

Notes From the Director

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Did You Know??

- Urban birds have developed a short, fast “rap style” of singing, different from their rural counterparts.
- The average American consumes 1.2 pounds of spider eggs a year and eats 2.5 pounds of insect parts a year.

- - - taken from “General Interesting Facts” -
www.berro.com

I would like to take the opportunity to recognize some of the achievements of Dr. David Steffen, who has been the director of the Nebraska Veterinary Diagnostic Center for the last several years. During his time as director, Dr. Steffen introduced molecular testing, rabies diagnosis, supported and contributed to the expansion of our immunohistochemistry testing for BVD into a nationally recognized program, guided our inception into the NAHLN system and procured contracts with both state and federal programs for WNV, AI, CSF, Johnes and CWD testing. A side benefit of the greatly enhanced testing was that revenues for the VDC increased commensurately, so that VDC was able to fund the purchase of new equipment, hire personnel needed to support increased testing, as well as purchase equipment to replace outdated items.

The respect afforded Dr. Steffen as a pathologist and scholarly research scientist by his colleagues nationwide is evidenced by his election to numerous high level positions (and now President-Elect) within the AAVLD and invitations to speak nationally and internationally on his work with bovine congenital disease. He has also received awards from both the University of Nebraska and Parents Association for excellence in undergraduate advising, an area for which he has always shown exceptional enthusiasm. Dr. Steffen did an outstanding job as Director of the VDC. His enthusiasm for diagnostic work was and is infectious. He was constantly seeking opportunities to involve the VDC in new areas of testing which afforded staff the opportunity to learn about new agents and test methods.

Dr. Steffen will continue to serve the Nebraska Veterinary Diagnostic Center as a Diagnostic Pathologist and will continue research in bovine congenital diseases as well as contribute to the education of undergraduate, professional and graduate students. We certainly look forward to his contributions and service in the future.

D. Scott McVey
DVM, PhD, DACVM
Director, Veterinary Diagnostic Center

"The greatness of a nation and its moral progress can be judged by the way its animals are treated." ~ Mahatma Gandhi

News From the Bacteriology Lab

Antimicrobial Sensitivity Testing

In the near future, the bacteriology section of the VDC will begin using new methods for routine antimicrobial sensitivity testing. We will begin testing bacteria by the broth dilution method using the TREK@ Sensititre plate system. The Sensititre system provides the only fully customizable system that is semi-automated and designed to cover most diagnostic testing needs in the veterinary laboratory. More than 240 antimicrobials, including 40 veterinary specific antimicrobials, are available for susceptibility testing of bacteria and yeasts, ensuring accurate first time results. Sensititre remains the system of choice for global surveillance programs, including NARMS (National Antimicrobial Resistance Monitoring System), coordinated via FDA-CVM, USDA, and CDC.

The advantages provided to our clients include rapid turn around and true MIC data and interpretation based on the Clinical and Laboratory Standards Institute's guidelines. Also, we will provide data for a very broad set of antimicrobials (broader than typically available through Kirby-Bauer testing). The test panels are custom designed for equine, food animal, companion animal, urinary tract infection and avian needs and clinical drug availability. In addition, we will have the ability to customize epidemiological investigations for clinics or herds. We will be happy to provide a sample of the drug spectra that we will be using in the testing.

Kirby-Bauer testing will not completely go away as we will retain the capability to perform K-B tests for NARMS testing, extended spectrum testing, some fastidious organisms, anaerobe testing and *Campylobacter* spp. testing.

The disadvantage of this system will be increased costs – individual tests will cost \$18.00. Kirby-Bauer tests will now cost \$8.00. However, please contact the bacteriology laboratory to discuss strategies to minimize costs of AST tests and the need for testing in some cases. Also, please be sure to indicate on submission forms if you do not require a sensitivity test.

PCR Testing for Tritrichomoniasis

Recently we have begun testing specimens from cattle for the presence of *Tritrichomonas foetus* by direct, real-time PCR. We can test prepuccial scrapings, washes, culture media (Trich InPouch@ or modified Diamond's medium) or cervical scrapings by this assay. Also, we can test pooled samples. We can test pools of five or fewer bulls (primarily to save costs and increase test efficiency). Studies have demonstrated that pooled testing by PCR results in no appreciable loss in sensitivity. Our laboratory would prefer to receive individual samples and perform the pooling in-house, but we will test pre-pooled samples. Each PCR test performed will be \$25.00, including tests among pooled specimens to determine which animal(s) are infected.

Please contact the laboratory to discuss collection, testing and shipment strategies to determine which approach fits your needs. ***Please specify if you need standard culture or PCR***; both tests are available.

Pooled tests are *not* acceptable as import tests for the state of Nebraska.

Useful contacts:

<http://www.agr.state.ne.us/division/bai/imports.htm>

<http://www.biomeddiagnostics.com/pilot.asp>

(For literature references and review articles, please contact Dr. McVey/dmcvey2@unl.edu or 402-472-8469)

- - -submitted by D. Scott McVey, DVM, PhD, DACVM
Faculty Supervisor, Bacteriology Laboratory

NOTE: When it is necessary to test large number of animals by ***culture for agents such as Brachyspira, Campylobacter, Tritrichomoniasis*** or other agents, please advise the Microbiology Laboratory at least three days in advance of submission. Thank you.

VIROLOGY UPDATES

Stephanie Frink has left our lab as of May 16th to return to school in Medical Technology. Stephanie worked with us for 3 years and performed SNs, PCRs, and all of our John's ELISAs, as well as providing valuable lab organizational activities. She also worked on several development projects which resulted in a PCR for bovine coronavirus. We will all miss her and wish her the best in her new pursuits.

Jules Russ joined our lab in Nov. of 2007. Jules has extensive experience in microscopy, having worked at a private consulting company in Kansas performing foreign object identification in a food forensics lab. She also worked at the State of Nebraska Dept. of Agriculture Lab in Lincoln performing feed analysis for BSE. Welcome Jules!

Steve Braswell who formerly performed all of the immunohistochemistry testing for the VDC has joined the Virology laboratory effective May 1st. Steve did an admirable job on the IHC testing and we look forward to working with him in his new capacity. Welcome Steve!

We would like to remind clients that we now offer APP screening for \$4 per sample and can forward any positive samples to Biovet in Canada for typing.

- - -submitted by Judi Galeota, Virology Supervisor

EMPLOYEE RETIRING



Vonnie Johns

After 34 years of employment at the Veterinary Diagnostic Center, LaVonne "Vonnie" Johns will be retiring on June 1, 2008. Vonnie began her employment in the lab. For the past 22 years, she has been employed as a Histo Tech. III in the Histology Lab.

Vonnie and her husband Marty, who will also be retiring from the Lincoln Public Schools system, have been married for 46 years. They have 2 children, 7 grandchildren and 2 great-grandchildren.

Vonnie plans to spend her time by leisurely taking one day at a time. She and her husband also plan on doing some fishing and other leisurely activities.

Vonnie has been a hard-working, dedicated employee and she will be missed by all. Good luck to Vonnie in her years of retirement!

NEW EMPLOYEE



Josh Schmidt

Josh Schmidt has been hired as the Necropsy Technician for the Diagnostic Center. Josh previously worked in the Animal Research Facility of the Veterinary and Biomedical Sciences Department. Josh received his Bachelor of Science degree in Veterinary Science from UNL in December, 2007.

Josh is from Wymore, Nebraska. His hobbies are hunting, boating, scuba diving. Josh also likes classic country music.

In his spare time, Josh likes to take long walks on the beach and he enjoys underwater basket weaving! (Just kidding)

We welcome Josh to the VDC staff. We know that he will work with our clients to serve them as efficiently as possible!

**University of Nebraska
Veterinary Diagnostic**

Nebr. Veterinary Diagnostic Center
Univ. of Nebraska
Fair St. & E. Campus Loop
1900 N. 42nd St.
P. O. Box 82646
Lincoln, NE 68501-2646

Phone: 402-472-1434
Fax: 402-472-3094
E-mail: vdc2@unl.edu

We're On the Web:
<http://vbms.unl.edu/>

The Nebraska Veterinary Diagnostic Center is accredited by the American Association of Veterinary Laboratory Diagnosticians

All regulatory testing for export is done in compliance with the code of federal regulations and technicians performing the test have been tested annually by the USDA through the National Veterinary Services Laboratories check-testing program. Additional assays within the lab regarding toxicology, microbiology and parasitology are assessed annually by check testing through the Veterinary Laboratory Association. Positive and negative control samples are included in all serologic and toxicologic testing protocols that require them.

Ancillary testing is reviewed by a single case coordinator who assures that test results are in agreement and any unusual test results are investigated to ensure that standard operating procedures are followed and that results can be replicated. Standard operating procedures are on file in each of the laboratories and available for inspection. A copy of our Quality Manual is available upon request.

Nebr. Veterinary Diag. Ctr.
Univ. of Nebr.
Fair St. & E. Campus Loop
1900 N. 42nd St.
P. O. Box 82646
Lincoln, NE 68501-2646