

New PCAF Grant for Epilepsy Study

The PCA Foundation has awarded a new grant for groundbreaking new research on the possible genetics of epilepsy in Poodles. Past studies looking for a simple genetic cause of epilepsy have come up empty, but now scientists can use novel whole-genome sequencing to seek out multiple genes that each may ramp up nerve activity somewhat until their total effect reaches a “tipping point” and seizures. In this new study, researchers led by Gary Johnson, DVM, PhD, at the University of Missouri hope to identify risk-factor genes and develop DNA tests so breeders can select against them. Results may also help veterinarians classify the specific subtype of epilepsy affecting a dog and “personalize” therapy directed at the molecular cause of that dog’s seizures.

The Missouri team is investigating epilepsy in several breeds under a grant from the AKC Canine Health Foundation, and PCAF’s grant extends this project to Poodles. Because the researchers will also analyze genome sequences to identify causes of other diseases in epileptic Poodles (incidental findings) or their family (reverse genetics), they will need accurate information about health of study dogs and their close relatives. We are very pleased to support this exciting work, and as soon as we receive criteria for study participants, PCAF will spread the word for potential volunteers.