

# Under the 'Scope

October 2013

*The VMDL will soon be launching its portion of the RDVM portal, which will allow practitioners to sign on and see real time case results without having to call the lab.*

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## A Message from the Incoming Director

As I prepare to go back to the Midwest, I am truly humbled and honoured to have the opportunity to serve as the Director of the Veterinary Medical Diagnostic Laboratory beginning in November 2013. It feels great to be a part of the VMDL's long history of diagnostic excellence. Our faculty and staff are nationally recognized for their expertise and dedication to animal disease diagnostics and public health.

They are also known for their ability to get things done. Over the next year, I will be making a concerted effort to become familiar with the Show-Me State and the VMDL's clientele. I look forward to meeting many of you at the MVMA meeting in January 2014.

Sincerely,

Shuping Zhang, PhD, DACVM

## Food Animal Enteric and Respiratory Panels

Did you know that our food animal panels can save you money? Many times we receive samples from animals with respiratory or enteric disease, with individual specific tests checked. Sometimes it is less expensive to use our panels. For example, on a calf with diarrhea the individual tests for enteric screen and MICs, and PCR testing for rota, corona and BVD viruses, plus fecal float and cryptosporidial smear would come to \$120.75. The addition of fixed tissue would bring the total to \$175. Asking for an enteric panel lowers the cost to \$100 (\$80 for feces without tissues) and can be done on up to 3 animals. Why should you consider histopathology

with these samples? It is not uncommon to detect more than one enteric pathogen by sensitive molecular techniques. Histopathology, which can be unrewarding if autolysis is severe or the changes are subtle, can be quite rewarding when lesions are found as it has identified the most severe herd problem. Our idea in offering these panels is to allow practitioners to get diagnosis(es) applicable to the herd as rapidly and thoroughly as possible with one easy request. Similarly, porcine respiratory screening lab tests individually priced total \$155.25, cows \$125.25, for a panel price of just \$100. (See pgs.10-11, July 2013 VMDL fees for tests/samples to submit.)

## New Antimicrobial Susceptibility Panel

The Bacteriology section of the VMDL has a new antimicrobial susceptibility panel for Ophthalmic bacterial isolates. It contains antimicrobials that can be used topically or systemically in companion animals or the equine. The antimicrobials are listed as follows: Erythromycin, Oxytetracycline, Gentamicin, Chloramphenicol, Ofloxacin, Bacitracin, Doxycycline, Ciprofloxacin, Ceftiofur, Ticarcillin, Tobramycin, Moxifloxacin, Neomycin, Amikacin, Polymyxin B, and Cefazolin.

Dr. Bill Fales

## EIA Test Kit Recall

*“We will be sending letters to those practitioners that have been identified as having submitted samples affected by the recall.”*

The VMDL has been informed by the USDA that certain lots of EIA (Coggins) ELISA test kits from one manufacturer were defective and may have resulted in **false negative results on positive horses**. This was based on customer reports of false-negative test results on horse sera of Equine Infectious Anemia Virus (EIAV) reactors that were confirmed as positive for EIAV antibodies at the National Veterinary Services Laboratory. This problem affects all EIA laboratories in the United States that have used these kits.

The VMDL stopped using this manufacturer's kits earlier this year before the problem was detected, however some Coggins / EIA samples tested at this laboratory were tested using

the affected lot numbers. These animals were tested by **ELISA from January 2, 2013 through April 4, 2013.**

There are no firm guidelines regarding whether horses should be retested except if they are near known foci of EIA infection or have not had a previous test. The Veterinary Services branch of the USDA is recommending that you consider retesting animals if any of the following situations apply:

- **Animals were tested during the course of an individual disease (clinical illness) workup**
- **Animals were tested as a result of an EIA outbreak or cluster**
- **Animals were tested from a historically higher risk geographical area**
- **Animals were tested from a higher risk group,**

**such as amateur racing circuits or in the course of a piroplasmosis investigation**

- **Animals tested that have no previous EIA testing history**

The VMDL does not have any information/history associated with the submitted EIA (Coggins) official test forms( VS Form 10-11) in most cases; therefore, you as the submitting accredited veterinarian must determine the risk of any of the animals that you have tested following the above recommendations. We will be sending letters to those practitioners that have been identified as having submitted samples affected by the recall. If you have not received a letter and would like confirmation that your test results were not affected please call the VMDL at 573-882-6811.

## EIA updated testing schedule

### To Subscribe to Listserv:

- 1)Send e-mail to [listserv@lists.missouri.edu](mailto:listserv@lists.missouri.edu). Leave the subject line blank. Remove any tag lines or signature files.
- 2)Type in the body of the message:  
subscribe EIA-L  
first\_name last\_name

**example:** subscribe  
EIA-L Truman Tiger

Due to the recent death of our long-time serology section leader, Audrey Rottinghaus, there may temporarily be *occasional* days where we cannot offer same day ELISA test services. When this happens we will post it on our website <http://vmdl.missouri.edu/> under “News”. We have also created a listserv that notifies you by email of the schedule of days that testing will not be done. If you would like to subscribe to this service, see instructions on the website or on the sidebar. You

may call 573-882-6811 if you are planning to ship or drop off a sample that requires same day service to confirm testing will occur on that day. Due to the strict requirements for certification for performing this test we anticipate it will be a couple of months before we can get additional technicians certified to test. Until that time, we foresee that this will only be an occasional occurrence. Thank you for your understanding during this transition.

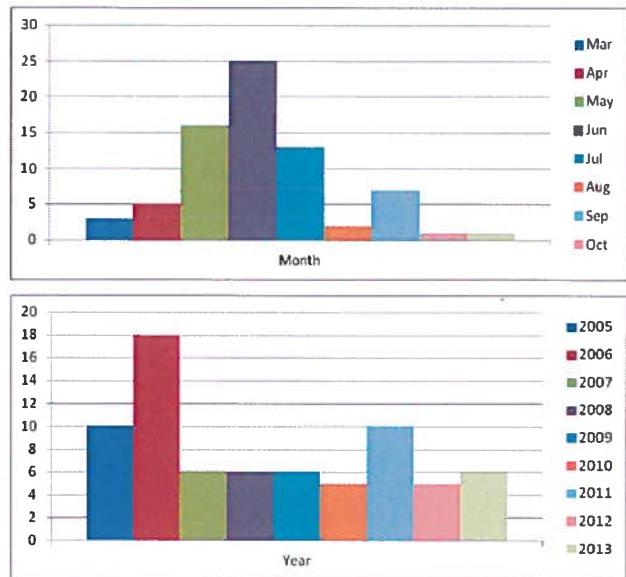
Dr. Susan Schommer

## Cytauxzoonosis Over the Years

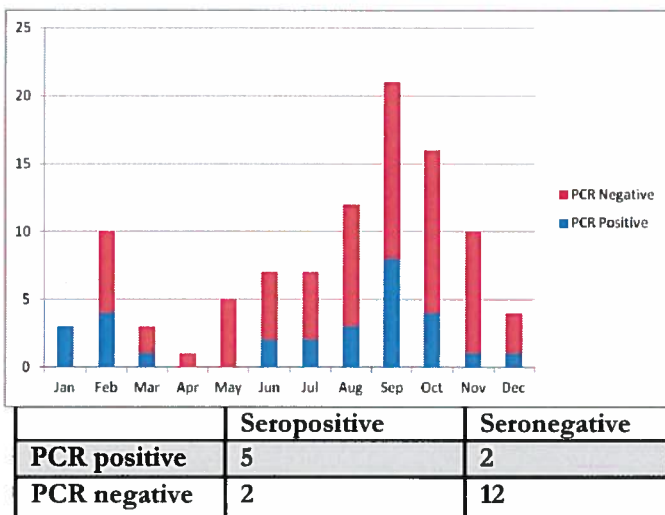
This frequently lethal disease of cats is transmitted by ticks from bobcats to domestic cats. It's a frequent cause of concern for Missouri veterinarians. From 2005 there have been 73 documented cases in the VMDL. Of these, only 12 occurred in counties north of Highway 70 and none occurred in northern Missouri. Cats that were affected ranged in age from 2 months to 12 years, but the median age was 3

(mean 4). Neutered males and females were represented in about equal numbers, as would be expected in a pet cat population. Peak months are May-July (see chart1). Some years have many more cases than others, although reporting may vary as veterinarians more readily recognize the disease.

Dr. Gayle Johnson



## Anaplasmosis PCR Testing



**Anaplasmosis PCR testing** has been offered since 2011, and about 100 tests have been conducted. Out of 113 cattle tested, 29 (26%) were positive. None of the cervid species tested and no postnatal calves were positive. The average age of positive animals was 4.1 years. When both serology and PCR were done, the results were usually similar, although there were 2 cattle each that were positive only for 1 test. Positive animals were found during most months of the year, but peak testing occurred in August and September. As a reminder, it is not possible to detect the organism in fixed organs and autolysis is often a problem at this time of year, so that PCR and blood smear are often used to confirm the diagnosis in jaundiced cows with enlarged spleens.

Dr. Gayle Johnson

## Ergot Contamination in Hay

Dr. Tim Evans

The ergot fungus (*Claviceps purpurea*) appeared to be more prevalent in pastures this year, and it is very likely that ergot-contaminated grasses were incorporated into hay in many parts of Missouri this summer. These observations raise some concerns about the adverse effects of ergot on livestock performance when stockpiled hay is fed during the upcoming winter. Ergot produces alkaloid compounds that are toxic to livestock. The toxins constrict blood vessels, increasing respiration rates, raising core body temperatures and limiting blood supply to the extremities. Ergotism can be confused with fescue toxicosis because the symptoms are similar. Ergot alkaloids can also cause abortions in cattle, as well as agalactia (no milk) and, interestingly enough, prolonged gestation in mares.

The hard ergot bodies look like small rodent droppings and are easily visible in the seed head of cereal grains such as barley, oats, wheat, triticale and rye, as well as many common grasses such as tall fescue, perennial ryegrass, and timothy. Farmers should inspect stored hay for ergot bodies, and the VMDL routinely analyzes hay samples for several ergopeptine alkaloids produced by ergot, as well as ergovaline produced by the tall fescue endophyte (*Neotyphodium coenophialum*).





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Note: The following Clinical Pathology tests **require serum** for testing.

**Cortisol-baseline, Cortisol Post ACTH**

**Dexamethasone Suppression-2 samples, Dexamethasone Suppression-3 samples**

**Progesterone**

**T4**

**TSH**

**<http://vmdl.missouri.edu/>**