



Best friends

NEWSLETTER



FRIENDS TOGETHER FOR LONGER.

HELPING THE PETS WE LOVE LIVE LONGER, HEALTHIER LIVES.

This fall OVC Pet Trust launches a new \$9 M capital campaign: Friends Together for Longer, to create new surgery and anesthesia facilities within the OVC Companion Animal Hospital at the University of Guelph's Ontario Veterinary College (OVC).

Kim Robinson, Managing Director of the charitable fund, says that through this new effort, Pet Trust will further its core mission to support the unique bond between animals and people by providing leading-edge care.

Each year the Ontario Veterinary College helps more than 2,000 dogs, cats and other pets that are referred by their veterinarians for advanced diagnostic and surgical procedures that are not readily available in general practice.

Approximately 90 per cent of those patients suffer from serious illnesses, such as advanced cancer, heart disease, liver failure, orthopedic and urinary tract diseases. Nearly 75 per cent undergo anesthesia for a specialized procedure including advanced imaging or endoscopy (minimally invasive procedures).

Over the years Pet Trust supporters have helped create many landmark accomplishments at OVC to improve the lives of companion animals.

"We opened the first comprehensive animal cancer centre in Canada—the Mona Campbell Centre for Animal Cancer; built a diagnostic imaging suite complete with a CT scanner and

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improved the hospital entrance, client area and examination rooms to offer a more comfortable and stress-relieving environment for owners and their pets" Robinson explains.

The plans for the new state-of-the-art surgery & anesthesia facilities include specialized areas equipped with leading-edge technology for surgery, anesthesia and recovery; the first dedicated suite for minimally invasive procedures at a veterinary teaching hospital in Canada and the ability to offer veterinary students studying at OVC a competitive edge by equipping them with the latest knowledge and techniques in care for our pets.

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Best friends

NEWSLETTER

Best Friends of Pet Trust is published two times a year by the Ontario Veterinary College (OVC) for the 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.

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OVC Pet Trust

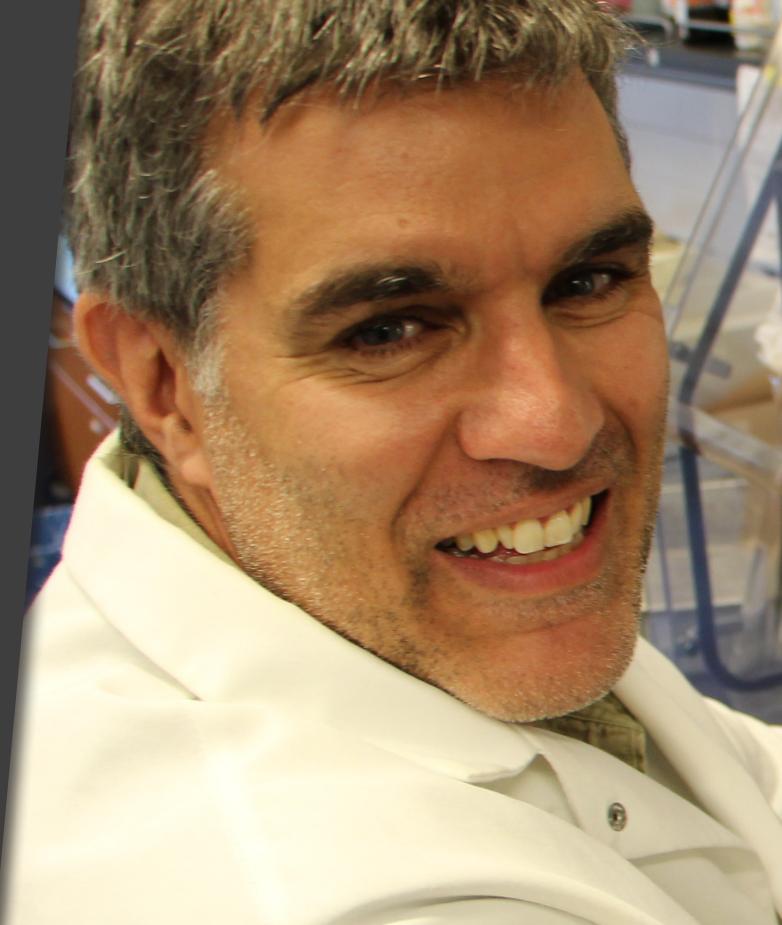
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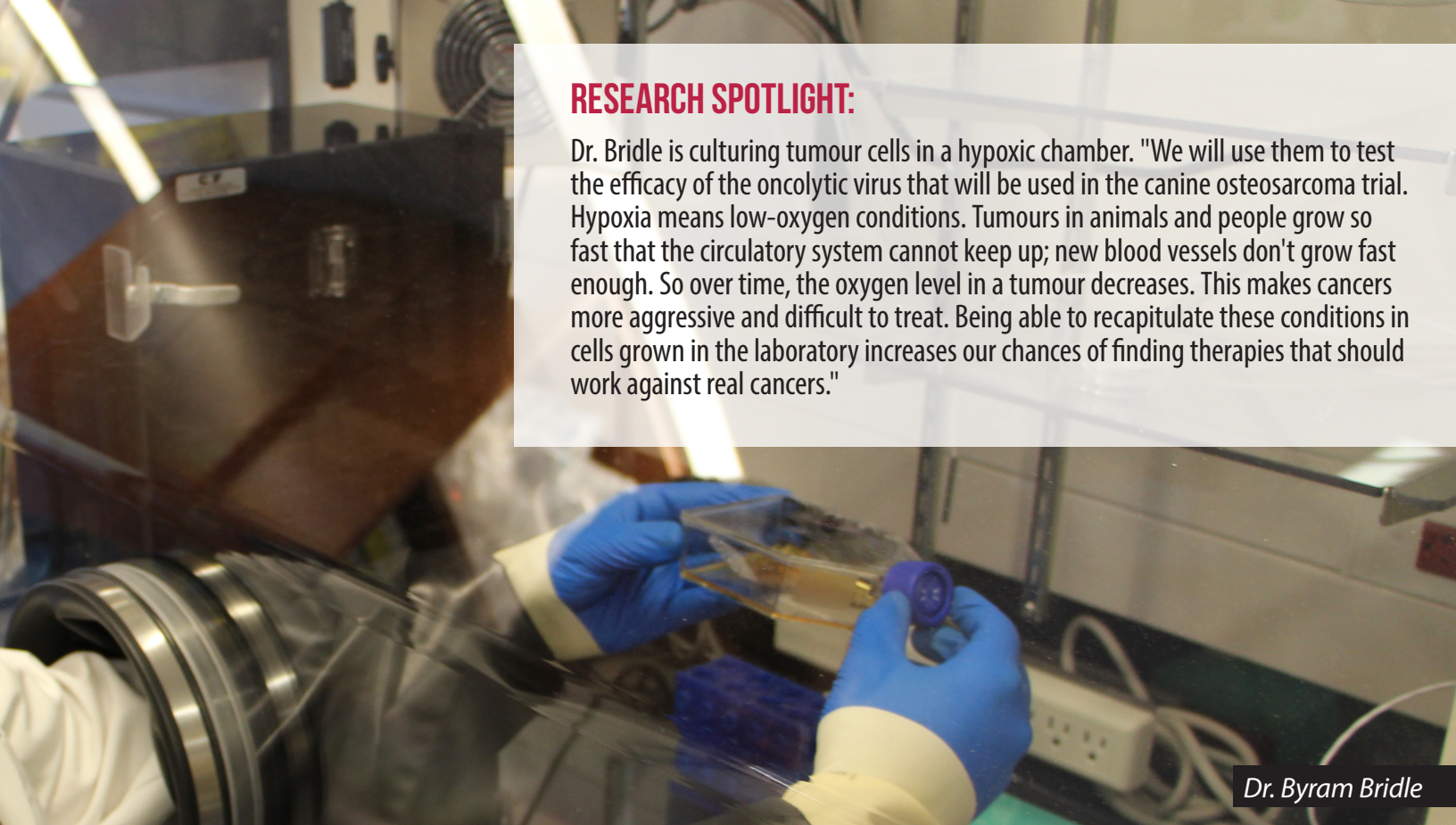
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OVC CANCER RESEARCHER BREAKING NEW GROUND

Terry Fox Research Institute invests \$450,000 in Canine Cancer Clinical Trial

Inspired by Terry Fox to become a cancer researcher as a child, Dr. Byram Bridle has received a \$450,000 grant from the Terry Fox Foundation to support his work and research on bone cancer in dogs.



RESEARCH SPOTLIGHT:

Dr. Bridle is culturing tumour cells in a hypoxic chamber. "We will use them to test the efficacy of the oncolytic virus that will be used in the canine osteosarcoma trial. Hypoxia means low-oxygen conditions. Tumours in animals and people grow so fast that the circulatory system cannot keep up; new blood vessels don't grow fast enough. So over time, the oxygen level in a tumour decreases. This makes cancers more aggressive and difficult to treat. Being able to recapitulate these conditions in cells grown in the laboratory increases our chances of finding therapies that should work against real cancers."

Dr. Byram Bridle

Bridle is a viral immunologist in the Department of Pathobiology at the Ontario Veterinary College (OVC) and a Pet Trust supported researcher. In his latest research he has developed an innovative new way to treat osteosarcoma, the same type of bone cancer that took Terry Fox's life.

"I was only eight years old when Terry Fox began the historic Marathon of Hope. His legacy and passion to help those suffering from cancers was one of many important contributions to my career path. I now find myself at the beginning of an exciting research program at the University of Guelph; one that will focus on developing new biotherapies to treat cancers" says Bridle.

Through this research, the first-ever canine osteosarcoma biotherapy clinical trial will be launched at OVC's Mona Campbell Centre for Animal Cancer.

Renowned cancer researcher John Bell from the Ottawa Hospital Research Institute will mentor Bridle during his three-year award. Bell says the research will facilitate development of therapies that could transform the way cancer is treated in Canada.

"Bone cancer developed by dogs is almost identical to that seen in adolescents and young adults, and the disease progresses in much the same way" explains Bridle. "But dogs develop

osteosarcoma at rates 10 times higher than in humans; the Animal Cancer Centre sees up to three new cases each week."

Currently, dogs diagnosed with bone cancer have a poor prognosis. Despite such aggressive treatments as limb amputation and chemotherapy, many dogs still die from metastatic disease, which usually appears in the lungs.

His research combines two novel forms of cancer therapy, immunotherapy and oncolytic viruses, to kick-start a patient's immune system to target and kill their own cancer.

Oncolytic viruses are harmless to humans and animals and kill only cancer cells, while immunotherapy uses the immune system to destroy tumours.

"We hope that combining cancer immunotherapy with oncolytic virotherapy will be a breakthrough in our ability to stop the metastatic lesions that ultimately kill patients," said Bridle.

This year marks the 35th anniversary of Fox's Marathon of Hope, and the first time the Terry Fox Foundation has supported research at a veterinary school.

"This exciting partnership will allow our cancer researchers to push the boundaries of

knowledge. University of Guelph researchers will collaborate on novel therapies for treating osteosarcoma in dogs; work that will provide new insights into treating the disease in people" says Malcolm Campbell, U of G's vice-president (research).

Bridle admits that developing optimal ways to treat cancers in dogs before moving to humans is a non-traditional path.

"One thing that Terry Fox's life taught me is that it sometimes takes unconventional approaches to achieve extraordinary results. I like to think that he would be proud of what we are attempting to accomplish through this new partnership."

Bridle is currently applying for regulatory permission to begin the veterinary clinical trial slated to being in late 2016.❖

To learn more about OVC Pet Trust funded studies please visit www.pettrust.ca.

YOUR GIFTS AT WORK

Pet Trust invests \$182,743 in Eleven NEW studies to improve pet health



Comparison of three in-clinic tests to monitor the use of anti-platelet blood thinners in dogs

Dr. Anthony Abrams-Ogg

Various diseases can cause excessive blood clotting in dogs, resulting in thrombo-embolism (formation of clots and stroke or stroke-like events), which is often fatal. These diseases include hemolytic anemia, Cushing's disease, hypothyroidism, intestinal and kidney diseases, and some neurologic (brain) conditions. Blood thinners may be used in an effort to decrease the risk of clot formation. The most commonly used drugs are clopidogrel and aspirin, which block platelets, the cells responsible for the first stage of clotting. These drugs are also used extensively in humans, where it is recognized that there is a large variation in individual response, and that they are ineffective in some diseases and in some people. In this study we will look at decreased platelet function in dogs treated with clopidogrel, aspirin, or a combination of both drugs.

Effect of decreased kidney function on tests for pancreatitis in cats

Dr. Anthony Abrams-Ogg

Pancreatitis is an important disease in cats, which varies in severity and can present as mild lethargy to fatal shock. For many years, no good tests were available to diagnose pancreatitis, other than abdominal surgery and biopsy of the pancreas. Both of which are unnecessarily invasive for the diagnosis

of mild pancreatitis. Recently, two tests have emerged as useful for the diagnosis of pancreatitis in cats without surgery.

We recently examined the effect of decreased kidney function on PLI in dogs by investigating the correlation between serum creatinine (a measure of kidney function) and PLI, and found that kidney function had only a weak effect on PLI in dogs. Our hypothesis is that the same is true for cats. We plan to measure PLI in cats with decreased kidney function that are considered to have a low likelihood of pancreatitis. During regularly scheduled appointments, a blood sample will be submitted for PLI. Cats with elevated PLI will have an ultrasound examination of the pancreas, and cats with abnormal ultrasounds will be excluded from the study. The correlation between serum creatinine and PLI will then be calculated.

Indication of canine T-Cell lymphoma in dogs

Dr. Dorothee Bienzle

Lymphoma is a very common cancer in dogs that is frequently treated with chemotherapy. The cancer arises from a specific type of white blood cell called a lymphocyte. There are many different types of lymphocytes that can each give rise to different types of lymphoma. In dogs, "immunoblastic lymphoma" is the most common type (~60%). This type of lymphoma has a predictable response to chemotherapy, resulting in approximately 1 year of survival with good quality of life. The

other type of lymphoma is T-cell lymphoma (~40%), which is generally thought to have a poorer response to chemotherapy. T-cell lymphomas have different subtypes that have variable responses to chemotherapy.

In this proposal, Dr. Bienzle and her team will address which specific T-cell lymphoma subtypes have unique response to chemotherapy, quality of life and survival; and whether T-cell lymphoma subtypes can be identified by traditional diagnostic methods.

Comparison of bronchoalveolar lavage suction techniques to sample feline lower airways

Dr. Alice Defarges

Cats are commonly taken to a veterinarian for respiratory diseases. A diagnostic test that may be recommended is a bronchoalveolar lavage (BAL), where a small volume of sterile fluid is put into the lung down the windpipe, and then suctioned back out. The fluid is then examined for the presence of cells and bacteria. Reasons for performing a BAL include coughing and changes on chest X-ray images. Side effects of BAL are generally minor. Despite the widespread use of BAL there is no standardized protocol. A recent email survey of specialty internists revealed that three quarters of internists use a specialized instrument (a bronchoscope) to perform BAL (B-BAL) in cats, whereas one quarter perform BAL without a bronchoscope (NB-BAL). We are investigating whether one of these techniques yields superior samples compared to the other.

Investigation of cellular regulatory mechanisms in central nervous system inflammatory disease in dogs

Dr. Luis Gaitero

Meningoencephalomyelitis is a condition of the central nervous system (CNS) that causes inflammation of the brain, spinal cord, and their membranes due to abnormally high numbers of eosinophils, a type of white blood cell, in the cerebrospinal fluid (CSF) with a high frequency of occurrence in dogs. Genetic and immune-mediated processes underlie the disease. Effective ways to provide prognoses and treatment options are very limited. New treatments are necessary to improve diagnosis and outcomes. MicroRNAs (miRNAs) are emerging as a useful model in numerous CNS conditions in humans (e.g.: stroke and multiple sclerosis) and have shown impressive potential.

This study represents a preliminary step towards the development of extensive miRNA profiles for individual diseases

Targeted therapy to improve the chemotherapy response in dogs with bone cancer

Dr. Tony Mutsaers

Osteosarcoma (OSA) is the most common primary bone tumour in dogs. While the primary tumour can often be surgically removed, spread of the cancer to other organs results in limited survival beyond an average of 4 months. Chemotherapy treatment

after surgery has improved survival to over a year on average, however eventually the cancer spreads in 90% of cases, and these dogs ultimately succumb to this disease. To improve treatment outcomes for OSA, our laboratory has investigated novel targets to improve the response to chemotherapy. Together with collaborators in Melbourne Australia, we conducted genetic knockdown studies and a high throughput screen of 131 potential drug candidates. Our recently published results strongly demonstrate that inhibition of a pathway known as PI3K/mTOR may be a promising therapeutic target in OSA. Our research seeks to improve the successful translation of promising drugs by prioritizing those agents that demonstrate the most promise in the laboratory when tested against all three species (mouse, human, dog). We feel that these agents will have the greatest chance of success in future clinical trials in both dogs and people.

Dose Reduction and Cardiovascular Effects of Anesthetic Induction with Propofol or Alfaxalone with or without Midazolam in Clinical Canine Patients

Dr. Melissa Sinclair

Dogs commonly require general anesthesia for diagnostic and/or surgical procedures in primary care practices and referral institutions. Induction of anesthesia should be rapid, without inflicting significant stress to the animal's heart and lungs and to

minimize the impact of anesthesia on the primary disease or cause the development of new problems. A common protocol for providing anesthesia to a patient, involves the use of sedation with the opioid fentanyl to facilitate handling and provide pain control of the patient and then induction with propofol or alfaxalone. Both of these however, depress cardio-respiratory function. Often, a benzodiazepine is administered as a co-induction anesthetic immediately after the administration of propofol or alfaxalone to potentially decrease the dose and promote better cardio-respiratory stability which is beneficial in compromised dogs requiring emergency surgery.

Impact of biofilm formation on the efficacy of commonly used antibiotics

Dr. Ameet Singh

Surgical site infections (SSIs) are an inherent risk of any surgical procedure and are an increasing cause of patient morbidity, prolonged hospitalization, increased treatment costs and owner/veterinarian frustration. The objective of our study is to evaluate the impact of biofilm formation on the MIC (minimum inhibitory concentration) of *S. pseudintermedius* for several commonly used antimicrobials in small animal practice. *S. pseudintermedius* has rapidly emerged to become the leading cause of SSI soft tissue infections in dogs. SSIs can result in considerable morbidity for our patients and result in much greater



YOUR GIFTS AT WORK

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treatment costs for pet owners. Biofilm formation has been hypothesized as a virulence factor in SSLs in humans, however, there has been very little study in this area in veterinary medicine. Further understanding of the role of biofilm formation in *S. pseudintermedius* SSLs is required in an attempt to develop treatment strategies for this clinically significant canine pathogen.

Canine plasma soluble thrombomodulin as an indicator of inflammatory disease severity

Dr. Darren Wood

Response to injury or infection involves complex interactions between components of the immune, inflammation, and coagulation systems, in order to protect and restore normal organ function. Coagulation is the process of blood clot formation and the molecule, thrombin, plays a diverse role in the inflammatory response. Thrombin has multiple functions including activation of other molecules to mediate specific cellular events. One such molecule is thrombomodulin (TM), a protein normally present on the surface of cells that line blood vessels, known as endothelium. Thrombomodulin is essential for regulating thrombin generation and when the process is dysregulated, or excessive, it may cause adverse inflammation or coagulation. Many diseases are associated with a severe inflammatory response, which results in reduced TM expression, limiting TM's regulatory ability. This reduction is in part due to its release as a soluble form (sTM) into the bloodstream. Lower cell surface TM expression and higher sTM expression may correlate with severity of inflammation in diseased or damaged tissues, which may provide prognostic information for dogs with severe inflammation.

Measurement of pre-treatment levels and early changes in serum cytokines of dogs with multicentric lymphoma treated with a CHOP protocol

Dr. Paul Woods

Lymphoma is one of the most common cancers in dogs and cats, with an

annual incidence being estimated to range between 13 and 24 per 100,000 dogs at risk. It comprises 7% to 24% of all canine cancers, and the frequency is continuing to increase. The gold standard for treatment in dogs, as well as in humans, integrates a multi-agent chemotherapy protocol called CHOP, which combines three different chemotherapies with the steroid Prednisone. However, the response to therapy can vary widely between patients, from cure to no response and rapidly fatal disease. The goal of this research project is to evaluate the relationship between circulating cytokines and lymphoma before and after chemotherapy treatment. We expect to learn new insights on how lymphoma develops and get a better prediction of prognosis for dogs with lymphoma.

Protocol development for microwave ablation of bone in dogs - a novel cancer therapy

Dr. Alex Zur Linden

Microwave ablation therapy is performed in human medicine to treat various cancers and has shown to reduce overall costs, morbidity, and mortality compared to standard surgical procedures. It has been proven successful in the palliative treatment of bone cancer, primarily to alleviate pain. During the procedure an antenna is inserted through the skin with imaging guidance, endoscopically or intra-operatively, and into the cancer that is subsequently heated and destroyed. Microwave ablation holds great promise for veterinary patients as a minimally invasive cancer therapy. This minimally invasive therapy would be an additional asset in limb sparing techniques, and a tremendous help to decrease pain in patients with painful bone metastases. This project will focus on developing a procedure to treat bone cancer in dogs with microwave thermal ablation therapy, and determine its feasibility prior to use in clinical trials. The ultimate goal of our work with microwave ablation therapy is to provide a minimally invasive, efficacious and cost-effective therapeutic option for the treatment of various cancers in dogs.❖

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FRIENDS TOGETHER FOR LONGER.

HELPING THE PETS WE LOVE LIVE LONGER, HEALTHIER LIVES.

The commitment of Pet Trust and its supporters to advance surgical care and pain management will ultimately help companion animals live longer lives. "These improvements will ensure pets have a place where they will continue to receive life-saving procedures, increase their ability to recover faster, with fewer complications and reduced hospital stays" Robinson says. "In addition, it will also offer an advanced clinical space for Pet Trust funded studies to achieve successful results."

While OVC is currently ranked fourth in the world amongst veterinary schools, the development of this new world-class facility will keep OVC at the forefront of veterinary medicine, raise the standard of care and increase its ability to provide the most advanced surgical and anesthesia techniques, diagnoses and treatment in Canada. ❖

To learn more please visit www.pettrust.ca.



OVC Welcomes New Dean

"Jeff has years of experience as an administrator, researcher and clinician, and understands the complexities of a veterinary college," says Serge Desmarais, interim provost and vice-president (academic), who chaired the search committee.

"He is passionate about veterinary medicine and has a vision for building on OVC's reputation for excellence to help improve lives and health."

Wichtel will also hold a faculty appointment in OVC's Department of Population Medicine.

"Teaching, research, and service at OVC are truly world-class. I am looking forward to working alongside the outstanding students, staff and faculty at OVC – a new dean could not ask for a better base on which to build" Wichtel said.

A faculty member in the Department of Health Management at AVC, Wichtel has been the college's associate dean, graduate studies and research, since 2009.

He also served at AVC as acting dean, director of animal resources, department chair and chair of the Sir James Dunn Animal Welfare Centre.

Before joining AVC, Wichtel taught at Massey University in New Zealand and in the College of Veterinary Medicine at North Carolina State University. Earlier, he was a resident at Iowa State University and a mixed animal practitioner.

He studies animal nutrition, disease, production and reproduction, and has specialized in trace element and vitamin nutrition in ruminants and horses.

Wichtel has written more than 150 publications on animal nutrition, reproduction and disease, livestock production and veterinary education, and is an associate editor of the Canadian Journal of Veterinary Research.

He earned his B.V.Sc. and PhD from Massey University and is board-certified by the American College of Theriogenologists. ❖



Dr. Jeff Wichtel

The University of Guelph has appointed a new dean of the Ontario Veterinary College (OVC). Dr. Jeff Wichtel of the Atlantic Veterinary College (AVC), University of Prince Edward Island, will begin a five-year term October 1.



Free Days with George

In a special presentation during orientation week at the Ontario Veterinary College (OVC), OVC Pet Trust invited Canadian best-selling author Colin Campbell, and his surfing dog George, to join the Pet Trust team in welcoming the class of 2019.

Campbell is a marketing executive and has held senior roles with MacLaren McCann, MKTG and the National Hockey League Players' Association. During his presentation he talked about the importance of the special bond between people and their pets and how meeting a dog named George forever changed the course of his life – the topic of his new book *Free Days with George: Learning Life's Little Lessons from One Very Big Dog*.

In the book Campbell shares his remarkable personal story of how a 140-pound homeless Newfoundland dog taught him the real meaning of happiness and hope.

Each student received an autographed copy of the book and had the chance to personally meet both Colin and George.

After his visit at OVC Campbell shared his impression of the school on social media "such an impressive college, filled with smart enthusiastic students and faculty - it was an honour to sign books and speak...!! Our pets will be in good hands when they graduate ..!"

To learn more about the book, Colin Campbell and George, visit www.freedayswithgeorge.com. ❖



Colin Campbell and George.

NEW Pet Trust Memorial e-Cards



Our pets are friends, family members, protectors and companions who leave a lasting impression on our hearts. We know losing a pet is never easy.

OVC Pet Trust's Pet Memorial Program was created to honour the special relationship between pets and their people; owners and veterinary caregivers alike.

Donations made through memorial gifts can be directed to the funds' greatest need – currently, the development of new surgery and anesthesia facilities at the Ontario Veterinary College or towards canine or feline research.

If you would like to make a donation in honour of a pet or friend who has recently lost one, OVC Pet Trust has launched new electronic memorial cards. When making a donation, an e-card can now be sent to people notifying them that a gift has been made in their pet's honour. E-cards can be customized by you to include a special personal message.

To send a card in memory of a pet, please visit www.pettrust.ca, click the "donate now" button to make your honorary gift and create your personalized memorial message.❖

SAVE A TREE

Sign up to receive Best Friends electronically. Email ovcpet@uoguelph.ca to get started. *Best Friends* is available for download on our website.

www.pettrust.ca



SADIE'S STORY

Finding a Needle in a Haystack

In photos: Image of grass foreign body (left), Drs. Brisson and Hoddinott in surgery (centre), Sadie (right).

A sunny day and a romp through a field doesn't typically add up to health issues for our furry friends, but for two-year old Sadie, a run in a hay field this past July led to unexpected complications.

The Labrador Retriever was enjoying an exuberant run through the field with one of her housemates, Ava, a chocolate Labrador.

She was coughing and trying to bring something up when she ran out of the field. Other than that she seemed fine, says Michele Reinhart, who, with husband Bruce Godbehere, has four dogs: Maddie, a Golden Retriever, Hunter, a Labradoodle, as well as Sadie and Ava.

There were no other symptoms and the cough didn't seem to worsen. However, a couple of days later, Sadie started to have trouble breathing and just didn't seem herself. X-rays at a local emergency veterinary practice revealed a pneumothorax, air around Sadie's lung, and Michele and Bruce were referred to the Ontario Veterinary College's Health Sciences Centre (HSC) for further work-up.

Based on Sadie's history and physical examination, clinicians at HSC suspected Sadie might have inhaled a grass foreign body. Grass awns

or foxtails are most common and they can be tough to spot because they are usually small. "It's like looking for a needle in a hay stack," says Dr. Brigitte Brisson, faculty small animal surgeon at OVC's HSC.

A thoracic CT scan at OVC showed the culprit. Sadie had what looked like an elongated piece of foreign material embedded in her diaphragm, along with an abnormal left caudal lung lobe, says Brisson. In Sadie's case, the foreign object turned out to be a 10-centimetre top portion of a piece of Timothy hay.

"These pieces of grass are sharp enough to enter tissue and have barbs that cause them to migrate in one direction once they enter the body," explains Brisson. In Sadie's case, the piece of hay must have been inhaled into her airway and traveled down to her lung and eventually exited through the left caudal lung lobe, causing air to escape with it and her severe clinical signs. It was embedded through her diaphragm when Brisson and her surgical team were able to successfully remove it.

Brisson, working with Dr. Katie Hoddinott, a surgical resident in the OVC HSC, and the surgical team, used a minimally invasive thoracoscopy to remove the grass from Sadie's diaphragm using

three 5-mm incisions. The minimally invasive approach meant a quicker recovery time for Sadie and avoided a more invasive surgery to open the chest at that level. "It would have been very difficult to find the foreign body with open surgery in that area," adds Brisson. The OVC HSC is one of the leading centres in veterinary minimally invasive surgery (MIS) in North America, including various procedures of the chest and abdominal cavities and other vascular interventions.

"The left lung lobe was thick, firm and not inflating with air", adds Brisson. It needed to be removed but a larger incision would be needed, in a different area than where the foreign material was located. The surgical team enlarged one of the previously placed 5-mm incisions to remove the damaged left caudal lung lobe.

Sadie was on antibiotics for about five days post-surgery to ward off infection, but back to her regular energetic ways in no time, despite the Godbeheres' attempts to keep her quiet. "We appreciate all the outstanding care Sadie received while in OVC's care," says Michele. "It certainly is comforting to know we have such outstanding skill and facilities for our pets so close to home." ❖

SIX DEGREES OF SEPARATION



"It's a Rex thing!"

by Suzi Beber

All of us have experienced the joy and heartbreak of having a "Rex" in our lives. Whether "Rex" was a childhood pet, or is the current love of your life, there is nothing we wouldn't do for them. Let's meet Sydney. At 4 years of age, Sydney is a powerhouse. She has raised over \$1,000 with her lemonade stands, garnering her fans across Canada, and all for the love of "Rex," a Nova Scotia Duck Tolling Retriever, who was first treated for Oral Squamous Cell Carcinoma with surgery, followed by 5 weeks of radiation, at the Mona Campbell Centre for Animal Cancer. All was well for 14 months, until a routine re-check uncovered B-Cell Lymphoma. Rex, ever the fighter, is undergoing a 25 week protocol of chemotherapy. Every day with Rex is cause for celebration.

Sydney is an inspiration to all of us. She even received a letter from Dr. Stefan Keller, who is working on the development of a genetic test that can diagnose lymphoma.

As Sydney says, "My lemonade stand means I can give some money for Rex's hospital so that all the cancer dogs can get better just like Rex."

In yet another twist of fate we call "Six Degrees of Separation," here's a postscript to Sydney and Rex's story: I was in conversation, on line, with someone in Vancouver recently, and she said, "I have a friend who is having her dog go to the University of Guelph for cancer treatment and she cannot say enough great things about the kind and professional care that she has received from them. Her daughter Sydney was raising funds by holding a lemonade stand every weekend to support the program. I must let her know about the Smiling Blue Skies website." As the song goes, "It's a small world after all!"

We are never too young to make a difference. Hats off to kids like Sydney and "It's a Rex Thing" lemonade, Vaughn, of "Project Give Back," and Talia, of "Talia's Magnets for Smiling Blue Skies."

September is on the horizon, and that can mean only one thing. It's time for Toronto's 4th Annual Smiling Blue Skies Walk to End Canine Cancer. Please join us on Saturday, September 26th, at Kew Beach, for an extra special event. Isn't it amazing, that all the money raised comes from individuals and local businesses?! There is no corporate sponsorship and all production costs come out of the personal pockets of Kelly and her awesome team. That means 100% of the funds raised go directly to The Smiling Blue Skies Cancer Fund.

In photo (left): Sydney, Rex with OVC Pet Trust funded researchers Drs. Keller, Mutsaers and Woods.



Sydney and Rex at the Smiling Blue Skies Walk, Guelph.

And . . . brand new to Smiling Blue Skies, is the Maritime Golden Retriever Club's 2 All Breed Rally Obedience Trials being held in Truro, Nova Scotia, with Judge Tracy Snyder, Live Auctioneer, Dr. Eric Carnegy, DVM, and Photographer, Walt Norris. Special thanks to Deborah Fraser, Jane Fitz-Randolph, and the whole club, for making this very special event possible.

The Third Annual "Woof-fit Toronto Mini-Triathlon for Dogs and Their People" was a resounding success, raising over \$14,000. Joanne Cooper, "Rocky," and her crew are going on hiatus, so stay tuned for news about "Woof-fit Tofino" in 2016.

With 9 clinical trials on the go right now, and more on the horizon, Smiling Blue Skies is so glad to have been able to fund Vicky Sabine's appointment as Clinical Research Coordinator.

Thank you to all the heroes out there, whether all grown up or "reaching tall," all giants in our eyes, who are helping to take a bite out of cancer, on behalf of the precious pets and people in our lives. Long live blue skies, where hope is a kite and dreams really do come true. ❖



SMILING BLUE SKIES STRENGTHENS OVC CANCER RESEARCH TEAM

Clinical Research Coordinator role extended 3 years

The Smiling Blue Skies Cancer Fund has furthered its commitment to cancer research at the Ontario Veterinary College (OVC) by extending its support of a 'Clinical Research Coordinator' position for an additional three years. This role is based out of OVC's Institute for Comparative Cancer Investigation (ICCI) and assists the clinical team at the college's Mona Campbell Centre for Animal Cancer.

The new agreement commences on January 1, 2016. Vicky Sabine, who is currently completing a one-year contract in the role, also supported by Smiling Blue Skies, will stay on in the position.

Sabine works alongside Kaya Skowronski whose primary responsibility is the coordination of the Companion Animal Tumour Sample Bank (CATSB). With these two full-time positions in place, OVC is able to offer new opportunities in advancing translational cancer research in companion animals.

Sabine, a PhD in Veterinary Medicine, worked on the development of a gene therapy cure for canine osteosarcoma, under supervisor Dr. David J. Argyle, at the University of Glasgow, and spent more than seven years as a breast cancer translational research scientist at both the University of Edinburgh, and more recently, at the Ontario Institute for Cancer Research, in

Toronto. She firmly believes that companion animal oncology patients are ideal candidates as models for cancer and have a key role to play in improving not only the lives of fellow pets but also those of humans.

In her role, Vicky assists in administrative aspects of any companion animal OVC-Health Sciences Centre based clinical projects 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.

Since Sabine's arrival, the Companion Animal Tumour Sample Bank has celebrated a significant milestone. In June of this year the bank announced it has accumulated tumours from over 500 cases (dogs, cats, and rabbits).

All tumours or samples are collected with owner consent and cases include mast-cell tumour, osteosarcoma, soft tissue sarcoma, mammary cancer, hemangiosarcoma, thyroid cancer and melanoma. Sabine notes that any solid tumour is potentially eligible for banking.

Blood samples from oncology patients are also being banked now, regardless of whether a patient is a surgical candidate.



The Institute for Comparative Cancer Investigation team.

The Companion Animal Tumour Sample Bank facilitates retrospective analysis of cancer cases for which outcome data is available, providing a powerful tool for identification of biomarkers for more reliable prognostic prediction, and obtaining insight into the underlying causes of cancer.

"Smiling Blue Skies is proud to support the wonderful research and achievements of the Cancer Centre," says Suzi Beber, founder of the Smiling Blue Skies Cancer Fund. "OVC cancer researchers are truly a beacon of hope for our pets' futures. None of this could happen though, without our awesome and inspiring volunteers, who work hard every day, helping to change the face of cancer, for all of us." ❖

Twelve studies at the Ontario Veterinary College seeking oncology patients:

Canine oncology studies:

- Acute Myeloid Leukemia Study
- Analysis of cytokines in dogs with multicentric lymphoma treated with Madison-Wisconsin protocol
- microRNA profiling for diagnosis and prognosis in canine multicentric lymphoma
- Prognostication of canine T-cell lymphoma
- Effects of diphenhydramine (Benadryl) in dogs with mast cell tumours undergoing surgery at OVC
- Analysis of cytokines in dogs with osteosarcoma treated with amputation, radiation and/or chemotherapy
- Investigating biomarkers for metronomic cyclophosphamide treatment of canine soft tissue sarcoma

Feline oncology studies:

- Oncolytic Maraba vaccination and standard-of-care surgery for the treatment of mammary carcinoma in cats

Oncology-related studies:

- Thiamine supplementation in dogs and cats with anorexia or a reduced appetite
- The effects of pre-storage leukoreduction on inflammation induced by blood transfusion in critically ill dogs
- Randomized, blinded study comparing fentanyl and hydromorphone infusions to control pain in canine ICU patients
- Feline acute kidney injury study

For information on oncology & oncology-related clinical trials currently recruiting companion animal patients at the Ontario Veterinary College can be found at: <http://ovc.uoguelph.ca/icci/trials> ❖



The Bay Cities Animal Hospital team.

BAY CITIES ANIMAL HOSPITAL

When Dr. Barry Burtis, Dr. Paul Winslow and Dr. Ron Fox announced their retirements this year from Bay Cities Animal Hospital in Burlington, Ontario, grateful clients reached out to OVC Pet Trust with a donation to recognize and honour their dedicated service to veterinary medicine and their care and compassion to companion animals. This continues a relationship with Pet Trust that started almost 30 years ago.

Burtis and Winslow, both graduates of OVC '69, founded Bay Cities Animal Hospital in 1971. Fox joined the partnership in 1983. The hospital was affiliated with the American Animal Hospital Association for those early decades. "Continuing Education was not an option, it was what defined us as we grew from a staff of two to a staff of twenty over the next 44 years," says Winslow. In 1999, they moved the practice 200 metres from leased premises to the current hospital building. From 1971 to the present, the practice has experienced computerization, the

changing demographics of the profession, the inevitable need for marketing and promotion and the increased role of specialists in all aspects of small animal practice.

Throughout these decades of growth and change, Pet Trust was there—adhering to its vision and remaining relevant to the profession. Winslow was a Pet Trust board member for several years in the early 1990s. "It was obvious, this fund, which helps all of veterinary medicine - but particularly household pets, deserved our continued support," says Winslow.

"From the early days of our careers, we chose to acknowledge the grief and loss our clients were experiencing at the time of death or euthanasia of their family pet, with a note of condolence. This is where Pet Trust fit perfectly into the fabric of our practice."

"When we sent a note of condolence to our special clients, we would always advise them

that a donation had been sent to Pet Trust as a memorial to their pet," adds Winslow. "The staff at Pet Trust would always follow up with a confirmation of the donation and include some information about current work. We would usually receive a note back from the client, thanking us for the donation and impressed by the good work being done by Pet Trust. Many of these clients would send their own gift to Pet Trust in gratitude."

Pet Trust has been an integral part of the Bay Cities Animal Hospital culture for almost 30 years. "We continue to be proud of our affiliation and of the irreplaceable support that it gives to studies in pet health," says Winslow.❖

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 or call (519) 824-4120 x 54695 or donate online 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.

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 to learn more.

SAVE A TREE

Sign up to receive Best Friends electronically. Email ovcpet@uoguelph.ca to get started. This and past issues are available for download at www.pettrust.ca.

UPCOMING EVENTS

VETERINARY TEAM CE EVENTS

MONDAY NOVEMBER 30 - Veterinary Team Appreciation Rounds. Continuing education opportunity for veterinarians and their teams. Topic: *Osteosarcoma-What's new and what's tried and true?* Register at ovcCE@uoguelph.ca November 23, 2015.

TRADESHOW EVENTS

JANUARY 28-30, 2016 - Ontario Veterinary Medical Conference (OVMA), Toronto, Booth #624.

MARCH 3-5, 2016 - Ontario Association of Veterinary Technicians Conference (OAVT), Toronto, International Plaza Hotel, Booth #121.

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