



MEDICAL NEWS

Could Vaccine Tested in Zoo Species Help Ferrets?

Recently the A.F.A. and many others received a letter urging support for the approval and marketing of a new canine distemper virus (C.D.V.) vaccine. The letter (published below), written by Richard J. Montali, D.V.M., Chairman of the Canine Distemper Vaccine Committee of the American Association of Zoo Veterinarians, notes that Merial Ltd. [manufacturer of IMRAB-3, the only rabies vaccine approved for use in ferrets by the U.S. Department of Agriculture (U.S.D.A.)] has an experimental C.D.V. vaccine that has proven to be safe and effective in zoo species and that has the potential to serve the pet ferret market. A.F.A. is drafting a letter to Merial concerning this important topic.

Canine Distemper Vaccine Alert: A Recombinant Vaccine Potentially Available for Exotic Carnivores and Ferrets—Initiation of a Letter Campaign

Currently there are no licensed C.D.V. vaccines commercially available that can be used safely in C.D.V.-susceptible exotic carnivores. The modified-live products [*Ed. Note:* containing modified live viruses] are dangerous because they can induce clinical canine distemper in most susceptible carnivores exhibited in zoological parks. There have been a number of outbreaks of canine distemper both in zoos and in the wild, with no capability of protecting these animals from the ravages of this disease.

Many are endangered species. Existing modified-live canine distemper vaccines labeled for ferrets have been associated with unpleasant reactions and in some cases with immunization failure [in zoo carnivores]. Pet ferrets are a growing multi-billion dollar industry that could provide a substantial market for a safe and effective canine distemper vaccine.

Recently, Merial Ltd. in Athens, Ga., has successfully marketed a multivalent vaccine [inoculation against more than one virus] for dogs (Recombitek series) containing a recombinant (canary pox vectored) canine distemper vaccine component that is not infectious. In 1997, Merial provided the recombinant distemper component as an experimental monovalent vaccine [inoculation against only one virus] to the American Association of Zoo Veterinarians' vaccine committee for clinical trials in a number of carnivore species.

Challenge results in ferret-crosses showed the recombinant vaccine to be entirely safe and efficacious, and seroconversion was acceptable in most of the zoo species vaccinated, including felids.

According to Merial, this vaccine is supposed to be developed as a monovalent ferret product that could be used (off-label) for zoo carnivores. But it is unclear when and if this will really happen. Merial Ltd. holds a biological product that potentially could remove the threat of canine distemper from these valuable species. We therefore urge that as a Zoo or Wildlife Park, a Conservation Organization or a Ferret Association, you write a letter directly to Merial Ltd. voicing your needs for this very important vaccine.

Please do this as soon as possible. Send the letter to
Dr. Zack Mills
Director of Marketing
Merial Ltd.
115 Transtech Drive
Athens, GA 30601

Thank you,
Richard J. Montali, D.V.M.
Chairman, Canine Distemper Vaccine Committee,
American Association of Zoo Veterinarians
Head, Department of Pathology, Smithsonian National
Zoological Park

U.S.D.A. Approval Costly for Small, Ferret Market

Deborah Kemmerer, D.V.M., West End Animal Hospital, Newberry, Fla., attended the recent American Veterinary Medical Association Annual Convention on behalf of the A.F.A. and spoke to representatives from Merial Ltd. and Schering-Plough, manufacturer of the GALAXY-D C.D.V. vaccine, concerning Dr. Montali's letter. Her thoughts concerning this divisive issue are as follows.

According to a veterinarian who works for Merial, their experimental, canary pox-vectored vaccine (canary pox virus that has been inserted with C.D.V. protein) is being used in zoos currently. The company has not decided yet whether it wants to go through the rigors of getting the vaccine approved by the U.S.D.A. for ferrets but probably would do so if it received enough encouragement from ferret owners.

The recombinant, avian-pox vaccine represents a new vaccine technology, and the likelihood that the vaccine will produce severe reactions is very small. The vaccine is also adjuvant free, which means that it does not cause antigenic (allergic) stimulation of the skin where it is injected and, therefore, cannot be implicated in causing vaccine-related tumors.



AccuPath Closed

On August 18, Dr. Bruce Williams, D.V.M., D.A.C.V.P., announced that his pathology service, AccuPath, will no longer accept cases for processing. According to an e-mail from Williams, the laboratory that had previously worked with Accupath is no longer willing to provide a reasonable turnaround on cases, which would hamper Accupath's ability to provide timely analyses to veterinarians.

Williams has analyzed the tissue from many ferrets over the years to study diseases such as E.C.E. and hyperadrenocorticism. He has spoken at A.F.A. conferences, and his contributions to ferret medicine have been greatly appreciated.

Schering-Plough's GALAXY-D has been in use for quite a long time. Although many ferret owners and veterinarians use it because the incidence of vaccine reactions is thought to be low, there is no evidence that this vaccine confers immunity because the vaccine has not been challenge tested (exposing vaccinated animals to the virus to test immunity) in ferrets. According to a Ph.D. scientist who is in charge of the company's C.D.V. vaccine research, Schering-Plough is currently performing antibody testing for this vaccine. In other words, the company is measuring the antibody concentrations of vaccinated ferrets and comparing that data to studies in dogs to make a reasonable assumption of what concentration of antibodies is needed to confer protection on ferrets.

At this time, Schering-Plough does not intend to perform challenge studies or to get the vaccine approved by the U.S.D.A. The company is simply trying to show that the vaccine is safe and reasonably might be expected to work. GALAXY-D is a modified live-mammal-cell vaccine and appears to be relatively nonreactive, but this is a traditional adjuvanted vaccine. Schering-Plough might also be persuaded to submit the vaccine for approval if they receive enough input from ferret owners.

Traditional adjuvanted vaccines have extra proteins attached to the vaccine that help activate the immune system and give the vaccine an extra boost in conferring immunity. It is the adjuvants in feline vaccines, however, that have been implicated in the possibly vaccine-related sarcomas in cats. Any repeated protein stimulation or physical assault on an area of the body has the potential for inducing tumors.

For an animal vaccine to receive U.S.D.A. approval not only must antibody titers be measured, but also challenge studies must be done. A nonvaccinated control group must also be exposed to the virus and even those animals that survive the disease are killed and necropsied. These tests cost ferret lives, so those who wish to have more vaccines available to ferrets must decide whether or not to support the killing of a few ferrets to benefit a larger number later.

In addition, challenge testing is a lengthy and expensive process for the vaccine manufacturers. They must be able to see an economic benefit from the U.S.D.A. approval process. Many people dislike FERVAC-D because they feel that United Vaccines has not been responsive or caring in dealing with the issue of vaccine reactions, but ferret owners tend to forget that United Vaccines is the only company that has even bothered to submit its C.D.V. vaccine to the U.S.D.A. process for approval in ferrets and that has incurred the non-trivial expenses related to this process.

My personal concern is that there might not be enough room in the market for three approved vaccines. It is possible that only one company can make enough money to justify the expense of U.S.D.A. approval. For that reason, both Merial and Schering-Plough might elect not to pursue approval.

If a letter writing campaign is mounted, I strongly urge people to be positive and polite in their letters. A company is not likely to respond well to sentiments such as, "If you greedy, heartless *&#! cared anything at all about animals, you'd have this vaccine approved."

In memory of
a positive,
energetic,
enlightened
voice for the
ferrets.



Photo by Patty Asheuer

The American Ferret Association is pleased to announce the establishment of the Pamela Slack, D.V.M., Memorial Ferret Medical Research Grant Fund. Contributions to the fund are being accepted.