

2/onCampus/July 12, 1990

Pet medicine. While humans have long benefited from medical procedures first used on dogs, now animals are benefiting from treatments normally associated with humans, notes the *Chicago Tribune*. "What is interesting is that things used to go from dogs to humans; now it seems to be going in the other direction," said Robert L. Hamlin, professor of veterinary physiology and pharmacology. Instead of euthanizing pets, veterinarians now use ultra-sound to detect heart disease, install pacemakers and treat brain tumors with radiation, the paper reports.

Dr. Robert Hamlin

Local veterinarian has your pet's good at heart

By KATHY WOODARD
ThisWeek Contributor

Since pets don't have any way of telling their owners how they feel until their discomfort is acute, they're generally pretty sick by the time they meet **Dr. Robert Hamlin**.

Hamlin, of Upper Arlington, is a professor of veterinary physiology and pharmacology at The Ohio State University. About 50 percent of his work, he told *ThisWeek*, is spent on heart and lung research, with the balance divided between clinical work and teaching veterinary graduate students around the world, including at Tokyo and Azuba universities in Japan, the Royal Veterinary College at Uppsala, Sweden, the Veterinary College at the University of Cordoba in Spain, and the Hebrew University of Jerusalem in Rehovot.

Many of the cardiac problems that affect people also affect their dogs and cats, according to Hamlin.

"There are three common diseases that affect these animals, and generally only in certain species," he said. "But we don't know why."

The most common heart condition, he said, is mitral regurgitation. Most often seen in small breed dogs, it is the leaking of a valve between the left ventricle and left atrium.

Next most common, and seen mainly in large breed dogs, is dilated cardiomyopathy. The condition, Hamlin said, "is the major reason people have heart transplants. They get this same disease."

The third condition, most prevalent in cats, is hypertrophic cardiomyopathy, when the left ventricle becomes thick-walled. The condition, which comes on gradually, is a common rea-

son for sudden death in humans. The heart goes into a spasm, ventricular fibrillation, and the patient dies.

Thanks to modern medicine, Hamlin said, all three conditions are often treatable through medication and/or surgery.

Hamlin's choice of veterinary medicine was a natural, he said, because "I have always liked medicine and animals." The study of heart and lung dysfunction drew him "like a magnet."

As only the second veterinary cardiologist in the country (he was preceded by Dr. David Detweiler of the University of Pennsylvania in 1949) Hamlin has been considered a pioneer and expert in his field for years. Since he began, however, the field has grown substantially.

"Now we have a national college of veterinary cardiology, with 60 board-certified veterinary cardiologists across the country," he said. "There are three at Ohio State."

Considering the number of dogs and cats with heart disease, however, there is plenty of room for more.

"It is estimated that 10 percent of dogs and cats have heart disease, and since there are maybe 80 million dogs and cats in the country, that's a lot of animals with heart disease."

Since pets can't talk about early symptoms, heart disease is usually well advanced before the animals are seen by specialists. "We get a late start in helping them," Hamlin said. Nevertheless, he added, "We're frequently able to prolong and improve the quality of these lives."

One of the most successful procedures used for humans is also successful with animals: Implanting a pacemaker. Seen in all species, but most com-

monly in schnauzers, cocker spaniels, and dachshunds, the inability of the heart to keep itself started is no longer an automatic death sentence for a pet. Installing a pacemaker can resolve the problem.

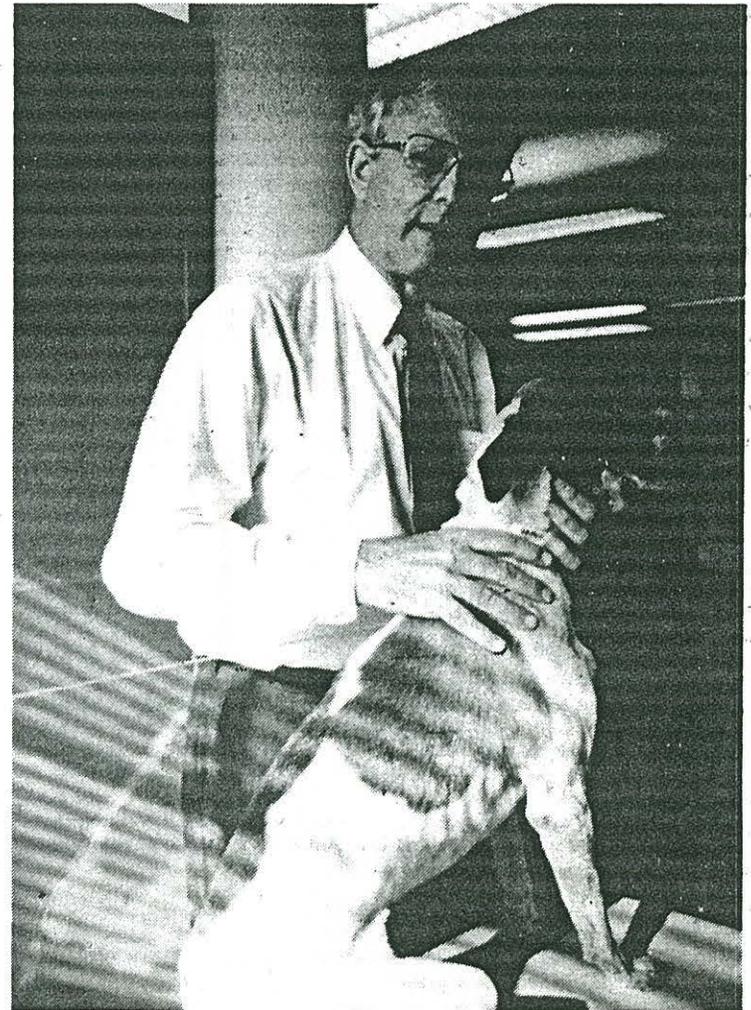
"Animals are usually very resilient and tolerate the procedures quite well," Hamlin said. "They are in and out of the hospital in no more than three days, and there is usually no long recovery. The animal is up and about."

With one significant exception, Hamlin explained, animals are subject to the same heart diseases as humans. They are apparently exempt from coronary artery disease that kills people. "Animals naturally have low cholesterol and very little fat in the major coronary arteries of the heart," Hamlin said.

For both pets and humans, research is the key to understanding heart and lung disease and curing or correcting it.

"Research must be done on animals for the benefit of the animals, as well as to be extrapolated to man. The only way we can prove that a drug is safe is to conduct experiments on animals," he said. He added that modern research is performed as humanely as possible, using as few animals as possible and considering their comfort at every turn.

"There are just so many diseases that we wouldn't have been able to combat as soon as we did without research — transplants and rhythm disturbances and the development of drugs to suppress those heart irregularities," he said. "Another issue is the use of anti-clotting producing compounds. Tens of thousands of both humans or dogs and cats would have died because the development of those drugs would have been much slower."



By Jesse Cabungcal/ThisWeek

Dr. Robert Hamlin is pictured in his office at The Ohio State University.

Hamlin continues to be gratified by the work he does, even after 40 years.

"I am absolutely fascinated with what I do," he said. "Each patient is different from the next, in disease, structure and nature. It's very gratifying to

have an animal literally at death's door be able to go home to happy children, happy owners.

"But it gets no easier to tell someone that their pet is going to die soon."