

Man's Best Friend May Open Door to Understanding Deadly Lung Disease that Claims Thousands Each Year in Human and Animal Populations

Human and Canine Respiratory Specialists Meet for First Time to Discuss Joint Research Efforts in Deadly Lung Disease

In what is a growing trend among research in the United States and the U.K., animal and human researchers are collaborating to find answers to deadly diseases that affect both species. Researchers from internationally recognized medical, veterinary and academic institutions joined together for the first human/canine conference on fibrotic lung disease.

The group met in Lafayette, Ind. this week in an effort to examine potential collaborative opportunities to research the disease. The researchers joined to investigate the possibility of finding faster paths to treatment in the human form of the disease which has confounded researchers for decades as well as identifying, diagnosing and treating affected dogs.

"We brought together thought leaders on both the human and animal sides of fibrotic lung disease as a groundbreaking opportunity to look at this devastating disease and its impact on West Highland White Terriers (Westies) and discuss how science in animals and humans can work together to combat it," said Wayne Kompare, president of the Westie Foundation of America, the group that hosted the two-day meeting along with the American Kennel Club Canine Health Foundation, a charitable organization that funds health research in dogs. Morris Animal Foundation, also an animal research funding organization, participated in the meeting, as well.

Similarities between human fibrotic lung disease and fibrotic lung disease that affects dogs

are profound. Dogs known to be more commonly affected by the deadly lung disease characterized by extensive and progressive scarring in the lungs are Westies, a loveable companion popular in the U.S. and the U.K. It is currently believed some terriers may be at significant risk for the disease.

"We are optimistic about the potential the Westies may present for learning more about the natural history of fibrotic lung disease. It is collaborations like this that will help move things forward for both humans and animals and we eagerly await the opportunity to participate in this research," said Mark Shreve, chief executive officer for the Coalition for Pulmonary Fibrosis, a research, advocacy and support organization for the human disease.



The disease in Westies and some other breeds of dog appears to be very similar to the disease that affects humans and claims 40,000 lives each year in the U.S., the same as breast cancer. The main symptoms of the disease, including shortness of breath and a dry cough, also seem to be consistent between humans and dogs. There is no known cause, no approved treatment and no cure for either the human or animal versions of the disease.

Because dogs age at a rate that is believed to be about seven times the human rate of aging, and fibrotic lung disease tends to be most common later in life, human scientists are optimistic about the opportunities studying the animal version of the diseases may present for finding treatments in both humans and animals. At the same time, veterinarians are excited about the opportunity to learn from human research to better diagnose and treat the dogs that are dying from fibrotic lung disease.

“We are certainly encouraged about the opportunity this type of comparative research presents,” said Jesse Roman, M.D., a human fibrotic lung disease expert from Emory University Medical Center who attended the meeting. “It is known that dog physiology is

similar to human physiology and this combined effort may provide findings that will be important to both bodies of knowledge.”

“There is no question we in veterinary medicine can learn from our colleagues in human medicine; their understanding of fibrotic lung disease is much more developed than what we know about the canine disease,” said Kurt Williams, DVM, PhD, DACVP, Assistant Professor of Pathobiology and Diagnostic Investigation from Michigan State University, who also attended the meeting. “We believe that researching this disease in animals may move the field forward at a much faster pace than is possible in human medicine.”

Combined dog and human research is a growing trend in the scientific community due to the benefits for both. At nearby Purdue University, scientists are currently researching cancer in dogs and applying what they’re learning to human research and vice versa.

In addition to Dr. Roman and Dr. Williams, Medical and veterinary specialists attending the first-time meeting included renowned human respiratory disease experts Kevin Brown, MD, from National Jewish Medical & Research Center and

Amy Olson, MD from National Jewish Medical & Research Center and the University of Colorado, Keith Meyer, MD, from the University of Wisconsin-Madison Medical Center, and David Perlman, MD, from University of Minnesota Medical Center, Timothy Weaver, MD, of Cincinnati Children’s Hospital, as well as veterinarians Elizabeth Rozanski, DVM, from Tufts University, Brendan Corcoran, MVB, DipPharm, PhD, MRCVS, of University of Edinburgh, Scotland, Laurent Couetil, DVM, from Purdue University and Richard Vulliet, DVM, PhD of University of California-Davis.

Plans for the human/canine fibrotic lung disease research include the creation of the first published white paper on this aspect of fibrotic lung disease as well as the creation of diagnostic guidelines and standards of care for animals and an animal tissue bank to study the pathology and epidemiology of the disease.

About the Coalition for Pulmonary Fibrosis

The Coalition for Pulmonary Fibrosis (CPF) is a 501(c)(3) nonprofit organization, founded in 2001 to accelerate research efforts leading to a cure for idiopathic pulmonary fibrosis (IPF), while educating,

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supporting, and advocating for the community of patients, families, and medical professionals fighting this disease. For more information please visit www.coalitionforp.org or call (888) 222-8541

About Morris Animal Foundation (MAF)

Morris Animal Foundation, established in 1948, is dedicated to funding research that protects, treats and cures companion animals and wildlife. MAF has been at the forefront of funding breakthrough research studies benefiting animals in some 100 countries, spanning all seven continents on earth. For more information, call (800) 243-2345, or visit www.MorrisAnimalFoundation.org.

About the Westie Foundation of America

The mission of the Westie Foundation of America is to provide financial aid and other support for medical research in order to benefit the health and quality of life of West Highland White Terriers; and, to further develop and communicate information regarding the health, care, breeding and quality of life of Westies to Westie owners, Westie breeders and veterinarians. For more information visit www.westiefoundation.org.

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tenacious in keeping its secrets as, well, a terrier.

But Westies may be just the foe in the fight against IPF requires. Corcoran pointed out that the dogs' tight breeding means genetic research could yield important clues. And their shorter lifespan -- a seventh of that of humans -- means scientists can watch the disease in "fast-forward," which might also speed research.

Westies are also free of certain confounding factors, such as smoking, that often muddle human research. "The dogs might turn out to have a very pure form of the disease that allows you to investigate the disease itself and not worry about other factors," Corcoran noted.

Given all of this, "why wouldn't you look at a Westie and research how the disease progresses?" said patient-advocate Shreve.

"We think it's a very creative approach to trying to help out humans," he said, "and our patients don't really have the patience to hang around waiting for a miracle.

More information

To learn much more about IPF, visit the Coalition for Pulmonary Fibrosis.

SOURCES: *Brendan Corcoran, Ph.D., professor and director, Hospital for Small Animals, University of Edinburgh, Scotland; Jesse Roman, M.D., professor, medicine, and director, pulmonary allergy and CCM, Emory University, Atlanta; Mark Shreve, chief operating officer, Coalition for Pulmonary Fibrosis, San Jose, Calif.*

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