Medical oncology



UNIVERSITY OF SASKATCHEWAN Veterinary Medical Centre Western College of Veterinary Medicine VMC.USASK.CA

New clinical trial

Oncology researchers at the Western College of Veterinary Medicine (WCVM) are seeking dogs with spreading cancer for a clinical trial at the WCVM Veterinary Medical Centre.

Deciphering tumour heterogeneity through necropsy, imaging and transcriptomics in naturally occurring cancers in dogs.

One out of every four dogs is diagnosed with cancer, and sadly, half of those animals will die of the disease. Cancer's ability to spread is a major challenge, making it difficult to detect and treat effectively.

This clinical trial at the WCVM will explore potential solutions by using a new approach to studying cancer spreading in canine patients.

WCVM researchers will study cancer spreading in pet dogs diagnosed with cancer using two tools: positron emission tomography-computed tomography (PET-CT) imaging, an advanced imaging technology, and RNA sequencing, a gene profiling method.

The WCVM is the only Canadian veterinary college equipped with PET-CT technology. The state-of-the-art equipment allows allows human and veterinary cancer researchers at the University of Saskatchewan to offer this unique opportunity to pet owners.

What are the study's goals?

The WCVM researchers aim to find a way to improve cancer detection and treatment by:

- exploring the role and benefits of PET-CT technology in understanding cancer spreading
- assessing how different genes contribute to cancers in various parts of the body

What canine patients are eligible?

- The WCVM research team is seeking dogs with advanced-stage cancer. Eligible dogs must be healthy enough to undergo anesthesia and a PET-CT scan.
- After their pet's death, owners will be asked to return to the WCVM Veterinary Medical Centre for a post-mortem examination (necropsy).



What costs will the WCVM research team cover?

Each dog enrolled in the clinical trial will undergo anesthesia and receive a PET-CT scan at no cost. In addition, there will be no charge for a post-mortem examination — a procedure that will allow the research team to gain a better understanding of the disease.

How can pet owners find out more about this clinical trial?

If you own a dog or have a canine patient that may be eligible for this trial, contact the study's research team leader:

Dr. Arata Matsuyama, DVM, PhD,

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Internal medicine



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Research opportunity

Researchers at the Western College of Veterinary Medicine (WCVM) are seeking cats that have been diagnosed with feline infectious peritonitis (FIP) for a clinical trial at the WCVM Veterinary Medical Centre.

Why is this study important?

No highly sensitive, non-invasive diagnostic test for FIP is currently available to veterinarians, nor is there a commercial treatment for what has otherwise been a fatal disease in cats.

In this study, WCVM researchers are attempting to find a non-invasive means of definitively diagnosing the disease using PET-CT (positron emission tomography-computed tomography) scans. They're also using imaging to document remission of the disease with an experimental antiviral therapy. In previous studies, some new experimental antiviral therapies have shown promise for treating cats affected with FIP.

What does the study involve?

The researchers aim to develop a specific PET-CT probe for diagnosing FIP non-invasively. Their plan is to repeat the PET-CT scanning process before and after treatment with an experimental antiviral therapy. This will allow the WCVM team to determine if an eight- to 12-week course of this experimental antiviral therapy is sufficient to induce complete remission of the disease.

Overall costs, which are covered by the WCVM study, are estimated to be \$6,000 per cat. The study will cover:

- PET-CT imaging
- Required hospitalization
- eight to 12 weeks of experimental antiviral therapy (estimated cost of about \$4,000 if accessed online)

What cats are eligible?

To be eligible, a cat must have a convincing diagnosis of FIP based on the following:

- clinical presentation (effusive form)
- diagnostic test findings including:
- anemia with hyperbilirubinemia
- low A:G ratio
- hyperproteinemia characterized by a hypergammaglobulinemia
- evidence of granulomas on imaging studies (suggestive of FIP)
- molecular tests showing:
- $^\circ~$ positive PCR on cells in an effusion
- high serologic antibody titre against feline coronavirus



How can I find out more about this study?

If you have a patient that may be eligible for this trial, please contact the study's research team members:

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