Cancer treatment for pets took a giant leap forward this summer as the OVC’s Mona Campbell Centre for Animal Cancer welcomed the first patient to receive radiation therapy using the new linear accelerator. River, a seven-year-old Shar-Pei, was scheduled to receive four weekly radiation treatments for oral melanoma. It’s an aggressive form of cancer that can be difficult to treat surgically because it spreads quickly and often invades the bony structures of the mouth before it is even detected. In River’s case, a tumour in her throat was making it increasingly difficult to eat and was also affecting her breathing.

“She was still going for her walks but I could tell she was not comfortable,” said owner Bobbi Godfrey. “She was not herself for sure. She’s part of the family, and I’m just so glad that this place is here so we can try to help her feel better.”

Radiation is used alone or in combination with surgery for local and regional control of cancer, said Dr. Valerie Poirier, the cancer centre’s radiation oncology specialist.

“Depending on the type of cancer and its location, and the objectives of the pet’s family, we provide radiation therapy with a range of goals in mind, from curative intent to slowing the cancer’s progression, to palliation and pain control.”

Continued on pg 2.
The outlook for River is positive. Her type of cancer typically responds well to radiation. However, in this case the goal of the radiation treatment is to control the tumour and improve River’s quality of life, not cure the cancer.

River’s disease has spread to her lymph nodes. So River is also receiving immunotherapy with a melanoma vaccine designed to boost her immune response against the cancer cells.

While the OVC has offered radiation therapy for many years, the new Varian Clinac iX linear accelerator is state-of-the-art technology and the only one of its kind in veterinary use in Canada. Equipped with an on-board imaging system for precise positioning of the patient and tumour targeting, plus multileaf collimators that control the shape of the radiation beam, the linac can deliver intensity-modulated radiation therapy (IMRT) in which the radiation therapist uses specialized three-dimensional planning software to modify the radiation beam to match the shape of the tumour. “This allows us to deliver the highest dose of radiation possible to the tumour with minimal radiation exposure to the surrounding normal tissue,” said Poirier. “It’s a huge advantage compared to older technology, increasing the therapeutic benefits while minimizing the side effects.”

OVC’s radiation therapy unit expects to be treating six to 12 patients per day. A full team of experts was on hand for River’s first treatment, including training specialists from Varian and Andre Fleck, a medical physicist from Grand River Hospital in Waterloo providing technical support. He conducted a quality assurance test of the treatment plan and the equipment. “This is a great facility and a rare opportunity to make advances that will help people with cancer by treating and studying the disease in our pets. There is the potential for real impact,” said Fleck.
A highly effective treatment option for cats with hyperthyroidism is now available at the Ontario Veterinary College thanks to OVC Pet Trust supporters.

The radioiodine therapy service treated its first group of patients in September in new state-of-the-art facilities located in the OVC’s Mona Campbell Centre for Animal Cancer.

“Our patients have responded very well,” said Dr. Danielle Richardson, the internal medicine specialist who heads the service. “We’re delighted to be able to offer radioiodine therapy as the treatment of choice for hyperthyroid disease, which is the most common hormonal disorder affecting older cats.”

Thanks to Pet Trust supporters who funded construction of the new facilities as part of the animal cancer centre project, OVC is now one of only a handful of veterinary clinics across Canada able to offer radioiodine therapy.

“Treating our first group of cats has been very exciting and it has only been possible because of the hard work and dedication of our technicians and students who have been taking exceptional care of the cats while in hospital,” said Richardson. “Our veterinary technicians Alison Downie and Ramona Fowler have been instrumental in launching this service. We also have three veterinary students dedicated to the care of these patients. It has really been a team effort to get this off the ground.”

Hyperthyroidism is caused by an overactive thyroid gland resulting in excess production of thyroid hormones responsible for regulating metabolism, body temperature, blood pressure, heart rate and gastrointestinal function. In most cases, the abnormality is linked to a benign growth on the thyroid gland; only about three per cent of hyperthyroid cats have a cancerous thyroid tumour.

Relatively easy to diagnose in most cases, symptoms include: weight loss; increased appetite and drinking; increased urination; increased activity levels, restlessness or nervousness; vomiting; increased vocalization, and unkempt coat.

Left untreated, hyperthyroidism can lead to heart disease and high blood pressure that can cause further damage to the eyes, kidneys and brain.

Treatment options include mediation, surgery to remove the abnormal thyroid gland, and radioiodine therapy that involves the injection of radioactive iodine under the skin. While medication is the preferred option for cats with underlying kidney disease, patients may not be able to tolerate the medication long-term. Surgery is also effective but there is an increased risk of complications because hyperthyroid cats are often older and may have other diseases.

Radioiodine therapy is a safe and highly effective alternative. The injection is similar to a vaccine in which the radioactive iodine is taken up into the thyroid gland where it destroys hyper-functioning tissue with no risk to healthy tissue.

“Ninety per cent of cats can be cured with a single treatment and most of the rest will respond to a second injection,” Richardson says.

If you are a cat owner and suspect that your cat has hyperthyroidism, contact your family veterinarian for an initial assessment. Your veterinarian can contact OVC to help determine if radioactive iodine is the best treatment choice for your cat and arrange a referral.
Calming influence
Finding ways to ease the stress of visits to the vet

Pets, like people, can get stressed when visiting their health professional.

Consequently, many well-intentioned pet owners don’t take their animals to the veterinarian. It’s a short-sighted decision.

Like people, pets must see a doctor periodically to prevent diseases and to identify any problems before they get worse. They may also need vaccinations, dental care and other essential procedures.

With that in mind, Ontario Veterinary College graduate students are leading research projects aimed at improving welfare and comfort for companion animals during veterinary appointments.

These students are hoping to improve the handling techniques, communication between veterinarians and owners, and to reduce the animals’ fear associated with the clinic.

In one study, population medicine doctoral student Lauren Dawson — along with OVC dean Elizabeth Stone and professors Lee Niel, Cate Dewey and Michele Guerin — is developing a pet welfare model designed to improve animal welfare at companion animal clinics.

Stone began the project to investigate animal welfare at small animal clinics and to develop a tool in response to growing interest in it.

Dawson and her team are developing a checklist of measures focusing on the facility’s characteristics, animal care standards, wellness advice provided by the veterinarian, and how the veterinarian interacts with the animal.

After these are developed, Dawson will travel across Ontario to test her checklist and observe how things are done in several clinics. She wants to determine if her measures are appropriate for use in veterinary practices, and if there is variability in the way animal welfare is approached at those clinics.

“I hope to create a tool for the assessment of animal welfare in small animal veterinary clinics, with an aim towards identifying areas for improvement and collaborating with clinics to enhance overall clinic welfare,” says Dawson.

Similarly, animal behaviour and welfare master’s student Megan Toner, along with Department of Population Medicine professor Lee Niel, is investigating cat fear-related behaviours during different stages of their wellness appointments.

Toner looked for evidence of fear-related behaviour during wellness appointments for cats at the Hill’s Pet Nutrition Primary Healthcare Centre at the college. These observations were intended to provide a preliminary basis for making improvements in cat comfort and handling.

“Cats in particular become stressed, scared and aggressive during clinic visits, which means that the cats’ and the veterinarian’s safety comes into question. There isn’t a lot of research on cats and their reactions in vet clinics or how to improve upon this,” says Toner.

— This article was written by a participant in the Students Promoting Awareness of Research Knowledge (SPARK) program at the University of Guelph.
Immunotherapy — using the body’s own immune system to attack and destroy cancer cells — is one of the most promising new areas of cancer research, and the Ontario Veterinary College is on the leading edge.

Dr. Byram Bridle’s work bridges the fields of immunology and virology and is aimed at fighting cancer by hyper-activating the immune response of patients without the toxic side effects of standard treatments.

“I have found a way to get viruses and the immune system to mount a co-ordinated attack on cancer cells,” Bridle said.

Here’s how it works. Initially, when cancer is found in the host body, a vaccine is injected that contains proteins taken from the cancer cells. Much like a flu shot, this gets the immune system to start destroying tumour cells, slowing their growth.

This is followed up by a second vaccine that consists of an oncolytic virus. It serves two purposes: first, it directly infects and kills only malignant cells, destroying a large portion of the cancer. As well, it boosts the immune response, resulting—in the best-case scenario—in eradication of any remaining tumour cells.

Bridle said the immune system responds to infections foreign to the body, and will eliminate any oncolytic viruses that remain. As a final product, the cancer cells are eliminated by the virus, and the immune system will eliminate any remaining tumour cells and the virus, leaving the patient free of both the cancer and viruses.

“At least, that is the theory,” Bridle said. “The goal is to put this theory to the test in cats and dogs receiving cancer treatment at the OVC’s animal cancer centre.”

Current cancer treatments are direct and target known affected areas. But cancer cells that are not completely eliminated can establish new tumours in other parts of the body and often develop resistance to the previous treatment.

That’s the difference with this treatment—the oncolytic viruses and immune system are designed to seek out cancer cells throughout the body and eliminate them; their location doesn’t need to be known. Bridle said this should ensure there will be no cancer cells left in the host body.

So far, Bridle has been successful in treating cancer in laboratory mice. But the difference between laboratory mice and humans is “enormous,” he says.

“Cats and dogs have a similar level of genetic diversity across breeds and share our environments, including living in our homes, drinking our water and sometimes even eating our food,” he says. “Testing promising new cancer treatments in companion animals can be a win-win situation.”

Bridle said he hopes this research will help effectively treat cancer in cats and dogs, and one day humans. Initially tests will involve treating mammary cancer in cats, which is remarkably similar to human breast cancer, and lymphoma in dogs.

Bridle’s collaborators include Prof. Brian Lichty from McMaster University, and Drs. Dorothee Bienzle and Paul Woods from OVC.

This article was written by a participant in the Students Promoting Awareness of Research Knowledge (SPARK) program at the University of Guelph.
As we go to print, excitement is bubbling over as final plans slip into place for this year’s Smiling Blue Skies Walks in Toronto and Victoria.

Three huge cheers to Toronto’s West Hill Animal Clinic for raising $433.50 at their barbecue, as a prelude to Toronto’s Smiling Blue Skies Walk to End Canine Cancer.

New to this year’s Toronto Walk is the “Kids Challenge to Change Canine Cancer Coin Drive,” for kids age three to 10. Leading the pack of on-line pledge earners is OVC Pet Trust’s very own Dr. Chip Coombs and his golden retriever Islay. We are thrilled that Global TV’s meteorologist Anthony Farnell is back on board along with his wife, Samantha, and Storm the Weather Dog, to emcee this year’s walk.

Not to be outdone, out on the West Coast we’re hoping for blue, blue skies as we welcome the Flirting with Fido Kissing Booth to our walk. For a nominal $10 donation that supports both Smiling Blues Skies and canine rescue, participants will be treated to a mini-photo session in the kissing booth, courtesy of Tots n Tails Photography. Our breakfast bonanza is back again too with something for everyone!

Smiling Blue Skies was the charity of choice for the inaugural Petlover Show, helmed by Nanette Jacques in Abbotsford, B.C. Over $1,000 was raised for the cause and we can’t wait to see what 2014 brings.

Joanne Cooper’s first Woof-fit Mini-Triathlon for Dogs and Their People was a huge success. Amazing dog and owner teams, ran, walked, rode, pedalled, swam, and waded their way to raising over $12,300!

Calgary’s Smiling Blue Skies Walk for Canine Cancer raised nearly $27,000! This very dedicated group led by Mary and Leanne is very excited to be supporting the work of Dr. Byram Bridle in OVC’s Department of Pathobiology.

Long time supporters from Quebec, Judy and Kathy, took their passion for bottle collecting to new heights, donating $1,800 to Smiling Blue Skies this year. Vancouver Island photographer Linda Matteson-Reynolds is taking her own bite out of cancer by donating partial proceeds from the sale of her wonderful and whimsical posters of agility dogs to Smiling Blue Skies.

There’s a new twist to wedding favours and birthday gifts. Guests attending Ida’s nuptials in Toronto in October will be honoured with a donation to Smiling Blue Skies that celebrates the life and special spirit of Ella Blue, Ida’s beloved dog lost too young to cancer. On the West Coast, 14-year-old Annette decided that in lieu of birthday gifts, she wanted her family and friends to make donations to Smiling Blue Skies to honour their family dog Kaya.

Brand new to the Smiling Blue Skies family is The Wickaninnish Inn, located in glorious Tofino on Vancouver Island. A capsule collection of Smiling Blue Skies jewelry exclusive to “The Wick” is now available, with 100% of the proceeds being donated to The Smiling Blue Skies Fund for Innovative Research.

This holiday season, we bid farewell to a very special tradition, The Sashettes calendars. Be sure to get in your order for the 2014 calendar. This is the 10th anniversary of Suzan Norrie’s fabulous calendar that celebrates the Sashettes litter of golden retrievers. All proceeds from this limited edition of 150 calendars will be donated to The Smiling Blue Skies Cancer Fund.

‘Long live Blue Skies, where hope is a kite and dreams really do come true, thanks to special people like you.’
— Suzi Beber
Annual forum a thank-you to supporters

A best-selling Canadian author and humourist will be the featured speaker at the 2013 Pet Trust Forum on Nov. 2.

William J. Thomas is an author, scriptwriter and a nationally syndicated columnist carried by 50 newspapers and he is the senior writer for Forever Young.

With two Gemini Award nominations for television writing, he is the author of 10 books of humour including the story of his buck-toothed cat named Malcolm titled Life In The Litterbox. The Dog Rules – Damn Near Everything!, the story of his unfaithful dog Jake, enjoyed 49 straight weeks at number one on Canadian bestseller lists.

His talk takes place in the OVC Lifetime Learning Centre from 1:15 p.m. to 2:15 p.m.

The cost is $15 ($10 for students). For more information or to register call 519-824-4120, Ext. 56934 before 4 p.m. on Oct. 25.

Coming Events

**April 18-20, 2014**
All About Pets Show
Mississauga International Centre

**Jan. 30 to Feb. 1**
Ontario Veterinary Medical Association Conference and Trade Show
Westin Harbour Castle
Toronto
Come visit the Pet Trust booth!

**Feb. 27 to March 1**
Ontario Association of Veterinary Technicians Annual Conference
Sheraton Centre, Toronto

**Nov. 2**
Pet Trust Forum
Ontario Veterinary College
Guest speaker: William J. Thomas.
Tickets $15 ($10 for students)
Call 519-824-4120, Ext. 56934 to register.

**Nov. 9-10**
Ottawa Pet Expo
Ernst & Young Centre, Ottawa

Hundreds of pet lovers gathered at one of Toronto’s newest cultural hubs on Oct. 17 in support of Pet Trust’s animal cancer campaign.

The second A Walk in the Park Gala, held at the Daniels Spectrum, was a celebration of the unconditional love and loyalty of companion animals and our commitment to helping them live longer, healthier lives.

Emceed by award-winning broadcaster Valerie Pringle, the spectacular evening included a cocktail reception and exquisite meal provided by celebrity chef Mark McEwan as well as a special performance by Canadian jazz singer Holly Cole (above).

The event builds upon the tremendous success of the inaugural gala held in 2011 which netted $240,000 in support of the OVC’s Mona Campbell Centre for Animal Cancer.
Companion animals being treated at the Mona Campbell Centre for Animal Cancer have a new ally in their fight against cancer.

Dr. Michelle Oblak, an OVC graduate and board-certified veterinary surgeon, returned to Guelph this fall as an assistant professor of small animal surgery with a focus on surgical oncology.

After completing her veterinary degree in 2008, Oblak completed a one-year internship as well as a surgical residency and DVSc at OVC. She went on to a surgical oncology fellowship at the University of Florida College of Veterinary Medicine — one of only two surgical oncology fellowships in North America recognized by the American College of Veterinary Surgeons.

“I’m excited to be back at OVC and looking forward to being part of the animal cancer centre team dedicated to providing optimal care for our patients,” says Oblak.

Oblak’s research will continue to focus on companion animal cancer, including staging and palliative treatment as well as other aspects of osteosarcoma in dogs.

“There are so many treatment options available for our pets. My job is to work with our other specialists in areas such as radiation oncology, medicine and diagnostic imaging, as well as the referring veterinarian, to develop an effective and appropriate treatment plan for our patients and their owners.”

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“"We’re thrilled to welcome Michelle back to Guelph," said Dr. Stephanie Nykamp, interim associate dean of clinical programs.

“As a member of the soft tissue surgery service, her role not only includes providing advanced surgical procedures for pets with cancer, she also performs basic and advanced soft-tissue and neurologic surgery and will help us to expand minimally invasive options for companion animals.”

“"There are so many treatment options available for our pets. My job is to work with our other specialists in areas such as radiation oncology, medicine and diagnostic imaging, as well as the referring veterinarian, to develop an effective and appropriate treatment plan for our patients and their owners."”