

# Best friends

## NEWSLETTER



## ZOEY'S STORY

*Phillippe Levis, OVC'2016 with Zoey at the OTS Dog Jog. Just a few months after surgery.*

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**COMING EVENTS**

### LIFESAVING CARDIAC PROCEDURES AT OVC

Sometimes the doorstep a puppy ends up on can make all the difference.

Zoey was a few weeks old and half the size of her puppy litter mates when she arrived at the Timmins District Humane Society (TDHS).

Over her first few days in the shelter, the small mixed breed dog was not eating well, regur-

gating solid food, and kennel workers were concerned, says Phillippe Levis, a third-year OVC DVM student who has been involved with TDHS in his hometown since high school. The next day she was eating even less and TDHS knew she needed help. An x-ray with contrast material mixed in with food made the diagnosis clear.

Zoey's aorta (the major vessel carrying blood from the heart to the rest of the body) had formed on the wrong side of her esophagus. The malpositioning of the great vessels of the heart, called a vascular ring, were creating a constricting band across her esophagus, preventing food from easily passing through to her stomach. Dr. Carla Mascioli, OVC 2007 and TDHS president, knew exactly what to do.

"It's simple how I decide who to refer to the Ontario Veterinary College (OVC); we work up cases to the extent of our fullest capabilities (lab work, x-rays, surgical procedures)," says Mascioli. "Once we reach the point where it is beyond our expertise and we feel with expert help there will be a good prognosis for a healthy life for the pet, then we refer to OVC where there are veterinary specialists and more specialized equipment to better work up these complicated cases."

"I like the fact that OVC has a multi-disciplinary facility where a patient has access to veterinarians that are experts in all areas, an in-house lab and a teaching background so they always keep aware of emerging research and trends."

*Continued page 9*



# Best friends

NEWSLETTER

Best Friends of Pet Trust is published two times a year by the Ontario Veterinary College (OVC) for interest of Pet Trust donors and friends. Articles do not necessarily reflect the views of the OVC Pet Trust Board of trustees.

## 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. The Ontario Veterinary College is a leader in veterinary health care, learning and discovery for the health of all species, including our own.

## Pet Trust Board of Trustees:

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# INVESTING IN DISCOVERY

*The Pet Trust team had a chance to check in with Dr. Shauna Blois, Pet Trust funded researcher and faculty member at the Ontario Veterinary College (OVC). Shauna shares her experience in developing her career, expanding her research and how OVC Pet Trust has helped her continue to learn, grow and give back to world of companion animal medicine.*

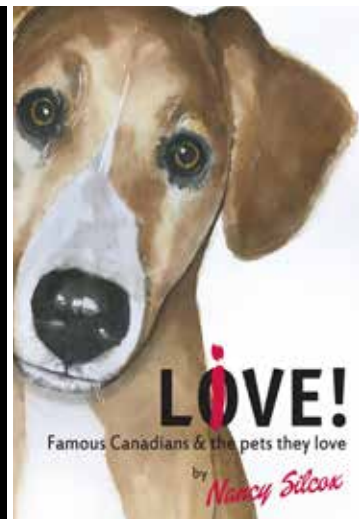
## What is your background, training and role here at the Ontario Veterinary College?

I graduated with my Doctoral of Veterinary Medicine (DVM) from the Atlantic Veterinary College. Prior to entering vet school, I had a strong interest in teaching and research. I considered pursuing graduate studies in biology but had a long-term goal of becoming a veterinarian. After speaking with a friend, I realized that veterinary medicine could open so many doors and that I could have a career combining all of my interests – clinical work with animals, teaching, and research. Since my primary interest is in clinical work (specifically small animal internal medicine), I pursued an internship at the Ontario Veterinary college (OVC) after my DVM training. I loved being in the OVC teaching hospital environment, and was fortunate to be selected as a small animal internal medicine resident / DVSc student after my internship. Once this 3-year training program was coming to an end, OVC had some faculty positions open in the small animal medicine service. I had looked into jobs elsewhere, both in private practice and at other universities. However, I really loved the training opportunities I was given at OVC and the positive environment found in our hospital. I was really happy here as a resident, and knew that being a faculty member at OVC was the right fit for me.

During my residency/ DVSc program, my advisor, Dr. Dana Allen, came up with a research project involving canine platelet function. I was able to help design the project, acquire funding, and complete the research during my program. I found research in hemostasis really interesting, and because Dr. Allen involved me in all of the research stages (from planning to publication), I was able to develop a solid foundation as a researcher and translate this into my research program as a faculty member. My main research interest is still hemostasis.

NEW BOOK to support OVC Pet Trust available at [www.chapters.ca](http://www.chapters.ca)

# LIVE LOVE: FAMOUS CANADIANS & THE PETS THEY LOVE







## CHECKING IN WITH DR. SHAUNA BLOIS

### PET TRUST INVESTMENTS ENABLE EARLY CAREER RESEARCHERS TO ADVANCE ANIMAL MEDICINE

As a faculty member, I spend half of my time in the OVC Health Sciences Centre (OVC HSC), as a small animal internal medicine specialist. I help train DVM students, interns and residents in this specialty. Internal medicine encompasses a wide number of systems – endocrinology, gastrointestinal disease, respiratory issues, and more. Dogs and cats are referred to our service from primary care veterinarians, and often have complex problems. We work within our service, as well as with the other specialty services in the hospital, to diagnose and treat a wide range of disorders. I also teach DVM students throughout their pre-clinical training, and specialty internal medicine classes for the residents and DVSc students in the OVC HSC.

One of my other roles in the OVC HSC is as the faculty veterinarian for the canine and feline blood donor program. Along with Dr. Danielle Richardson, I provide veterinary support to this program that oversees collection of >400 units of blood from dogs and cats annually, for use in the OVC HSC.

#### **What projects are you currently working on and what is the goal?**

My primary interest is to identify disorders of hemostasis (blood clotting) that result from diseases or drugs. Various forms of thromboembolic disorders, or inappropriate blood clot formation, are leading causes of human deaths. While the incidence of thromboembolism in dogs and cats is lower than in humans, when this complication occurs it leads to serious or fatal consequences. As a researcher in the OVC Comparative Hemostasis Laboratory, I am trying to discover mechanisms leading to thromboembolic disorders, as well as strategies to prevent these complications.

#### **How will this work help our pets?**

My research at this time primarily deals with dogs and cats. One of our current projects is looking at mechanism of thromboembolic disorders in dogs with immune mediated hemolytic anemia (IMHA). A high rate of dogs with IMHA suffer consequences of thromboembolism, and this can be their primary cause of death.

One of the goals of the OVC Comparative Hemostasis Laboratory is to perform translational research. Another current research project looks at the use of nutritional supplements such as fish oils as a therapy to help prevent thromboembolic disorders in dogs. We expect that our findings will be similar to those of other species, including humans, and can offer insight into how dietary supplements could benefit patients of different species at risk of thromboembolism.

#### **How has OVC Pet Trust funding helped your work?**

It is difficult to make an impact in the research world as an early career faculty member. Many of the large funding agencies are looking at your resumé for proof of previous research experience, and in most cases you are competing with more experienced investigators, worldwide, for a small pool of funds.

Pet Trust recognizes that early career faculty members with strong research ideas can make an impact. It is still a very competitive process, and you need to have a solid research project to get funding from OVC Pet Trust. However, the competition pool is smaller and Pet Trust recognizes that early career faculty members often don't have a lengthy resumé.

My very first proposal to Pet Trust wasn't funded, which was probably the best thing that could have happened to me. My proposal just wasn't strong enough, but the Pet Trust committee gave me advice on how to make future proposals stronger. In addition, OVC has implemented several programs to strengthen the research success of early career faculty members – grant writing workshops, mentorship, and an internal grant review process. I have taken part in many of these activities.

With this support I have been successfully funded as a Primary Investigator in 10 new Pet Trust research projects, as well as a collaborator on several more. Most of these research projects were performed with equipment that was funded by the Pet Trust Equipment fund.

These Pet Trust research experiences have helped me build my resumé and enabled me to show research success to outside funding agencies. Recently, I was awarded an American Kennel Club Acorn grant for a project on platelet function testing variability in dogs, as well as an infrastructure grant from the Canadian Foundation for Innovation worth approximately \$220,000. This infrastructure grant allowed us to add novel equipment to the OVC Comparative Hemostasis Laboratory, which is being used in some new projects this spring. Without having a history of research success with my Pet Trust grants, I would not have been able to apply for these grants nor would I have had the confidence to do so. ❖

*To learn more about OVC Pet Trust funded studies please visit [www.pettrust.ca](http://www.pettrust.ca).*

# YOUR GIFTS AT WORK

TWELVE NEW PROJECTS RECEIVED A TOTAL OF \$229,725 IN FALL 2014

## Calibrated automated thrombogram in healthy dogs and dogs with immune mediated hemolytic anemia

**Dr. Shauna Blois**

The inappropriate formation of blood clots is a common and often fatal consequence of canine immune mediated hemolytic anemia (IMHA). Dogs with IMHA have mortality rates up to 80%, making this a serious and often fatal disease. Blood clot complications are found to be the cause of many of these deaths. More accurate ways to measure blood clotting ability in IMHA dogs and other pets with anemia is needed. Calibrated automated thrombogram (CAT) is a new test of blood clotting used in human medicine. The OVC Comparative Hemostasis Laboratory has recently acquired the equipment to perform CAT. The aim of this research

is to better determine why dogs with IMHA are prone to blood clots. This will help lead to improved treatment and survival rate of dogs with IMHA.

## The individual and combined effects of long-chain omega-3 polyunsaturated fatty acids and low-dose aspirin on platelet function in healthy dogs

**Dr. Shauna Blois**

Continuing on work funded in 2012, this study reviews fish oil supplementation as an effective means of inhibiting platelets (clotting agents in blood). Current anti-platelet therapies (such as low-dose aspirin that work in human medicine) can have poor efficacy in many dogs and further treatment options are needed. Recent evidence shows that a combination of aspirin and omega-3 fatty acids can result in more effective platelet inhibition than either can alone. Prevention of thromboembolic disease (inappropriate formation of blood clots) is an important part of therapy for dogs affected by a wide range of conditions, including autoimmune blood disorders and kidney disease. The renewal of these funds will go toward completing data analysis and investigating the effects of these therapies using flow cytometry, a test that helps identify markers of activity on the platelet surface.

## Evaluation of the biofilm-producing ability of dogs. *Enterococcus faecium* and *Enterococcus faecalis* clinical isolates

**Dr. Alice Defarges**

*Enterococci* (bacteria that live in the intestines) are leading causes of hospital-acquired infections in human medicine and often identified in veterinary hospital-associated infections. *Enterococci* are now recognized as the third most commonly isolated bacteria involved in hospital-acquired infections in people. Some infections can be difficult to treat and one potential complicating factor is bacterial biofilm production. Biofilm is composed of a community of microorganisms living within a self-produced matrix that forms on an inert or living surface, essentially bacteria living within a protective slime layer. Bacteria in biofilms are often resistant to the immune system and antibiotics, complicating

elimination of infection. Biofilm-associated infections are of particular concern in patients with implants or devices such as surgical plates or urinary catheters, and often removal of the device is required to eliminate the infection. The purpose of the study is to evaluate the biofilm-producing ability of canine enterococcal isolates. In vitro biofilm production will be evaluated by microtitre plate assay.

## Epidemiology of *Ixodes scapularis* and *B. burdorferi* in pet dogs living in an emerging Lyme disease area in Ontario

**Dr. Claire Jardine & Dr. David Pearl**

The recent increase of blacklegged ticks (*Ixodes scapularis*) in southeastern Ontario is a growing public and animal health concern. This tick is capable of transmitting the bacteria that causes Lyme disease in both dogs and humans. Working with over 15 veterinary practices in Ontario located in or close to an emerging area for blacklegged ticks, researchers will compare pet demographic characteristics such as travel history, location, flea, tick and other parasite control, outdoor activities and the likelihood of a pet dog carrying blacklegged ticks.

The study will also look at the relationship between a past history of tick carriage and a positive serological (body fluid) test. It will determine how the rate of tick removal of both blacklegged and dog ticks (*Dermacentor variabilis*) and the proportions of these two tick species varies among veterinary clinics. The study will provide fundamental epidemiological information that will allow veterinarians to make evidence-based decisions concerning tick control programs and better inform on the risks associated with Lyme disease.

## A novel multiplex clonality assay for canine B-cell proliferations

**Dr. Stefan Keller**

Lymphoma, the most common type of blood cancer in dogs and often presents diagnostic challenges. Lymphomas arise from lymphocytes, a type of immune cell. Lymphocytes can become inflamed in response to infection, mimicking the signs of lymphoma. The ability to identify the difference between inflammation and cancer is crucial as prognosis and therapy differ significantly.







Inflammation and cancer are commonly distinguished by microscopic evaluation of tissue samples. In some instances, microscopic assessment is inconclusive and is followed up by genetic testing, called clonality testing. While this genetic test is well established in human medicine, most tests for animals have less than optimal results as they currently do not recognize certain lymphomas potentially resulting in misdiagnoses.

Through recent advancements in sequencing technology and bioinformatics, it is now possible to improve existing genetic tests. Our goal is to advance lymphoma diagnostics for canine B cell lymphoma by creating a new test with improved sensitivity. Working with samples of naturally occurring cancers collected through the Tumour Bank at the Mona Campbell Centre for Animal Cancer, this project is aimed to have direct clinical impact by increasing the ability to detect lymphoma and therefore increase patient survival rates.

### **Investigating biomarkers for metronomic cyclophosphamide treatment of canine soft tissue sarcoma using functional imaging, tissue, and blood analysis**

#### **Dr. Tony Mutsaers**

Low dose metronomic (LDM) chemotherapy is a novel cancer treatment strategy. In veterinary medicine, the reduced cost, ease of administration, and low toxicity profile has made metronomic chemotherapy protocols appealing. Important questions exist regarding optimal drug dose, schedule, and types of cancer that are sensitive to LDM treatment. This study will look at a major mechanism attributed to the efficacy of LDM chemotherapy: inhibition of blood vessel growth in tumors (anti-angiogenesis). During anti-angiogenic treatments cancerous tumors may stop growing but they may not shrink in size, (shrinkage typically occurs in conventional high dose chemotherapy). While measuring tumor shrinkage in response to treatment is commonly used to assess the benefit of cancer therapies, there is currently no standard way to measure tumour stoppage. This work aims to analyze several biomarkers that may be able to determine when a tumour has stopped growing. In this pilot study

researchers will investigate the anti-angiogenic effects of LDM. The results of this study will provide meaningful insight into the anti-angiogenic effects of LDM cyclophosphamide in canine soft tissue sarcoma patients.

### **Clinical utility of serial assessment of circulating NT-proBNP and left ventricular function by myocardial strain imaging in Doberman pinschers with preclinical dilated cardiomyopathy**

#### **Dr. Lynne O'Sullivan**

Dilated cardiomyopathy (DCM), a heart muscle disease where the heart becomes weakened, enlarged and cannot pump blood efficiently, is the second most common heart disease in dogs and occurs in people as well. The cumulative prevalence is very high in the Doberman pinscher (58%) and other large breed dogs are also affected. The average time from diagnosis to heart failure or sudden death is about 435 days, but can vary from only a few months to years. Current standard monitoring tools do not allow for reliable prediction of the onset of heart failure or sudden death in an individual patient, yet this is frequently the most common question asked by owners upon diagnosis and follow-up.

The objective of this study is to determine whether a cardiac hormone level (NT-proBNP) or advanced ultrasound (Myocardial strain imaging) can be used to predict the onset of heart failure or sudden death. Results aim to empower owners with information related to their pet's prognosis and help guide therapeutic decisions for those at-risk.

### **Genotype analysis to evaluate the occurrence of macrocyclic lactone resistance in *Dirofilaria immitis* infecting dogs in Ontario**

#### **Dr. Andrew Peregrine**

Heartworm infection is a potentially fatal condition in dogs. It is transmitted when an infected mosquito bites. The heartworm transmission season in Canada is conservatively estimated to last from June to October.

While heartworm preventive drugs, are commonly prescribed, each year approximately 75% of all canine heartworm infections in Canada are diagnosed in Ontario. Historically, preventive drugs have been of the utmost importance in keeping dogs free of heartworm infection in North America. Over the last decade, cases of apparent failure of heartworm preventives have been reported in some areas in the USA. Given the existence of resistance in the USA the spread to Canada is a realistic risk.

In the last 2 years, our collaborators at McGill University have identified DNA markers for monitoring parasites for resistance to heartworm preventives.

This project aims to identify cases of drug resistance in heartworm-infected dogs in Ontario by using DNA markers. It will give an early indication of possible resistance in dogs in Ontario and whether specific management practices are associated with drug-resistant infections. Collectively, the data will indicate whether current recommendations for heartworm prevention, testing and treatment in Ontario dogs require modification. This work is critical in identifying the spread of resistance to heartworm preventives which potentially constitutes a significant risk to the health and welfare of dogs in Canada.





# YOUR GIFTS AT WORK continued from page 5.

## **Anatomical characterization and evaluation of three different brachial plexus blockade local anesthetic techniques for analgesia in dogs**

### **Dr. Alex Valverde**

This study looks at finding new techniques to manage pain through effective delivery of local anesthesia for dogs that require surgery on the front limbs such as fracture repairs, amputation, and correction of limb deformities.

The primary objective is to compare the described traditional technique for blocking the brachial plexus (nerves that run from the spine to the front limbs) with two new novel approaches in dogs that may offer advantages by providing an easier way to perform the block and more effective anesthesia/analgesia. The study will also investigate and help outline the complete anatomy of the canine nerve network from the spine as it extends through the forelimb, since in humans there is variation in the nerve roots that originate from the spinal cord to supply the brachial plexus. This has not been thoroughly investigated in dogs related to clinical use and applicability of the local anesthetic techniques.

## **Anti-cancer activity of beta-glucans and long-chain n-3 PUFA in canine osteosarcoma and melanoma cancer cells**

### **Dr. Adronie Verbrugghe**

One in four dogs will develop cancer, and half will die from this disease. Despite the importance of nutrition in human cancers, there is very little literature examining

the role of nutrition in the development and progression of canine cancers. Pet owners note nutritional supplements as the most commonly used alternative therapy to treat a pet with cancer. However, limited research in this area leaves clinicians with little evidence-based knowledge to make recommendations about these supplements. This study examines the potential anti-cancer effects of nutraceuticals used in currently available supplements.

This study will explore the anti-cancer activity of variably sourced beta-glucans and LC n-3PUFA long-chain omega-3 polyunsaturated fatty acids, such as oily fish) in canine osteosarcoma and melanoma cancer cell lines.

## **Evaluation of the oral and plaque microbiotas in periodontal disease in dogs and cats**

### **Dr. Scott Weese**

Gum (periodontal) disease is among the most common diseases in dogs and cats, and can have a serious impact on quality of life. It can lead to oral pain, local infections and the need for dental surgery. Gum disease can also lead to infections outside of the mouth e.g. pericarditis (inflammation around the heart) and pneumonia. A major part of gum disease is formation of dental plaque, a bacterial biofilm formed by components of the oral microbiota (microorganisms). There has been limited study of the oral and plaque microbiotas in dogs and cats, and their association with disease. More information is needed to better understand this issue and develop improved treatments and preventive approaches.

This study aims to resolve the question of whether there is an association between the oral microbiota and the plaque microbiota; to describe the plaque and oral microbiotas of dogs and cats with varying forms of gingival disease and identify the relationship between bacteria and oral health or severity of gum disease.

## **Equipment Grants : Replacement platelet function analyzer (PFA-200)**

### **Dr. Anthony Abrams-Ogg**

Blood clotting abnormalities are frequently encountered in dogs and cats, either as primary inherited or acquired disease processes, or as a result of drug therapy. Both routine and specialized diagnostic tests of the blood clotting system are important for understanding the impact of disease, as well as the effect of the treatments. The blood clotting system is a recognized area of emerging knowledge strength at the Ontario Veterinary College (OVC). The OVC Comparative Hemostasis Laboratory serves as an adjunct facility which complements basic testing available through the Animal Health Laboratory.

Funds invested will build on past Pet Trust investments into this important area with the purchase of a replacement/upgrade Platelet Function Analyzer which is one of the first advanced bedside platelet function testing instruments to be introduced into human and animal medicine.

This equipment update will ensure the OVC Comparative Hemostasis Laboratory continues to function as a comprehensive research unit. ❖







*Roland Browning Watt, Q.C., Brian Willams, Dr. Elizabeth Arnold Stone and Dora.*

## THANK YOU FOR 10 YEARS OF LEADERSHIP

When Elizabeth Arnold Stone arrived in 2005 as the 10th Dean of the Ontario Veterinary College (OVC) she found a dedicated group of professional volunteers committed to raising funds to advance the health and well-being of animals. “OVC Pet Trust provides support for an integrated, interdisciplinary approach to research,” Stone explains – an approach that has been a cornerstone of her vision for the college, and the veterinary profession, since the beginning.

The support of Pet Trust volunteers and donors is one way Stone has been able to work towards that goal and increase the contributions, relevance and awareness of veterinarians to society, whether it be with animal owners, other scientists, government, industry or the general public.

Under Stone’s leadership, OVC has created and strengthened interdisciplinary centres, such as the Institute for Comparative Cancer Investigation (ICCI), bringing together UofG faculty and students with experts and policy makers from other universities, government agencies and industry to collaborate in research, training of graduate students and other interactions.

“One constant in my life of fundraising at the University of Guelph has been Pet Trust,” says Stone, who completes her tenure as Dean this June. “We are very fortunate to be able to work with such positive, innovative people who care about pets and want to support faculty and students as they work to improve the health of our animal companions”.

During Stone’s tenure, OVC has completed major projects to help our pets live longer, healthier lives such as the Mona Campbell Centre for Animal Cancer, enhancements to the Companion Animal Hospital intensive care unit and imaging centre, all with the support of Pet Trust donors.

“OVC Pet Trust has benefited greatly from Dean Stone’s forward-thinking vision and commitment,” says Chip Coombs, Pet Trust Board Chair. “She has been a strong advocate for an interdisciplinary approach to treatment and diagnosis, a concept she brought to us with the initial concept for the Animal Cancer Centre”.

The more than \$13 million raised for the Mona Campbell Centre for Animal Cancer helped build the centre, provide staff and purchase new equipment. The Board understood the centre needed to attract specialists in order to provide comprehensive care and treatment. It is now the only centre of its kind in Canada and staffed with an integrated oncology team of medical, radiation and surgical specialists plus a team of technicians, interns, graduate students and support staff.

Significant funds were also raised through the inaugural Pet Trust Gala in 2011, and a second Gala in 2013. The 2011 Gala was the first of its kind for OVC and in 2013 the event raised the highest amount to date of any event in support of the University of Guelph. In total the two Galas raised \$640,000, all of which went towards creation of the animal cancer centre. Stone was an enthusiastic supporter of this new idea and the hard work and creativity of the committee behind the Gala ensured their success.

Janice O’Born, the chair of the 2011 Walk in the Park Gala, was on board from the start. “When I was asked to chair the fundraiser, my immediate thoughts were: what a mutual dependency humans and animals have on each other. They can be our good friends, they are necessary for our health and welfare, they are beautiful to look at and above all else they are our companions on this planet. It is essential we provide them with the best of health care”.

Stone shares, “I am proud to be part of OVC Pet Trust and to have worked so closely with our supporters. Animal health, well-being and the special bond we share with our pets is at the core of every project and in the heart of every donor. We have strong leadership in place and I look forward to an exciting future for OVC Pet Trust!”.

“Elizabeth’s leadership and support throughout our fundraising campaign for the Centre was integral to its success and on the eve of her departure, she has been instrumental in helping Pet Trust launch its next campaign– The Advanced Surgical and Anesthesia Complex – a cutting edge facility that will maintain OVC as one of the finest veterinary colleges in the world,” Coombs adds.❖



*Dr. Elizabeth Cozens, Fort Malden Animal Clinic with Amanda Raymond, Smiling Blue Skies - Guelph Walk event organizer.*

# SIX DEGREES OF SEPARATION

*Friends of Smiling Blue Skies, are out in force, rain or shine!*

by Suzi Beber

drug on dogs undergoing Mast Cell tumour surgery, researchers are also exploring ways to overcome cancer cells' resistance to chemotherapy in canine Osteosarcoma, and so much more. 10% of OVC's faculty are conducting research with our companion animals. In fact, over \$26,000 has already been allocated to innovative research projects in 2015.

In the tradition of "Six Degrees of Separation," my youngest niece Jenna's Alma Mater, Toronto's Allenby School, was home to one of the best projects ever, by grade 4 student Vaughn Ellemers, who chose The Smiling Blue Skies Cancer Fund for his "Project Give Back." Vaughn lost his dog, Mukluk, to cancer, and he wanted to help other dogs. "Project Give Back" is a passion based programme designed for elementary students to develop empathy, build character, and foster community minded citizens. It is amazing when kids' passions are sparked and their belief in themselves, soars to the skies.

Vancouver Island's "Bosley's on Burnside," was recently host to "Crafting for Cancer" and a bake sale, with special guests, "Heroes Inc," and live music by "Space Port Union." Manager, Jenna, along with Smiling Blue Skies' very own Dina and "Sonny," had a grand time meeting and greeting all the two and four footed visitors to Bosley's.

The Capital Comets Dog Sports Club on Vancouver Island, is yet another example of what like minded individuals can do, to help take a bite out of cancer. Each time a club member's dog dies, \$50 is donated to The Smiling Blue Skies Cancer Fund, to celebrate their lives and honour their memories, and 50/50 draws are held at selected trials too.

Check out Toronto's "Third Annual Woof-fit Mini-Triathlon for Dogs and Their People," taking place on June 20th. Up to 75 dog/human teams will run, walk, ride, paddle, blade, swim, wade or row, for 4.5 kilometers of pure fun.

Big or small, EVERY event and project you plan, makes a BIG difference to the precious pets and people in our lives.

Thank you so much to our hard working volunteers from coast to coast, and hearts and flowers to all our amazing donors. Long live Blue Skies, where hope is a kite and dreams really do come true. We couldn't have done it without you, for the past 14 years! ❖





# RECENT ADDITIONS

## OVC PET TRUST SUPPORTS NEW CLINICAL RESEARCH COORDINATOR ROLE

The Ontario Veterinary College is proud to introduce Vicky Sabine as the new 'Clinical Research Coordinator' at the Mona Campbell Centre for Animal Cancer. Funded entirely by Smiling Blue Skies Cancer Fund. Vicky will work with Pet Trust funded Kaya Skowronski whose primary responsibility is for the coordination of the 'Companion Animal Tumour Sample Bank'

"I am delighted to have recently started as the new 'Clinical Research Coordinator'. Vicky explains, "after almost seven years as a breast cancer translational research scientist, at both the University of Edinburgh and more recently, Ontario Institute for Cancer Research, I now firmly believe that the information we learn from looking at naturally occurring cancers in companion animals will help improve not only the lives of fellow pets but also those of humans."

Vicky assists in administrative aspects of any companion animal OVC-HSC-based clinical project with priority, being given to Oncology-related and Pet-Trust funded projects. She helps with recruiting patients, obtaining consent, liaising with referring clinics, publicity and ensuring samples are collected.

Currently there are 8 clinical trials recruiting patients: 6 oncology (canine); 1 nutrition (feline); and 1 renal (feline):

- Analysis of cytokines in dogs with multicentric lymphoma treated with Madison-Wisconsin protocol
- Prognostication of canine T-cell lymphoma
- Acute myeloid leukemia in dogs
- Effects of diphenhydramine in dogs with mast cell tumours undergoing surgery
- Investigating biomarkers for metronomic cyclophosphamide treatment of canine soft tissue sarcoma using functional imaging, tissue and blood analysis
- Analysis of cytokines in dogs with osteosarcoma treated with amputation, radiation and/or chemotherapy
- Feline obesity
- Feline acute kidney injury

Looking for more information?

Please contact Vicky Sabine, Clinical Research Coordinator

Email: [vsabine@uoguelph.ca](mailto:vsabine@uoguelph.ca) or by phone: 226-218-0338. ❖

### *Zoey's Story* continued from page 1

The x-rays were reviewed by the radiology department at OVC who agreed with Dr. Mascioli's suspicion of a possible vascular ring anomaly and arrangements were made to transfer Zoey to OVC for further diagnostics and possible treatment. Fortunately she had transportation at the ready, with Levis returning to classes just after New Year's Day.

In the past the only treatment to correct Zoey's condition would be an open chest procedure called a thoracotomy. While effective, the technique involves a large incision and results in a longer recovery time and need for exercise restriction after surgery, not easy for a young puppy to adhere to.

The Health Sciences Centre at the Ontario Veterinary College is one of the leading centres in veterinary minimally invasive surgery (MIS), or more commonly known as minimally invasive procedure (MIP) in North America, and following consultation with faculty surgeons Dr. Michelle Oblak and Dr. Ameet Singh, Zoey was deemed an excellent candidate for an MIS procedure.

The focus of the procedure was a fibrous structure between the heart and the aorta. "We needed to elevate the structure and incise the band," explained Singh. Once this band was removed, the constriction on Zoey's esophagus would be resolved.

Minimally invasive procedures have revolutionized medical science and become one of the most rapidly growing areas of treatment in both human and veterinary healthcare.

Using a minimally invasive procedure means less pain, less drugs and less chance of infection, says Oblak and Singh. Postoperative care for patients undergoing MIS procedures becomes very straightforward and many patients are discharged the day following the procedure.

"She did amazing," says Levis. "She did great from day one. She was up that night and home the next day." And home it turned out to be.

He credits his girlfriend Paige McCormick for Zoey's postoperative progress. Paige was able to take Zoey to work with her at a veterinary clinic and ensure she had small meals throughout the

day. It took practice to see how much food Zoey could eat at one time. She had problems understanding her own food limits which sometimes resulted in overeating and vomiting. Now about 18 months old, Zoey stands to eat with her dish elevated, helping with minor regurgitation issues.

"We made the joint decision to adopt her and she's grown up to be a great little dog," adds Levis.

OVC offers a wide range of minimally invasive options to treat cardiovascular, respiratory, urinary, gastrointestinal, thoracic and orthopedic conditions. Pet Trust has played an important role in advancing the MIS/MIP at OVC, both through funding of several research projects and leadership in raising funds to support minimally invasive procedures services in the OVC Health Science Centre. Investments support upgrades to equipment and space essential to allow OVC to remain at the forefront of this field. ❖

To read more patient stories please visit [www.pettrust.ca](http://www.pettrust.ca).



## MY TIME AS A STUDENT INTERN IN OVC ONCOLOGY

by Stephanie Guiler, OVC'2017

Cancer. Throughout my life, this 6-letter word was rather intimidating and negative to me. Nonetheless, I must say that my perception of oncology has greatly changed since working at the Mona Campbell Centre for Animal Cancer at the Ontario Veterinary College.

This past summer, I got to better comprehend the working of cancer in animals; ranging from clinical diagnosis to owners' unfading love and dedication for their pets.

I spent my days surrounded by a team of some of the most dedicated, hardworking and caring individuals who never ceased to amaze me.

From day one, each staff member was very approachable, and dedicated to educating me about the workings of the hospital. The level of support I received as a student immediately made me feel very comfortable and enabled me to better myself as an employee and a future clinician.

Initially, the job entailed a lot of shadowing, which I was very pleased with, as my

knowledge of oncology was limited (you can only learn so much in first year of veterinary school!).

I witnessed the high level of care that each staff member gave not only to the patients, but also to the clients. Cancer is not an easy diagnosis, and is often followed by a multitude of questions, strained emotions, and a general feeling of despair. Nonetheless, the clinicians and technicians at the Animal Cancer Centre always made sure to spend enough time with the owners, often going above and beyond to make sure they had the information they needed to make life changing decisions for their pets.

*As I gained a better understanding of the workings of OVC's oncology team, I was graced with more responsibilities and experiences that ultimately aided me in developing a core foundation of skills and confidence that will undoubtedly help me during my time as a student veterinarian at OVC and as a future clinician.*

I assisted with chemotherapy, radiation therapy, new appointments, recheck appointments, palliative care and, with time, I was even able to care for a few patients. This was my favorite part. It enabled me to develop strong relationships with owners and patients, and be part of some beautiful moments in the human-animal bond.

When I tell people that I worked at the Animal Cancer Center, I am often asked "Isn't that depressing?". The answer is no. There are sad days, where you see that once chipper three legged golden, unable to stand anymore, or you see a chest x-ray of that sweet brindle greyhound with a baseball sized mass in its chest. On those heart-wrenching days, the nature of the job can be difficult, as the clinicians sit in a solemn room with the owner, discussing the best strategies for our furry friends.

Nonetheless, it is all worth it for those bright days when you are greeted by a crazy little poodle who is prancing around and in remission for the third time, or a big old Newfoundland with little bottom jaw, but who still loves treats, belly rubs and drenching you in slobber.

This past summer was one of the best working experiences in my life to date, and I cannot stress how honoured and humbled I was to work amongst such smart, conscientious and truly outstanding people. The way that everyone on the oncology team collaborates with one another is truly admirable, and I can only hope to foster the same level of cohesive work wherever I may end up.

I learned a lot clinically, but also uncovered amazing stories behind the strength of the special relationships people have with their pets. Every pet I saw come through the doors of the centre is truly special, and received treatment that matched their unique needs.

I will forever remember my first patients, and carry them in memory as I carry on in my path towards becoming a veterinarian. ❖



# WHEN IVDD STRIKES

## ADVANCED TECHNIQUES FOR SPINAL CORD INJURIES IN SMALL BREEDS



# GATSBY

Gatsby is a pretty typical schnoodle. He's affectionate, and doesn't like to stray too far from his family, Gloria and Vern Furtney.

In fact, if Vern is on the upper floor of their house, 14 steps from the main floor, and Gloria is on the lower floor, Gatsby lies on the seventh step. Perched perfectly in the middle, he can quickly follow whoever ascends or descends the steps. But last October, when he turned to follow Gloria upstairs, just as he's done a thousand times, he let out a horrific yelp before collapsing whimpering on the floor, says Vern.

Unfortunately, like many other small dog breeds, Schnoodles are susceptible to intervertebral disc disease (IVDD). When Gatsby turned that day he herniated a disc in his spine. Shortly after he began to drag his hind legs and arch his back in pain.

The Furtneys were advised by their veterinarian that their best choice for treatment was to take him to the Ontario Veterinary College Health Science Centre (OVC HSC) as soon as possible. Vern and Gloria only needed moments to decide.

"The OVC is a very, very professional operation; kind, caring and I must say, very efficient," says Vern.

Herniated discs can progress quickly, says Dr. Luis Gaitero, a board-certified neurologist at

OVC HSC and veterinary specialist assigned to Gatsby's case. The signs can range from back pain to paralysis and the condition can develop very quickly. IVDD herniation is a common cause of neurologic dysfunction in dogs. It is most common in dachshunds, but can occur in any breed.

In Gatsby's case, Dr. Gaitero performed a neurological exam including checking for sensation in the toes. "If there is sensation, it means the spinal cord is still working" says Dr. Gaitero.

Gatsby had a CT-scan and a myelogram, a type of radiograph that is used to find the location of the disc that sometimes may not be identified with MRI or CT. The scans confirmed that Gatsby had in fact suffered from a spinal cord compression herniated disc. Dr. Gaitero, and DVSc student Dr. Kelly Vurik performed back surgery to remove the ruptured disc.

"We appreciate the techniques and talent the team at OVC possess," says Vern, but they also credit the professional, caring communication skills displayed by the team who explained procedures, answered questions and calmed their fears. IVDD is a very acute situation and often very upsetting to pet owners, says Dr. Gaitero, "We have a long conversation with our clients so they can understand exactly what may be involved".

For the six days Gatsby remained in hospital Vern and Gloria received a regular calls every morning and evening updating them on Gatsby's progress. "This was greatly appreciated," adds Vern.

Dr. Georgina Stewart, an intern in neurology, emphasized the importance of rehabilitation, says Vern, explaining the more dedicated they were to Gatsby's rehabilitation therapy the better his chance of a full recovery. "We did every exercise with Gatsby they told us to do."

There was a long road to full recovery and, while there were minor setbacks, Gatsby is 100 per cent now, says Vern. "We're grateful and happy he's back."

The couple is so grateful they have altered their will to include OVC Pet Trust as a beneficiary for a share of the final remainder of their estate.

"We intend to delay that date as long as possible, but someday, other pet owners and their loving pets will benefit from whatever we can leave for OVC," says Vern. ❖

## OVC 4TH IN WORLD VETERINARY COLLEGE RANKING



The University of Guelph's Ontario Veterinary College (OVC) placed fourth worldwide and tops in Canada in a new global ranking of veterinary schools.

This year's ranking by Quacquarelli Symonds (QS) includes nearly 900 universities in various categories. Veterinary science schools around the world were included for the first time this year. The 4th-place ranking was the highest placing of any Canadian school in all categories.

Schools are graded based on academic reputation, employer reputation and research impact.

OVC dean Elizabeth Stone said the reputation of the college has been bolstered by recognition by QS.

"We are pleased that OVC is being recognized for our world-class research, learning innovations and strategic direction. The ranking pays tribute to the high quality of our faculty, staff and students, and the relevance of the work they do to improve the health of animals, people and the environment. In addition, this recognition by employers of our graduates confirms the value of our University's learner-centred approach." ❖



Dr. Tanya Lowrey (centre) with the Huntington Animal Hospital team.

## THE IMPORTANCE OF GIVING BACK

### HUNTINGTON ANIMAL HOSPITAL: HONOURING CLIENTS WHILE SUPPORTING THE FUTURE OF VETERINARY MEDICINE

For almost 30 years, Huntington Animal Hospital has been a dedicated supporter of OVC Pet Trust. The charitable fund's *Pet Memorial Program* allows clinics, like Huntington, to celebrate the bond and connection they have with their clients through honorary donations.

"Our contribution is a way to honour our clients and patients for all the joy and support they bring us over the years," says practice owner Dr. Tanya Lowrey, DVM OVC 2009.

Huntington Animal Hospital has been an OVC Pet Trust hospital since 1996. Since that time the clinic has contributed over \$44,000 through the pet memorial program; funds that go towards studies aimed at advancing the health of our pets.

"When I took over ownership of Huntington Animal Hospital last year, it was very important to me to maintain the relationship we have established with OVC Pet Trust," says Lowrey.

"Being a graduate of OVC, I was well aware of the great things that are done through this program and I believe it is my duty to help bring awareness of Pet Trust to the public."

Lowrey feels a close affinity with the work OVC Pet Trust supports. "The advancements funded through our donations will help shape the future of veterinary medicine," she adds. "It is our goal to be on the cutting edge of new developments in all aspects of animal care."

The St. Catharines, Ontario practice is a full-service companion animal hospital focusing on preventive health care and educating clients. In addition, the practice specializes in pain management and rehabilitation services. Lowrey is a certified veterinary medical acupuncturist and certified canine rehabilitation therapist.

The ongoing commitment of Huntington Animal Hospital to OVC Pet Trust helps ensure further advancements in veterinary medicine.

The benefit of their continued involvement, to both patients and clients, is a critical piece for Lowrey. "Our clients are always grateful and touched knowing that the donation on their behalf will benefit animals and owners in the future." ❖

*Want to learn more about OVC Pet Trust's Pet Memorial Program; how to become an OVC Pet Trust Hospital or make a direct donation in memory of a good friend? Contact the Pet Trust team. Email: [ovcpet@uoguelph.ca](mailto:ovcpet@uoguelph.ca) or call (519) 824-4120 x 54695 or donate online [www.pettrust.ca](http://www.pettrust.ca).*

## THANK YOU!

Thank you for your generous support. With your help, we continue to advance animal health and medicine. If you have questions, story ideas or comments about Best Friends Newsletter or would like to learn how you can get involved with OVC Pet Trust, please contact us at [ovcpet@uoguelph.ca](mailto:ovcpet@uoguelph.ca).

## DONATE TO CELEBRATE

Each year more people are donating to celebrate special events such as birthdays, anniversaries, weddings or holidays in lieu of giving gifts. Find out how you can donate to OVC Pet Trust to celebrate your event. Email [ovcpet@uoguelph.ca](mailto:ovcpet@uoguelph.ca) to learn more.

## SAVE A TREE

Sign up to receive Best Friends electronically. Email [ovcpet@uoguelph.ca](mailto:ovcpet@uoguelph.ca) to get started. This and past issues are available for download at [www.pettrust.ca](http://www.pettrust.ca).

## COMING EVENTS

**MAY 30** - 2nd Annual Smiling Blue Skies Guelph Walk to End Canine Cancer - Guelph, ON

**JUNE 20** - 3rd Annual Smiling Blue Skies - Woof-fit Mini-Triathlon - Toronto, ON

**JULY 8** - Hamilton Academy Veterinary Medicine Golf Tournament to support OVC Pet Trust - Copetown, ON

**SEPTEMBER 26** - Toronto's 4th Annual Smiling Blue Skies Walk to End Canine Cancer - Toronto, ON

**LEARN MORE AT PETTRUST.CA**

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