is the process of non-verbal communication through conscious or unconscious movements, gestures or mannerisms. While scientists have been observing human body language in one form or another for centuries, it is only recently that researchers have started to investigate what body language means for pets and their behaviour. Lee Niel specializes in animal behaviour and welfare at the Ontario Veterinary College (OVC), University of Guelph.

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Exploring regenerative medicine to enhance animal and human health

Harnessing the power of stem cells has been a hot topic for a number of years in the scientific community. Stem cells have the potential to be transformed into specialized cells that can act as an internal repair system or treatment for damage within the body. The National Institutes of Health (NIH) describes the potential benefits of stem cells in medicine: “Stem cells are distinguished from other cell types by two important characteristics. First, they are unspecialized cells capable of renewing themselves through cell division, sometimes after long periods of inactivity. Second, under certain conditions, they can be activated to become tissue or organ-specific cells with special functions. In some organs, such as the gut and bone marrow, stem cells regularly divide to repair and replace worn out or damaged tissues. In other organs, however, such as the pancreas and the heart, stem cells only divide under special conditions.”

A recent landmark veterinary study showed stem cells can be effective as a drug booster to help fight and cure drug-resistant infections in dogs. Stem cell therapy has also been used in cats to treat painful swelling caused by gingivitis, a type of gum disease. The potential to speed up healing and cure disease is the main motivator for scientists to explore the area of regenerative medicine, the process of replacing, engineering or regenerating cells, tissues or organs to restore or establish normal function. This multidisciplinary research field combines developmental biology, materials science, cell biology, engineering and medical knowledge for treatment of various diseases and disorders.

Mounting evidence suggests regenerative medicine can offer beneficial, sometimes even curative, results for specific diseases and conditions in our pets. “Manipulating stem cells can allow researchers to form different tissues under specific laboratory conditions,” says Koch. “This sets the stage for the possibility of engineering tissue to treat disease or injury.”

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Koch’s lab is focused on exploring healthy and diseased states of joint cartilage from an evidence-based, scientific approach. While some cell-based therapies currently exist in the veterinary community, his goal is to determine: the best source and type of stem cells, the culture conditions of stem cells and how to direct their specialization into cartilage cells, and ultimately how to improve joint disease outcomes by developing better diagnostic procedures and treatment possibilities. His research involves engineering tissue using stem cells in his laboratory. The next goal for Koch is to take his bench research into a range of clinical trials.

The path from the laboratory to the clinic is often complex in many areas of medicine, and regenerative medicine is no different. Koch and Dr. Tom Gibson, a small animal surgeon and certified specialist in veterinary sports and rehabilitation at OVC, are working together to find new solutions for elbow dysplasia in dogs. Common in larger breed dogs, elbow dysplasia is a lifelong disease for which there are currently very few treatment options. The disease often develops very quickly and can affect dogs at a young age. Koch and Gibson are collaborating with human health researchers at the University of Toronto to investigate a method to coax cells to become anti-inflammatory, a treatment that is currently being used in clinical trials for humans. Koch and Gibson hope to translate these findings into a clinical trial to help dogs.

On top of his work at OVC, Koch is the only veterinarian who sits on the Ontario Institute for Regenerative Medicine’s (OIRM) council, which is comprised of researchers and specialists working primarily in human regenerative medicine across the province. Much of Koch’s research is recognized as a model for human disease.

“Mounting evidence suggests regenerative medicine can offer beneficial, sometimes even curative, results for specific diseases and conditions in our pets,” says Koch, acknowledging the area has the potential to transform veterinary medicine as we know it today. “Here at OVC, we have a unique opportunity to contribute to this evolving field of health that may benefit both animals and humans alike. The possibilities are so exciting.”
Decreasing your pet's risk of STROKE

According to the Ontario Stroke Network, stroke is the leading cause of adult disability in Canada and the third leading cause of death in humans—but do strokes affect companion animals and what are the signs and causes of stroke in pets?

"Strokes appear to be less common in pets, but because their consequences can be fatal, it is important to detect at-risk patients and treat them preemptively," says OVC Internal Medicine Resident Dr. Sophie Saati. A stroke happens when a blood clot forms in a blood vessel, cutting off blood flow in the brain. Abnormal blood clot formation in pets appears to happen more commonly in other parts of the body, such as the lungs, heart and kidneys. "Depending where the blood clot occurs, clinical signs will differ. For example, neurological deficits if it happens in the brain, and difficulty breathing if it happens in the lungs," Saati explains.

Abnormal blood clot formation can be common with certain diseases. "Conditions that can be associated with this include cancer, heart diseases, autoimmune diseases, endocrine diseases (hormone disorders) and some types of kidney and intestinal diseases," while the appearance of abnormal clotting in pets varies widely, some diseases, such as immune-mediated hemolytic anemia, a life-threatening disorder where a dog’s immune system destroys its red blood cells, have a high mortality rate (about 50 per cent) and up to 80 per cent of those deaths can be attributed to abnormal blood clot formation.

For this reason, Saati focused her graduate student clinical research at OVC on platelet function tests. Platelets, one component in the blood responsible for forming clots, have their action reduced by some blood thinners, which decreases the chance of blood clot formation.

"Assessing platelet function in dogs receiving blood thinning therapy helps ensure that we know the medication is working and that it is reducing their risk of suffering a stroke and abnormal blood clotting in other organs," says Abrams-Ogg. In the past, veterinarians working in general practices have had to refer patients to academic institutions such as OVC to access platelet function tests. Saati hopes the results of her study will help implement routine blood clot function monitoring in general veterinary practice.

Saati’s study examined the effectiveness of a drug targeted implants Dr. Fiona James. Rapid prototyping via the translation of veterinary medical imaging to three-dimensional (3-D) printing promises a surgeon-independent and patient-specific approach to the veterinary neurosurgery field that could be invaluable times considerably, improve aesthetic reconstructive surgery and revolutionize veterinary medical education through academic and recreational. This study aims to establish the accuracy of a protocol for the creation of 3-D digital models from standard medical CT scans.

Investigating non-invasive electrodes for recording brain activity in dogs Dr. Fiona James. Confirm a non-invasive way of recording brain activity in dogs in order to improve the diagnosis and treatment of epilepsy, a common neurologic disease in dogs.

"One of the platelet function tests that we investigated, Plateletworks, can be performed in general practices using materials that are readily available," says Saati. "Ideally, our research findings will increase access and availability to preventable treatments and tests for effective blood thinner treatments when pets at-risk need it the most.”

Improving chemotherapy treatment of bone cancer in dogs by Targeting tumour acidity Dr. Anthony Natschers. This research investigates the potential anti-cancer effects of a drug normally used to treat heart failures in dogs. If successful, this research may lead to a new combination treatment approach that will improve the long-term survival of dogs treated with chemotherapy for bone cancer and possibly other cancers.

Investigation of a new agent for identifying lymph node metastasis in dogs with cancer Dr. Michelle Ulrich. The ability to better detect metastatic disease in patients with cancer could substantially improve both surgical success and outcomes. Using a new agent that has been developed to improve visualization both before and during surgery, this study will assess the ability of this agent to identify tumour-draining lymph nodes in dogs.

3-D printed surgical cutting guide development and testing for skull surgery in dogs Dr. Michelle Ulrich. Developing and testing a surgical cutting guide for skull tumours in dogs. Learnings from this study may be used to help future clinical patients, allowing OVC to offer cutting-edge surgical techniques and technologies that are not available anywhere else for veterinary patients.

Investigating routinely prescribed pain medications on eye health in dogs Dr. Charleen Peart. Enable veterinarians to better understand the impact of routinely prescribed pain medication on eye health of dogs, especially dogs with eye diseases.

Measuring disease markers of dog bone cancer using routine blood samples Dr. Geoffrey Wood. Routine, non-invasive blood samples have the potential to provide a wealth of information about how aggressive bone cancer will behave in dogs. Measuring specific molecular markers in a non-invasive way will allow us to diagnose and screen dogs for bone cancer and predict how well they will do following therapy.

CAT HEALTH

The utilization of a novel virus as a vaccine to treat cats with breast cancer Dr. Paul Woods. This study could provide evidence for the use of a novel new therapy involving maraba virus to vaccinate the immune system of cats against breast cancer to prevent recurrence of cancer following surgical removal. In future, other cancers (e.g. lymphoma, osteosarcoma) and species (i.e. rats and dogs) could be treated with the virus vaccine.

DOG & CAT HEALTH

Using DNA sequencing to determine if the microorganisms in the urinary tract are different in pets who have kidney stones compared to healthy pets in Alice Delgares. If a unique urinary microbe is identified in a dog and cat stone former patients, manipulation of their urinary microbiome might represent a novel preventative treatment for stone formation.

An investigation of pet owner perspectives of companion animal euthanasia practices and grief support structures Dr. Deep Khosa. Inducing and designing a set of evidence-based guidelines and recommendations to help veterinarians navigate the often challenging and impactful process of companion animal euthanasia, and grief support for pet owners. These guidelines aim to benefit all stakeholders in the veterinarian-client-animal relationship, with the goal of providing resources to support pet owner grief recovery, loyalty and retention to practice.

Sterility testing of materials used in 3-D printing of patient specific tools Dr. Michelle Oblak. Build a solid foundation for a collaborative group of OVC researchers to explore innovative uses of customisable rapid prototyping for the treatment of various companion animal conditions. Testing the sterility of medical used in rapid prototyping is the key first step before safely using this cutting edge technology to improve the health and well-being of companion animals.

AVIAN EXOTIC HEALTH

Minimally invasive spy in companion reptiles: initial assessment Dr. Dr. Hugo Beaufrere. Offer a non-invasive and less invasive option for routine care of small reptiles and to further extend the range of possibilities of minimally invasive surgeries to companion animal exotic species.

EQUIPMENT

Ultralow temperature for Long-Term Preservation of Clinical Research Samples Dr. Shauna Bliss. Ultralow temperatures allow biological samples to remain viable for research for many years, allowing researchers to bank samples for future projects and clinical trials. Research performed on these banked samples can potentially offer insight into new diagnostics or treatments for disease in pets. This freezer will help support the ongoing clinical research to be performed in these areas by the Small Animal Internal Medicine and Emergency-Critical Care services.
I bring Emma to meet mom and dad for the first time — my wrinkle, wiggly canine bundle of joy. I never dreamt that I’d say goodbye to my dad before her. One thing that brings me comfort when I think about saying goodbye to my Emma one day is knowing that I can give her a beautiful and peaceful gift when her time comes. I can let her go in peace, surrounded by those who love her, instead of watching her deteriorate and even suffer. I tried my very best to make my dad comfortable — I diligently gave him his prescribed pain medication, wiped his face, wet his dry mouth — but I know he suffered. I don’t want Emma to suffer like that.

As a veterinarian, I educate my clients so that they can also make informed decisions about their pets’ well-being. Having to coach a family about making the decision to say goodbye is hard — harder than the euthanasia itself. Everyone has different beliefs. Euthanasia is not accepted in all faiths, and many people have a very difficult ethical struggle about the end of life. I can’t speak for what is right and wrong for everyone — only for what I believe and practice in my daily life. I don’t judge my clients as they make their journey through this emotional process. Sometimes the decision is easy. The hardest is when the decision is a bit of an ‘unknown’, which is often the case with a senior pet that is declining but may not be ‘sick’.

Initially, neither John nor I wanted to say the word euthanasia. Emma’s time hasn’t come yet. She still greets us at the door (not every time, but some of the time). She still loves a good bum scratch. She loves to stretch out on the grass in the sunshine. She ‘occasionally’ loves her little fur brother Oliver and will still initiate play with him. She still gets very excited to see my mom when she visits.

As I finish writing, Emma is still at my feet, although she’s now happily chewing away on a stuffed Kong. It’s not her time today and hopefully not tomorrow or next week. John and I notice her really good days, and take note of her not-so-good ones. I spent a fantastic day this winter with her and a local dog photographer for what she calls an ‘honour session’. We captured Emma’s personality and “adorable-stubbornness” and did an outdoor hike along the trails. I carried her when she needed it, and we completed our adventurous trek together. My family will miss her terribly when her time comes, and I often tell my little Frenchie that he has big paws to fill. My son’s first word was Emma — although I pretended to hear Muma, it sounds so similar after all. I’ve been sneaking her some extra Kongs, a few more Tennis and doing my best to let her know that she is the most wonderful companion that we could ever have been lucky enough to share our lives with. And when her time comes, I will be an older pet that has come into Olinyk’s care. The photo is printed and placed into the pet’s medical file. When the pet dies, often many years later, Olinyk sends the owners the picture she’s kept in her files with a personalized handwritten sympathy card and a copy of the Rainbow Bridge poem, a story that has gained popularity around the world and describes a paradise where many people believe pets go after they die. For some owners who may have not had many pictures of their pet, Olinyk’s tradition is particularly meaningful and special. She often hears back from her clients how comforting it is to receive a nice memory from the past after saying goodbye to their beloved companion.

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I will be the one who helps her find the Rainbow Bridge, because I owe her that much for all that she has given to our family.
SIX DEGREES OF SEPARATION
by Suzi Beber

Suzi Beber founded The Smiling Blue Skies® Cancer Fund in 2001, after losing her Golden Retrievers, Blues, to lymphoma. To honour his memory, and in gratitude for the care he received at OVC, Smiling Blue Skies has raised more than $1.8 million to support Pet Trust’s quest to find more and better ways to deal with canine cancer.

As the end of 2017 drew to a close, some terrific fundraisers were held, both at home and across the border, helmed by amazing clubs and people including Mary Beth Kenzkey and the Golden Retriever Club of Western New York’s Regional Specialty, Kristin Ozman-Sipus who spearheaded a $850 draw with the Golden Retriever Club of Mid-Florida, raising nearly $4,000, and, thanks to Linda Sowerby and Tri-Mark Canine Services, their Annual Photo Day was a bigger success than ever, in part due to the wonderful addition of “Cuddles with Corbyn.” Thanks too, to the Golden Retriever Club of British Columbia for their ongoing support and their generous year-end donation of $1,000, and the Capital Gomet’s annual fundraising efforts, that raised $2,000, and the Maritimes Golden Retriever Club, for their gift of $1,329 raised through their obedience and rally trials. Lynn Warren created sun catchers leading up to this event, raising $2,255 for a grand total of $5,584.

New to the Smiling Blue Skies fundraising family is gifted Vancouver Island photographer, Wendy Tisdale, who shared her beautiful holiday gift card designs and anyone who stopped in at Sidney Animal Hospital had the chance to buy them. Thanks too to Tricia Soulier, owner of Pawtivate Approach Pet Services for joining our Smiling Blue Skies family.

Tofino Soap Company’s first round collaboration with Smiling Blue Skies was a fabulous success. “Kindred Spirits” HOPE candles, raised $3,600. We are planning on bringing you more candles, and perhaps even a brand new product!

As I sign off, 2018 marks The 16th Annual Smiling Blue Skies Calgary Walk for Canine Cancer. Stay tuned for the release of the OVC Pet Trust Smiling Blue Skies 2017 Update Report. Thank you to everyone who shares the heart of giving with Smiling Blue Skies.

Long live blue skies, where hope is a kite and the renewal that comes with this very special time of the year.

IN PHOTO: BB KING AND MAYA.

About Best Friends
Best Friends is the pet magazine of the Ontario Veterinary College. It is published two times per year by OVC Pet Trust for the interest of pet owners and for those dedicated to animal health, well-being and the human-animal bond.

About OVC Pet Trust
OVC Pet Trust, founded in 1986 at the Ontario Veterinary College (OVC), University of Guelph, is Canada’s first charitable fund dedicated to the health and well-being of companion animals. OVC is a leader in veterinary health care, learning and discovery for the health of all species, including our own.

About OVC Pet Trust Advisory Board
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If you would like to share your “In Memory” story, please email OVC Pet Trust’s Writer, Ashleigh Martyn, at amarty01@uoguelph.ca.
#PETTRUSTPALS

Celebrating our amazing supporters and fundraisers from across Canada! Share your event and tag your photos with #PetTrustPals on Facebook and Twitter.

1. Naomi Sanderson started The Paw Hat Project in fall 2017 in honour of Sara Carson and the Supercolllies, raising $1,000 for OVC Pet Trust so far. 25,000 yards of yarn have created 105 hats knitted to date.

2. The 8th Annual OTS Dog Jog raised $15,300 in support of OVC Pet Trust.

3. University of Guelph (UofG) College Royal celebrated its 94th year this March. OVC’s Teddy Bear Surgery, a clinic run by second and third year Doctor of Veterinary Medicine students was once again a big hit!

4. University of Guelph students “Take a Paws” from exam season with therapy dogs, a bi-annual event organized by the UofG McLaughlin Library in partnership with St. John Ambulance, the Ontario Veterinary College and OVC Pet Trust.

5. Kris Gies started his role as the interim OVC Pet Trust Outreach Coordinator (right). Photo taken at the 2018 OVMA Conference and Trade Show along with OVC Pet Trust’s Managing Director Kim Robinson (left) and Bailey Kagan (centre).

6. This January Petsecure visited Sandra Valeriote at OVC Pet Trust to donate $2,100 on behalf of their customers and their Help a Pet Program.

UPCOMING EVENTS


JUNE 24: University of Guelph Summerfest – Guelph, Ontario.


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