

## College of Veterinary Medicine Department of Clinical Sciences

https://cvm.ncsu.edu/research/departments/docs/

Campus Box 8401 Lab B236 1060 William Moore Drive Raleigh, NC 27607 P: 919.513.6230 F: 919.513.6464

May 23, 2019

Ms. Marion Mitchell Epil-K9 Foundation, Inc. 185 Rim Road Los Alamos, NM 87544

Dear Marion and the entire Epil-K9 Foundation:

We want to extend our sincere appreciation for your ongoing support of Emma's Fund at NC State University College of Veterinary Medicine to benefit epilepsy research in companion animals. Since the inception of this fund in 2007, Epil-K9 has contributed an incredible total of \$72,625.00 towards Canine Epilepsy Research, Education and Outreach. Diseases such as canine epilepsy are so challenging on all levels-yet impacts are made by steadfast perseverance towards the goals of increased understanding of the disease and novel therapies that positively impact patients and their caregivers.

The following highlights of 2018-present 2019 were made possible with your support:

- Disseminated findings of a pharmacokinetic study evaluating the disposition of the extended release formulation of levetiracetam in dogs with epilepsy. An abstract of the research was presented at the ACVIM Forum in June, and the full-length manuscript was subsequently published in the *Journal of Veterinary Internal Medicine*. A copy of the paper "Population Pharmacokinetics of Extended-Release Levetiracetam in Epileptic Dogs When Administered Alone, or with Phenobarbital or Zonisamide" is attached. This study was initiated as an intern project for Dr. Arturo Otamendi, who went on to complete a neurology residency training program at Texas A&M University, and is now a board certified neurologist. Epil-K9 was also instrumental in publicizing the study and finding participants that met the study requirements.
- Continued research related to the pilot study evaluating the prevalence of exposure to the bacteria *Bartonella* in dogs with idiopathic epilepsy, in order to explore infection as a potential risk factor for the development of disease. The study was initiated as an intern project for Dr. Liz Curtis, under the direction of Drs. Karen Muñana and Ed Breitschwerdt. Dr. Curtis is now in a neurology residency training program at the University of Missouri. This past year, we have had the opportunity to have an pre-veteinary undergraduate student assist with this project. She is gaining research exposure while identify additional dogs to participate in the study. She will be re-joining our lab in the Fall of 2019 to continue this project as well as to learn more about canine epilepsy research.
- Continued and extensive connections with pet owners worldwide that would not have been possible without
  the connections from Epil-K9. As of May 2019, we have more than 729 entries included in our *Database of*Pets with Epilepsy from all over the globe!

- Ongoing assistance with recruitment for clinical studies. For every study, there are specific inclusion criteria
  that a patient and client must meet. Locating appropriate cases is often the most difficult part of a study, and
  is critical to the successful completion of the project. With Epil-K9's help, we are continuing to recruit cases
  for the Epilepsy and Dysbiosis study funded by the AKC-Canine Health Foundation. EpilK9 was also
  instrumental in assisting us with the recruitment of cases for other studies that have been recently completed,
  such as the study evaluating accelerometry to detect seizures in dogs with epilepsy that was funded by the
  Morris Animal Foundation.
- Continued support in promoting educational and outreach events with publicity of the Canine Epilepsy Symposium held at NC State College of Veterinary Medicine in October, 2018. More than 45 participants took part in this event, which provided information on caring for a pet with epilepsy as well as care for the caregiver, and allowed us all to connect further.
- We also were delighted to host Marion and Terry Mitchell May 2019 during their trip to North Carolina! After all of the years involved with Emma's Fund, we have emailed and spoken with Ms. Mitchell, but it was such a gift to have both tour NC State, meet with both of us as well as supporters of canine epilepsy locally (Willard Moore-Mission for Molly and Tony Wike, Archie Fund-both through the NC State Veterinary Medical Foundation). We have included a photo to share we are so thankful that we could meet in person and provide some research highlights over the years (also attached).
- And the list continues....

It has also been an incredible journey for us – being provided with essentially a "front-row seat" to the growing interest in research and education on canine epilepsy and the important role that Epil-K9 is playing in this process. Once again, we continue to be honored to be the recipient of donations from the calendars and overall mission of Epil-K9. We absolutely love taking part in the calendar, with the knowledge that behind each and every submitted photo are caregivers that are contributing to the success of the mission and are truly making a difference for all.

As we continue in 2019, we are exploring research projects with the goal of advancing the understanding and treatment options for our canine companions affected by epilepsy. Dr. Muñana is taking a 6 month scholarly leave in which she working with experts in human epilepsy and others involved in comparative epilepsy research. We plan to host a Canine Epilepsy Symposium again in mid-late 2019, in efforts to continue to support more caregivers facing epilepsy in their pets.

With Sincere Appreciation,

Karen Muñana, DVM, MS, DACVIM (Neurology)

Julie Nettifee, RVT, BS, VTS (Neurology)

North Carolina State University-College of Veterinary Medicine 1060 William Moore Drive-Lab B236 Raleigh, NC 27606

go.ncsu.edu/epilepsyresearch