... My best way to help now is offer advice and insights to anyone else who would take up this cause.

Saving Dogs: The Next Generation

You might call the anti-distemper campaign in Britain in the 1920s and 1930s as "Save Dogs From Distemper I," with a goal of identifying the cause and developing the first vaccine. They largely succeeded but also closed the book on developing treatments for dogs after they fall ill. The campaign of "Save Dogs From Distemper II" began on Facebook at the end of 2008, with a goal of demonstrating the need for a treatment and to prove NDV could save dogs from this disease. That goal had not been met, but the campaign did identify some of the issues that must be overcome. However, I would also point out that the first campaign raised more than £8 million in today's value. My campaign operated on barely a shoestring budget.

It is now time for "Save Dogs From Distemper III," a concerted effort to test the contending treatments that are now emerging to determine which offers the best benefits and chance of survival for distemper dogs. The message has to get out that distemper does not have to be a death sentence. That's a fact many are now realizing, but Dr. Alson Sears knew decades ahead of anyone else.

I've often told dog owners distemper is a nasty, terrible disease that is difficult to defeat and does not play fair. In writing this book, I have learned how true that is. Our enemy kills dogs without creating a massive outcry. Defeating that enemy requires an increase in public awareness and scientific curiosity.

Clarifying where we are:

- The NDV spinal tap MIGHT have a benefit in some cases, depending on the type of neurologic problems present. However, the main investigator on this procedure is doubtful.
- The NDV serum or NDV as IV treatment before the onset of neurologic problems MIGHT save the lives of these dogs, but it would take a very large study to establish that and eliminate all the factors. A university researcher has reportedly taken a closer look at the NDV serum but has said nothing publicly and it is unknown whether anything will come of that.
- Despite the development of a distemper vaccine in 1950, dogs continue to get sick and die of distemper. So more work remains to be done.
- Some agency needs to be tracking how many cases there are and what the survival rates are in the populations at large. In some places, like Los Angeles County, canine distemper is now locally required to be reported. But there is still no one keeping track of the overall picture. If the public knew how big a problem a canine distemper is around the world, there may be more of a push for research.
- Even if NDV does no good, then many dogs are recovering and having a decent quality of life after a distemper attack. [Nilla, Coal, Max, Icy, Kaliber, and many,

- many others.] Ordinarily, those dogs would have all been euthanized. If time is all that was needed to save them, we are giving up on dogs way too early.
- Save Dogs From Distemper ran into the limitations of a social media campaign. The power of social networking can only go so far. But as I say, you don't know if something will work until you try.
- More education is needed on the diagnosis of canine distemper cases. Despite the
 recent shifts to giving dogs a chance to live, some clinical vets still shrug and say
 they can't know for sure they have a distemper case until the neurologic stage
 begins or that they can't do anything for the dog except to euthanize.

Action plans

For anyone willing to pick this up and run with it, I see two possible paths. The smallest, simplest plan for an interested veterinarian, shelter or rescue group has already been explained by my friend Jim Radke:

- You'd need a budget of at least \$10,000.
- A veterinarian would need to make the NDV serum and document the treatment of dogs in the pre-neurologic stage of the disease. Each case would be confirmed by a lab test, although treatment would not wait for the results of those tests. That's about half your budget.
- That veterinarian would need to hire a medical writer ahead of time to ensure that the measurements are properly made and scientific procedures followed. That's the other half of your budget.
- The medical writer would compile the information into charts and presentations that the veterinarian would take to a conference.
- The veterinarian would have to be willing to stand in front of a crowd of skeptics and explain what they did and what results they found. But they would have good records, lab reports and stats to back them up.
- Most in this crowd will not believe this, but perhaps a handful might be willing to talk about what happens next. Then, who knows?

But what if all the resources needed were available? What could be done to prove the value of these treatments beyond any doubt? To meet all the requirements of a well-designed study? To address all the questions from the skeptics? As I worked through the various drafts of this book, I received an unexpected invitation to apply for a program that funds lifesaving ideas for animals in need. Although my application was not selected, it allowed me to think about what the ideal study might be like.

While working out those ideas, I came upon the ancient story of Odysseus and Argos. After being away for 20 years – fighting in Troy and then lost in his eponymous ordeal – Odysseus returns home in disguise to defeat the suitors who were seeking to marry his wife. On his way up to his house, he encounters the dog he left behind, Argos. After two decades, Argos had become old, tired, sick and flea-infested. The dog recognizes his master and is barely able to wag his tail in recognition before dying.

Looking back, I realized my journey has been more than 20 years, and dogs with distemper still wait for an effective treatment for this disease. But as Galen did in his final days, dogs will endure much pain and suffering on behalf of their humans. It is time to repay their loyalty.

Even though my proposal was not chosen, it helped me clarify what was needed, but I welcome amendments by whoever picks this up. Here is what I wrote, with some minor revisions:

The Argos Trial

Because dogs have waited long enough

Prediction: If Dr. Alson Sears' 12-hour NDV serum treatment for dogs in the preneurologic stage of canine distemper could be put to the test by approved scientific methods they would dramatically out-perform the survival rates of traditional veterinary medicine. The result would be faster recoveries, fewer cases reaching the neurologic stage, a decrease in long-term symptoms and more distemper dogs surviving.

Double-blind study

Two batches of dog serum would be made, each enough to treat 20 adult dogs. One would be made following Dr. Sears' protocols for 12-hour NDV induced serum. The other would simply be dog serum with no special treatment given. The vials or bottles of serum would be labeled and coded so that no one would know which was which until after the trial was over. A sick dog would be treated from only one batch or the other. No mixing of batches.

Healthy dogs would not be given the disease. Instead, we would find distemper cases as they occur in veterinary clinics, animal shelters and among rescue groups. Ideally, investigators would find a large number of sick dogs in one location. However, this will probably require the need to travel to the site of outbreaks, ensure data is collected properly and treatments performed consistently.

The risks and possible outcomes will be explained to owners or caregivers of dogs involved in this study, and they would need to sign forms granting informed consent.

In addition to at least one veterinarian, the project would need a medical writer or a professional trained in collecting scientific data. They would either write a journal article or prepare a presentation for a conference. Other staff may be needed.

When a sick dog is identified, these would be the steps taken:

- Complete record of symptoms, overall health and description of the dog including age, breed, color, size, weight, temperature, etc.
- The owner or caregiver should be reminded of the importance of documenting the outcome throughout the treatment.
- Samples taken to test for distemper, mostly likely conjunctiva smear sent to a lab for PCR testing.
- If possible, additional samples may be taken to actually measure the number of virus particles at the onset.
- All standard protocols of supportive therapy of a distemper dog would be followed in each dog. This would include antibiotics and nebulizers for pneumonia, efforts to stimulate the appetite to keep the dog eating and addressing other symptoms as they arise.
- The dog should be within the first 6 days of the onset of symptoms and NOT be in the neurologic stage of the disease.
- The dog would be treated with serum according the to the protocol: 1 ml per dog plus 1 ml per 10 lbs, 12 hours apart for 3 treatments. So, 20 lb dog would be 3 ml sub Q 12 hours apart 3 times. [or to say it another way, within 24 hours: At 0 hour, 12 hours and 24 hours.]
- Observation and documentation of symptoms of the dog in the following days/weeks.
- Follow-up distemper testing and checking virus particle levels as appropriate.
- Measures could be taken to permanently preserve samples of the virus and blood serum.
- Photos and videos taken at regular intervals from intake to at least the end of the first month of illness.
- Documentation of outcome, either the death of the dog or complete record of symptoms, size, weight, temperature, etc.

Any dogs who reach neurologic stage would NOT be automatically euthanized. We believe that even in this stage many dogs can eventually recover with proper nursing care. If a dog keeps eating, there is hope. If a dog no longer can eat, or if seizures become unstoppable or the dog is paralyzed to the point of complete immobility, euthanasia could be considered with the consent of, or at the direction of the owner/caregiver.

Someone should perform a mass spectrometry comparison of the NDV serum and the control serum to see whether a unique compound could be identified.

One other thought and/or question: Since humans can donate plasma without losing blood cells, could NDV-induced serum be collected from dogs in the same way? It might allow for more serum to be collected with even less of a risk of shock to the donor dog.

A few words of advice

BE SKEPTICAL

Doubt until you see verification. Don't oversell the possibilities. Don't make promises you can't keep. Don't let enthusiasm overcome the skepticism, let the facts do that. Respect the scientists. Their brains are hardwired for this. They don't want emotion to muddle up their results, which is why they keep people who are not trained scientists at arms length. But I have to believe that if you stay with the facts, you have a better chance of being listened to.

BE HOPEFUL

But you should also practice what I call "cautious optimism." There is a worthwhile goal here. This may prove to save the lives of dogs and spare their human families untold grief. If anything, we might be able to show the mortality rates in distemper cases can be significantly reduced. According to Cornell University, the death rate is now at 50 percent for adult dogs and 80 percent for puppies. The chance to save a lot more of those dogs makes this worthwhile.

BE PATIENT AND UNDERSTANDING

Know that the people who contact you are often in crisis. They need your support and compassion. Don't throw blame at people. Sometimes vaccinations fail. It doesn't matter as much how the disease happened. What is important is what they need to know and what they need to do at that time. Promote vaccination whenever possible, but without the guilt trip.

BE RESPECTFUL

Respect the veterinarians, the clinics and their staff. If they do not choose to use these treatments, they have good reason to. They have to make the best judgment for the long-term health of their patients, clients and staff. One bad decision could end the business and leave everyone without the care and services they provide, so many will not be willing to make a leap of faith on your behalf. They have a business to run and they must calculate the costs, benefits and risks in a way that works for them.

BE HONEST

Be honest to the humans desperate to save their canine friends. Make sure they understand the risks. Not every dog can be saved, but more are saved when their owners and vets are willing to give them a chance. Don't take advantage of anyone desperate to save a pet. Don't pretend to be something you are not. Don't use terms like "miracle cure" or make guarantees. Explain the realities as well as you can. But remember that unless you are a veterinarian, you are not an expert. Reading this book does not make you an expert. Writing this book does not make me an expert. These are serious medical procedures meant for veterinarians who have assessed the risks and benefits and are willing to proceed. This is not a way for people to treat their dogs at home without going to a veterinarian.

BE ACCEPTING

Don't chase people. If a dog owner or vet or scientist does not want to hear about the treatments for canine distemper, accept that. Leave them be. Instead, let the willing and interested find you on their terms.

STAY SANE

Save your sanity. Don't let the cause take over everything. Don't miss out the big moments of your life. Seek balance and other interests. Give yourself distance and a way of disconnecting when you need to. Don't hold onto the frustration, the losses and disappointments. Let them go. Be grateful for what you have and try not to despair over what you do not.

Do what you can, with what you have, where you are.