

Vet Topics

IMPROVING THE QUALITY OF HEALTH CARE FOR YOUR BEST FRIENDS

A gift to last

CAHF receives legacy gift from Saskatoon veterinarian By Christina Weese

The Companion Animal Health Fund (CAHF), a veterinary research fund at the University of Saskatchewan, has received a significant legacy gift from the estate of Dr. Michael Powell, a beloved small animal veterinarian who served the Saskatoon community for 35 years.

The final value of Powell's gift is estimated to be over \$800,000.

"Words are just not adequate to really express our gratitude and appreciation for Dr. Powell's gift to the CAHF," says Dr. Elisabeth Snead, associate dean of research at the Western College of Veterinary Medicine (WCVN).

"People adored him. One of our newer veterinarians commented that 'Michael didn't have clients — he had fans.'"

"This was incredibly generous and will help sustain the CAHF's programs. It ensures that cutting-edge research, which has a positive impact on the lives of pets, continues to be possible here at the WCVN. We are truly honoured by Dr. Powell's choice."

The WCVN research fund, which reached its 40-year anniversary in 2018,

Dr. Michael Powell's love for pets is the reason he chose to leave a large legacy gift to support the Companion Animal Health Fund.



SUBMITTED PHOTO

supports pet health research, specialized training for veterinarians and pet owner awareness at the regional veterinary college.

During its history, the CAHF has supported numerous pet health research studies focusing on a range of topics including canine cancer, eye diseases, antimicrobial resistance in pets, orthopedic surgeries and kidney disease. In many cases, the CAHF has helped veterinary scientists complete pilot research projects that have aided them in attracting additional funding for larger research trials targeting key pet health problems.

Powell was born and raised in South Bend, Ind., and received his Doctor of Veterinary Medicine degree with honours from Purdue University in West Lafayette, Ind., In 1981 he moved to Saskatoon, Sask., to complete a small animal clinical internship at the WCVN.

After completing his one-year internship, Powell applied for a job at Saskatoon's Central Animal Hospital, where he would practise for the next 34 years.

One of Powell's long-time colleagues was Dr. Brian Gibbs, owner of the busy and well-known small animal veterinary clinic:

CONTINUED: A gift to last

“People adored him,” he recalls. “One of our newer veterinarians commented that ‘Michael didn’t have clients — he had fans.’”

Gibbs adds that Powell treated the clinic’s staff like family and developed lifelong relationships with many of his clients.

“We’ve had many veterinarians work at the clinic over the years — many think being a veterinarian means focusing on the medical-surgical part of things. Michael focused on the human part of it. Clients don’t come to you because you do a better spay or neuter, they come because they feel you care.

“Michael was so good about that — he really cared about owners and their pets, delving into their lives and getting to know them.”

“His love for cats — for pets, for what they do, and what they’ve done for people — was beyond affection.”

Peter Lehman is just one of the many clients with whom Powell had a strong connection. About 25 years ago Lehman’s cat Sammy was hit by a car, and because of its injury, the animal lost its ability to urinate.

“Peter brought the cat in twice a day to empty this cat’s bladder out — either myself or Michael would do it,” recalls Gibbs. “We kept telling Peter he could do this at home, but he kept bringing that cat in twice a day, every day — Christmas, New Year’s, July 1 — for about three years.”

It was around this time that Powell began to suffer from a rare immune-mediated inflammatory disease, a painful condition similar to rheumatoid arthritis. The pain landed him in the hospital on more than one occasion, but his condition was rare enough that he was unable to get a diagnosis for it in Saskatoon.

It was Lehman who drove Powell to the Mayo Clinic in Rochester, Minn., 1,500 kilometres away, where specialists finally diagnosed his condition.

“When Michael got sick, Peter just said one day, ‘I’m taking you to the Mayo Clinic.’ He drove over to [Michael’s] house, packed some bags, and drove him to the U.S. So that shows you the kind of personality he [Michael] had, with clients who would do that,” says Gibbs.

Blaine Nazarenko describes his friend and travelling companion as someone who had made many friends from all walks of life. He was also “an absolute cat lover” who rescued a number of cats that were disabled or handicapped.

Gibbs adds that Powell served as the local veterinary academy’s representative on the City of Saskatoon’s animal control and advisory committee for many years. Powell also gave lectures on practical veterinary practice concerns and techniques at the WCVM and was a mentor to his students — some of whom worked as summer students or as veterinarians at Central Animal Hospital.

One of Powell’s clinical interests was veterinary dermatology. “He was really good at it,” says Gibbs. “He was able to look at things that some of us would [not] look at ... the same way he did, and determine what tests to use or what treatments might work.”

When he wasn’t taking care of his patients, Nazarenko says Powell kept busy in numerous other ways. The veterinarian played the cello and was a member of the Saskatoon Philharmonic Orchestra. He baked, cooked, read, refinished furniture, renovated his house and enjoyed gardening — Powell had about a dozen different fruit trees in his yard. His love for cacti was also evident with dozens of plants throughout his home.

“He canned. He sewed. He made clothes, bedding, comforters. He was, in his younger years, an avid model train hobbyist. He had a wine collection. And he was a traveller. We travelled to many countries — Mexico, South America, the U.S., east Asia, and throughout Canada,” says Nazarenko.

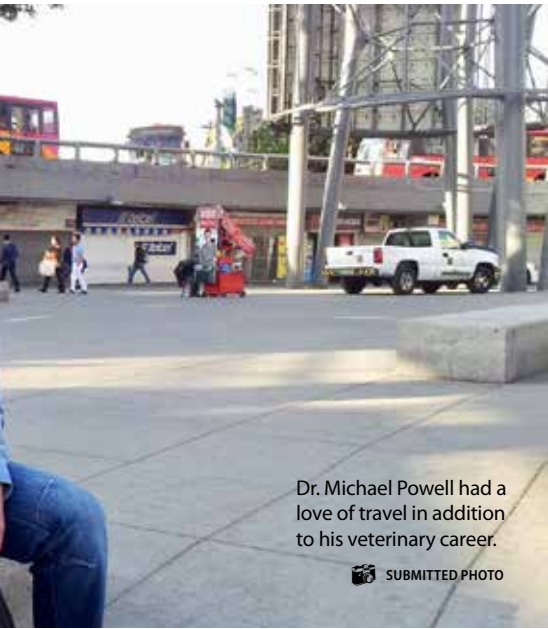
“He was a very interesting, inquisitive individual.”



Nazarenko says Powell would allude that the animals and “the kitties” were going to be taken care of — a reference to his plans for supporting the WCVM’s research fund.

“His love for cats — for pets, for what they do, and what they’ve done for people — was beyond affection. The cats Michael adopted meant the world to him. And that love is what compelled him to leave such a generous contribution [to the CAHF],” says Nazarenko.


“More than anything, he wanted to leave a legacy of that for people.” 🐾



Dr. Michael Powell had a love of travel in addition to his veterinary career.

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Dr. Michael Powell was known for his positive relationships with clients.

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Does Fido *really* need that antibiotic?

By Ali Staley

Dr. Trisha Dowling
with her dog Zipper.

 CAITLIN TAYLOR

Most people know the dangers of taking antibiotic drugs for a flu or cold that doesn't require treatment. But do pet owners understand that the same rules apply for their beloved dogs and cats?

When human physicians or veterinarians use antibiotics unnecessarily or inappropriately, they may be promoting antibiotic resistance. The result: infections can be more difficult to treat, and medical professionals are left with a dwindling arsenal of effective antibiotic drugs.

The first step in using antibiotics appropriately is to make sure there's an accurate diagnosis of an infection, which is the focus of study being conducted by researchers at the Western College of Veterinary Medicine (WCVN) and Prairie Diagnostic Services (PDS) — the veterinary laboratory for Saskatchewan. Led by veterinary pharmacologist Dr. Trisha Dowling, the team is investigating the accuracy of veterinary clinic tests used to diagnose urinary tract infections (UTIs) — the most common bacterial infection of dogs.

Veterinarians diagnose UTIs based upon the patient's medical history, physical examination findings, and evaluation of the urine and bacterial culture. Urine culture by a diagnostic laboratory is considered the "gold standard" for diagnosis, but veterinary clinics often presumptively diagnose UTIs by looking at a sample under a microscope for evidence of bacteria and white blood cells. Automated urine analyzers are another in-clinic diagnostic tool.

However, microbiologists at PDS have received frequent complaints of in-clinic

evidence of a UTI only to have negative bacterial culture results.

In response, the WCVN-PDS research team applied for and received funding from Zoetis Animal Health to investigate the accuracy of in-clinic urine examination for the diagnosis of canine UTIs. Veterinarians participating in the study first had to make a diagnosis of a UTI in a dog using their normal clinic procedure. Then, they submitted a sample to PDS for free urinalysis and urine culture and susceptibility testing.

At the end of the study, researchers found that 41 per cent of the dogs considered by practitioners to have a UTI did not have evidence of infection on urinalysis and had no bacterial growth on culture. Urinalysis and culture were consistent with urinary tract infection in 49 per cent of the cases.

Only rarely were there cases where the urinalysis indicated infection but bacteria did not grow on culture — a result that could occur because of prior treatment with antibiotics or sample damage.

While this study is important for demonstrating the clear value of using a diagnostic laboratory for accurate diagnosis, it was also an opportunity for the researchers to identify a typical canine urinary tract infection in Saskatchewan.


"From the results seen, the bacteria causing UTI in dogs are routinely susceptible to first-line antibiotics," says Dowling, adding that no real "superbugs" were seen in the study's patients.

Since any use of antibiotics can have a profound impact on both human and animal health, the big question is why aren't veterinary clinics using diagnostic laboratory tests more frequently?

Dowling says many pet owners are concerned about the costs involved in using diagnostic tests. Plus, it's often difficult to collect urine samples from pets — a problem for pet owners and veterinarians. There's also the time factor: it takes several days to get the samples to a laboratory and then get results.

Because of these reasons, there's pressure "to try a course of antibiotics and just see how the dog responds," says Dowling. But if the dog never had an actual infection in the first place, it's easy to assume that the antibiotic "worked." And treating the non-existing UTI exposes all of the dog's normal bacteria on its skin and in its gastrointestinal tract to the antibiotic, which can select for antibiotic-resistant bacteria.

Dowling hopes their research findings will benefit companion animal veterinarians across Canada who can point to the study's results as proof that accurate diagnostic testing is essential — a key message in a national campaign aimed at promoting antimicrobial stewardship to pet owners.

The WCVN and PDS research team's antimicrobial study is financially supported by the Zoetis Investment in Innovation Fund.  Ali Staley of Saskatoon, Sask., is a third-year veterinary student at WCVN.

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cahf pets.ca



THE ANIMAL SIDE OF CRITICAL CARE

Dr. Juliette Bouillon (right) visits her dog “Granny” in the ICU with Dr. Jennifer Loewen.

CHRISTINA WEESE

By Taryn Riemer

One early Monday morning last October, the clinical team at the Western College of Veterinary Medicine’s (WCV) Veterinary Medical Centre (VMC) was preparing for rounds when an emergency patient was brought into the hospital.

“Granny,” a wirehaired pointing griffon-cross dog, was lethargic, her gums were pale and her heart rate was elevated. The hospital’s emergency and critical care team immediately started the 11-year-old dog on intravenous fluids before turning to the challenge of diagnosing the problem.

Granny’s owner had noted that her dog’s abdomen was sensitive, and after an ultrasound examination, the clinical team found that a twisted spleen was causing the pain and internal bleeding. Once Granny received a blood transfusion and her condition was stable, surgical specialists successfully removed the dog’s spleen.

Granny, who quickly recovered after surgery, was one of thousands of patients that the WCV’s small animal emergency and critical care team cared for in 2018 — nearly 500 in October alone. The hospital’s small animal emergency and intensive care unit (ICU) is an incredibly busy spot that’s open 24 hours a day, 365 days a year, on the University of Saskatchewan campus.

“It doesn’t matter what time of day it is or what your work schedule is, if you have an emergency with your pet, you can take it to

the vet college because somebody is here,” says Danielle Mierau, a registered veterinary technologist (RVT) and one of 21 people on the WCV’s emergency and critical care team.

“We have four teams of four RVTs in the intensive care unit, we have three emergency clinical associates [veterinarians], and one emergency and critical specialist,” says Mierau, who is also a certified veterinary technician specialist in emergency and critical care — one of four RVTs with specialized training working in Saskatchewan.

When a patient is brought in to the Small Animal Clinic, the receptionist calls for an RVT to assess the pet’s condition.

“I can see from afar if the animal is working hard to breathe, if it’s alert or lying down. As I assess the patient, I’ll get a medical history from the owner,” says Mierau.

Team members act quickly when an ill patient is first brought into the emergency and ICU area. “If it’s a critical case, the clinician stays with the RVT and the patient, then if we need to get specialists involved from there, we do that,” says Mierau.

One of those specialists is Dr. Jennifer Loewen, who joined the WCV in October. She is Saskatchewan’s only board-certified specialist in veterinary emergency and critical care.

“My clinical role is two-fold. One role is within the ICU, helping clinicians

with inpatients because not all cases fall under just medicine or just surgery. I also help patients that need fluid therapy, electrolyte therapy or have respiratory concerns,” says Loewen.

“My second role is within the emergency room, I supervise and help facilitate the clinical interns if they need to run a case by me or if they need help with a procedure.”

Loewen, who graduated from the WCV in 2014, also assists in training fourth-year veterinary students who are completing clinical rotations in the hospital.

Since the VMC is the veterinary referral centre for Western Canada, the hospital’s emergency patients come from Manitoba, British Columbia, Alberta and even Ontario. Many of these cases are referred to the WCV by veterinarians who graduated from the veterinary college.

“Exposing students to [clinical services] that are available here at the college helps to create future referring veterinarians because we have the expertise that their patients sometimes need,” says Mierau.

As for Granny, she returned home after a few days’ stay in the college’s ICU.

“She’s doing awesome. She’s usually ravenous for food and she’s back to that attitude,” says owner Dr. Juliette Bouillon, one of the WCV’s residents in small animal internal medicine. “She’s a very good girl and is back to herself.” 🐾



Creating a legacy of animal health

In 1978, WCVM Dean Ole Nielsen and a group of faculty members met with pet owners to discuss creating a specific research fund supporting pet health research at the college.

That meeting led to the creation of the Companion Animal Health Fund.

“Access to U.S.-based funding like the Morris Animal Foundation had always been difficult for Canadian researchers while local funds ... typically could not provide enough funding for our needs. The CAHF was the solution to this problem,” says Dr. John Pharr, one of the fund’s founders.

Pharr received the CAHF’s first grant — a modest \$302. It allowed him to travel to Yellowknife, N.W.T., to screen more than 50 semi-feral Eskimo dogs for hip dysplasia.

The fund’s early goal was to raise \$25,000 per year within five years. Now, the fund supports tens of thousands of dollars of research each year. In 2018-19, seven WCVM research teams and two graduate students received more than \$84,000 from the CAHF toward research studies and the fund’s longstanding research fellowship program.

Throughout its 40-year history, the CAHF has sponsored companion animal health research and encouraged veterinarians to specialize in small animal health. Thanks to donor generosity, WCVM researchers have conducted hundreds of research studies while dozens of veterinary specialists and graduate students have received support for their training and research.

From the beginning, CAHF’s family of donors has included pet owners, kennel clubs and veterinary clinics across Western

Canada. As part of the CAHF pet memorial donation program, veterinary practices donate on behalf of their deceased patients and clients.

“Clients and veterinarians are contributing to it [the CAHF]. They see the need for research that answers important clinical questions that benefit pet animals. It’s showing that vets believe in it and contribute to it and clients do as well,” says Dr. Cindy Shmon, head of WCVM’s Department of Small Animal Clinical Sciences.

The CAHF recently received over \$800,000 from the estate of Saskatoon veterinarian Dr. Michael Powell. This legacy gift has ensured the fund’s continued operations.

Funding the next generation

As a board-certified veterinary surgeon, Shmon has seen the CAHF’s first-hand impact on the college’s residents since she joined the WCVM in 1988. Without the fund’s support, residents wouldn’t be able to achieve their board certification since research projects are an essential component of the specialty training process.

“I would say it’s [the CAHF] critically important,” says Shmon.

The college’s pet health fund allows graduate students and residents to dive into research that they wouldn’t otherwise be able to do, adds Dr. Monique Mayer, a WCVM veterinary radiation oncologist.

“I think it’s an excellent system. It also supports a lot of our graduate students. As clinicians, we don’t have big labs with lots of funding for our master’s students,” says Mayer. “It gives them an opportunity to see that research can be a lot of fun. It’s not

just all lab work: it’s actually working with our patients to give us information that will change how we treat them for the better.”

Dr. Sue Taylor, a professor emerita of the WCVM Department of Small Animal Clinical Sciences, says the CAHF provided some type of financial support for every single graduate student who worked with her from 1986 until her retirement in 2018.

“Having funding available for these students was very important for their programs as it allowed them to learn to design research projects, write grant proposals, obtain funding, complete their research and submit their research results for publication within the short, three-year timeline of their program,” she says. “Many went on to academic careers where research would play an important role.”

Part of the bigger picture

In addition to its support of graduate research, the CAHF backs longstanding research programs established by WCVM faculty.

One of the projects Taylor worked on with Shmon included developing a better understanding of exercise-induced collapse (EIC) in Labrador retrievers, and then later, a similar disease in border collies. Their team’s work with Labradors eventually led to the development of a pre-breeding genetic test that’s now routinely used by veterinarians around the world.

While the fund supports the essential matters of meeting requirements for tenure and promotion, it’s about more than that, says Dr. Elisabeth Snead, the WCVM’s associate dean of research and graduate



The CAHF's history spans multiple species and specialties. Here are just two of the many researchers whose research initiatives have been supported by the WCVM's pet health-focused research fund.

research

studies and a specialist in small animal internal medicine.

"It's really that thirst for knowledge and that thirst for making a contribution," she says.

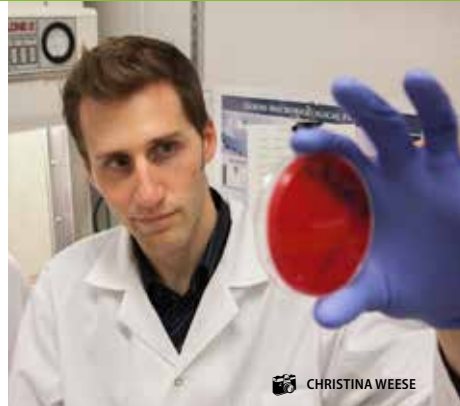
Looking at the CAHF projects funded year after year across the specialties, it's easy to track a steady progression in the pursuit of knowledge, building on information gained through previous CAHF-funded projects. While collaboration between animal and human medical research has occurred since the fund's inception, the number and frequency of these One Health collaborations is on the rise.

For example, Snead points to the antimicrobial surveillance work done by veterinary microbiologist Dr. Joe Rubin (see sidebar).

Results from CAHF studies have also helped to substantially improve treatment options available for small animal veterinarians, and that legacy is expected to continue.

"There is a sense of comfort knowing it's there and that we have a good chance of being funded if our ideas are sound," says Dr. Tanya Duke, a board-certified anesthesiologist and a WCVM professor. Throughout her research career, Duke has received CAHF funding to explore pain management methods and anesthesia techniques, including continued exploration of providing epidural pain relief to pets.

"I am very grateful for its support. Let it still be around for the next 40 years and beyond," she says. 🐾



Dr. Joe Rubin

Dr. Joe Rubin has made a mark with his research focusing on antimicrobial resistance. The CAHF funded most of his PhD research, which focused on establishing a baseline set of data to understand how common resistance is in *Staphylococci* bacteria in dogs, giving a better understanding of the emergence of resistance.

He has continued to investigate antimicrobial resistance, including a long-term, longitudinal study of antimicrobial resistance in *Escherichia coli* (*E. coli*) causing urinary tract infections. CAHF funding has allowed him to collect eight years of data, providing a wealth of information to his research team.

"We can show trends in antimicrobial resistance and really be able to detect anything 'scary' that might be emerging," says Rubin, who became a faculty member in the college's Department of Veterinary Microbiology in 2012.

Rubin now runs a larger graduate program that is supported by external funding agencies, and he continues to supervise graduate students who work on CAHF-funded projects.

"This fund really allowed me to do research as a graduate student and allowed me to cut my teeth in the area that I'm now doing research on as a faculty member," says Rubin. "It did provide that seed money and things have grown out massively from there."



Dr. Monique Mayer

Throughout its history, the CAHF has supported research into many aspects of pet cancer. The college's addition of an MRI (magnetic resonance imaging) unit and a cobalt radiation machine in 2002 opened the door for increased focus on medical and radiation oncology.

When Dr. Monique Mayer joined the WCVM in 2004, she was the first board-certified radiation oncologist practising in Canada. Throughout Mayer's tenure at the WCVM, the CAHF has provided vital support for her oncology-focused studies.

Her work on the front line of practice has allowed her to see the important clinical questions that have the potential to change practice or benefit the animals.

"The CAHF helps you be able to fund small but important clinical studies or pilot studies that can lead to bigger clinical trials," she says. "It helps bridge that gap between clinician and researcher that otherwise just wouldn't happen because of our clinical demands or time."

For example, Mayer is examining the importance of accurately locating tumours to properly target radiation treatments. The work was made possible with the help of software purchased by the CAHF, allowing researchers worldwide to take part in their study.

The project has the potential to change the way radiation oncologists practice, says Mayer. And that's happened because of the CAHF.

40 years of companion animal health

1978 WCVM Dean Ole Nielsen helps to create the Companion Animal Health Fund (CAHF) with the support of local pet owners and WCVM faculty. The first CAHF-supported research project allowed WCVM professor Dr. John Pharr to travel to Yellowknife, N.W.T.. The veterinary radiologist performs X-rays on a group of 50 semi-feral Eskimo dogs to screen for hip dysplasia.

1978



1980

Dr. Manon Paradis becomes WCVM's first CAHF research fellow. The Québec-born Paradis, who goes on to complete her graduate program and small animal internal medicine residency in 1982, conducts a project demonstrating the efficacy of using prostaglandins to regulate reproduction in dogs.

1982

The CAHF begins its memorial donation program, and over the next four decades, dozens of western Canadian veterinary practices contribute to research in memory of their deceased patients and clients.

1995 Drs. Cindy Shmon and Sue Taylor are among the first group of North American researchers to begin investigating exercise-induced collapse (EIC) syndrome in Labrador retrievers. Based on results from their CAHF-supported pilot projects, the researchers secure additional funding for clinical studies and genetic testing. Researchers eventually discover a genetic marker for EIC, leading to the development of a routine genetic test.

1995



1992

WCVM purchases a new operating microscope with partial funding from CAHF. The new microscope allows the WCVM to re-establish its ophthalmology program under the direction of Dr. Bruce Grahn, and gives the small animal surgery team the proper equipment to pioneer new techniques for microvascular reconstructive surgery.

1988

Isabelle, a dachshund owned by Sophie Katarynych of Winnipeg, Man., is referred to the WCVM's Small Animal Clinic. Katarynych makes her first donation to the veterinary college after clinicians successfully treat Isabelle's chronic bronchitis and liver disease. The Winnipeg pet owner becomes one of the CAHF's most generous supporters, contributing hundreds of thousands of dollars over 31 years.

2002 The WCVM is the first veterinary teaching hospital in Canada to operate an MRI unit dedicated to companion animal health imaging and the first western Canadian facility to offer radiation therapy for veterinary cancer patients. This opens the door for increased research in medical and radiation oncology.

2002

2007

As part of a \$1.07-million gift to the WCVM, Heather Ryan and David Dubé contribute \$125,000 to the CAHF in support of its annual research grant and graduate student fellowship programs.

2011

Drs. Sue Taylor and Liz Snead of WCVM help a global research team move closer to developing a therapy for X-linked myotubular myopathy, a congenital muscle disease. The WCVM scientists identify a similar disorder in Labrador retrievers. Their work helps human researchers learn more about the disease in humans.



As the CAHF celebrates its 40-year anniversary, we look back at a few of the many research accomplishments and significant contributions made over the past four decades.

2014 The WCVM Veterinary Medical Centre becomes one of four locations in Canada to offer advanced radiation therapy techniques using a linear accelerator, opening the door to many more oncology studies supported by the CAHF.

2019

2014

The WCVM begins operating the first PET-CT unit dedicated to animals in Canada. The purchase is made through the generosity of Edmonton businesswoman Cathy Roozen who makes a \$2.5-million donation to the WCVM. It's the largest private donation ever made to the college.

Read more For an expanded timeline, visit cahfpets.ca

A close-up photograph of a light-colored dog, possibly a Weimaraner, sitting in a white metal kennel cage. The dog is looking directly at the camera with its mouth wide open, showing its tongue and teeth, appearing happy and excited. It is wearing a red and black patterned collar. The background shows the bars of the cage and a bright, clean environment.

Parvo protection

By Nolan Chalifoux

Parvovirus is a deadly illness that targets both young and vaccinated dogs.

 NOLAN CHALIFOUX

Taking your adorable new puppy to play at the dog park: priceless. Potential cost of not fully vaccinating your puppy first: several days in the veterinary hospital, thousands of dollars in intensive-care fees, and still no guarantee your puppy will survive.

Many new pet owners face this shocking, unfortunate situation. Millions of puppies world-wide are at risk of contracting the highly contagious, deadly canine parvovirus. This common virus, which targets both young and unvaccinated dogs, has spread rapidly throughout Canada since its emergence in the late-1970s.

The virus's structure makes it highly resistant to changes in the environment such as temperature and pH, in addition to allowing it to withstand the most common disinfectants. Not only is canine parvovirus hard to kill, it has evolved into more resistant and deadlier forms. Found in both in and outdoor environments, the virus enters a dog's mouth and nose as it sniffs, licks and explores the world. From there, the virus quickly infects the internal organs, where it replicates. It then exits the body through vomit and feces, contaminating new areas and surfaces.

Researchers from the University of Saskatchewan's Western College of Veterinary Medicine (WCVN) are finding out what factors affect the survival of infected dogs. The goal is to improve treatment and

reduce the costs of animals' long veterinary hospital stays.

"Parvovirus is still a significant cause of illness in puppies," says Dr. Kevin Cosford, small animal internal medicine specialist at the University's veterinary teaching hospital in Saskatoon. "Some patients do not survive, despite extensive treatment. Many puppies survive due to the tireless efforts of veterinary staff during prolonged hospital stays."

The cost of that treatment can be significant and recovery can require several days in a well-equipped veterinary hospital — which can put new pet owners in a tough financial situation.

Over the years, experts have come up with potential factors that are thought to be linked to a dog's likelihood to survive canine parvovirus infection. Unfortunately, the factors rarely are straightforward and the virus can be unpredictable.

The study being undertaken at the WCVN aims "to identify trends in the patients' clinical disease, laboratory findings and treatment regimes that might predict survival," Cosford says. "This information may help clinicians make patient-centred treatment recommendations and provide more accurate prognostic information."

College researchers are reviewing 322 cases, dating as far back as 2001, of dogs infected with the virus. The infected dogs range in age from two weeks to nine years. By

analyzing many cases, the researchers hope to identify crucial clues and patterns that will lead to a more effective treatment plan.


While the WCVN study will help guide veterinarians as they battle this dangerous virus, a much simpler, cost-effective solution exists: prevention. Canine parvovirus is one of several viruses commonly vaccinated against as part of the routine puppy vaccine series.

Why, then, is it still so common?

Although single vaccines are necessary for developing an immune response to fight off the canine parvovirus when exposed, young puppies require a full series of multiple vaccinations before they become adequately protected. This means that most puppies leave their first health check at the veterinarian not yet fully protected.

Because many new pet owners are unaware of this, dog parks, boarding kennels, and grooming salons are often filled with very young, bright-eyed puppies at risk for becoming infected.

Knowing your furry friend's vaccines are up to date and they are protected against the invisible dangers lurking in the environment will make creating those picture-perfect moments even more worthwhile.

And that, is truly priceless. 
Nolan Chalifoux is a fourth-year veterinary student at the WCVN.



Pet nutrition has a new home at WCVM

By WCVM Today



Opening day for the Nestlé Purina Inpatient Feeding Suite. Photo by Taryn Riemer.

When it's feeding time in the Western College of Veterinary Medicine's Small Animal Clinic, all food for hospitalized pets now comes from one spot: the new Nestlé Purina Inpatient Feeding Suite.

Located just off one of the busiest hallways in the WCVM Veterinary Medical Centre (VMC), the new room is stocked with a selection of dry and canned pet foods for veterinary therapeutic diets that are produced by various pet food companies.

Besides food, the new facility is also equipped with the tools and resources needed for making meals that are delivered through feeding tubes as well as preparing home-cooked chicken, rice and other alternatives for some of the hospital's patients that require special diets.

WCVM assistant professor Dr. Tammy Owens teaches nutrition to third- and fourth-year veterinary students. Before the feeding suite was built, Owens says the VMC's pet food stores were "spread throughout the hospital," which meant clinical teams had limited options for developing appropriate diets for their patients.

It was also difficult for students to become more familiar with the different therapeutic diets available.

"This way, it's now easy for students to compare the products and to easily see the key differences between different diets," says Owens, a board-certified specialist in clinical nutrition. "Hopefully students can use the knowledge that they'll get in my third-year elective and fourth-year clinical rotation to more easily apply the knowledge

in picking the best diet for their patients."

The room's creation was made possible by Nestlé Purina, a long-time supporter of the regional veterinary college. The global pet nutrition company donated a significant amount toward the construction of the inpatient feeding room that was built in one of the teaching hospital's former examination rooms.

"It will really elevate our ability to feed our patients in the hospital — plus it supports our work in teaching veterinary students about clinical nutrition," says Dr. Steve Manning, associate dean of clinical programs at the WCVM.

He thanked the company for its support during a lunch-hour presentation — one of several events planned on Nov. 30 to celebrate the feeding facility's opening. During the day, three of the company's representatives met with WCVM students, faculty and staff during morning rounds, a ribbon cutting and the noon-hour presentation.

The Nestlé Purina visitors included Lise Roussel, national development manager for veterinary business; senior veterinary communication manager Dr. Paige Golden; and Dr. Helen Newton, veterinary communication manager for Western Canada.

In addition to its contribution to the feeding suite's creation, Nestlé Purina has supported the college's service learning program in northern Saskatchewan. Dr. Jordan Woodworth, one of the WCVM's wellness

veterinarians, and other college representatives work with northern communities and groups to organize two remote spay-neuter and wellness clinics in La Ronge, Sask., each year.

"Because we believe that people and pets are better together, our primary focus is centred around the well-being of pets and the people who love them," says Golden, adding that Nestlé Purina is passionate about pets and committed to serving the needs of communities.

"We felt that the work WCVM does — from the in-hospital patient care to the college's work with northern communities — completely embodies everything we are passionate about. We are so excited and humbled to be a part of these amazing programs."

Nestlé Purina's generous support has helped "ensure that Dr. Woodworth and her huge team of students, volunteer clinicians and RVTs [registered veterinary technologists] and local volunteers are able to provide veterinary services to La Ronge and surrounding areas," says Manning.

"It's just a great experience for our students and for the college as a whole."

Manning added that the feeding room is aptly located directly across the hallway from the teaching hospital's Nestlé Purina Dental Suite — another invaluable gift from the company. 🐾

More health news at:

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RESEARCH IN PRINT

A roundup of WCVM-related companion animal research articles that have been recently published in peer-reviewed journals.

Boissonneault C, Epp T. "Reflections on the provision of veterinary services to underserved regions: A case example using northern Manitoba, Canada." *Canadian Veterinary Journal*. May 2018. 59 (5): 491-499.

Aoki K, Waldner CL, Sathya S, Shmon C. "Effect of bipolar radiofrequency energy on canine stifle joint fluid temperature." *Veterinary and Comparative Orthopaedics and Traumatology*. May 2018. 31 (3): 188-193. DOI: 10.1055/s-0038-1639595.

Ambros B, Gaunt MC, Duke-Novakovski T, Taylor SM. "Effects of alfaxalone, thiopental, or propofol and diazepam on laryngeal motion in healthy dogs." *Canadian Veterinary Journal*. July 2018. 59 (7): 791-795. PMC6005073.

Osinchuk SC, Leis ML, Salpeter EM, Sandmeyer LS, Grahn BH. "Evaluation of retinal morphology of canine sudden acquired retinal degeneration syndrome using optical coherence tomography and fluorescein angiography." *Veterinary Ophthalmology*. Aug. 2018. DOI: 10.1111/vop.12602

Leis ML, Costa MO. "Initial description of the core ocular surface microbiome in dogs: Bacterial community diversity and composition in a defined canine population." *Veterinary Ophthalmology*. Aug. 2018. DOI: 10.1111/vop.12599.

Scuderi MA, Ribeiro Petito M, Unniappan S, Waldner C, Mehain S, McMillian CJ, Snead EC. "Safety and efficacy assessment

of a GLP-1 mimetic: insulin glargine combination for treatment of feline diabetes mellitus." *Domestic Animal Endocrinology*. Oct. 2018. 65: 80-89. DOI: 10.1016/j.domaniend.2018.04.003.

Morton KA, Hargreaves L, Mortazavi S, Weber LP, Blanco AM, Unniappan S. "Tissue-specific expression and circulating concentrations of nesfatin-1 in domestic animals." *Domestic Animal Endocrinology*. Oct. 2018. 65:56-66. DOI: 10.1016/j.domaniend.2018.04.006.

Hazenfratz M, Taylor SM. "Recurrent seizures in cats: diagnostic approach – when is it idiopathic epilepsy?" *Journal of Feline Medicine and Surgery*. Sept. 2018. 20(9): 811-823. DOI: 10.1177/1098612X18791873.

Bits & Bites

Sled dog vets: A new clinical rotation at the WCVM gave three fourth-year students the opportunity to work alongside race veterinarians at the 2019 Canadian Challenge Sled Dog Race, which took place in northern Saskatchewan from Feb. 19 to 23. The students joined Drs. Kate Robinson and Romany Pinto of the WCVM and Dr. Julianne Wilson (WCVM '18) from Ponoka, Alta. The group performed veterinary examinations on all canine competitors before the race began, and then monitored the dogs' health at checkpoints throughout the four-day race. The optional rotation is designed to give students an opportunity to learn more about the unique relationship between working dogs and their owners.

Cans for cannabis: The WCVM's veterinary social work program teamed up with the University of Saskatchewan's (USask) One Health Initiative and other university organizations to offer a cannabis container program for clients of the WCVM Veterinary Medical Centre and students on campus. The containers, which are free of charge, encourage hospital clients to safely store cannabis drugs and supplies in their homes so their pets can't access the drug. As well, the cans provide information about the "ABCs of cannabis safety

for pets" (appropriate storage, be aware of signs and symptoms of poisoning, and contact with support when needed). The program is a collaborative effort to reduce the number of marijuana toxicity cases in pets, to reduce the stigma around drug use and to engage in harm reduction. It also encourages practitioners and other members of the clinical team to have open and non-judgmental conversations with their clients.

New veterinary specialist: Dr. Jennifer Loewen, a board-certified specialist in veterinary emergency and critical care, is now an assistant professor in the WCVM's Department of Small Animal Clinical Sciences and a member of the WCVM Veterinary Medical Centre's clinical team. Loewen, who graduated from the WCVM in 2014, completed her residency and a Master of Science degree at the University of Wisconsin-Madison in 2018.

Bone cancer research for pets and people: Teenagers and pet dogs both stand to benefit from a novel therapy for bone cancer being developed at USask. Human and veterinary cancer specialists have been awarded \$765,000 in federal funding to develop a new treatment for osteosarcoma, a type of bone cancer that



The 2019 Canadian Challenge veterinary team (left to right): Bonnie McNary, Rylee Rentz, Dr. Romany Pinto, Dr. Katherine Robinson, Josh Cousins and Dr. Julianne Wilson  MYRNA MACDONALD

particularly affects teenagers and individuals under the age of 25. It is also a common cause of death in large-breed dogs. The research is led by Dr. Ekaterina Dadachova, who holds the Fedoruk Centre for Nuclear Innovation Chair in Radiopharmacy, along with pathologist Dr. Maruti Uppalapati. The team includes WCVM researchers Drs. Valerie MacDonald-Dickinson and Ryan Dickinson, who hope to use the study's results to develop a more effective therapy for pet dogs with this type of bone cancer.



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