

# Best friends

THE PET MAGAZINE OF THE ONTARIO VETERINARY COLLEGE

## Feline FEATURES

UNIVERSITY  
of GUELPH

IMPROVE LIFE.



Dr. Jeff Wichtel (Photo by Dean Palmer Photography)



## FROM THE DEAN, ONTARIO VETERINARY COLLEGE

All of us at the Ontario Veterinary College (OVC) are excited to deliver some of our favourite feline content from the last few years in a special issue of Best Friends magazine, the official publication of OVC Pet Trust.

At OVC, whether in the classroom or in our hospitals, we've seen the growth in affection for cats and their unique relationships with the humans who love them. So much so that we have changed how we prioritize feline research.

In October 2023, OVC appointed its first-ever Research Chair in Feline Health at the University of Guelph, signalling to the university, our community and the veterinary field beyond that cat health and well-being deserves an elevated role in research and medicine.

Dr. Sonja Fonfara exemplifies the leadership needed for this inaugural role so well with her background as a board-certified companion animal cardiologist with a focus on feline cardiac health. She also has extensive research and teaching experience which will allow the next generation of veterinary professionals to benefit from her skills and expertise.

We're grateful for the generous OVC Pet Trust donors who helped make this appointment possible.

We're excited to share that future editions of Best Friends magazine will feature even more feline friends than ever before, recognizing the depth with which our readers adore cats.

In this issue, we look back upon several OVC studies that examine everything from the importance diet can play in a kitten's health to feline health trends from a study done by our late colleague, Dr. Theresa Bernardo. You'll also see a thought-provoking piece on animal welfare featuring research from Dr. Lee Neil and Dr. Georgia Mason from the Campbell Centre for the Study of Animal Welfare (CCSAW) on understanding your cat's mood through their facial expressions.

Finally, we offer a glimpse into our Health Sciences Centre (HSC) by reading about the journey of Ziggy, a feline patient who presented with heart issues and was ultimately saved by receiving surgery to place a pacemaker.

As supporters of OVC Pet Trust, we hope you enjoy reading about OVC's exciting research and advancements in cat health, well-being and care.

Thanks for your ongoing support,

Dr. Jeff Wichtel  
Dean and Professor  
Ontario Veterinary College  
University of Guelph

## ABOUT OVC PET TRUST

As part of the Ontario Veterinary College (OVC) at the University of Guelph, OVC Pet Trust is Canada's first charitable fund dedicated to advancing pet health and well-being. We do this by raising funds to support innovative discoveries, healthcare and education that improves the prevention, diagnosis and treatment of diseases of companion animals. Since 1986, more than \$75 million has been raised to improve life for pets and the people who love them. As of 2024, OVC is ranked first in Canada, third in North America and among the top 10 worldwide for veterinary science by the Quacquarelli Symonds' World University Rankings.

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by OVC Pet Trust

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# Contents.



DR. SONJA FONFARA  
APPOINTED RESEARCH  
CHAIR IN FELINE HEALTH

4



PATIENT  
FEATURE:  
ZIGGY'S STORY

12



FELINE  
HEALTH  
TRENDS:  
USHERING IN  
A NEW AGE  
OF ANIMAL  
WELLNESS

14

## IN THIS ISSUE:

- 2** FROM THE DEAN OF THE ONTARIO VETERINARY COLLEGE
- 4** FROM THE DESK OF OUR MANAGER
- 4** DR. SONJA FONFARA APPOINTED RESEARCH CHAIR IN FELINE HEALTH
- 6** THE CAT BOX: EXAMINING LITTER BOX PREFERENCES TO BENEFIT CAT WELFARE
- 8** PETS IN MEMORY: REMEMBERING GOODNESS AND MERCY
- 9** AM I A CAT WHISPERER? IDENTIFYING A CAT'S FACIAL FEATURES TO DETERMINE THEIR MOOD
- 10** OBESITY PREVENTION STARTS AS A KITTEN
- 12** PATIENT FEATURE: ZIGGY'S STORY
- 14** FELINE HEALTH TRENDS: USHERING IN A NEW AGE OF ANIMAL WELLNESS

## BACK COVER

PETS IN MEMORY: HONOURING MIMI



## FROM THE DESK OF OUR MANAGER

Cats have always had a special place in many Canadian homes, providing comfort, companionship and often, entertainment. The human-cat bond was strengthened throughout the COVID-19 lockdowns and shifts towards more time spent at home. According to statistics, there has been an uptick in cat ownership since 2020 – and with that an increasing demand for feline-focused veterinary care. The Ontario Veterinary College (OVC) is working to meet this need.

Best Friends Feline Edition is a special publication catering to our cat-loving supporters. We have compiled our top feline features from the past few years to showcase the incredible, innovative work being done at OVC to improve life for our feline companions.

I hope that you will enjoy reading these stories and learning more about how OVC, in partnership with OVC Pet Trust supporters like you, is improving the lives of cats and the people who love them.

Alison McLaren  
Manager, OVC Pet Trust  
Ontario Veterinary College  
University of Guelph

# Dr. Sonja Fonfara appointed as Research Chair in Feline Health

Ontario Veterinary College (OVC) researcher and professor Dr. Sonja Fonfara has been recognized with an appointment as Research Chair in Feline Health at the University of Guelph. As the inaugural chairholder, Fonfara will play a leadership role in enhancing feline research and medicine to improve the health and well-being of cats.

Fonfara is a board-certified specialist in companion animal cardiology with extensive teaching and research experience. After graduating from the University of Veterinary Medicine in Hannover in 1995, she obtained a doctoral thesis in veterinary pathology from the Justus-Liebig University of Giessen. This was followed by working as a primary small animal veterinarian, during which time she developed a keen interest in cardiology. She moved to the UK to pursue an internship and subsequent residency in veterinary cardiology at the University of Liverpool. She has worked as a lecturer and senior lecturer at the University of Liverpool and then the University of Bristol, received a PhD and was granted a docent in Small Animal Cardiology both from the University of Helsinki.

Fonfara joined OVC in 2016 and is a professor in the Department of Clinical Studies. Her research focuses on cardiac remodelling in cats associated with sex, aging and cardiac disease. Working closely with OVC faculty, graduate students and international collaborators, Fonfara's ongoing projects examine a range of factors impacting feline cardiac health. Her team studies the influence of sex, age, and hypertrophic cardiomyopathy on cardiac structure and function, gene activation and microRNA profiles in cats, novel circulating markers for feline hypertrophic cardiomyopathy, and how cardiac disease in cats influences their owners.

"Dr. Fonfara is an internationally recognized researcher in feline health with a proven record of research excellence," says Dr. Jeff Wichtel, Dean of OVC. "Her expertise and interests align incredibly well with the needs and goals of the Chair, and we are very happy to welcome her into this role."





## Donors Supporting Research

The Research Chair in Feline Health was established in 2023 through generous donor contributions, including a major gift to OVC Pet Trust from the estate of Suzanne Szabolcs. A second gift to OVC from the Shelagh O'Brien Memorial Research Fund was facilitated by Dr. Jacqueline Starink (DVM '90). Starink discussed with Shelagh, a cat lover, that she might consider a charitable trust as the beneficiary of her estate. Starink later served as the estate executor and directed that the majority of the estate be given to OVC in support of feline research.

The Chair is charged with maintaining and enhancing an internationally recognized program of research excellence and collaboration in feline medicine, with the overall objective of improving feline health and well-being. As part of OVC's One Health approach to advancing discoveries that benefit both animal and human health, Fonfara will work collaboratively with the newly established Bench to Bedside Institute for Translational Health Research and Innovation. 🐾

**"Cats are very special to me," says Fonfara. "I am therefore delighted to have the opportunity to advance knowledge in feline health and improve the lives of cats and of the people who love them."**





# The **Cat Box**

Examining  
litter box  
preferences  
to benefit  
cat welfare

**The cat is Canada's most popular pet. According to the Canadian Veterinary Medical Association (CVMA), approximately 8.3 million cats live in Canadian households and the global feline population has been rising steadily: there are estimated to be 96.5 million cats in the United States and 102 million in Europe.**

Unfortunately, the complex behaviour of cats results in many being surrendered to animal shelters, especially for house soiling urinating or defecating – outside of the litter box area. The Canadian Federation of Humane Societies (CFHS) notes that urinating or defecating outside designated locations in the home has been reported as the most common behaviour reason for surrendering a cat and comprises approximately 30 per cent of cat intakes to shelters.

A research team in the Department of Animal Biosciences at the University of Guelph is studying the behavioural effects of litter boxes in an effort to address cat welfare and decrease surrender. Professor Kate Shoveller and her Master of Science student at the time, Jennifer Frayne, set out to study the topic. Frayne has spent years of her life working in various animal shelters and has seen firsthand how much more difficult it is to adopt cats with behaviour issues into their forever homes. Commonly seeing cats relinquished made her want to tackle the issue.

"Can we help fix it? Can we address helping cats better adapt to their homes?" Frayne asks.

The main objective of the study was to determine what type of litter cats preferred, or more commonly used: a plant-based clumping litter with an added attractant or simply a plant-based clumping litter. The researchers also wanted to know whether male and female cats expressed different litterbox behaviours related to their litterbox preference.

According to 2018 data published by Canadian Grocer, the sales volume of cat litter reached approximately 22.82 billion units across the country.

Frayne says findings of the study add to our basic understanding of feline elimination behaviour and suggest potential targets for improving litter preference and reducing house soiling. Ultimately, the project found that cats preferred the plant-based litter with the added attractant. However, she also notes that each cat observed displayed their own unique behaviours, suggesting that elimination behaviour is far more complex than animal scientists previously guessed.

Shoveller says that literature shows cats are often perceived as a lower commitment pet compared to a dog, but in fact there are many things cat owners can do to enrich their cat's home environment and engage with their feline friend. Stress in cats is horribly unresearched and undiagnosed: "It's just a cat." Considering the

litter preference of your cat is "one more tool in a pet owner's toolbox," Shoveller advocates.

"Adjusting litter box content based on preferences is something that is simple and easy to implement; considering different options may be sustainable and have a positive impact on the environment, too."

A news story in early 2019 looking at the carbon pawprint of our feline friends cited a Stanford University report on cat litter, warning pet owners to think twice before flushing used litter down the toilet. Parasites in cat feces cannot be eliminated by wastewater treatments and flushing it sends the materials to open bodies of water, where recent studies from University of California at Davis have proved it can in fact kill sea otters.

It's estimated that the current market for cat litter is approximately 70 per cent clay based litter, and 30 per cent paper or plant-based products, which tend to be more sustainable and biodegradable.

"If you are adopting a cat, it is important to recognize and understand the history of each individual cat. Watch for signs of stress that may include hiding, not eating, or not using the litter box. Reasons for house soiling may be due to health or stress," Frayne says. "Cat behaviour is intricate and stoic; it is important to slowly introduce a cat to their new surroundings when welcoming them to a new home environment."



## **Litter box tips to enhance the cat-owner bond**

- Litter box design and size matters! Litter boxes shouldn't include any type of cover or automatic electronic gadgets. The bigger the litter box, the better.
- Cleaning is caring. Cat owners should scoop and regularly clean their cat's litter box(es).
- Depth – cats prefer at least 2" so they can engage in digging and covering behaviour.
- The golden rule is to have two litter boxes per cat per household.
- Position the litter box in a corner, away from doors and open spaces. Giving them enough space in the box itself is important and putting it in a place that they can easily get to is key; ideally remove from noisy and busy areas of the home.



# PETS IN MEMORY



## Remembering Goodness and Mercy

Dear OVC Pet Trust,

My cats Goodness and Mercy were ornery. Well, they were feral, really. Life was hard for them because they were cats' cats, forced to live with humans for security, and they never really liked it. Their mother lived in an apartment with other cats owned by someone who was almost never home. Goodness and Mercy loved my previous cat, who died when they were about eight years old. But although they were fond of me, they haunted the house silently, like shadows. They never purred, but I loved them dearly. Mercy died two years ago and Goodness died this spring, at 18 years old, after every organ had just worn out. She needed to go. The Midtown Mobile Veterinary Hospice Service was so good to her that her death was better than her life. I cried and cried, not because she was dead but because her life was so miserable. The thought of all those long gray years of cat-grief – the weight of her sadness, the everlasting heaviness of it – it seemed she was out of place her whole life.

It's awful to live with a sorrowing cat.

You know how every animal has something to tell you? A sort of message written in warm fur, something you wouldn't have known if you didn't live with them? I learned more than I ever wanted to know about sadness from Goodness and Mercy.

But I loved them, and the second thing they taught me is that a house without a pet isn't worth putting a roof over. Cats are like music – even when you don't see them, they fill the whole house. Some part of you is always thinking of them, listening for them, planning for them. You fit together like a lock and key – it's a completeness many pet owners feel, I think.

My friend told me about old cats, sick cats, ugly cats that no one wants because they could be too much trouble and too expensive, and I made up my mind immediately to adopt two of them. The love Goodness birthed in me was going to waste; I didn't want it to turn sour inside me.

Loving our pets is one of the ways that we keep the lights on for our planet. This love...it pays our bills and it lights our lives. I said 'I love you' so often to Goodness that she probably thought that was her name. I don't want to let the embers of my heart grow cold. I want to continue to be part of keeping the lights on. I do believe in love, and I believe that the world is infiltrated with that necessary substance in any number of ways. And our pets are one of them.

We live on the love generated by these encounters, and this love is what keeps the lights on for the whole wide world. For our civilization. Our humanity.

Geraldine Watson  
Toronto, Ont.

*This story originally appeared in the fall 2021 edition of Best Friends Magazine.*

To share your "In Memory" story, please email [ovcpet@uoguelph.ca](mailto:ovcpet@uoguelph.ca).



# Am I a cat whisperer?

Could you identify a cat's mood through its facial expressions?



To test your own cat-reading abilities, join the more than 400,000 people who have taken the research team's interactive quiz:



[uoguelph.catfacequiz](http://uoguelph.catfacequiz)

If you've ever tried to interpret how your pet cat is feeling, you're not alone. This mystery of feline mood is what motivated University of Guelph researcher Dr. Georgia Mason to investigate whether people can accurately identify how cats are feeling based on their facial expressions, a topic that has attracted very little research in the scientific community until recently. After years of speculating, she's been able to interpret her cats' facial cues, and Mason wanted to scientifically put others' ability to decode cat expressions to the test.

While research has shown many animals like mice, rats, pigs, horses and rabbits have strikingly similar facial expressions when they are in pain, minimal investigation has been done on the topic of pet cats, a creature with a well-known reputation of being mysterious and difficult to decipher.

Mason collaborated with OVC professor Dr. Lee Niel, and postdoctoral researchers Dr. Lauren Dawson and Jenna Cheal, to develop an online survey where more than 11,000 participants watched short video clips of close-up cat faces as they experienced various positive and negative situations.

The study revealed most participants were not successful at judging whether a facial expression was "positive" or "negative." However, participants were more likely to do well on the survey if they were a woman, a young millennial or a veterinary professional. Of the thousands of participants, 13 per cent achieved an "excellent" score by correctly identifying between 15 and 19 of the 20 videos they viewed.

"Interestingly, being a cat owner or cat lover (93 per cent of people who did the survey had lived with a cat as an adult) did not help participants better read cats' facial expressions," Mason explains. "Our study revealed that professional veterinary experience, not personal experience or feelings, was a key to success and in general, people were better at reading cats in a positive situation compared to a negative one," she adds.

This study may open the door to explore exactly how cats' faces reveal their emotional states and allow for the development of tools that would help more people become better at understanding them.

"Cats are sending us subtle signals that a lot of us likely miss, and having the skills to accurately interpret how they're feeling might mean we're also able to better understand their needs and preferences both at home and during veterinary care," says Niel, adding that we know from previous research that cats are taken to the veterinarian less often than dogs and are handled differently during exams.

The researchers hope that one day we will be able to identify specific signs and facial cues to look for to assess positive and negative welfare in cats. In the same way posters in veterinary hospital settings depict body condition scoring to inform about healthy weight, maybe one day we will have something similar for facial expressions.

"Ultimately having the ability to understand feline facial cues can help both pet owners and veterinary staff improve the health and welfare of cats," says Mason. 🐾

DR. GEORGIA MASON IS THE DIRECTOR OF THE CAMPBELL CENTRE FOR THE STUDY OF ANIMAL WELFARE (CCSAW) AT THE UNIVERSITY OF GUELPH AND A PROFESSOR IN THE COLLEGE OF BIOLOGICAL SCIENCE'S DEPARTMENT OF INTEGRATIVE BIOLOGY.

MASON AND NIEL'S STUDY HAS BEEN FEATURED IN NATIONAL AND INTERNATIONAL MEDIA OUTLETS INCLUDING NATIONAL GEOGRAPHIC, THE WASHINGTON POST, DAILY MAIL, REAL TIME WITH BILL MAHER, CBC, CTV AND MORE.





# **Obesity prevention starts as a kitten**

One nutrient's promising role in feline weight management

**Choline:** noun – /kōlën/ – An essential nutrient found in foods like eggs, meat and grains that helps with important processes like fat metabolism and transport. Cats do not produce enough choline to survive, so this nutrient must be obtained through food.



Taking good care of a kitten's health sets them up for healthy adult years and a long happy life—this is especially true when it comes to weight management. While a cat's healthy weight can be achieved with a balanced diet and exercise, a study at the Ontario Veterinary College (OVC)—recently published in PLOS ONE and led by board-certified veterinary nutritionist, Dr. Adronie Vebrugghe, associate professor and Royal Canin Veterinary Diets Endowed Chair in Canine and Feline Clinical Nutrition, and PhD candidate, Hannah Godfrey—has found a promising new way to help pet owners avoid kitten obesity issues.

Feline obesity, or excess body fat mass, is a major health concern that can cause many health complications such as diabetes mellitus, osteoarthritis and urinary tract disease to name a few.

The research team investigated a nutrient called choline, an essential vitamin-like nutrient for many animals and humans that occurs naturally in certain food, to see if it could help kittens, after they had been neutered, maintain a healthy weight as they develop.

## What is feline obesity?

Cats can become obese if they are fed too much and live an inactive lifestyle, but another major risk factor for excess weight gain is also the spay/neuter process, where veterinarians surgically remove a cat's sex organs to prevent breeding.

"It is very common and highly recommended to neuter house cats, and there are lots of benefits of this process for the cat," says Godfrey. "But, desexing may reduce a cat's activity levels and increase appetite which can put them at a greater risk for weight gain."

Godfrey says another risk for obesity is excess fat mass during kittenhood. "Kittens that carry extra fat mass while they are growing are more likely to have weight problems as they age," says Godfrey. "We wanted to investigate if supplementing a kitten's diet with choline would be beneficial in their growth phase to prevent obesity."

## What is choline?

Choline is an essential nutrient that has many roles in the body and can be found in food like eggs, meat and

grains. Godfrey says that choline must be present in a cat's diet to help them grow and develop normally, so cat food companies add a choline supplement to their products. The absence of choline in the diet will not only impair growth and cause neural defects during growth, at any age it can also cause storage of fat in the liver, which could be deadly.

Although industry standards recommend that cat food contains a minimum nutrient requirement, choline levels are relatively low in many popular products and Godfrey says that choline intake above these low levels may provide additional benefits for kitten growth and health.

## Choline and weight management

To see the benefits of a choline-rich diet, the research team studied neutered male kittens for 12 weeks. During the study period, all kittens were fed their regular food but half of the kittens were provided with a choline supplement.

The kittens were regularly weighed and scanned using dual-energy x-ray absorptiometry, also known as a bonedensitometer, to see how their growth rates, lean masses and fat masses changed. The team also watched the kittens' food intake and energy output, finding that the cats who were given additional choline ate less food and gained less body fat while still developing at a normal rate in accordance with kitten growth charts.

## The takeaway for cat owners

The study results show that choline could help kittens maintain a healthy weight. However, these findings do not suggest that choline is a magic bullet for obesity prevention, and Godfrey cautions pet owners against changing their cat's diet without talking to a veterinarian.

"There is currently no supplement form of choline for obesity prevention available for purchase at pet stores, so these findings do not directly impact pet owners," explains Godfrey. Instead,

she says that future research can build on these findings to ultimately help the pet food industry combat the feline obesity epidemic.

Although a definite recommendation for choline cannot be made until more research is done, for now, kitten owners can keep their furry friends healthy by making sure they get enough exercise, eat the right amount of food and have frequent veterinary check-ups.

This research was made possible by generous support from the Natural Sciences and Engineering Council of Canada (NSERC), Elmira Pet Products and in-kind contributions from Balchem Corporation. Funding for the acquisition of the dual-energy x-ray absorptiometry scanner was provided by the Canadian Foundation of Innovation (CFI) and the Ontario Ministry of Research and Innovation. 🐾

## Keeping your kitten's weight under control

1. Ensure your kitten is getting enough exercise. Make sure your kitten has enough toys and that you play with them daily. Just like dogs and other pets, house cats need to exercise regularly to maintain a healthy weight and build lean muscle.
2. Feed your kitten the right amount of food. Talk to your veterinarian to find out how much food your cat needs every day. Make sure you measure out the right portion size for your kitten and be careful not to give them too many treats.
3. Help your kitten eat slowly. Try out food toys or puzzles that prevent your kitten from eating too quickly.
4. Weigh your kitten often. Frequent check-ups can help make sure your kitten is growing well. If you notice your cat is gaining too much weight, your veterinarian can help you get them back on track. Also kitten growth charts are very helpful to keep track of your kitten's growth.





In photo: OVC cardiology patient Ziggy.

# Ziggy's Story



Heading into the family day weekend in February 2022, Ziggy was not his regular, active self. The 12-year-old Domestic Longhaired cat—who is usually affectionate and energetic—was sluggish and hiding from his owners, Caitlin Hayward and Kevin Procter.

“Ziggy is the kind of cat who will come and greet me after a stressful day of work and try to take care of me,” says Kevin. “Hiding from us was very unusual behaviour, so we knew something was wrong with him.”

On the Friday afternoon before the long weekend, Ziggy began having periods where his body would get suddenly rigid and then collapse, and his family veterinarian recommended an urgent trip to a specialist. So, first thing on a snowy Saturday morning, Caitlin and Kevin brought Ziggy to the University of Guelph’s Ontario Veterinary College (OVC).

“When we dropped Ziggy off for an examination in Guelph I was devastated,” says Caitlin. “Every time he would collapse, he seemed so terrified. It was terrible seeing him distressed.”

Ziggy’s veterinary team at OVC included Dr. Shari Raheb, assistant professor and board-certified veterinary cardiologist; and Dr. Ananda Pires, veterinary cardiology resident. They diagnosed Ziggy with an atrioventricular block – which meant that the electrical activity at the top of his heart was not getting to the bottom of his heart to pump blood around his body. This block was causing Ziggy’s collapsing episodes, which became more frequent as the weekend progressed.

The veterinary team determined that Ziggy would need a pacemaker—a surgically implanted medical device that helps to control irregular heartbeats—to resolve his condition.

“Much like pacemakers used in human medicine, veterinary pacemakers sense the heart beating and paces it when a beat is not detected,” says Raheb.

“To install the pacemaker, Ziggy needed surgery. It’s a major procedure that needs a large team of surgeons, cardiologists and anesthesiologists.”

At first, the team regulated Ziggy’s condition with medication. But as the weekend progressed, Ziggy’s collapsing episodes became more frequent, and the medication was not working to control them. Ziggy needed a pacemaker immediately.

“When they told me that Ziggy needed a pacemaker, I was shocked,” says Caitlin. “I didn’t even know cats could get pacemakers.”

Pires and Raheb assured Caitlin and Kevin that Ziggy was a good candidate for the surgery based on his age and otherwise good health.

“We were unsure about the procedure, but after the care team explained that Ziggy would live out a healthy and normal life, the decision to get him the pacemaker was a no brainer,” says Kevin.

Ziggy was rushed into the hour-long surgery on Family Day and spent the next few days recovering in OVC’s Intensive Care Unit. Caitlin and Kevin were in touch with the veterinary team until they finally picked him up to go home.

“Dr. Pires was amazing. She called us two to three times per day to update us on Ziggy’s condition, and even sent us a video of him when he got out of surgery,” said Caitlin. “Every step of the way she was never too busy to talk with us and keep us informed on Ziggy’s progress—this really took a weight off our shoulders during a very stressful time.”

After a few weeks of rest and recovery, Ziggy was ready to start climbing, playing and running like he used to. Post-operation, Ziggy is back to his normal self. In fact, Kevin says that Ziggy is more energetic and playful than he ever has been.

“It’s like he’s a kitten again!”

Ziggy’s care team says that his pacemaker is working exactly as it should to keep his heart beat regular, and he has been doing very well since the surgery. He is set up to live out a happy and healthy life, and aside from occasional pacemaker check-ups, Ziggy does not need any special or ongoing care.

“The OVC team was amazing—we were so impressed,” says Kevin. “If it hadn’t been for them, Ziggy wouldn’t be with us today.” 🐾

*At this time, the Ontario Veterinary College (OVC) does not have an established program that allows us to accept previously used pacemakers.*

## What pet owners need to know about pacemakers

- A pacemaker is a medical device that regulates an abnormal heartbeat.
- Pacemakers are surgically implanted, and the procedure can take one to two hours.
- Cats that receive pacemakers may be able to live out long and healthy lives.
- Your veterinarian, along with a veterinary cardiologist, can help you determine if your cat is a good candidate for a pacemaker based on age and health.

# A Veterinary First:





# U of G researchers use big data from 19 million cats to determine health trends

## Ushering in a new age of animal wellness

Research from the University of Guelph's Ontario Veterinary College (OVC) used big data to accurately determine the average weight of cats over their lifetimes to allow for a more personalized model of medicine and a preventive approach to healthcare.

The findings revealed that even after cats grow out of the kitten phase, their weight still creeps up until they are an average of eight years old. But what does this really mean for our feline companions?

The research, made possible by OVC's collaboration with IDEXX Laboratories, a world leader in veterinary diagnostic products and services, is the first of its kind to use such a large data pool.

"Having access to this amount of data for cats is unprecedented and it has helped us to determine the trajectory of cat weights as they age," the late Dr. Theresa Bernardo said at the time. Dr. Bernardo served as the IDEXX Chair in Emerging Technologies and Preventative Healthcare at OVC. Dr. Bernardo passed away in 2024.

Lead author, Dr. Adam Campigotto, along with Bernardo and colleague professor Zvonimir Poljak, stratified the data to answer questions like: When do cats become skinny? What is the average weight loss over time? And what is the projected average weight for a cat based on breed, gender and reproductive status?

They found male cats tended to reach higher weight peaks than females and spayed or neutered cats tended to be heavier than intact cats. Among the four most common purebred breeds (Siamese, Persian, Himalayan and Maine Coon), the mean weight peaked between six and 10 years of age. Among common domestic cats, it peaked at eight years.

The team noted that 52 per cent of the cats among the study group had only one body weight measurement on file, which may suggest their owners did not bring the animals back in for regular veterinary check-ups, or took them to different veterinarians.

"Cats tend to be overlooked because they hide their health problems and they don't see a veterinarian as often as dogs do. So, one of our goals is to understand this so we can see whether there are interventions that can provide more years of healthy life for cats."

For owners concerned about their cat's health or weight gain, Campigotto advises buying a scale and getting in the habit of weighing your cat.

"If your cat is gaining or losing weight, it may be an indicator of an underlying problem," he said. "Weighing your cat at home is a simple first step in monitoring their health."

The next step in the research will be looking at ways of reducing cat obesity. For example, other members of Bernardo's research team are looking at the use of automated feeders that could dispense the appropriate amount of food for a cat. These feeders could even be equipped with built-in scales.

"We are ultimately changing the emphasis to cat health, rather than solely focusing on disease" says Campigotto. "As we investigate the data and create new knowledge, it will enable veterinarians to offer clients evidence-based wellness plans, allow for earlier identification and treatment of disease and an enhanced quality of life for their animals." 🐾

*The findings were originally published in the Journal of the American Veterinary Medical Association in July 2020.*



# PETS IN MEMORY

*"What we have once enjoyed, we can never lose.  
All that we love deeply becomes a part of us." – Helen Keller*

## Dear OVC Pet Trust,

Mimi has been gone from our lives since last spring, but I still see her out of the corner of my eye. She was not the cat we came to the shelter to see, but when we arrived, she let us know she did not appreciate how long she had to wait for us to bring her home.

We reflect on that first encounter often. She ran up my husband's leg, something she never did again, and curled up on my lap and purred—extraordinary because, as it turns out, she was not a lap cat. Ten years later, we said goodbye, but it was a period during which we experienced the transformative capacities of tenderness, time, love and trust.

We learned in those early weeks that Mimi was afraid—a lot. She ran and hid when she heard the crinkle of a plastic bag; she had nightmares and leaped into the air in terror when, seconds before, she was enjoying a deep sleep; she trembled, her heart racing; and she did not seek comfort, content to sit on the edge of whatever room her new family inhabited.

But, over time, she learned that our young son was a gentle creature, that my husband knew a million games that were fun to play, and that I would never hurt her. While cooking dinner, I got

into the habit of scooping her up and holding her close. When she moved her body, signalling she'd had enough, I returned her gently to the floor, and she returned to the corner of the room to watch me. Not a vocal cat (at the beginning), it took me months to realize that when she went into the kitchen and meowed, she was asking me to come from wherever I was in the house to pick her up. She was seeking comfort and affection. That first time, she purred and purred, and we were overjoyed.

Over time, we learned more about her. She was playful, and in the evening, when my husband was reading quietly, she would caper—leaping high in the air, like a circus performer, to get his attention. Laser pointer, hide-and-seek, chase a toy. She left her spot at the corner of the room to lay down in the action, while our son pretended that she was a ferocious monster. She obliged by gently batting whatever Lego creature he deployed to bring down the beast.

We came to understand that all cardboard boxes, plastic bags, folded blankets and bubble wrap were cozy spots, just for her. She ate breakfast when we did, went to bed when we did, and if I was hollering across the house for my husband, she yelled, too. And she waited, not patiently,

for her turn in the shower—standing under the drips until her head was soaking wet. And, little by little, day by day, she came closer to me: first, sitting beside me; then, leaning on me, and if I placed a pillow on my lap, she would climb up so I could pet her.

One warm evening, too warm for pillows, she tentatively tapped her paw on my thigh until she screwed up the courage to curl up on my lap. It was thrilling. The effects of whatever trauma she had experienced did not disappear completely. Every once and a while, a nightmare would wake her from one of the many little beds she had all around the house, but she was happy.

We were honoured that she chose us and delighted by how tightly she stitched herself into our family. She impacted our lives profoundly. We were moved when a friend honoured the place she held in our lives by donating to OVC Pet Trust in her name. The organization reflects our values, but as I reflect on Mimi's life, I realize how appropriately named the organization is, because trust is at the centre of healing.

Christina & Family  
Guelph, Ontario

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## OVC PET TRUST

OVC Pet Trust is part of the University of Guelph, a registered charity. You can visit our website to support companion animal health at [www.pettrust.ca](http://www.pettrust.ca).

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