Investing in Discovery

OVCPet Trust
Diagnostic tests
to stop the spread of an incurable disease

Professor Dale Smith and her colleagues are developing the diagnostic tests needed to stop the spread of a wasting disease that is killing pet birds around the world.

Proventricular dilatation disease (PDD) is caused by a newly discovered avian bornavirus that attacks the nervous system resulting in gastrointestinal tract malfunction and severe weight loss. Because there is no treatment, it is important to identify infected birds to control the spread of the virus and possibly eliminate the disease.

First identified in the late 1970s in macaws imported from South America, PDD now affects more than 50 species of birds, including macaws, cockatoos and cockatiels, parakeets and parrots.

While current tests can identify PDD in birds that have died, Smith and her team are now developing a simple blood test that detects antibodies to the virus in live birds.

“Since some birds don’t show signs of the disease but can still carry the virus, new birds must be tested before they contact other birds,” said Smith. “Having a diagnostic test for live birds with PDD is important for the whole parrot world to decrease the spread of the disease.”

For more about this story visit: www.ovc.uoguelph.ca/petrtrust/
Ensuring that no animal suffers unnecessary pain while in veterinary care

It wasn’t that long ago that people believed animals didn’t feel pain and the use of pain-killers after surgery was not commonplace. But professor Karol Mathews knew differently.

Mathews 30-year career at the OVC, has been devoted to preventing hospitalized pets from experiencing unnecessary pain. Her discoveries have changed the way veterinarians control pain in the best possible way.

Mathew’s studied the effectiveness and safety of non-steroidal anti-inflammatory analgesics (NSAIAs) when mixed with certain anesthetics to control post-operative pain. As a result of her findings, NSAIAs are now commonly used by veterinarians.

Mathews then turned her attention towards reducing the pain experienced in non-surgical patients in the OVC emergency and critical care service, where she was promoted to service chief in 1989.

“Some of my research was influenced from what doctors did when treating babies in intensive care,” said Mathews. “Just like babies, animals feel pain but can’t communicate it. We need to prevent them from hurting in the first place.”

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Improved bone implants reduce complications of fracture repair

Using the latest technology in bone implants, surgeon Noel Moens is helping to boost the success of fracture repairs in pets.

Fracturing a bone, particularly long bones, is common in dogs and cats. Repairing fractures can lead to costly complications, adding to the pet's suffering. In some cases, a fracture that fails to heal may require repeated surgeries or even amputation of the limb.

Working with U of G engineering professor John Runciman they found that a new implant called a locking bone plate provided more stability and improved blood flow to the injured area, promoting healing and preventing infection.

Moens also showed that standard screws are as effective as more expensive locking screws to fix the plates to injured bone.

“Improving fracture care and decreasing the risk of complications will improve quality of life and make the surgery more affordable.”

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Cats diagnosed with FIV are either euthanized or isolated from other cats. Accurate testing for the virus is critical."

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Helping pets we love live longer, healthier lives

The Ontario Veterinary College (OVC) at the University of Guelph is home to Canada’s first charitable organization entirely dedicated to the health and well-being of companion animals – OVC Pet Trust.

Pet Trust was founded in 1986, to address the minimal funding for health investigations benefitting companion animals. Since then, Pet Trust has raised over $20 million to help the pets we love - live longer, healthier lives.

Pet Trust funds a wide range of studies that help to improve the health of a variety of pet species. The goals of the studies are to improve or develop new diagnostic tests and treatments and to examine the human-animal bond. Some of these studies have improved pain management and the safety of anesthesia; others have helped protect pets and people from infections and advanced cancer diagnosis and treatment.

Pet Trust also funds capital improvements, clinical positions and the education of students training to be veterinary specialists.

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**RESEARCH THAT MAKES A DIFFERENCE**

**Dorothee Bienzle**
Dorothee is a Professor in the Department of Pathobiology and holds a Canada Research Chair in Veterinary Pathology. Her research focuses on feline immunodeficiency virus, asthma in horses and improving diagnosis and prognosis of disorders of blood cells in pets.

**Karol Mathews**
Karol is Professor Emerita in the Department of Clinical Studies where she was Service Chief of Emergency & Critical Care Medicine, Small Animals, from 1989-2009. Her research interests are in pain management, kidney injury/transplantation and the use honey to help wound healing.

**Dale Smith**
Dale is a Professor in the Department of Pathobiology where she specializes in Zoo Animal Medicine and Pathology. Her research interests focus on diseases of avian, exotic, wildlife and zoo animals particularly those of psittacine birds.

**Noel Moens**
Noel is an Associate Professor in Small Animal Surgery (orthopaedics) in the Department of Clinical Studies. His research interests are in fracture fixation, biomechanics of orthopaedic implants and gait analysis.

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**Ensuring that no animal suffers unnecessary pain while in veterinary care**

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**Saving lives by detecting a deadly virus**

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OVC Pet Trust is dedicated to improving the health and well-being of pets, reducing suffering and helping to extend their lives. Pet Trust proudly supports not only the robust research activities of the Ontario Veterinary College but also the world-class healthcare facilities at the Health Sciences Centre. In addition to being one of the sole sources of funding for research on companion animal health and disease, the OVC Pet Trust has played an important role in accomplishing its mission by investing in the following initiatives:

- Acquisition of a Magnetic Resonance Imaging unit that has profoundly improved the diagnostic capabilities of the hospital.
- Support of academic and clinical personnel that have ensured the highest level of veterinary training and healthcare for pets anywhere in the world.
- Construction of the Mona Campbell Centre for Animal Cancer, the most modern and comprehensive facility for cancer treatment for pets that includes a linear accelerator for precise, high energy radiation therapy of cancers.
- Support of veterinary postgraduate training that is essential for tomorrow’s specialists to continue to provide the very best healthcare possible for our animal companions.

None of this could have been accomplished without the generous support of our donors.

However, there still remain unsolved vital health issues and improvements to therapies and diagnostic capabilities that require our attention. With your support, OVC Pet Trust will continue to invest in strategic initiatives that ensure the pets we love, live longer, healthier lives.

How To Make A Donation To Pet Trust
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