

Catonsville Times

WEDNESDAY, OCT. 4, 2017 | 136th Year Number 52
CATONSVILLETIMES.COM



Stem cell therapy

New treatment for canine
arthritis being tested **PG 12**

Residents
battle flooded
basements as
they await relief
PG 6

Technicians Emma Natal-Phoebus and Samantha Mertz prepare Hanna, a 14-year-old Golden Retriever Chow Chow, for a stem cell clinical trial at Paradise Animal Hospital that will examine the effectiveness of stem cells in treating arthritis in dogs.

JON BLEIWEIS/FOR BSMG



NEWSSTAND PRICE \$1.50



PHOTOS BY JON BLEIWEIS/FOR BSMG

Clinical trial technician Samantha Mertz, Dr. Cheryl Burke and clinical trial technician Emma Natal-Phoebus prepare Hanna, a 14-year-old Golden Retriever Chow Chow, for an injection as part of a clinical trial that will examine the effectiveness of stem cells in treating arthritis in dogs, at Paradise Animal Hospital.

Dogs are the guinea pigs in trials

BY JON BLEIWEIS
For The Catonsville Times

When Hanna stopped climbing into her owner's bed, Donna Foster knew something was wrong.

Hanna, a 14-year-old Golden Retriever Chow Chow, has been Foster's pet since 2006, when she was adopted from a shelter.

In recent months, the dog's mobility faded as her arthritis advanced. She struggled to get into Foster's truck or up 14 steps at their Catonsville home.

When Foster heard about an experimental treatment being offered in Catonsville that could potentially make her dog more agile, she had no hesitation about enrolling the dog in clinical trials.

Catonsville veterinary office taking part in clinical tests of stem cell therapy to treat canine arthritis

"She is my heart and soul," said Foster, 56, a cleaner and caterer. "Anything I can do to help her, I will."

The procedure, offered by San Diego-based Animal Cell Therapies, injects stem cells from umbilical cords of newborn dogs into a dog's arthritic joint.

The private company's founder and CEO Kathy Petrucci, a veterinarian, said arthritis in dogs is a common, progressive and chronic problem and about 20 percent of

dogs over the age of 7 will develop it. She said the condition is a common reason for euthanizing dogs.

"It gets to a point where dogs can't stand up or their quality of life is so bad, but they're completely fine, otherwise," she said. "It's heartbreaking for people to euthanize their dog for something like arthritis."

Signs of arthritis in pets include favoring a limb, hesitancy to jump, run or climb

stairs, decreased activity or interest in play, difficulty sitting or standing and being less alert, according to the American Veterinary Medical Association, a trade association.

As Animal Cell Therapies was considering different tissue sources for stem cells, including fat and bone marrow, the company chose the umbilical cord.

Canine umbilical cords are a source of potent stem cells, Petrucci said. Cells are easy to collect, she said, because the tissue is typically discarded after birth. Stem cells can transform into different types of cells and help repair damage.

After a preliminary study in private practices and a double blind placebo-controlled study with the University of Florida, the study is now in its final phase.



Dr. Rosalind Hain, associate veterinarian at Paradise Animal Hospital, prepares Hanna, for a stem cell injection.



Hanna.

Outcomes have looked good, Petrucci said, and the company is seeking approval from the Food and Drug Administration to market the therapy.

Paradise Animal Hospital in Catonsville is one of 23 sites nationwide participating in the study.

The trial, which includes a screening, blood test, X-ray and treatment, is free. Dog owners are paid \$400 for participation.

Cheryl Burke, associate veterinarian at Paradise Animal Hospital, a practice she started in 1990, said she wanted to be at the forefront of the development of a new product. She said she likes the idea of a biological approach – rather than a pharmaceutical one – to treat arthritis in dogs.

“It’s an opportunity to have the body be almost capable of healing itself,” she said. “If it does do all the things that we suspect it will do, it may create a healing effect that lasts for years.”

An alternative stem cell treatment, she said, is a two-surgery process in which fat tissues are taken from a dog’s body and sent to be developed into stem cells, and then injected into the animal. She said if the umbilical cord treatment becomes main-

‘It’s a low-risk treatment and potentially for a sustained effect’

– Stanley Kim
University of Florida researcher

stream, it should be cheaper than current available stem cell regimens, which cost \$3,500 to \$5,000.

While the study launched in April nationally, Burke started enrolling dogs in Catonsville in June. Four of the 16 dogs she has screened have been eligible for the treatment. Her goal is to enroll 20. Petrucci wants about 500 dogs to have the procedure, a process that could last into 2018.

“Our hope is that we see a statistically significant effect and we can bring this to market, so we can help the 20-some million dogs with arthritis,” Petrucci said.

Eligible dogs must be one year old or older, be in generally good health and have chronic lameness for more than three months, with an osteoarthritis diagnosis.

The study is double-blind and placebo controlled, meaning one in every four dogs will receive a placebo. Dogs receiving the placebo will be given the actual stem cell injections once the study ends.

Dogs have checkups one, three and six months after the injection.

Burke said the research team won’t be told which injection the dog receives until a year later.

Kathy Guillermo, senior vice president for animal rights organization People for the Ethical Treatment of Animals, said clinical trials can be “extremely useful” to improve the health of animals.

Guillermo said, after a staff veterinarian looked into the clinical trial, that it could be useful for ailing dogs.

“It’s not an outlandish procedure,” she said. “There’s some basis for it and it may be very helpful.”

Stanley Kim, associate professor of small animal surgery at the University of Florida and the primary investigator for the pilot study, said he was interested in contributing evidence that determines whether the stem cell therapy works.

“It’s an area that obviously generates a

lot of intrigue and interest among the public. There is very little evidence for how it works,” he said. “A lot of people could be really sold by the idea but if there’s no science to back up what it’s purported to do, then it could be kind of a bogus treatment.”

The study, which ran from February 2014 until the end of last year at the university, included 68 dogs. About half the dogs in the blind study were given the stem cell injection while the others received a saline placebo, Kim said.

Kim said the team found that about twice as many dogs with the stem cell therapy, as opposed to the placebo, had a clear improvement in clinical signs, meaning owners noticed their dogs were better and less lame.

“We demonstrated through a fairly rigorous manner that it actually does work,” Kim said. “It’s a low-risk treatment and potentially for a sustained effect.”

In the weeks following the procedure at the Catonsville clinic, Foster said Hanna seems to be doing better. She has noticed her pet has had less trouble on the stairs.

Jan Hansen, a retired neuropsychologist who lives part-time in Annapolis, is the owner of the first dog that took part in the study at Paradise Animal Hospital.

Before the clinical trial, Hansen said her dog, Jennifer, didn’t want to leave the couch, where she had to be hand-fed.

“She was not motivated anymore,” she said. “She didn’t want to do anything.”

Now, Jennifer is capable of doing a five to six minute sprint before tiring out, Hansen said. She is convinced the trial has worked for her dog, a 6-year-old Great Bernese and Golden Retriever mix.

“I figured it was worth a shot and it worked,” she said. “It’s not a placebo. I am certain.”