

Prozac for Your Dog

A new canine version of Prozac will soon be available. It is just the latest in pet-specific drugs, as pharmaceutical companies increasingly chase this lucrative market.



Dogs on Prozac: A newly reformulated version of the popular antidepressant, made chewable and tasty for dogs, can help relieve symptoms of canine separation disorder.

Credit: Technology Review

Anxiety-ridden dogs that go berserk when left alone by their owners will soon have a new treatment option--a reformulated version of the antidepressant Prozac, known generically as fluoxetine. To be marketed under the name Reconcile by Indianapolis-based drugmaker Eli Lilly, the drug is chewable and flavored with a doggie-delectable zing. It is the latest in a string of recently approved canine drugs, reflecting the growing market for pet pharmaceuticals.

The U.S. Food and Drug Administration approved Reconcile in February after clinical tests in dogs showed it significantly improved symptoms of separation anxiety, a problem that strikes 10 to 20 percent of canines with varying severity; dogs affected may bark, chew household items, or urinate in inappropriate locations when left alone. The drug, which will go on the market in April and will be sold along with a behavior modification program, is the first product introduced by a new division of Lilly devoted entirely to pets.

Most drugs used for companion animals, as the pharmaceutical companies refer to pets, are human drugs that veterinarians prescribe off label. The cost of drug development is so high that few companies are willing to spend the money it takes to develop a canine-specific drug, or to run clinical trials testing human drugs for dogs or cats. But as more

and more Americans view their pets as family members that is changing, and a new market is opening up: medications are being reformulated and sold in animal-friendly forms, and drugs that never quite made it through the human testing process are being revived.

"I think the human-animal bond has changed in the last few years," says Dawn Boothe, a veterinary internist and clinical pharmacologist at Auburn University in Auburn, AL. "People are starting to say, 'My animal is a member of the family, and I am willing to pay the cost of drugs that were developed for humans.' I think the pharmaceutical companies have picked up on that."

Two other pet drugs were approved early this year: the first diet drug for dogs, Slentrol, and the first motion-sickness drug for dogs, Cerenia. Both are being sold by New York-based Pfizer. Unlike Reconcile, neither drug has ever been prescribed for humans. Dirlotapide, the generic form of Slentrol, was originally tested for human use, but its side effects were deemed intolerable. (Compounds in the same class are being tested for their cholesterol- and triglyceride-reducing properties in humans.)

Veterinarians are excited about the prospect of drugs that have been tested specifically in pets. "Prozac is a drug we've used for years," says Boothe. "But having it approved in dogs gives us a level of confidence regarding safety and efficacy in that species." Although scientists have tested different drugs in cats and dogs, Boothe and others say it has been difficult to get pharmaceutical companies interested in developing them. Nicholas Dodman, an animal behaviorist and veterinarian at Tufts University in Medford, MA, says a drug currently used to treat dementia in humans is helpful in treating an animal form of obsessive-compulsive disorder, but so far no pharmaceutical company has opted to develop it for the pet market.

Lilly's companion-animal division is testing molecules from its vast library of compounds to treat obesity and other conditions in pets, a process they hope will produce some returns on the original investment in those molecules. "Even if you assume only two million of the dogs with anxiety disorder get treated," says Dodman, "with owners paying \$50 per month, that's a viable market."