We all want what’s best for our pets — especially when they’re in pain and need us the most.

That’s why minimally invasive procedures (MIP) and image-guided therapies are revolutionizing health care in both human and veterinary medicine, and Pet Trust is helping the Ontario Veterinary College (OVC) to lead the way.

Using highly specialized equipment and new techniques, veterinarians can now treat a number of conditions requiring only small incisions.

“These techniques allow our patients to return to their healthy, happy lives with less pain, fewer complications and faster recovery times than traditional methods,” says Dr. Brigitte Brisson, one of the OVC surgeons leading the expansion of MIP programs at the OVC Health Sciences Centre.

The initiative is already making a big difference in the lives of pets like Cody, a nine-year-old golden retriever who had his spleen removed in a laparoscopic-assisted procedure in early August. Dr. Ameet Singh performed the surgery after Cody’s spleen had become enlarged and painful due to mast cell cancer.
New opportunities for cancer discoveries

**Smiling Blue Skies supports new clinical trials co-ordinator position**

Pet Trust is enhancing its investment in companion animal cancer studies at the University of Guelph’s Institute for Comparative Cancer Investigation (ICCI).

Thanks to support from the Smiling Blue Skies Cancer Fund, the ICCI is responding to growing demand for support of companion animal cancer studies by recruiting a full-time clinical trials co-ordinator. The new position complements the duties of the tumour bank co-ordinator (also supported by Pet Trust).

“This is a reflection of how successful we’ve become — there is simply too much to do for one person,” says Dr. Brenda Coomber, the ICCI’s co-director. “In addition to keeping up with our existing activities, this new position will allow us to expand our capabilities. We’ll be able to conduct more sophisticated clinical studies, collaborate more with the non-oncology services in the OVC Health Sciences Centre, and increase our capacity for prospective sampling with unique protocols for future research.”

A dozen new studies involving hundreds of dogs with cancer will be getting underway over the next few months.

The clinical trials co-ordinator will work with researchers to recruit patients for clinical trials being conducted at the OVC’s Mona Campbell Centre for Animal Cancer. Duties will also include acting as a liaison with pet owners, explaining clinical cancer trials, obtaining consent for their pet’s participation, and following up on cases and outcomes and collecting samples for the tumour bank.

Smiling Blue Skies is proud to support companion animal cancer studies, says founder Suzi Beber.

“With the addition of this critical role, we’re helping to ensure that as many companion animals as possible are benefitting from current studies and that critical cancer research continues for the benefit of all of us,” she says.

---

**Innovative treatments, less pain, faster healing**

Continued from page 1

“If you didn’t know, you would never guess that he had surgery,” says owner Mike McLean. Cody had the splenectomy and a liver biopsy on a Friday and went home the following day.

“He bounced back so quickly we were able to restart his chemotherapy the next week.”

The father of a young son, McLean says Cody “was our first kid. We’re going to explore every option to make him well as long as he has good quality of life.”

By late September, Cody was nearly finished chemotherapy, “doing incredibly well, and he’s gained back all the weight he’d lost while he was sick.”

Sometimes, timely intervention can prevent a serious condition. Teddy, a Briard adopted by Ruth Dixon, didn’t miss a beat following laparoscopic gastropexy, a minimally invasive surgical procedure in which the stomach is sutured to the abdominal wall to prevent gastric dilatation-volvulus (GDV).

Commonly known as bloat, GDV is a life-threatening condition in which the stomach expands, flips over and twists inside the abdominal cavity. It can happen in any dog but is more common in large, deep-chested breeds.

Dixon chose the preventive option after Teddy’s littermate developed GDV and required emergency surgery. This involves a large incision to allow the surgeon to “un-twist” the stomach and check other organs for damage. It’s major surgery that doesn’t always end well. In Teddy’s case, the procedure was performed laparoscopically. The procedure requires only two small incisions — one for the instruments and one for the camera to guide the surgeons.

Dixon, who is trained as an operating room nurse in human health care, has seen first-hand the benefits of using minimally invasive therapies whenever possible.

“It just makes so much sense to do it this way,” she says. “It’s safer for the animal, they recover much more quickly, and it’s more cost-effective. It’s the way human medicine is going and so is veterinary medicine because we all want what’s best for our pets.”

**Your support will help OVC save lives and enhance the skills of future veterinarians**

OVC offers a wide range of minimally invasive options including laparoscopy, thoracoscopy, arthroscopy, endoscopy, interventional radiology, and lithotripsy. These advanced tools allow our specialists to treat a variety of gastrointestinal, respiratory, urinary, cardiovascular and orthopedic conditions more effectively than ever before.

But with your help there is so much more we can do.

**To find out more about MIP@OVC, visit pettrust.ca/mip.**
Most people nowadays would agree that pets are part of their family. But there’s far more to it than that, says Gareth Seltzer. “A dog is a witness to your life,” he says. “Having a dog in your life is much like having your life filmed 24/7 except that they feel, hear and experience everything that you experience in addition to just being a witness to it.”

“That connection — sharing everything in this unique way — is unlike any other relationship.”

It also leaves a giant hole in your heart when that constant furry presence is gone. In August, Gareth and his wife Monique said goodbye to their 11-year-old golden retriever Ellie Bear.

“We are so sad that Bear was lost to cancer, but we are so glad it was not a battle. Instead it was an experience,” says Seltzer.

Adopted by the Seltzers about three years ago, Bear was best friends with their other retriever Soda and a participant in all family activities — riding in the pickup truck or in the boat, exploring every corner of the trails around their Muskoka farm, and knowing the location of every tennis ball within a mile. Her illness struck without warning this spring when Bear was suddenly not herself and had lost her appetite.

The family veterinarian diagnosed Bear with a challenging form of cancer. Tests at OVC confirmed she had hepatic hemangiosarcoma — a highly aggressive cancer in the blood vessels of the spleen and liver.

Choosing what to do next was a heart-wrenching task. Gareth and Monique brought Bear to the Mona Campbell Centre for Animal Cancer because they knew it offered the best hope for effective treatment and might also benefit others.

“OVC gave Bear, Monique and me the chance to participate in developing future standards of health care. This is Bear’s legacy,” says Seltzer, who praised Bear’s healthcare team led by Dr. Danielle Richardson.

“Bear never lost her dignity. She was, until the end, simply a wonderful companion.”

Supporting OVC and Pet Trust is one way to ensure that the most advanced cancer therapies are available for our pets and that ongoing research benefits us all.

“Perhaps most importantly, OVC and the Pet Trust family love your dog. They will walk the road of care with you and you can feel how much they care to improve the lives of our animal friends.”
Your gifts at work

Eleven new projects received total of $184,406 in Winter 2014

Preventing blood transfusion reactions in critically ill dogs

Blood transfusions save lives but are not without risk. Dr. Shauna Blois will test the effectiveness and safety of a blood filtration technique aimed at preventing transfusion reactions that occur in up to 13% of dogs receiving blood products. Leukoreduction (LR) removes white blood cells and some of their by-products from blood products using a special filtration set. Patients receiving LR blood transfusions may have fewer transfusion reactions including less inflammation, possibly leading to improved outcomes. This clinical trial will compare the inflammatory response of patients receiving LR to non-LR patients and monitor outcomes in critically ill dogs.

Immunotherapy for dogs with melanoma

Pet Trust is supporting research that aims to fight cancer in dogs by directing their own immune system to attack cancer cells without the toxic side effects of standard treatments. Dr. Byram Bridle's project is focused on melanoma, and the proteins called melanoma-associated antigens (MAAs) expressed by tumour cells. Using melanoma samples from the OVC's tumour bank, vaccines containing MAAs will be used to provoke the body's cancer-killing immune response. The specimens will be analysed for expression of MAAs and the data will be used to develop vaccines to target the most commonly expressed MAAs in canine melanomas.

Effects of blood thinners on cats

In the third part of an ongoing study, Dr. Tony Ogg will evaluate tests to determine the effects of blood thinners used to prevent dangerous blood clots in cats. Hypertrophic cardiomyopathy (HCM) is a common disorder where a cat's heart muscle becomes thickened and may result in a severe complication known as FATE (feline aortic thrombo-embolism), in which a blood clot forms and cuts off the blood supply to the back legs. At least half of cats with this condition die. In an effort to prevent FATE, cats are given the drugs Aspirin or Plavix used as blood thinners in humans. However, the effects of these drugs in cats are not well known and many cats treated with them still die of FATE. This study will measure the efficacy of these drugs using three blood platelet function tests.

Canine distemper virus strains in dogs and wildlife in Ontario

Dr. Claire Jardine is working to protect dogs from canine distemper, one of the most severe infectious diseases affecting dogs worldwide. A common cause of death in raccoons and skunks, the virus that causes the disease appears to be changing and expanding its range, affecting some species not previously susceptible and posing a new threat to domestic dogs, even those that have been vaccinated. This study will compare strains of distemper virus in dogs and wild animals to identify the most likely source of infection for dogs, and determine whether commonly used vaccines are likely to protect pet dogs in Ontario.

Effects of warmed carbon dioxide used during laparoscopy in dogs

Dr. Ameet Singh is refining minimally invasive surgical techniques such as laparoscopy that reduce post-operative pain and promote faster healing. In laparoscopy, carbon dioxide is injected into the abdominal cavity to expand the workspace and reduce obstructions for the surgeon. Typically the gas is used at room temperature, which is about 15 degrees cooler than a dog's core body temperature. This may increase the risk of hypothermia during surgery that can lead to complications and prolonged recovery time. This study will investigate the effects of using warmed CO2 on cardiovascular function, core temperature, inflammatory response, coagulation and post-operative pain in healthy, mature dogs undergoing laparoscopy.

Effects of an anti-inflammatory drug on dogs undergoing mast cell tumour surgery

Dr. Alex Valverde is investigating whether a common antihistamine used to treat allergies and other conditions is also helpful when given to dogs undergoing mast cell tumour (MCT) surgery. One of the most common types of malignant skin cancer in dogs and cats, MCTs release histamine, a compound produced by most cells in response to injury and in allergic and inflammatory reactions. The release of histamine causes the blood vessels to widen and lowers blood pressure (hypotension). This natural defence mechanism may put dogs at risk during surgery. This study will determine whether a histamine blocker called diphenhydramine — the active ingredient in the over-the-counter medication Benadryl — before surgery effectively and safely minimizes the chances of cardiovascular problems.

Vitamin B1 deficiency in dogs and cats

Thiamine or vitamin B1 is required in the diet of dogs and cats. During critical illness many dogs and cats eat less food or do not eat at all. This means they are also not consuming enough thiamine which may affect the brain, nerves, eyes, heart, and gastrointestinal tract. At present, thiamine is not routinely given to critically ill dogs and cats. In humans, about 20% of adult patients and 30% of children admitted to intensive care units have thiamine deficiency. Dr. Adronie Verbrugghe's study will determine whether diagnosing thiamine deficiency early will allow veterinarians to supplement their patients' diets to prevent them from becoming even more critically ill by increasing concentrations of the vitamin in their blood.

Microbiota analysis in ornamental saltwater fish

Dr. Scott Weese's project aims to improve water quality in household saltwater aquariums to reduce all-to-common deaths of pet fish. Because aquaria are closed environments, waste products that are excreted by fish or produced by other...
Support from Pet Trust is helping Ontario Veterinary College (OVC) researchers develop a new diagnostic test to help veterinarians detect and prevent a “silent killer” in cats – kidney disease.

All too common in older cats, kidney disease is the result of multiple injuries to the kidneys that may go undetected over many years. Such injuries may be caused by drugs that are toxic to the kidneys, episodes of reduced blood supply to kidneys during anesthesia, dehydration, and viral or bacterial infections.

“It’s estimated that between 30 and 60 per cent of cats older than 10 years of age have kidney disease,” says Dr. Dorothee Bienzle, a faculty member in OVC’s Department of Pathobiology.

The challenge for veterinarians and owners is that most cats show few symptoms of being sick before the condition becomes life-threatening. There are currently no reliable tests to identify when an injury occurs or how severe it is, so there is no basis for changing commonly used drugs and procedures to prevent further injury.

“Typically cats get along quite fine for some time, whereas if they were people with the same condition they would be on dialysis and put on the waiting list for a kidney transplant,” Bienzle says.

“It’s clinically silent for many years. That’s what we think, but we can’t prove it without a sensitive test.”

Pet Trust is supporting the efforts of Bienzle and post-doctoral researcher Karlyn Bland to develop a non-invasive test to detect kidney injury before the damage develops into chronic kidney disease.

Their project is focused on KIM-1, a protein known in human medicine as a biomarker for kidney injury. Previous research published by Bienzle’s team identified the structure and function of feline KIM-1, which is expressed by kidney tubule cells and shed into urine of cats with kidney injury. The goal of this project is to produce and validate a cat-specific test that will detect KIM-1 in the urine of feline patients.

“With this promising new test, veterinarians may be able to detect kidney injuries and change their practices to avoid kidney injury and prevent development of kidney disease.”
Six Degrees of Separation

Smiling Blue Skies friends out in force no matter the weather

Fall is in the air, or, if you live in Calgary, winter has already touched down, and not very gently. Spring, summer and fall seemed to meld together on the East Coast, but regardless of the weather conditions, Smiling Blue Skies has been busy from coast-to-coast.

As a matter of fact, the snow didn’t deter Calgarians participating in the Smiling Blue Skies walk in May. There was plenty of sunshine in their hearts as the event raised over $30,000. As Mary Shillabeer wrote, “It is such a special time, to get together and laugh and cry, for all the dogs we have lost to cancer. Here’s to HOPE!”

Later that same month in beautiful Holland Landing, Ont., Bernadette was back in force, and their walk raised over $11,000. An extra special addition to their event was the oak seedlings carefully nurtured from acorns by Teresa and Bruce MacFarlane. For a minimum donation of $3, participants received a beautifully wrapped oak tree sapling. Bernadette wrote, “I can’t think of a more appropriate way to remember those who have crossed The Bridge, or to celebrate the life of those still with us.”

Congratulations and thank you to Guelph’s Amanda Raymond and her team for raising over $23,000 at their inaugural Smiling Blue Skies Walk to End Canine Cancer on Sept. 6. Among the 120 Guelph walkers and their dogs were Dr. Doreen Houston and Rayner, who have been beacons of light and hope for so many of us. Sadly, after three years of being cancer free, and three days after the Guelph event, Rayner passed away. Rayner’s life had been extended through the critical research conducted into malignant melanoma, and Rayner is helping future researchers through her gifts to the OVC tumour bank.

Joanne Cooper’s second annual Woof-fit Mini Triathlon for Dogs and Their People was a great success. Under sunny skies — a nice change from last June’s torrential rains — $19,350 was raised! Way to go! Visit the photo album from the event on Facebook to witness the joyous celebration of laughter and a sprinkling of tears. It’s worth a visit!

Every year, AVID (Academy of Vancouver Island Dogs) holds a spectacular “Brown Bag Raffle” during its Canada Day agility trials, and this summer’s fundraiser was no exception, raising more money than ever! Vancouver Island’s Capital Comets Dog Sports Club, another ongoing supporter, held a special fundraiser of their own during their summer trial. Thanks also to participants in the Roadsters Agility Club trial in Comox, B.C. for supporting Smiling Blue Skies and Linda Matteson-Nowell.

Linda, a gifted photographer and amazing cheerleader for Smiling Blue Skies, saw heartbreak turned upside-down after her motorhome was broken into and her Smiling Blue Skies raffle basket stolen. People from all over the island pitched in to create new baskets. As Linda posted to her Facebook page, “Agility friends are like jelly donuts. All the goodness and sweetness is on the inside.”

Thank you to Liza and Canine Life, Joanne and West Coast Canine Life, and Dina and Endless Pawsibilities for donating a percentage of ALL their sales to cancer research through Smiling Blue Skies and OVC Pet Trust. Thanks too, to Redstone Publishing for over a decade of support and more recently for publishing the Animal Wellness Natural Cookbook for Dogs and donating 5% from the sale of each cookbook. Finally, thanks to Tofino’s Wickaninnish Inn.

As I close, I also congratulate Kelly Manis and the Toronto team, who raised over $35,000 in the Smiling Blue Skies walk in The Beaches neighbourhood on Sept. 27. Hope it was a perfect day “in the hood.”

The walks and mini triathlon raised about $119,000 in 2014 and I think that is worth a big “shout out” too!

— ‘Long live Blue Skies, where Hope is a kite and dreams really do come true, thanks to special people like you.’  Suzi Beber
In the community: Guelph walk a howling success

The inaugural Smiling Blue Skies Walk to End Canine Cancer – Guelph was a huge success and raised over $23,000. The event brought together more than 120 people and their dogs to Guelph’s York Road Park on Sept. 6. Participants included residents of the area as well as many faculty, staff and students from the Ontario Veterinary College and University of Guelph, including teams from the OVC dean’s office, the animal cancer centre and Department of Pathobiology.

Kerry and Kevin Keegan walked with their dog Lexie and Kerry’s mother’s dog Oliver. The Keegans lost their dog, Hailey, last December and when they saw the Guelph walk advertised at their veterinarian’s office, they thought participating was the right thing to do. “We’re 100 per cent behind this cause,” says Kerry.

Smiling Blue Skies supporters across Canada host several walks each year but this was the first to be held in Guelph. Amanda Raymond organized

“I was looking for a way to make a difference and to find hope in the heartache.”

the walk in memory of her dog Charger, who died of lymphoma last year. She and Charger had participated in the Toronto Smiling Blue Skies Walk only a month before, and Raymond is hoping the Guelph walk will inspire others to help in the fight against cancer.

“When Charger died, I was looking for a way to make a difference and to find hope in the heartache,” says Raymond. “I’m so grateful to Smiling Blue Skies and Suzi Beber for providing the opportunity to raise awareness and support the veterinarians and scientists at OVC who are working to find better treatments that will save lives and improve quality of life for our beloved pets with cancer.”

Since its inception in 2001, the Smiling Blue Skies Cancer Fund has raised over $1.4 million dollars to support canine cancer research and treatment through OVC Pet Trust.

“We are grateful to Suzi Beber, founder of Smiling Blue Skies and to community organizers like Amanda for their dedication and support,” says Pet Trust managing director Kim Robinson.

“It is through their tireless efforts that we can raise awareness and fund meaningful discoveries that are happening at the Ontario Veterinary College.”
Golden partnership: Supporting the tumour bank initiative

Allandale Veterinary Hospital “depositing” patient samples

An Ontario veterinary clinic has found a unique way to support Pet Trust and the Ontario Veterinary College (OVC) in the fight against cancer. Dr. Patricia Lechten and the team at Allandale Veterinary Hospital in Barrie, Ont. have joined with the Institute of Comparative Cancer Investigation (ICCI) to expand the scope of the companion animal tumour bank. Their service will augment the ICCI’s tumour banking operations at OVC by collecting blood samples from cancer patients (with client consent) at the Allandale clinic. The samples will then be shipped to Guelph and “deposited” in the tumour bank for use in future studies.

“We’re very pleased to do our part to advance the important cancer research taking place at OVC.”

Lechten is on the board of Golden Rescue, a charitable group dedicated to rescuing and rehoming Golden retrievers. She approached OVC about getting involved after Golden Rescue members discussed concerns about the high rate of cancer in the breed.

“They were very interested in trying to do something,” says Lechten, whose clinic sees approximately 300 cancer cases a year, many of them golden retrievers.

“We’re very pleased to be able to do our part to advance the important cancer research taking place at OVC.”

The new initiative reflects a groundswell of interest in the tumour bank and provides a tangible way for people outside OVC to contribute, says Dr. Brenda Coomber, ICCI co-director.

“This is a very exciting initiative that allows us to expand what we do. Secondly, it captures a population that we know has a high incidence of cancer — golden retrievers — and provides samples that we would not otherwise have,” she says. “If this works well, perhaps we can expand it to include some of the larger referral clinics in the GTA.”

For information contact Chris at cbeckett@uoguelph.ca