

#### Thank you! You are receiving a copy of the Smiling Blue Skies Cancer Fund 2017 Update Report as a thank you for your support of OVC Pet Trust and cancer care, teaching and research at the Ontario Veterinary College, University of Guelph.

# Smiling Blue Skies Changing the future...helping to create a cancer-free world



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

Founder, Smiling Blue Skies Cancer Fund www.smilingblueskies.com

Once again 2017 was a remarkable year for improving the lives of animals thanks to Smiling Blue Skies and Suzi Beber.

Suzi volunteers countless hours annually to raise funds for OVC Pet Trust, the charitable fund at the Ontario Veterinary College (OVC), University of Guelph, helps support the work of veterinarians and scientists working to find answers for animals with cancer.

Improving the lives of animals – that's what we do here at OVC. Our medical innovations lead to happier, healthier and longer lives for the companions who give us so much joy. Many of our advances in treating companion animal cancer are made possible by the continued support of the Smiling Blue Skies Cancer Fund, thanks to Suzi Beber and her devoted supporters. The care provided and studies conducted through our Animal Cancer Centre are a clear example of how our researchers are breaking new ground in pursuit of improved diagnostics and treatments to improve the health and quality of life for pets. Their work has implications for human oncology research as well.

Last spring, I was able to join Suzi in Calgary at the Smiling Blue Skies Walk for Canine Cancer and experience first hand the dedication of the outstanding volunteers at Smiling Blues Skies. The powerful relationship between dogs and their people, the joy the pets bring to each of the volunteers' lives and the outstanding devotion Suzi brings through Smiling Blue Skies is truly an inspiration. This spirit of generosity is helping to drive research and discovery into canine cancer, promising a better future for animals and humans alike.

On behalf of all of us at OVC Pet Trust, thank you Suzi. Thank you for everything you have done for the past 17 years to help people and animals.

Kim Robinson, Managing Director, OVC Pet Trust

This report has been prepared for The Smiling Blue Skies Cancer Fund ©2017.

## 2017 Support: Smiling Blue Skies continues support of Clinical Trials Coordinator

The Clinical Trials Coordinator manages clinical studies within the Health Sciences Centre at the Ontario Veterinary College. This role supports cancer and advanced disease clinical research, helps to maximize awareness, manage pet owners' expectations and increase participation in clinical trials. This work ensures studies are able to achieve critical mass, collect appropriate data and help as many pets as possible.

The coordinator oversees recruitment of owners and their pets, the collection of necessary data and acquisition of samples for tumour banking. Working with specialists throughout the OVC Health Sciences Centre, the coordinator actively seeks

patients from all veterinary specialty services that could be included in a clinical trial and advance veterinary knowledge that could lead to the discovery of potential new treatment options that could help current or future patients.

In addition to working with the principal investigators, the coordinator maintains strong relationships with pet owners, explains the steps once a pet is involved in a trial, obtains consent for participation and monitors how pets respond to treatments.

This role is vital to the cancer care OVC offers to patients and their people, while simultaneously helping to advance cancer research.





The Smiling Blue Skies Cancer Fund has been built on the passion of volunteers and community-based spirit since inception. It is the passion, love and commitment we have for our pets that brings us together to help fight the devastating disease of cancer.

Thank you to our event organizers who have worked tirelessly to help us get one step closer to meeting our goals of ending canine cancer.

In photo(left): OVC Clinical Trials Coordinator, Vicky Sabine.

# About the Health Sciences Centre at the Ontario Veterinary College, University of Guelph

The Ontario Veterinary College's Health Sciences Centre (OVC-HSC) is a busy hub of specialized veterinary care and research located at the University of Guelph, approximately 1.5 hours outside of Toronto. The companion animal hospitals within the centre employ 31 clinicians and 45 registered veterinary technicians (RVTs). The OVC-HSC medical team also includes two residents, 11 companion animal interns, 22 Doctor of Veterinary Science students (DVSc), veterinary graduate students focused on a variety of specialties within companion animal medicine.

Open 24 hours a day, OVC-HSC delivers care to approximately 5,000 companion animals each year with an annual average of 12,000 patient visits. Approximately 5,000 of these visits are to the Mona Campbell Centre for Animal Cancer.

# Clinical Trials at the Ontario Veterinary College

The Ontario Veterinary College is currently conducting more than 25 companion animal-related clinical trials in specialty care areas such as oncology, nutrition, emergency care, advanced surgical techniques and more. Each study aims to help advance medical treatments that can improve the health or quality of life for our pets.

What is a Clinical Trial? Clinical trials are research studies used in all specialties of human and veterinary medicine to evaluate new medical devices, vaccines, diagnostic tests and treatments. These trials may investigate new types of surgical or other procedures as well as novel medical therapies for patients.

## What are the benefits of participating in a clinical trial?

Clinical trials allow clinicians to discover new and improved ways to prevent, diagnose or treat patients. By participating in a clinical trial, your pet may benefit by: gaining access to new treatments that are not yet available to the public; obtaining expert medical care at a leading health care facility; playing an active role in developing a specialized healthcare plan; and helping others by contributing to medical research.

## How can my pet take part in a clinical trial at OVC?

Pet owners should talk to their family veterinarian about clinical trial treatment and referral options to OVC. To see the full list of current clinical trials please visit the OVC Health Sciences Centre website:

http://bit.ly/OVCClinicalTrials

# CLINICAL CANCER STUDIES AT THE ONTARIO VETERINARY COLLEGE CURRENTLY SEEKING ONCOLOGY PARTICIPANTS



#### **CANINE ONCOLOGY STUDIES:**

- Profiling and validation of extracellular vesicles as circulating biomarkers in canine osteosarcoma: a DOGBONe project
- Identification of response to chemotherapy in relapsed canine lymphoma patients
- Effect of lymphoma on the blood test for kidney disease
- Detection of minimal residual disease in canine lymphoma
- Prognostication of canine T-cell lymphoma
- Investigating biomarkers for metronomic cyclophosphamide treatment of canine soft tissue sarcoma
- Acute Myeloid Leukemia Study

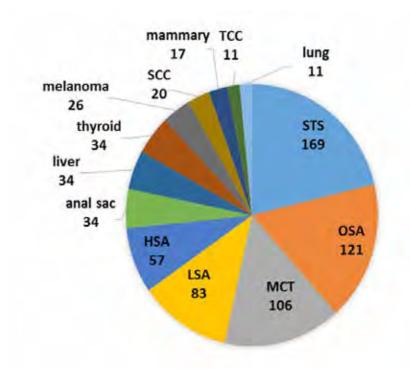
#### **ONCOLOGY-RELATED STUDIES:**

- Evaluating crossmatch incompatibility to increase safety of blood transfusion in cats and dogs
- Investigation of high flow nasal cannula respiratory support systems in brachycephalic dogs recovering from general anesthesia
- Investigation of high flow nasal cannula respiratory support systems in dogs with clinical disease
- Feline acute kidney injury study
- Improving characterization of respiratory disease in cats
- Diagnosing pancreatitis in dogs and cats
- Platelet function testing in cats with heart disease receiving clopidogrel therapy
- Optic Nerve Sheath Diameter as a Predictor of Intracranial Hypertension

# ONGOING CLINICAL CANCER STUDIES AT THE ONTARIO VETERINARY COLLEGE\*:

- Evaluation of the safety and effectiveness of standard-of-care therapy, with or without adjuvant rapamycin administration in dogs with osteosarcoma
- Non-invasive detection and quantification of circulating tumour cells in dogs with appendicular osteosarcoma
- Analysis of cytokines in dogs with osteosarcoma treated with amputation, radiation and/or chemotherapy
- microRNA profiling for diagnosis and prognosis in canine multicentric lymphoma

## THE DISTRIBUTION OF THE 13 MOST PREVALENT CANINE TUMOUR TYPES IN THE COMPANION ANIMAL TUMOUR SAMPLE BANK \*



Abbreviations:

STS: soft tissue sarcoma

OSA: osteosarcoma

MCT: mast cell tumour

LSA: lymphoma

HSA: hemangiosarcoma

TCC: transitional cell carcinoma

SCC: squamous cell carcinoma

## THE FOUR MOST PREVALENT FELINE TUMOUR TYPES BANKED AT OVC\*

Tumour Type	# Cases		
Mammary Carcinoma	10		
Osteosarcoma	8		
Soft Tissue Sarcoma	7		
Lymphoma	5		

<sup>\*</sup>Please note data collected is as of October 20, 2017.

### PATIENT ENROLLMENT COMPANION ANIMAL TUMOUR SAMPLE BANK (CATSB)

#### Patient Enrollment Companion Animal Tumour Sample Bank (CATSB)

Numbers of oncology patients recruited into oncology and oncology-related studies and banked in CATSB and requests made by researchers during periods Jan 1 - Oct 31 for 2014 - 2017.

	Clinical Research Studies			CATSB		
Time frame (Jan 1 - Oct 31)	# Oncology- related Studies	# Patients Recruited	# Golden Retrievers Recruited	# of Cases Banked	# Golden Retrievers Banked	# Sample Requests by Researchers
2014	11	221	20	103	6	2
2015	13	147	14	239	25	2
2016	19	154	18	242	25	6
2017	23	235	27	189	18	4

Figure 1: Number of case banked varies per year based on types of studies being conducted, timing of recruitment for each clinical trial, and other factors.

<sup>\*</sup>These studies finished recruiting new patients in 2017; however, samples are still being collected from the patients who continue to receive care at the Animal Cancer Centre.



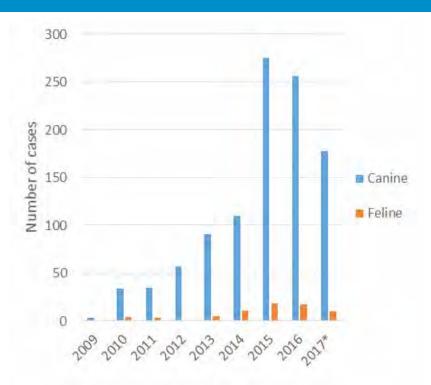
## IMPROVING PROTOCOLS AND THE STANDARD-OF-CARE FOR STAGING DOGS WITH ORAL TUMOURS

In 2017, Veterinary Surgical Oncologist and Assistant Co-Director of the University of Guelph's Institute for Comparative Cancer Investigations, Dr. Michelle Oblak, is recruiting patients for her study, CT and surgical evaluation of a novel technique for staging lymph nodes in dogs with oral tumours, a project funded by OVC Pet Trust.

In the field of cancer, identification of spread of disease is very important to help determine the best treatment option for animals with a tumour. For many cancer types, this spread happens via the lymph nodes and knowing the disease status of the lymph nodes helps to determine whether spread has occurred. This information may impact the decision to recommend additional treatments, such as chemotherapy, which is why it is important. Currently the technique used most commonly in animals is to remove all the possible draining lymph nodes. This technique is used because it is unclear which is the most important node to sample and we do not want to risk missing disease. A newer technique is called sentinel lymph node mapping. This method has recently been considered in humans and with this technique, we can determine which is the lymph node(s) that is most likely draining the tumour, and as a result, we are able to select the correct lymph node and remove one or two. The benefit of this approach is that it decreases the amount of surgery time and incision size required and also decreases the risk of potential for complications after removal.

Dr. Oblak's study aims to improve the protocols to identify the sentinel lymph node(s). The development of these protocols could help veterinarians to decrease the number of lymph nodes removed, in addition to ensuring they are accurately evaluating the most important lymph node for making follow-up treatment recommendations. Recently, the imaging protocol based on her research became standard-of-care at the Ontario Veterinary College. The agreement between the preoperative imaging technique and intraoperative visualization technique are still ongoing.

# THE COMPANION ANIMAL TUMOUR SAMPLE BANK REACHES MILESTONE IN 2017



In 2017, the Companion Animal Tumour Sample Bank reached a milestone, with banked samples from the 1000th case. Now at 1110 cases banked, of which 1041 are dogs and 69 are cats, there are over 20,000 aliquots stored in the tumour bank. The first -80oC freezer, funded by OVC Pet Trust has now reached full capacity and a second freezer was purchased in early 2017 through an equipment grant from OVC Pet Trust. With an increase in the number of samples available for various tumour types, the Companion Animal Tumour Sample Bank is increasingly becoming a more attractive resource for researchers seeking samples to utilize in their cancer research studies that may have future benefits for both pets and people.

Figure 2: Total number of cases banked in the Companion Animal Tumour Sample Bank from 2009 to 2017. The reduction in banked cases in 2017 is attributed to a high volume of lymphoma clinical research studies at OVC. These studies require blood samples for immediate use, therefore placing a hold on samples available for storage. \*Please note data collected is as of October 20, 2017.

#### **EDUCATING THE NEXT GENERATION OF VETERINARY LEADERS**

With the goal of exposing students to alternative career options and increasing opportunities to learn more about the research side of veterinary medicine, the oncology team at the Ontario Veterinary College continues to provide valuable learning experiences to students. Through placement opportunities students gain valuable skills in the area of data collection and management, clinical research, sample collection and cancer patient outcomes.

In 2017, seven students worked alongside the oncology team at the animal cancer centre:

One Doctor of Veterinary Medicine (DVM) student was hired as part of the University of Guelph Work Study Program. This postion focussed on data collection and patient outcomes for the Companion Animal Tumour Sample Bank.

 One recent graduate from the Biomedical Sciences undergraduate program at the University of Guelph participated in OVC's Summer Career Opportunities and Research Experience Program. As part of the program, the student gathered evidence and presented a research poster project entitled Creation and validation of companion animal cancer cell line for transitional research. As a result, one of the cell lines under investigation was established with urine samples collected during this project, evidencing the occurrence of cell dissociation from the epithelium.

- Two Advanced Biotechnology students from Sir Sanford
  Fleming College in Peterborough completed a 4-month
  internship during which they assisted with the Companion
  Animal Tumour Sample Bank clinical research and data
  management studies.
- Three University of Guelph graduate students volunteered to work with the oncology team, assisting in sample collection, data management associated with clinical trials and patient outcomes for the Companion Animal Tumour Sample Bank.



# AWARD-WINNING STATE-OF-THE-ART ANIMAL CANCER CENTRE CELEBRATES FIVE YEARS TREATING PETS AND HELPING FAMILIES MANAGE THE DISEASE

It's been five years since the Mona Campbell Centre for Animal Cancer opened its doors in Guelph on September 20, 2012. Hailed as Canada's most comprehensive and state-of the-art animal cancer treatment and research centre, it offers the most advanced tools for cancer diagnosis, treatment and teaching in the country.

"Before the cancer centre opened, the Oncology Service of the OVC Health Sciences Centre was constrained by space and facilities to what we could offer families to treat their pets with cancer," says Dr. Paul Woods, a veterinary medical oncologist at OVC. "Now five years later, the centre has allowed our team to expand and offer the most current and innovative, cutting-edge investigational therapies for companion animals."

The growth of the centre has been steady over the past five years. The modern facility and staff provide their hallmark care and comfort to roughly 100 patients and their families each week. Dogs and cats are the most common patients that come through the doors, but the centre has also treated horses, rabbits, ferrets, birds and even bearded dragons.

Pet owners are referred to the centre by their family veterinarians for diagnosis or treatment, which may include surgery, chemotherapy, radiation therapy and immunotherapy. In the 2016-2017 fiscal year, the centre had more than 4,200 patient visits.

"While most of our patients are from Ontario and the United States, many patients come to us from other areas of Canada and some clients have brought their pets from as far away as Asia and Europe," says Woods.

In addition to providing care, the centre has also conducted more than 50 clinical trials since opening its doors, with each study aimed to help advance medical treatments that can improve the health or quality of life for pets. Clinical trials within the centre focus on finding answers to a wide range of cancers, including lymphoma, osteosarcoma and breast cancer. In addition to funds provided by OVC Pet Trust, cancer researchers have received support from organizations such as the Terry Fox Research Institute, Morris Animal Foundation, The Smiling Blue Skies Cancer Fund, the Canadian Breast Cancer Foundation and others to investigate naturally-occurring cancers and develop therapies that could benefit both pets and people.

This past July, the cancer centre received the 2017 Practice of the Year Award from the Canadian Veterinary Medical Association.

Highlights:
Ontario
Veterinary
College cancer
research and
healthcare
in the NEWS

#### **Canine Cancer Treatment, CBC the National**

January, 2017

http://www.cbc.ca/beta/news/ thenational/canine-cancer-treatment-1.3921780

#### New Weapon to Fight Cancer , CTV

January, 2017 http://kitchener.ctvnews.ca/video?clipId=1017877

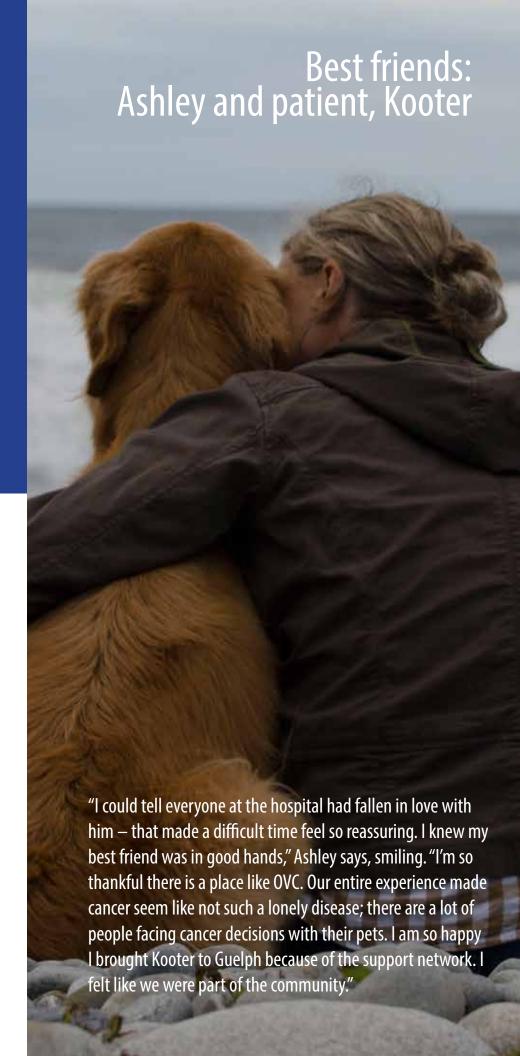
### Following Fenway's treatment at the Animal Cancer Centre

Guelph Today , September, 2017 https://www.guelphtoday.com/local-news/ following-fenways-treatment-at-the-animalcancer-centre-8- photos-727055

### Animal cancer centre in Guelph is state of the art , CITY TV

September, 2017 http://toronto.citynews.ca/video/2017/09/06/ animal-cancer-centre-in-guelph-is-state-of-theart/

**Heal, Boy**, National Post (Front Page) October, 2017 http://nationalpost.com/feature/heal-boy





A dedicated group of 34 walkers raised more than \$24,000 at last April's 15th Annual Smiling Blue Skies Walk for Canine Cancer in Calgary.

Smiling Blue Skies founder Suzi Beber and OVC Pet Trust's Managing Director Kim Robinson, both travelled to Calgary to mark the milestone occasion.

"The Calgary team is an incredible group of committed and compassionate individuals. A big thank you goes out to the volunteer organizing team which included Leanne Tucker, Mary Shillabeer, Barb Burgess and Carolyn Tucker," says Suzi Beber. "It was such an honour to be able to be a part of this special day." The Calgary walk has raised approximately \$250,000 over the past 15 years, and the 2018 walk will be held on April 29.

"Suzi and Smiling Blue Skies have done so much to help OVC advance the prevention and treatment of cancer, as well as create leading edge facilities to treat cancer in pets," says Kim Robinson, Managing Director of OVC Pet Trust. "It was wonderful to be able to attend the event this year and witness the commitment of the Smiling Blue Skies supporters in Calgary first hand."















The Second Annual Woof-Fit Tofino in Support of The Smiling Blue Skies Cancer fund for Innovative Research at OVC Pet Trust raised \$15,458 last June. This special event, organized by Suzi Beber and Tom Wright and a fabulous team of volunteers, was held at North Chesterman Beach in Tofino, British Columbia and included a beach walk, breakfast for dogs and their people and "DOGA" (yoga with your dog). Dogs and their people spent the morning frolicking in the Pacific Ocean and participating in a variety of activities for the whole family, including musical entertainment, a Kids Zone, treats from The Wickaninnish Inn and Endless Pawsibilities, swag bags for all participants, and terrific prize packages for the Top Three pledge earners. All money raised at Woof- Fit Tofino benefits cancer research and discovery at the Ontario Veterinary College (OVC), University of Guelph.

People gathered for Woof-Fit from various areas of British Columbia including as far as Vancouver and Victoria, as well as two special guests from Guelph. OVC Dean Dr. Jeffrey Wichtel and Senior Development Manager Julie Byczynski travelled to Tofino to celebrate Suzi Beber's commitment to helping support pets and cancer.

"Suzi's passion and dedication to helping pets and their people is truly inspirational," said OVC Dean Dr. Jeffrey Wichtel. "Her generosity and determination has directly helped provide better lives for pets affected by cancer, and her support continues to drive research to discover new ways to diagnose and treat canine cancer."

"A huge thank you to everyone who contributed to making Woof-Fit Tofino such an incredible success again this year," said Suzi Beber, founder of Smiling Blue Skies. "Thanks to everyone who donated, participated and supported Woof-Fit, we are taking a bite out of cancer on behalf of the precious pets and people in all of our lives."

### **Celebrating our volunteers across the country!**





OVC Pet Trust, founded in 1986 at the Ontario Veterinary College, University of Guelph, is Canada's first charitable fund dedicated to the health and well-being of companion animals.

OVC Pet Trust honours the relationship between pets, their people and veterinary caregivers by raising funds to support innovative discoveries that improve the prevention, diagnosis and treatment of diseases of pets.

Funds also help train veterinarians to provide exceptional healthcare for pets and provide equipment and facilities for the Ontario Veterinary College.

University of Guelph Charitable Registration Number: 10816 1829 RR 0001



#### **OVC Pet Trust**

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