

Canine brucellosis cases in Mich. investigated (MLive.com (Michigan) (free registration)) 12/1

Three cases of canine brucellosis were investigated by the Michigan Department of Agriculture and Rural Development in the last four months of 2013. The investigations led to six dogs having to be put down and three others quarantined. The dogs were of various breeds and were from three separate breeders and all from different counties in Michigan. No humans exposed to the affected dogs have shown any symptoms of becoming infected.

Brucellosis is a reportable bacterial disease that in humans causes undulant fever or Mediterranean fever and in dogs can cause reproductive problems, eye abnormalities, and severe back pain from spondylitis – an infection of the spinal column. Brucellosis can be transmitted from dogs to humans through exposure to birthing fluids and other bodily fluids. Dogs stay infected for life. To prevent spreading the infection intact animals should be neutered and infected dogs should be isolated from other dogs. For a breeding kennel euthanasia of infected dogs may be necessary.

Comment: This is a good reminder to NOT get complacent about having our breeding dogs tested and requiring proof of recent brucellosis testing when considering a breeding. With the in-hospital test kit back in stock, brucellosis testing can now be done at your veterinarian's office again. SEM

Shortage of canine heartworm treatment to continue (Plain Dealer (Cleveland), The) 12/3

The only FDA-approved treatment for canine heartworm disease, Immiticide, has been in short supply since 2009 due to problems importing the product's active ingredient from Europe. The sole U.S. drug manufacturing plant is now facing shutdown at the end of 2013. This shutdown will cause further shortages of the drug in the U.S., necessitating limited importation of the drug from Europe. Immiticide will be available through Merial on a case by case basis.

Comment: This is another important reason to be diligent in maintaining your dog's monthly heartworm preventative. Coupled with the fact that there is evidence of some heartworms becoming resistant to preventatives – at this time this appears to be a small issue but needs to be monitored through testing – this is also an important reason to have your dogs tested for heartworm disease yearly. SEM

Secrets of the canine brain (Wall Street Journal (tiered subscription model), The/Speakeasy blog) 12/4

Scientists are looking into just how dogs think. MRI studies were performed on thirteen awake dogs trained to be acclimatized to an MRI machine. The brain scans were then done while the dogs were given hand signals, one which would indicate a treat was coming and one which meant no treat was coming. The brain studies revealed activation on the caudate region of the brain when the treat signal was given. What was interesting in that a little under half of these dogs were trained service dogs and when they were given the treat signal there was more activation in their caudate region versus in non-service trained dogs. Whether this was due to training, genetics or other factors is not known but leads to further questions about how dogs think.

Comment: This study gives us just a little look into the workings of the canine brain. It brings up more questions – such as which came first being trained to be a service dog causing the higher activation in the caudate region or a higher activated caudate region making the dog a better candidate for service work? Are there breed differences or differences between the type of job the dog performs? It will be very interesting to see answers to these and other questions. SEM

Researchers poke holes in logic behind U.K. breed bans (Telegraph (London) (tiered subscription model), The) 12/3

Research suggests that dangerous breeds outlawed in Britain may be no more unsafe than other breeds. The study suggests that these dangerous breeds just attract bad owners who consider these breeds as “weapons of status dogs”. The type of person attracted towards certain breeds and certain breed behaviors, which they encourage, may be a better predictor of a dog’s aggression. These dog owners were less likely to treat their dog well. This study provides good scientific evidence why breed specific legislation is doomed to failure, and gives the general public a false sense of security about non-banned breeds being safer.

Comment: Once again it is the deed, not the breed. Any breed of dog can be dangerous in the wrong hands or under the wrong circumstances. SEM

Canine mammary tumor study examines role of genetics (PhysOrg.com) 12/9

A Norwegian veterinarian’s doctoral research looked at known risk genes in dogs for mammary cancer. A large variation of these genes was found from breed to breed. The results of these analyses indicated that variants of the estrogen gene area associated with the risk for developing canine mammary tumors. The investigator also showed that linking detailed mammary tumor diagnostics to genetic mutations could help to chart specific genes that could lead to the growth of tumors and to more malignant types.

Comment: Information about mammary cancer is flowing back and forth between the human and the canine side. The more information we can gather the better we can become at preventing, diagnosing and treating this devastating disease. SEM

Research explores genes involved with canine osteosarcoma (PhysOrg.com) 12/11

Researchers from Sweden and the Broad Institute looked at three different breeds at increased risk of developing osteosarcoma, a bone cancer. The study demonstrated that each breed has its own risk genes but these genes come together in common disease mechanisms. Many of the genes are known cancer genes in humans but others are completely new. The researchers studied one of these newer risk factors and found a new regulatory signal that leads to increased gene expression in human bone cancer cells. The researchers are continuing to study the identified risk factors to understand better how they affect tumor development and how they respond to different types of treatments.

Comment: Another important study that is helping us understand another serious type of cancer. SEM

Canine herding breeds are a smart investment, study finds (Sydney Morning Herald (Australia), The) 12/15

New research looking at herding dogs estimates that the value of the canines, over their 10 year working life spans, at around \$40,000. The dogs are much more efficient than any quad or motorbike oftentimes getting the work done in one-tenth the time. An added benefit is that the farmers have a constant companion and reliable partner to help them out on their farms which can help farmers deal with mental health issues as well.

Comment: Hard to put a price on the value of a good dog but this study does just that! SEM

How dogs help prevent allergies in children (Time.com) 12/16

Researchers from the University of Michigan using mice looked at how growing up with pets may protect against allergies. They found that microbes, specifically *Lactobacillus johnsonii*, that live in the dog dust helped to reshape the mice gut organisms which in turn influenced the mice immune response and therefore their ability to fight off certain allergies. Results of future studies may look at manipulating gut bacteria, with probiotics or other microbial strategies, to help protect children from allergies.

Comment: This is an interesting study but rather than developing medical treatment to protect against allergies or asthma why not just buy a dog or cat? This type of research is already being used in our canine nutrition and is the reason that many pet foods have bovine colostrums added to them. The intestine is actually our and our dogs' biggest immune organ! SEM

How dogs protect your heart (Medscape (free registration)) 12/17

The growing body of evidence, added to by recent research supports the cardioprotective benefits to owning a pet, especially a dog. Owning a dog can lower the risk of heart disease by various means: by lowering blood pressure and high cholesterol, by being more active (and therefore possibly weighing less as well), by lessening stress, and by providing motivation and encouragement. Pet ownership, especially owning dogs, was linked to increased survival.

Comment: This report told us what many of us already know – dogs are good for us! Now if you have more than one dog does the benefit increase accordingly??? SEM

Dogs' cosmic connection dictates defecation preferences, study suggests (Los Angeles Times (tiered subscription model)) 1/3

Following after studies that showed cows align with magnetic field lines this study looked at 70 dogs of 37 different breeds and found that dogs prefer to point along the north-south axis, when magnetic fields are stable, when defecating. During the research study the magnetic field was stable only 30 % of the time so the researchers caution that more work is needed.

Comment: *An interesting trivia fact to use at the next dinner party 😊. SEM*

Doggie-paddling animals are really running underwater (Discovery) ¼

A new study looked at leg and paw movements of various breeds, from a Yorkie to a Newfoundland, as dogs swam in a rehab pool. The findings revealed that the dog paddle's leg and paw movements are essentially the same as a trot on land but their legs moved faster and slightly beyond the range of motion of a trot. The study was undertaken to help understand how land-living animals may have evolved into water dwellers (like porpoises and dolphins).

Comment: *Another interesting trivia fact to use at the next dinner party 😊. SEM*

Red Cross and Penn veterinary school develop pet first aid app (Philadelphia Inquirer, The) 1/16

A University of Pennsylvania School of Veterinary Medicine veterinarian collaborating with the Red Cross has created a first aid application, for Apple and Android mobile devices, for pet owners to use in an pet health emergency. With just the right amount of information to use during an emergency, and costing 99 cents, the app is separated into dog and cat sections. It also helps pet owners find the nearest veterinarian or pet friendly hotel. The app is available from the American Red Cross and is called "Pet First Aid".

Comment: *Something well worth having. SEM*

"Most interesting man in the world" aids fight against canine cancer (Courier-Journal (Louisville, KY) (tiered subscription model), The/The Associated Press) 1/20

The actor in the DosEquis ad is helping to raise money for the Morris Animal Foundation. An online commercial draws visitors to the Orvis Cover Dog contest, each vote costs \$1.00 and proceeds go to the Morris Animal Foundation. Search Orvis Cover Dog Photo for more information.

Comment: *It's great to see someone famous giving something back to help our canine friend. Cast your votes now. SEM*

Company testing goose antibody treatment for parvovirus (Minnesota Public Radio/Statewide blog) 1/23

Dogs and puppies that contract parvovirus infection may have a new treatment available soon. Currently parvovirus treatment basically uses supportive care and no specific pharmaceutical treatment is available. Avianix, a company based in Grand Forks, has developed the goose antibody treatment. Initial testing of the product showed the majority of the dogs recovered in 24 hours when given this (2 dogs did die in this study but this was felt to be due to delayed diagnosis rather than product failure) versus a week or more of recovery using symptomatic care. Field trials are now being initiated.

Comment: While preventing parvovirus by proper vaccinations is a better course of action, what a great boon this would be in treating parvovirus for those who aren't so lucky and develop parvovirus. SEM