

## **NTCA HEALTH ANNUAL COMMITTEE REPORT, 2019**

Summary of Committee Work October 2018 to August 2019 August 31, 2019

Submitted by: Susan Miller Hall & Jane Schubart, Co-chairs

### **NTUAS STUDY**

The NTUAS Study is nearly complete. The study's primary objective was to describe the clinical presentation and detailed upper airway endoscopy in 150 Norwich Terriers, in stratified age groups. These data were then used to develop a scoring system for severity of NTUAS. Three study investigators have reviewed the videos of the laryngoscopic examinations and scored them. Inter-rater reliability was assessed to determine the degree of agreement in scoring between the study investigators. It is important that the NTUAS scoring system can be used by different veterinarians with the same results. To achieve reliability, the investigators have made adjustments to the scoring system and are scoring the examinations for the third time. This is a time-consuming process for the investigators and has resulted in delays in finishing the study, however, it is a testament to their high quality work. Dr. Stanley aims to provide the final scoring system by end of September.

Dr. Stanley has presented preliminary results to veterinarians around the world. She will deliver the Keynote Lecture for the annual meeting of the American College of Veterinary Surgeons, October 16-19 (Las Vegas).

The NTUAS Longitudinal Study was completed in August 2019. Dr. Stanley and her colleagues evaluated 24 dogs total, whose visits were an average of 2.4 years apart. Two dogs were seen 3 times.

In a related study, Dr. Kelley Thieman and Dr. Bryden Stanley, and their colleagues analyzed chest x-rays of 61 Norwich terriers – most were study patients in our NTUAS Study. They used the vertebral heart scale which is a screening tool commonly used by veterinarians help in the diagnostic process to determine heart disease. They found that the vertebral heart scale for Norwich terriers (without evidence of cardiac disease) was  $10.6 \pm 0.6$  which is significantly greater than the canine reference value of  $9.7 \pm 0.5$  on the original scale. This is important for owners because the use of generic reference values in Norwich terriers may result in false diagnoses of cardiomegaly (a progressive disease where the heart is abnormally enlarged, thickened, and/or stiffened, limiting the heart muscle's ability to pump blood). The title of their article is: "Norwich terriers possess a greater vertebral heart scale than the canine reference value," and it will be published in the journal *Veterinary Radiology & Ultrasound*.

We will be creating a new web page, easily accessible from the NTCA website, where all study results and materials will be available to the Norwich community.

### **PUPPY LUNG DEVELOPMENT STUDY**

Kurt Williams DVM PhD (Michigan State University) reports that he is making progress on his Canine Health Foundation Study, *Characterizing Developmental Lung Disease as a Cause of Sudden Death in the Norwich Terrier* (Study # 02507, March 2018 - February 2020). Dr. Williams previously documented microscopic evidence of striking abnormal lung development in puppies of various breeds who died suddenly, suggesting that developmental lung disease is an important and unrecognized cause of early death in young puppies. With the help of breeders of Norwich terriers, Dr. Williams conducted preliminary studies and identified a high incidence of developmental lung

disease in Norwich puppies associated with sudden death. This grant award provides an opportunity to correlate the lung pathology and genetics to

sudden death. Findings could lead to the development of preventive measures to reduce the incidence of developmental lung disease in the Norwich terrier as well as other dog breeds. Dr. Williams has examined more than 35 puppies to date, fresh placentas harvested from a c-section delivery matched to a puppy who died from developmental lung disease and healthy siblings. attention to genetic sequencing of these samples. He has "paused" enrollment of additional puppies until results are known, and then determine next steps. He may need additional puppies, but not at this time. We will keep you posted.

### **2019 ANNUAL HEALTH SEMINAR**

Susan Miller Hall attended the 2019 AKC Canine Health Foundation National Parent Club Canine Health Conference, August 9-11, in St. Louis MO. The seminar was excellent and included lectures on nutrition & disease, autoimmune disease, infectious disease & cancer, and genetics & genetic testing. We will let you know when the slides from the various presentations are available (in about 6 weeks).

### **2019 NTCA ANNUAL HEALTH SEMINAR**

The topic for this year's seminar is emergency medicine for breeders and owners. Our speaker is Dr. Dana Clarke is an Assistant Professor of Interventional Radiology, University of Pennsylvania School of Veterinary Medicine. Dr. Clarke is board certified in emergency/critical care, and has given lectures to kennel clubs on emergency medicine topics. You may recognize her name because she is one of the collaborating veterinarians with Dr. Stanley on the NTUAS Study. Her current focus is on interventional radiology and airway disease. Also, she performed the permanent tracheostomy on the Norwich "Cosmo" whose story is featured in the Fall 2018 edition of The News.

Date: Thursday Oct. 3rd, 6:30 PM

Place: Hilton Garden Inn, Fort Washington

### **New initiatives for 2019-2020 include:**

**Breed Health Survey:** We are planning to survey the membership and Norwich community in 2020 about general breed health. This will be an online survey.

**Genetics of Colors in Norwich Terriers:** We are designing a study and plan to work with a veterinary geneticist to understand color in Norwich terriers. The genetic basis for shades of red are of interest in many breeds, and in some breeds related to disease.