

**Summary of Cancer research updates presented at the AKC Canine Health Foundation National Parent Club Canine Health Conference held August 9-11, 2013 in St. Louis, MO.**

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Of interest to Salukis owners was Dr. Modiano's presentation summarizing some of the progress made in his cancer research. He stated that genetically two different types of osteosarcoma have been found; one being quite aggressive with a survival time of 2 months versus 13.976 mo. in the indolent type.

Genetically, 3 types, in clinical behavior, and a 4<sup>th</sup> in molecular behavior have been found in Lymphoma. He is working on commercial test on formalin biopsy lymph node samples to aid in the treatment and prognosis of Lymphoma.

Dr. Modiano stated that hemangiosarcoma was the dark side of cancer. The cause is not known, and there is a clearly heritable risk, but there are environmental and lifestyle modifiers. Sites of occurrence vary with the breed. Until recently, it was accepted that the tumors arise from blood vessel lining cells. He has shown that bone marrow derived cells can differentiate into various tumor cells, including white blood, fat and vascular cells. His ongoing work seeks to define the interactions between tumor cells and their microenvironment that determine which lineage predominates, and that provide a safe niche for tumor growth and progression. He believes that disrupting this niche will delay or prevent metastatic spread, and more importantly, protect tumor sites from hemorrhage, which is the most common lethal event in the disease. Three molecular subgroups have been found.

He said that the "early" detection patented test has high false positive and negative results. His group is working to develop new therapies, as well as new methods for prevention and control that will reduce the number of dogs that develop hemangiosarcoma in the future.

Dr. Breen's lecture was titled; The Cytogenomic Landscape of Canine Cancer. His work has shown that there are considerable cytogenomic changes shared by numerous forms of cancer (lymphoma, leukemia, osteosarcoma, hemangiosarcoma and melanoma among others). They are now aligning cytogenic data from comparable cancers in multiple species to identify the genes likely to be of greatest significance to the malignant process. Identification of these genes is the key to developing new ways to halt the cancer process and extend both the duration and quality of life of patients.

SHR, Inc has and continues to financially support these ongoing CHF grants. Both Dr. Modiano and Dr. Breen continue to express interest in including Saluki samples in their ongoing research and stressed that samples from your dog can help other dogs in the future.

Conference proceedings are available on the AKC CHF web site.