

**Wildlife rabies vaccine not effective in skunks (Portland Press Herald (Maine)/The Associated Press) 9/3**

Oral wildlife vaccine packets used to help control rabies in wildlife are being studied to evaluate their safety and efficacy in wildlife. So far the field trials have shown the vaccine to be effective in raccoons, coyotes, and foxes but it has not been food effective in combating rabies in skunks. The olive green marshmallow-flavored bait packets, which are slightly bigger than a quarter, are not harmful to your pets if eaten.

*Comment: Even in this day and age we are still learning about this age-old deadly virus and how to combat it. Remember to keep your animals' rabies vaccines current. Note: at this time there is no oral rabies vaccine available - only the injectable rabies vaccine administered by a licensed veterinarian is acceptable. SEM*

**Injection-based "Zeutering" has pros and cons (KCBS-TV/KCAL-TV (Los Angeles)) 9/5**

Chemical sterilization of male dogs using Zeuterin injections is an alternative to surgical neutering but isn't widely used. The procedure does not require general anesthesia but light sedation is still needed. The cost is similar to the surgical procedure. "Zeutered" males retain the appearance of an intact male. Research has shown that it is 99% effective in making the males infertile but it does not curb the behavioral issues the surgical procedure helps to control. "Zeutered" males still ardently seek females in heat and can exhibit sex-related aggression.

*Comment: This injectable product was on the market a number of years ago and due to lack of sales was taken off the market, a few years ago a new manufacturer has made it available again. How do you know which dogs fall into the 1% or so that remain fertile? And if the behavioral issues, which are related to testosterone production, are not curbed then health issues – prostatitis and testicular tumors - probably will also not be lessened by this procedure either. SEM*

**Novel virus may explain dozens of canine illnesses and some deaths (Akron Beacon Journal (Ohio)) 9/6**

**Canine circovirus update: Experts caution against premature conclusions (ChicagoNow.com/Steve Dale's Pet World blog) 9/18 (KING-TV (Seattle)/The Pet Dish blog) 9/18**

A novel circovirus has been identified in conjunction with a number of illness and deaths in dogs in Ohio. Circovirus is a virus that has not caused disease in dogs previously. Ill dogs had severe acute bloody diarrhea, vomiting, decreased appetite, and neurological issues as well as fluid accumulation in the abdomen and chest cavity caused by acute necrotizing vasculitis which causes fluid to leak out of vessels. Studies are continuing.

*Comment: Studies are still ongoing about this virus as there is much to be learned about it. This virus has not been isolated from all the dogs that became ill so it is unclear what the virus' role in the disease is. Whether the virus by itself can cause disease, whether co-infection with another pathogen is needed to cause disease, or whether it is an innocuous virus is still unknown. The only other circoviruses that are known to infect mammals are found in pigs and can cause similar signs as those seen in affected dogs. SEM*

### **Investigational vaccine shows promise in leishmaniasis control (Nature (free content/Spoonful of medicine blog)) 9/11**

Leishmaniasis is caused by 20 different species of a single-cell parasite transmitted by sand flies. In people it causes “black fever” and three distinct clinical syndromes. The disease can be treated with specific heavy duty antibiotics and anti-cancer drugs but severe side effects to such treatments are common. Investigators in India have developed a new vaccine that prevents visceral leishmaniasis in mice and hamsters. A different type of vaccine is being developed by a group in Seattle, WA.

*Comment: Leishmaniasis is also a disease of dogs so it will be interesting to see if either of these vaccines might be developed to be used in dogs too. SEM*

### **Toxic toads pose threat to pets (Maricopa Monitor (Ariz.)) 9/17 Bufo toads can be deadly for animals (The Tampa Tribune (Fla)) 9/26**

The Colorado River toad and the Bufo toad (an introduced species), are large toads (the Colorado River toad can be bigger than a small cat), secrete toxic substances that can be very hazardous to dogs. Signs of a toad encounter, witnessed or not, are readily apparent - salivating, incoordination, brick red color to the gums, and possibly convulsions and occasionally death in dogs. Immediate treatment is aimed at removing as much toxin as possible by repeatedly flushing the mouth with water for several minutes as well as washing off any toxin from the pet’s paws and coat. Immediate veterinary care should then be sought. Toads should be captured or moved without handling and a photo taken to bring to the veterinarian for identification of the type of toad involved. Toads are attracted to standing water and areas where bugs congregate as well as showing up after heavy rainstorms.

*Comment: Yikes toads as big as small cats! I like my small New England toads! Remember when flushing out a dog’s mouth it is best to go from side to side versus from front to back – watch you don’t drown the dog in your attempt to clear its mouth of the toxin. SEM*

### **Canine cancer study may lead to earlier metastasis detection in women (MedicalXpress.com) 9/30**

Researchers have discovered a blood marker, by using canine mammary cancer as a test model, that is indicative of residual cancer cells after treatment of the primary tumor. Researchers are hopeful that these findings will help distinguish between those breast cancer patients who need additional treatment after surgery and those that don’t.

*Comment: This was a very small study but it has yielded very interesting information that will hopefully lead to a minimally invasive test that may be useful not just for humans but for dogs as well. SEM*

### **Experts: Science says dogs and owners bond biochemically (LiveScience.com) 9/30**

Several studies suggest that humans and dogs experience a rise in the feel-good hormone, oxytocin, and other pleasure inducing compounds after interacting together. Oxytocin not only

causes feel-good sensations but also has pain-relieving properties and can decrease stress and blood pressure. People whose dogs gazed at them for two minutes or longer and those who kissed their dogs had higher levels of oxytocin than other owners. Not only did the dog owners have a rise in these hormones but the dogs did too.

*Comment: Another feather in the cap of dog owners showing that it is not "inhumane" to own a dog. Also could this explain some of the reasons for different breed popularities – the loving gaze of a Golden or a Lab causing higher oxytocin levels? SEM*

### **Pet safety nonprofit makes dog dummies for crash tests (Star-News (Wilmington, N.C.)/The associated Press) 10/18**

To assess the safety of pet travel products a VA non-profit company, Center for Pet Safety, has developed canine crash-test dummies. These anatomically correct canine dummies – which include a 25 lb. terrier mix, a 45 lb. Border Collie, a 55 lb. Boxer and a 75 lb. Golden Retriever – are stuffed with sensitive computer equipment. The first products tested, with the results published in Consumer Reports, tested automotive restraints. Future tests will cover crates, carriers, barriers and other products as funding allows. Subaru of America Inc. helped to fund the restraint study after the pilot study results were published.

*Comment: Kudos to both the Center for Pet safety and Subaru America Inc. for helping make pet travel safer. SEM*

### **How dogs interpret tail-wagging language (ScienceMag.org) 10/31**

It is known that the left-asymmetrical tail wagging dogs are displaying signs of anxiety while right-asymmetrical tail wagging dogs are happy but do other dogs understand this? A study showed canine test subjects videos of dogs either left- or right-asymmetrical tail wagging. To make sure there were no other facial or body cues, the videos were also shown the same videos but with a silhouetted dog. There was no difference in the test dogs' reactions between the silhouetted or the natural dog videos – right tail wags kept the test dogs calm and relaxed while left tail wags made the test dogs anxious and their heart rates increased.

*Comment: I'm not sure why we needed a study to prove that dogs understand other dogs' body language. Now, as a veterinarian, if I could only figure out a way to right tail wag to keep my patient relaxed! SEM*

### **Immunotherapy for canine osteosarcoma yields promising findings (Bark online, The) 11/18**

A vaccine, using a modified bacteria to express a growth factor receptor common to cancer cells, has been developed by a researcher at the University of Pennsylvania School of Veterinary Medicine to treat canine cancer. Osteosarcoma is an aggressive and fatal form of bone cancer and approximately 60% of dogs die within one year of diagnosis. This vaccine causes the patient's own immune system to target and kill the tumor cells by seeking out and destroying the modified bacteria along with the cells that express the growth factor receptor. Twelve dogs have been treated to date and all are doing well. The first dog treated is alive at 570 day post diagnosis with

two others out 500 days post diagnosis. The researcher is now planning to include some nonsurgical candidates to her study and future plans may include looking at using this as a preventative measure for those breeds at high risk for the disease.

*Comment: While this was a small study but the results are quite remarkable and encouraging. The word "vaccine" takes on a whole new meaning with usages such as this. SEM*

**Gene therapy shows promise for treating dogs with hemophilia (MedicalXPress.com) 11/19**

Researchers at the Medical College of Wisconsin inserted a functional gene into a harmless virus to deliver the gene to platelet-producing stem cells to successfully treat hemophilia in dogs. With hemophilia, platelets do not work properly causing uncontrollable bleeding and is typically treated with coagulant injections which can sometimes cause immune reactions. Three dogs were enrolled in the study; two dogs had no episodes of bleeding during the two and ½ year study and none of the dogs had any immune reactions to the treatment. Scientists hope that this approach may be used to treat the disease in humans.

*Comment: This was another small study but that again has yielded very interesting results that will hopefully lead to new treatment options for humans suffering from hemophilia. SEM*