

About the Canine Mammary Tumor Shelter Program

Mammary gland tumors are the most common tumors in intact female dogs and represent a common cause of disease and premature death.

Pet overpopulation is a problem, especially in shelters where many dogs may develop mammary tumors. Without proper treatment these dogs may be difficult to adopt out.

Ryan-VHUP has the expertise to care for these dogs through the Canine Mammary Tumor Shelter Program.

Both Dr. Karin Sorenmo and Dr. Michael Goldschmidt, head of Surgical Pathology, have an interest in these canine tumors and, in collaboration with Dr. David Holt, head of Surgery, and Dr. Michael Moyer, V'90, director of Penn Vet's Shelter Medicine Program, offer a highly qualified team to care for these dogs.

With treatment, the team collects clinical and biological information about mammary tumor development.

How this Research Impacts Human Breast Cancer Research

Previous studies have identified similarities between canine mammary tumors and breast cancer in women in terms of epidemiology, biology, dietary risk factors, clinical behavior and hormonal association.

Canine mammary tumor development is dependent on exposure to ovarian hormones – a risk that can be reduced by performing early-age spays.

Women's risk for developing breast cancer is also associated with cumulative exposure to bio-available estrogens, suggesting that similar hormone-driven mechanisms might be linked with breast carcinogenesis in both species.

Note: Penn Vet is collaborating with Dr. Olga Troyanskaya, assistant/associate professor in Cancer Bio-informatics, Department of Computer Science and Lewis-Sigler Institute for Integrative Genomics, University of Princeton.

Supporting the Cause

Penn Vet Board of Overseers' Krista Buerger deals with canine cancer head-on and steps up to support important translational research

BY MARY BERGER

Krista Buerger brought her family's Portuguese Water Dog, Kobe, to the Matthew J. Ryan Veterinary Hospital at the University of Pennsylvania (Ryan-VHUP) because she knew something was wrong. Kobe had become lethargic and he wasn't eating.

It was Christmas night in 2008. And the dog was diagnosed with lymphoma – a devastating diagnosis for Krista and her family.

After deciding to do all they could to extend Kobe's quality of life, Krista and her husband Reid opted to have Kobe treated with chemotherapy, an ongoing treatment that required several repeat visits to Ryan-VHUP. But the Buergers didn't mind. They wanted what was best for their Kobe and were impressed by the experts taking care of the dog.

"When you're at Penn Vet, you can feel the passion that every member of the staff radiates," said Krista, who later became a member of Penn Vet's Board of Overseers. "Everything we experienced at the hospital was incredibly impressive."

While there waiting for their beloved Kobe to finish up his regular treatments, the Buergers learned about Dr. Karin Sorenmo, chief of Medical Oncology at Ryan-VHUP, and her work in cancer research. The Buergers' interest was piqued, and, after delving a little deeper into the details of what Dr. Sorenmo's cancer research included, they decided to help establish the Penn Vet Canine Mammary Tumor Shelter Program with a generous leadership gift from the Buerger Family Oncology Research Fund and the Kobe Buerger Oncology Resident Fund.

"We decided to give to this research area because of our experience with Kobe's cancer treatment and because I have a family member who is a breast cancer survivor," said Krista. "But it's more than that. Once you get to know Penn Vet, you want to be able to give back and play a part in supporting its efforts."

The Penn Vet Canine Mammary Tumor Shelter Program aims to provide high-quality care to homeless dogs in shelters that do not have access to the care they need to survive or find homes. At the same time, the program allows Dr. Sorenmo and her colleagues to continue advancing research on the biology of mammary tumors in dogs, which, in turn, has implications for advancing research of breast cancer in human patients.

In January, 2010, just one year after learning of Kobe's lymphoma diagnosis, the beloved Portuguese Water Dog succumbed to the disease. And while Kobe is survived by three other PWDs owned by the family (Uni, age 8; Wilson, age 4; and Palmer, age 2), his life provided a lasting legacy for Penn Vet, its researchers, students and other clients working through the difficult process of dealing with a pet with cancer. And it's because of the Buergers' forethought, insight and generosity that the program has had success in its first year of operation.

"We're glad we can play a part in keeping Penn Vet the fabulous resource that it is," said Krista. 🐾



Kobe, the Buergers' Portuguese Water Dog, who was diagnosed in 2008 with lymphoma and inspired the family to support cancer research at Penn Vet.