

Dog Experiments at Wayne State: Decades of Pain and Futility

Physicians
Committee
for Responsible Medicine



Heart disease is Michigan's biggest killer, and it has been for years.¹

Yet Wayne State University continues to waste millions of taxpayer dollars on heart failure and hypertension experiments in which dogs are subjected to painful procedures and eventually killed. As a public institution, Wayne State has a responsibility to the people of Michigan, but the scientific futility of these experiments and the cruelty involved erode the public's trust. It is time for legislators in Lansing to take action and ensure that public resources are spent responsibly.

The Experiments

Through Freedom of Information Act requests, the Physicians Committee for Responsible Medicine has obtained thousands of pages of veterinary records and official protocols from Wayne State related to cardiovascular experiments on dogs dating back to 2009 (prior records were unavailable). For many years, Wayne State purchased dogs from notorious class B “random source” animal dealer R&R Research of Howard City, Mich., which obtained the animals from shelters and was frequently cited for violations of the federal Animal Welfare Act.² More recently, the university has been acquiring dogs from Covance Research Products of Cumberland, Va., and Marshall BioResources of North Rose, N.Y.

Since 1991, Wayne State faculty and staff have used dogs in heart failure and hypertension experiments. Currently, those experiments involve performing numerous surgical procedures on each dog, implanting up to nine medical devices in each dog's heart and near major blood vessels, and drastically increasing the dog's heart rate with surgically implanted electrodes to induce heart failure. Vascular clamps are used to restrict blood flow to a kidney to cause hypertension. To control the devices and collect data, up to nine cables and wires are surgically “tunneled” between the shoulder blades of each dog, and the animal is fitted with a restrictive vest. Dogs are then forced to run on treadmills while heart failure and/or hypertension are induced.³

The surgeries are so intensive that, according to official Wayne State records, up to 25 percent of dogs are expected to die during or shortly after the procedures—in other words, before any data are collected.⁴ One such dog was Trixie, a 3-year-old, 46-pound beagle who was sold by Covance and arrived at Wayne State on Sept. 11, 2012. Staff noted that she was “Friendly + Curious.” Two weeks later, on Sept. 25, she went under the knife.⁵

During Trixie's surgery, Wayne State experimenters cut an incision between her ribs to implant a catheter into the left ventricle of her heart so that a blood pressure monitoring device could provide data during the experiment that was supposed to follow. But public records reveal that “the dog's blood pressure and SPO2 [an estimate of the amount of oxygen in the blood] dropped...” Experimenters attempted to defibrillate, but “the dog was pronounced deceased at 11:53am.”⁶

Similarly, Jessie, a grey and brown female husky mix, did not live long at Wayne State. Jessie was sent from Mecosta County Animal Control in Michigan to an animal dealer in Stanwood, Mich., before she was sold to R&R

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Research, which sold her to Wayne State on Jan. 19, 2011. On Feb. 3, 2011, she underwent the same surgery as Trixie. She woke up the next day lethargic and uncoordinated, leaking fluids, and was moved to another kennel due to “noise issues.”⁷

Trixie was found dead in her cage due to “possible rupture or compression of coronary artery.”

After the initial recovery phase, Jessie seemed to get better quickly. She appeared happy and moved around well, until Feb. 9, 2011—just six days after her surgery and 21 days after arriving at Wayne State. On that day, her veterinary records state: “Dog found dead during morning checks...” A necropsy revealed “possible rupture or compression of coronary artery.”⁸

Those dogs who survive the surgeries are forced to endure even more. A dog’s resting heart rate is normally between 70 and 120 beats per minute, but during the experiment it is rapidly raised as high as 250 beats per minute while the dogs run on treadmills. This may be repeated for days, weeks, or even months—depending on how long each dog can withstand the physical pressures of the experiments themselves.

Every dog who survives the initial surgeries will die during the experiment. This appears to be by design. Wayne State experimenters want to maximize the amount of data collected, and thus every dog is used as long as he or she can physically withstand the rigors of the study. While Wayne State has maintained less detailed veterinary records in recent years in an apparent response to increased public scrutiny, documents for 22 dogs used between 2011 and 2013 reveal the average time at Wayne State was only 145 days per animal, less than five months.⁹ That figure doesn’t include the nine dogs purchased during the same period specifically for “practice” surgeries or the five dogs during that period who were deemed unsuitable for the experiment (often because they refused to run on the treadmill) and used for “practice” surgeries before being killed.¹⁰

Among the records obtained by the Physicians Committee, no single dog survived at Wayne State as long as Seger, an 18-month-old male beagle who arrived on Sept.

5, 2013, from Covance.¹¹ (For many years, Wayne State staff named dogs after famous Michigan-born celebrities, including Madonna and Alice Cooper. Seger’s namesake was, presumably, musician Bob Seger.)

On Nov. 13, Seger underwent his first surgery, in which an incision was made between the ribs to access the heart, a blood flow monitor was implanted near his aorta, and three wires were attached to his heart in order to later increase his heart rate. On Dec. 18, he underwent a second surgery, in which his flank was surgically opened, and four more medical devices and two catheters were implanted, including two occluders, which would later restrict blood flow and induce hypertension. All of the catheters and cables attached to the devices were then “tunneled” between his shoulder blades. The next day his veterinary records indicated that he had bloody diarrhea.¹²

Seger was forced to run his first treadmill experiment on Jan. 7, 2014, and would be required to do so at least 19 additional times over the next six months. Because his records are largely handwritten, some details are hard to make out, but the documents indicate that, on days when the experiments weren’t run, his heart was “paced” at more than 200 beats per minute at least 23 different times over that six-month period.¹³

Records show that some dogs who refused to run on the treadmill were **used for “practice”** surgeries and killed.

In between the running of experiments and pacing his heart, Seger underwent two additional surgeries. During the first, on Feb. 6, an incision was made in his neck, an occluder was placed around both carotid arteries, and a catheter was placed in his right jugular vein. The catheter and a cable attached to the occluder were then “tunneled” between his shoulder blades. On June 6, Seger underwent his fourth and final surgery, during which an electrode was implanted under his skin.¹⁴

On July 11, 2014, staff at Wayne State ran Seger in one more experiment. Later that day, he was “found deceased.”¹⁵

Public Records Detail Pain and Distress for Dogs

Three veterinarians have reviewed records for dozens of individual dogs and detailed time and again how the animals suffer. While Wayne State has claimed that the animals are anesthetized during surgery and given pain relief, in handwritten notes the university's own veterinary staff have repeatedly indicated that the dogs experience pain and are distressed.

The veterinary records give insight into the day-to-day suffering of the dogs. This is understandable considering the animals are subjected to multiple surgeries, medical devices are implanted in their bodies, their hearts are paced at twice the upper normal rate, and they are forced to run on treadmills. In addition, during their entire time at Wayne State, the dogs are kept in sterile, windowless rooms without access to the outdoors, so their psychological well-being is negatively impacted. While the examples are too numerous to include them all here, we have selected a few examples.

The dogs' medical records, handwritten by university employees, give insight into the day-to-day suffering.

Queenie (female Dalmatian mix)

Sept. 16, 2009: She arrived at Wayne State from the Gratiot County Animal Shelter in Ithaca, Mich., by way of R&R Research.

Dec. 3: She was “whining [and] vocalizing,” and there was swelling and subcutaneous air at her surgical sites.

Dec. 16: She was found lying on the floor and “reluctant to get up out of [her] cage.” She whined when laboratory technicians tried to force her out. Her incisions were seeping large amounts of fluids, and sores developed on her paws and right hip.

April 5, 2010: A laboratory technician noted that Queenie was “acting very timid—like she can't get [up]...shakes while getting up (back legs)...won't get up

for me.”

June 29: She was euthanized after experimenters broke one of the devices implanted in her body and couldn't fix it.¹⁶

Rogue (female beagle)

May 30, 2012: She arrived at Wayne State from Covance.

July 29: She developed a sore on her right hip, possibly due to a burn from the electric scalpel used in her surgery.

Oct. 8: She was acting “lethargic.” Her mucous membranes were pale, and her extremities were cold to the touch. Her bloodwork results showed that she was severely anemic.

Oct. 11: She was euthanized. When the experimenters removed all of their equipment, they found that Rogue had a hole in her aorta (likely from one of the probes rubbing against the blood vessel) and had been bleeding into her chest for the past four days.¹⁷

Sally (female beagle)

Jan. 22, 2013: She arrived at Wayne State.

Feb. 18: She had “red-tinged” feces and vomited several times. She was not eating her food.

Feb. 26: She was still not eating and had lost 20 percent of her body weight.

March 5: Her surgical incisions were draining and swollen.

April 1: She pulled off her jacket and chewed a hole in one of her catheters. She lost an unknown amount of blood.

April 14: She chewed her catheter again and lost more blood. She also chewed one of the probes and it was noted that “wires [were] sticking out.”

May 10–June 23: There were multiple references to “inflamed” or “irritated” skin.

June 26: She was euthanized, but no reason was given.¹⁸

According to the late veterinarian Henry Melvyn Richardson, DVM, who had more than 40 years of experience, the nature of these experiments means that unrelieved

pain and distress are inevitable for the animals involved. After a thorough review of one of the Wayne State protocols and Queenie’s veterinary records, Dr. Richardson wrote in 2011:

The body, Queenie’s or mine, responds to an injurious agent in much the same manner. This process is called inflammation. The five cardinal signs of inflammation are pain, heat, redness, swelling, and loss of function. The two invasive surgeries Queenie experienced caused all of these signs as seen in her medical record. Thoracic or abdominal surgeries are especially painful, as anyone who has experienced such a procedure can tell you. The pleural space (the lining of the chest cavity) is especially sensitive and lined with pain receptors. Queenie not only suffered through a surgical procedure into her chest and abdomen, she was required to tolerate the constant irritation from tubes, catheters, and probes. If you have given blood you know how the needle feels inside your vessels. Queenie was living for almost seven months with catheters inside her arteries and veins, catheters which initiated the pain cascade with every bump inside the vessel wall.¹⁹

Taxpayers’ Money and Patients’ Time Wasted

In April 1991, a newly arrived Wayne State faculty member received \$97,496 from the National Heart, Lung and Blood Institute (NHLBI), part of the National Institutes of Health, to conduct invasive cardiovascular experiments on dogs.²⁰ Including that initial grant, the faculty member and Wayne State have received \$11,614,451 from NIH over nearly three decades to conduct similar experiments on dogs.²¹

Despite the considerable public resources spent by Wayne State to support these experiments, the university has repeatedly made statements such as the following: “The research is ongoing and it’s making good progress.”²² Yet Wayne State has produced no evidence of such progress, and after 28 years, taxpayers and patients expect results.

When NHLBI was asked by the Physicians Committee in 2014 why it continues to fund these experiments, the re-

sponse claimed that the agency’s peer reviewers “concluded that the study would provide valuable information.”²³ At that point, NHLBI had been funding the project or related projects by the same experimenter for 23 years, and yet they spoke only of the project’s potential.

Wayne State has spent **\$11,614,451** since 1991 to conduct heart failure and hypertension experiments on dogs.

NHLBI’s response also noted that the experimenter’s published papers and citations of those papers “suggests a productive research career that has contributed to scientific advancement.”²⁴ But the agency’s emphasis on citations is misguided. An analysis of the experimenter’s heart failure publications from 1997 to 2014 revealed that more than 40 percent of the time, the citation was effectively a self-citation.²⁵ In other words, the experimenter’s work was being cited by himself or his frequent collaborators. The journal *Nature* wrote in 2019 that “many scientists agree that excessive self-citation is a problem,”²⁶ yet the dog experiments at Wayne State continue largely because the agency funding them values citations, regardless of their source.

Regardless of the number of papers and citations, Michiganders suffering from heart disease are not interested in the paper trail created by these experiments—they want results, including therapies for heart failure and hypertension.

Likewise, if Wayne State has anything to show for all this time and money—not to mention the hundreds of dogs killed over the past 28 years—it has yet to reveal these results to the taxpayers who footed the bill.

Wayne State has produced **no evidence** that the experiments have benefited patients, but after 28 years, taxpayers expect results.

The Future: Human-Relevant Research

By 2030, 2.9 million Michiganders are expected to suffer from heart disease,²⁷ and Michigan has a death rate due to heart disease that is higher than that for the United States overall.²⁸ Considering those troubling statistics, funds currently dedicated to dog experiments at Wayne State would be better spent on research that will provide the greatest health return on investment, such as advances in the understanding, prevention, and treatment of human cardiovascular diseases. The people of Michigan need results, and the path forward lies in human-relevant research, not attempts to extrapolate data from a different species.

More reliable information is obtained from studies involving humans. Two 2014 studies evaluating more than 120,000 adults found that people who get regular exercise can cut their risk of heart failure in half.^{29,30} Advice from the Michigan Department of Health and Human Services also reiterates the need to prevent heart disease, focusing on “education, policy and environmental change” by en-

couraging people to eat healthier and exercise more.³¹

Spending limited research funds on the Wayne State dog experiments distracts from human-centered approaches to studying heart disease. Epidemiological studies continue to give researchers insight into the causes of heart failure, while human clinical trials provide treatment and prevention options. But these effective research methods need more attention—and more funding.

Notable Examples of Human-Relevant Research Include:

- The Framingham Heart Study, which has included thousands of people across the country and resulted in several major medical findings since it began in 1948.³²
- The Houston Methodist Studies, where researchers have worked with patients and employed stem cells to investigate interventions to treat heart failure and reduce patient risk.³³
- The work of Michael Joyner, MD, at the Mayo Clinic, where he has performed studies in humans similar to those conducted in dogs at Wayne State.³⁴ He has also criticized the lead experimenter at Wayne State, writing that “using selective interpretation [he] dismisses the human data as either irrelevant or incomplete.”³⁵
- The work of Igor Efimov, PhD, at the George Washington University, where he has established connections with local institutions that supply his lab with human hearts. The hearts are either diseased ones removed from patients undergoing heart transplants or have been donated for research but are considered unsuitable for transplantation.³⁶
- The Texas Heart Institute, which is dedicated solely to addressing cardiovascular disease, stopped using dogs in studies altogether in 2015.³⁷

It’s clear that Wayne State should stop its unproductive and cruel heart failure experiments on dogs and instead spend public resources on human-centered research approaches that actually improve public health. It is also clear that Michigan legislators must act to ensure that the university does so. ▲

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