

Trial results promising for curing puppies' parvo

June 1 2014, by Dave Kolpack



This May 30, 2014 photo provided by KC Pet Project, shows two puppies that were treated for canine parvovirus at the Kansas City Pet Project, one of the largest shelters in the country. A Grand Forks, N.D., company is testing a cure for the disease that would make it cheaper and easier to treat the dogs. (AP Photo/KC Pet Project)

A North Dakota company that discovered an antibody technology while trying to cure flocks of dying geese is using its research for a more warm and fuzzy purpose: saving puppies.

Early tests performed on about 50 [puppies](#) in seven U.S. states for Grand Forks-based Avianax have resulted in a 90 percent cure rate for canine parvovirus, which spreads through animal waste and direct contact between dogs, usually at kennels, shelters and shows. Some puppies die from the virus and others are euthanized because the antibiotics and other medicine needed to treat it can be too expensive—sometimes up to \$2,000—and take too long.

It isn't clear how many dogs contract parvo annually, since the disease isn't required to be reported. At the Kansas City Pet Project, one of eight test sites and among the largest shelters in the United States, about five cases a month wind up on the "parvo ward." Officials with the Missouri shelter believe the treatment will lead to a dramatic increase in their "parvo graduates."

"When the box arrived we were yelling, 'Woo, the geese antibodies are here!'" shelter spokeswoman Tori Fugate said. "Just the fact that someone is caring out there is pretty remarkable. A lot of open admission shelters choose to not treat parvo because it's considered too much of a resource."

Avianax [chief operating officer](#) Richard Glynn hopes to start selling the parvoONE antibody-based treatment—that is, harvested from the yokes of goose eggs—for \$75 a dose by next spring.

"I think there will be a lot of puppy owners who will be very happy," Glynn said.



Bernadette Meberg, chief technician at the Avianax lab at the University of North Dakota, mixes a solution into goose egg yokes to make an antibody used to treat canine parvovirus Friday, May 30, 2014 in Grand Forks, N.D. The company is testing the parvoONE medicine and hopes to have a product on the market by next spring. (AP Photo/Dave Kolpack)

The U.S. Department of Agriculture issued a conditional permit for the field trials that are taking place. Such permits are normally reserved for outbreaks or other dire situations, but this one passed muster because there's no product specifically targeted for parvovirus, said Jeremy Vrchota, Avianax's sales director and regulatory liaison.

Officials with the USDA's Animal and Plant Inspection Service did not respond to phone messages left by The Associated Press.

The company's path to puppy love began a decade ago after a mysterious disease—later found to be West Nile virus—spread among flocks at the

South Dakota-based Schiltz Goose Farm, the largest goose producer in North America. Farm owners James and Richard Schiltz and Glynn, who was working for them, found researchers at the University of North Dakota who were interested in the project.



This egg shown by University of North Dakota researcher Tom Henderson on Friday, May 30, 2014, is from the Schiltz Goose Farm in Roberts County, S.D. A goose egg is three to five times larger than a chicken egg. Avianax uses the yolks from goose eggs to make an antibody that is being used as a treatment for canine parvovirus. (AP Photo/Dave Kolpack)

The group, led by Dr. David Bradley, the UND medical school's chair of microbiology and immunization, discovered antibodies in the geese that they could purify and put back into other birds. The treatment worked.

"We went to the Mayo Clinic and they looked at all our work," Glynn

said. "They called it a game-changing technology."

Avianax quickly found promising links between goose antibodies and treatments for other diseases, including rabies, dengue fever, avian flu and some cancers. Because they didn't have the money or time to explore testing for human diseases, the group set their sights on the veterinary market and eventually settled on saving puppies.



This bottle of parvoONE is shown in the company's lab on Friday, May 30, 2014 in Grand Forks, N.D. Avianax is manufacturing the parvoONE treatment that has shown a 90 percent cure rate for canine parvovirus in early testing around the country. The treatment is an antibody that is harvested from geese eggs. (AP Photo/Dave Kolpack)

Treating parvovirus currently can cost, at a minimum, \$500 for antibiotics, intravenous fluids, painkillers and stomach medicine and

generally takes six days, said Dr. Darin Meulebroeck, chief medical officer for Avianax. The trials have shown the new drug can work as quickly as two days, he said.

"We've lost a couple that have been so severe ... there's no drug that is going to treat 100 percent of everything," Meulebroeck said.

The tests run through November.



This photo provided by KC Pet Project shows two puppies that spent time in the "Parvo Ward" at the Kansas City Pet Project, which is testing a treatment for the canine parvovirus. The medicine, an antibody that is harvested from goose eggs, is manufactured by Grand Forks, N.D.-based Avianax. It is being tested at eight

sites around the country and could be marketed by next spring. (AP Photo)

Glynn said Avianax has "stuck in there" with the help of key researchers and believes it is on the verge of saving human lives with a similar antibody— although it could take more than five years to reach the market. The U.S. Army is interested in using the technology for Andres virus, which has been found to lead to a fatal respiratory disease. Safety trials are scheduled in the next two years.

"We went from being goose herders from South Dakota to an antibody company," Glynn said. "And we're not done yet."

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