

## Bovine Trichomoniasis Testing Study



Recently KSVDL participated with 17 other U.S. laboratories in a blinded study to assess Trich PCR test accuracy. The objective of the study was to assess different laboratory procedures, sample incubation times and temperatures and their effects on diagnostic sensitivity and specificity.

An independent company inoculated multiple TF InPouch™ sample media with varied concentrations of Trich organisms (including negative samples). All samples were then sent to each laboratory to arrive on the same week-day.

For the eighteen participating laboratories, the diagnostic sensitivities ranged from 27.3% to 100.0%, and the specificities ranged from 90.0% to 100.0%.

**KSVDL correctly identified all positive and negative samples.**

The results of this study do suggest that not all laboratory procedures or laboratories currently provide accurate bovine Trichomoniasis test results.

The KSVDL understands that our Trich testing policies (the need to have the samples to us within 72 hours of collection, we incubate the pouches/tubes for 48 hours upon arrival before testing, and each bull needs to be collected in individual media pouches/tubes) are sometimes difficult to comply with. But we feel it is important to follow these guidelines to result in the most accurate test outcome.

For questions concerning this study or Trichomoniasis testing, please contact Dr. Gregg Hanzlicek at 785-532-4853 or [gahanz@vet.k-state.edu](mailto:gahanz@vet.k-state.edu).

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Association of Veterinary  
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## Ebola Virus and Dogs

By Dr. Gordon Andrews

When a Spanish nurse contracted Ebola virus infection caring for a patient that had been flown from West Africa to Spain for treatment, Spanish public health authorities ordered her pet dog to be euthanized because of the potential risk of the dog transmitting the virus to other people or dogs. This led to a public outcry by dog owners and an immediate search for what was known or not known regarding the role of dogs in the epidemiology of Ebola virus infection. The fact is that very little is known. This lack of knowledge combined with the virulence of the disease in humans leads to decision making based on fear, emotion, and an overabundance of caution. In a second incident, another dog owning nurse, Nina Pham, in Texas contracted Ebola while caring for a patient that had recently arrived in the US from West Africa. Public health officials in Texas decided to quarantine and observe this dog, Bentley, and he remains healthy.

The purpose of this article is to briefly review the current events, state of our knowledge about Ebola and dogs, and present statements from credible medical and veterinary organizations based on the available evidence. It is not intended, nor should it be interpreted as a public health recommendation by the KSVDL. The reader is referred to web links throughout this article for more detailed information and updates as more information becomes available.

There are no documented cases of Ebola virus infection in dogs in Africa or elsewhere in the world, and no documented cases of dogs passing the virus on to people. In the present Ebola outbreak there have been no reports of dogs becoming sick with Ebola. However, there have been no experimental studies to investigate Ebola virus infection in dogs and it is unknown if dogs are capable of contracting and then transmitting the disease

It appears that dogs will seroconvert if exposed to the virus, but it remains unknown if viral replication



*Figure 1. Electron micrograph of Ebola virus*

occurs in dogs. There is one study that investigated 439 dogs during a human Ebola outbreak in Gabon/ Republic of Congo during 2001-2002. The authors found 31.8% seroprevalence in dogs from villages in which there were infected animal carcasses and human cases, and a direct association between seroprevalence and the distance to the Ebola-epidemic area. None of the dogs showed any clinical illness, however. No virus antigen could be detected, no viral sequences were detected by PCR methods, and no virus could be isolated from any of these dogs. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3298261/>

Nothing is known regarding the potential role dogs could play as mechanical vectors of the virus. In order for this to occur, the dog would have to come in contact with blood or body fluids of a person sick or dead with Ebola and then transfer to a second person by direct contact through broken skin or mucus membranes.

Experimental work is needed to clarify the potential role dogs may have in the epidemiology of Ebola. Based on what is currently known, the following statements have been made by medical and veterinary organizations:

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## Ebola in dogs | *Continued from page 2*

### World Organization for Animal Health (OIE)

"There is no evidence that domestic animals play an active epidemiological role in the transmission of the disease to humans." [http://www.oie.int/fileadmin/Home/fr/Media\\_Center/docs/pdf/Ebola\\_fact\\_sheet\\_EN\\_Final.pdf](http://www.oie.int/fileadmin/Home/fr/Media_Center/docs/pdf/Ebola_fact_sheet_EN_Final.pdf)

### World Small Animal Veterinary Association (WSAVA)

"It is our view that available technology should allow for testing and quarantine, rather than automatic euthanasia of exposed animals." ...  
"Precedence should not be set for euthanizing pets as the exposure levels increase and fear escalates."  
<http://www.wsava.org/article/ebola-and-dogs>

### The Centers for Disease Control and Prevention (CDC)

"CDC, the US Department of Agriculture, and the American Veterinary Medical Association do not believe that pets are at significant risk for Ebola in the United States." Further, the CDC "recommends that public health officials in collaboration with a veterinarian evaluate the pet's risk of exposure to the virus (close contact or exposure to blood or body fluids of an Ebola patient). Based on this evaluation as well as the specific situation, local and state human and animal health officials will determine how the pet should be handled." "CDC is currently working with the U.S. Department of Agriculture, the American Veterinary Medical Association, and many other partners to develop additional guidance for the U.S. pet population. Additional information and guidance will be posted on this website as well as partner websites as soon as it becomes available." <http://www.cdc.gov/vhf/ebola/transmission/qas-pets.html>

Meanwhile, Bentley, the Cavalier King Charles Spaniel owned by Dallas nurse and cured Ebola patient Nina Pham, has been tested negative for Ebola several times by the CDC, and has been released from quarantine and reunited with his owner to much public fanfare.

If a similar situation should occur in Kansas, The Kansas Department of Health and Environment (KDHE) has posted a guidance document, KDHE Ebola Preparedness and Response Plan, Management of Animals Exposed to Ebola Virus at this web site: [http://www.kdheks.gov/ebola/preparedness\\_plan/Management\\_of\\_Animals\\_Exposed\\_to\\_Ebola\\_Virus.pdf](http://www.kdheks.gov/ebola/preparedness_plan/Management_of_Animals_Exposed_to_Ebola_Virus.pdf)

## Bovine Respiratory PCR panel FALL DISCOUNT

For the months September through December, KSVDL is offering a 20% discount on the bacterial and viral respiratory PCR panels. The bacterial panel detects *M. haemolytica*, *P. multocida*, *H. somni*, and *B. trehalosi*. The viral panel detects, BVDV, BRSV, BCoV, and IBR.

The test can be completed on either tissue (lymph node or lung) or nasal/pharyngeal swabs. Only one sample is required as a single sample can be utilized for both the viral and bacterial PCR panels. The swab must be either a sterile swab moistened with saline or a **swab in viral transport media**. A "gel" bacterial swab is not acceptable.

**Fall Discount Cost:** \$33.00 for either bacterial or viral PCR panel or \$66.00 for both panels.

For more information visit our website [www.ksvdl.org](http://www.ksvdl.org) or contact KSVDL Client Care at 866-512-5650 or [clientcare@vet.k-state.edu](mailto:clientcare@vet.k-state.edu).

**Follow the link to the  
KSVDL YouTube™ Channel!**

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## KSVDL Test Updates and Information

### Toxoplasmosis

KSVDL has replaced the older Toxoplasmosis Latex agglutination test with the Indirect ELISA test.

**Species:** Ruminants, Canine, Feline, Porcine

**Sample:** Red top blood tube or Purple Top EDTA tube

**Days tested:** Monday (as volume allows), Thursday

**Estimated turnaround time:** 2 days

**Cost:** 1-11 samples \$25.00 each and 12+ samples \$8.00 each

### Swine Influenza Virus

A new Swine Influenza Virus (SIV) Antibody ELISA test is now available at KSVDL.

It detects antibodies to the highly conserved nucleoprotein (NP) of SIV in serum.

The test is useful to determine if pigs have been exposed or vaccinated against swine influenza virus and universally detects all strains of influenza A virus.

**Species:** Swine

**Sample:** Serum (red top tube)

**Days tested:** Monday, Wednesday, Friday

**Estimated turnaround time:** Same day

**Cost:** \$6.00 per sample

### Pregnancy ELISA Test

The bovine pregnancy ELISA has now been expanded to include Caprine, Ovine and Buffalo species

**Species:** Bovine, Caprine, Ovine, Buffalo

**Sample:** Serum (red top tube) for Bovine, Caprine and Ovine

Plasma (purple top tube) for Bovine and Buffalo

**Days tested:** Wednesday and Friday (Monday if volume allows)

**Estimated turnaround time:** 3 days

**Cost:** \$3.00 per sample

#### Detection of pregnancy limits:

**Bovine:**  $\geq 28$  days post breeding and  $\geq 60$  day post calving

**Caprine:**  $\geq 28$  days post breeding, no post-kidding claim offered by manufacturer

**Ovine:**  $> 35$  days post breeding, no post-lambing claim offered by manufacturer

**Buffalo:**  $> 30$  days post breeding and  $\geq 60$  day post calving

**If you have questions about any of these tests, please contact KSVDL Client Care at 866-512-5650 or [clientcare@vet.k-state.edu](mailto:clientcare@vet.k-state.edu)**

## Developing, Delivering Accurate, Innovative Diagnostic Services

*The mission of the Kansas State Veterinary Diagnostic Laboratory (KSVDL) is to develop and deliver accurate, innovative, and timely diagnostic and consultative services to the veterinary and animal health community while providing support for teaching, training and research programs.*

**1800 Denison Avenue  
Manhattan, KS 66506**

**Phone: 785.532.5650  
Toll Free: 866.512.5650**

### Continuing Education

[www.vet.ksu.edu/CE/Conference.htm](http://www.vet.ksu.edu/CE/Conference.htm)

#### **February 7, 2015**

4th Annual KSVDL Continuing Education  
Conference  
Bovine Anaplasmosis, Bluetongue, and  
Enzootic Hemorrhagic Disease

Hilton Garden Inn  
Manhattan, Kansas

For more information please contact Dr. Gregg A.  
Hanzlicek at [gahanz@vet.k-state.edu](mailto:gahanz@vet.k-state.edu) or or 785-532-4853.

#### **March 6, 2015**

Kansas State University Cattlemen's Day  
Weber Arena, Kansas State University  
Manhattan, KS

For more information contact: Dr. Dale Blasi at [dblasi@k-state.edu](mailto:dblasi@k-state.edu) or 785-532-5427

### Test Results and Schedules

**Laboratory results available On-Line All The Time!**

#### **KSVDL hours:**

**Thanksgiving:** Closed Nov. 27-28, Open Nov. 29

**Christmas:** Open all day on Dec. 24; Closed Dec. 25  
and Dec. 26; Open Dec. 27

**New Year's Day:** Closed Jan. 1, 2015

To receive this newsletter by e-mail, contact: [ksvdloutreach@vet.k-state.edu](mailto:ksvdloutreach@vet.k-state.edu).