

AKC Gazette Column - by Grace Massey

About the AKC Breed Columns:

The Breed columns are a time-honored feature of the AKC Gazette. Each columnist is appointed by a breed's national parent club, which preserves the breed's standard and helps to educate breeders, judges, and the public about the breed's history, function, and possible health issues. A national parent club is comprised of dedicated breeders and fanciers, and it represents many years of collective experience in the breed. Columnists are asked to write about topics of interest to the fancy in general as well as those of specific interest to judges and devotees of the breed.

Australian Terrier Breed Column

August 2017 issue

Why Contribute to Scientific Studies?

As breeders, and as pet owners, we are concerned about the health of our animals. We do all we can to test and exclude individuals from our breeding program that carry inherent conditions that would affect the quality of life of their offspring. Conditions that we can routinely test for include luxating patella and early onset eye conditions such as juvenile cataracts. By having our Aussies tested before breeding, we improve the chances of their offspring being free of these conditions. There are other conditions, however, that typically do not manifest until later in life, sometimes after several generations have been born, and there are no tests available to help us exclude them from our breeding stock. Two that come to mind are diabetes mellitus and hemangiosarcoma.

Canine diabetes mellitus (DM) is not a single disease, and in the majority of cases, the underlying manner in which the disease develops is not established. Nonetheless, it is a well-known syndrome where defects in insulin secretion or insulin sensitivity is a consistent feature. Catchpole et al (2013) in <https://doi.org/10.1016/j.tvjl.2012.11.013> found the presence of certain diabetes phenotypes, along with specific breed predisposition to different types of diabetes mellitus, which suggests an underlying genetic basis for disease susceptibility that they believe might vary from breed to breed. The authors of this study state candidate gene studies so far have revealed some gene associations with the disease, and ongoing genome-wide association studies are likely to identify novel loci that are involved in determining breed susceptibility to diabetes mellitus in dogs. While there have been many other studies before and since this particular study, each study of diabetes mellitus in our companion animals help researchers to bridge the knowledge gap between understanding the functional changes in our dogs in response to the disease, the genetic basis of the disease, and the development of therapies in treating the disease.

Hemangiosarcoma is a cancer of blood vessels, usually occurring in the spleen, heart or skin. Typically, the disease develops slowly and painlessly, until it reaches an advanced stage. It can occur as a single tumor within one major organ or as multiple tumors throughout the body. This type of cancer is known to metastasize (spread) quickly with the average time from discovery of a hemangiosarcoma tumor until death being only six to eight weeks. Signs of the disease may include unexplained weakness, nosebleeds, pale mucous membranes, abdominal swelling and depression, or collapse and sudden death.

Hemangiosarcoma occurs most commonly in large breed dogs with an age ranging from eight to 10 years, however it has been observed in a number of our older Aussies. Douglas H. Thamm, VMD, DACVIM (Oncology) presents an excellent webinar giving an update of the current state of studies involving Canine Hemangiosarcoma. This webinar, sponsored by the AKC Canine Health Foundation, can be viewed on the VetVine website at: <http://vetvine.com/article/375/akcchf-update-on-canine-hemangiosarcoma>

Our parent club, Australian Terrier Club of America (www.australian-terrier.org) and the AusTTrust (www.australianterrier.org/austtrust.html) have supported many studies over the years. The AusTTrust is currently raising money for a Hemangiosarcoma study entitled "A Novel Mechanism to Regulate the Growth of Canine Hemangiosarcoma". While this study may not produce a Eureka! result and find an immediate cure for the disease, the results will add to the knowledge base and get us that much closer. Therefore, your support for this study, and others of its kind, will get us nearer to longer, healthier lives for our beloved Australian Terriers.

