



## Stomach Cancer Study in the Belgian Malinois

### WHAT IS THE STOMACH CANCER STUDY?

The Michigan State University Center for Comparative Oncology in collaboration with Dr. Elaine Ostrander at the National Human Genome Research Institute is conducting a study to determine the cause of stomach cancer in breeds that have an increased risk. Stomach cancer (gastric carcinoma) is a highly malignant cancer and it is almost always fatal. Early detection, prevention, and improved therapies depend on recognition of factors that contribute to causing stomach cancer.

In general, stomach cancer is rare in dogs. Veterinary databases indicate that about 0.1% of dogs (1 in 1000) received this diagnosis. However, certain breeds are diagnosed with stomach cancer much more frequently. Chow Chows have between 10-20 times the risk of stomach cancer compared to other breeds and we have been studying this cancer in Chows for a number of years with the goal of identifying the gene(s) that lead to stomach cancer predisposition. Now we are also investigating stomach cancer in other breeds that demonstrate an increased risk 1) based on data from the Veterinary Medicine Database or 2) in which we have identified a familial pattern of occurrence. This includes both the Belgian Tervuren and Sheepdog. We are also trying to determine if stomach cancer is a problem for the Malinois.

### WHAT ARE THE SIGNS OF STOMACH CANCER?

The signs of stomach cancer can be very vague and subtle. Any of the following could indicate stomach cancer:

- Vomiting
- Diarrhea
- Bloat
- Dark tarry stool
- Weight loss
- Lack of appetite
- Loss of energy

NOTE: Not all dogs have all the signs!

### HOW CAN I HELP FIGHT STOMACH CANCER?

We are interested in collecting blood samples and pedigrees from Belgian Malinois that either have:

#### STOMACH CANCER:

- The dog is showing signs of stomach cancer or has been diagnosed with stomach cancer.

OR

#### NO EVIDENCE OF STOMACH CANCER:

- The dog has no signs of stomach cancer and is at least 8 years old.

**If you would like to participate or need more information, please contact us:**

Elizabeth McNeil, DVM, PhD  
D208 Small Animal Clinical Sciences  
Veterinary Medical Center  
Michigan State University  
East Lansing, MI 48823  
Phone: 517-353-3164  
Fax: 517-355-5164  
[mcniel@msu.edu](mailto:mcniel@msu.edu)

Heidi Leitkam, BS  
D208 Small Animal Clinical Sciences  
Veterinary Medical Center  
Michigan State University  
East Lansing, MI 48823  
Phone: 517-432-8787  
Fax: 517-355-5164  
[leitkamh@cvm.msu.edu](mailto:leitkamh@cvm.msu.edu)