

On The Health Front

By Kay McGuire, DVM, MS

In this newsletter we are putting an emphasis on the incidence and types of canine cancer. As technology and medicine advances, so does the longevity of our canine pals. With increased life spans, there is also an increase in cancer. Veterinary medicine has reached the point of countless specialties that include advanced diagnostics such as CT's and MRI machines. Many of the treatment protocols in human medicine come from the development of treatment options in canine medicine. Research protocols involving animals for options in humans are known as "One Health."

The Westie Foundation's (WFA) 2018 Grant cycle heavily supported cancer and Atopic Dermatitis (AD) research. A recent update on The

Canine Health Foundation **Grant 02472-A: Effect of Lokivetmab on Tissue Biomarkers of Canine Atopic Dermatitis using RNA Sequencing** with

Dr. Frane Banovic from the University of Georgia. "The transcriptome (*defined as differentially expressed genes between lesional and non-lesional skin*) investigation of human AD tissues before and after treatment modalities has revolutionized the understanding of the molecular fingerprint of AD, further defining pathogenic immune pathways and identifying

disease-specific biomarkers." Dr. Banovic is using a caninized monoclonal antibody targeting interleukin-31 (IL-31) cytokine, lokivetmab. "The investigators will evaluate lokivetmab modulation of the canine AD transcriptome using next-generation RNA sequencing (RNA-seq)." The hope is that "transcriptome analysis using RNA-seq may identify novel pathogenic pathways of inflammatory biomarkers as canine AD

disease drivers, with potential for development of novel targeted therapeutics."

The WFA awarded a second Atopic Dermatitis research grant directly to Dr. Elia Tait Wojno at Cornell University. Please see the article by our VP of Communications, Teresa Barnes in this issue. The WFA board feels strongly that any progress in Atopy treatment will be at the cellular level, we are excited about the future of this study.

The WFA extends special thanks for the donation from the Westie Club of New Zealand whose donations are funding half of these Atopy studies.



With the warm months upon us, folks are working in their yards and landscaping. Please know that pesticides and herbicides for your lawn can cause canine cancer. Canine lymphoma and Transitional (Urethral) Carcinomas (TCC) can result from exposure to these products. The AKC and Dr. Matthew Breen offer the Cadet BRAF diagnostic test through the AKC store for early detection of TCC. If your Westie and/or Scottie have any relatives that has been diagnosed with TCC, the Cadet BRAF test used as a

screening test three times per year will detect the disease before an ultrasound can diagnose the tumor. This allows for an earlier and better treatment choice for this disease.

Have a fun and safe summer with your Westie(s). Always have a dog bowl and fresh water available with the heat of the summer and please be mindful not to leave your dog in a locked car.

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