

MU VMDL Newsletter

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A MESSAGE FROM THE DIRECTOR

I sincerely hope everyone has had a wonderful summer! The faculty, staff and residents are working diligently to get the work done for our clients. As some of you know, William "Doc" Fales, the head microbiologist of 40-plus years left the lab at the end of August. We would like to thank him for his excellent service and mentorship, and we wish him the very best in the next phase of his life and career. He will still be available for advice and consultation.

The VMDL has recruited Tamara Gull, DVM, PhD, who will serve as the next head of the Clinical Microbiology Section. Gull and Quality Assurance Officer Tom Reilly, PhD, will work side by side to deliver the highest quality and most relevant microbiology service to you.

The VMDL has initiated a food animal pathology residency program. Rosalie Ierardi, DVM, is the first trainee in this program. Ierardi will receive training in anatomical pathology and gain experience in food animal research and field investigations.

During the past several months, the VMDL has developed a real-time PCR panel for tick-borne patho-



gens, including *Anaplasma*, *Ehrlichia*, *Borrelia* and *Rickettsia* spp. The old conventional PCRs are now replaced by these new assays. They can be requested as a panel or individual tests. It is our goal to gradually replace most conventional PCRs with real-time PCR assays without increasing costs to our clients.

As always, we appreciate your support. Please feel free to contact us if you have any questions.

Best regards,
Dr. Shuping Zhang,
Director,
Veterinary Medical Diagnostic Laboratory
Professor,
Department of Veterinary Pathobiology



2017-2018 VMDL FEE GUIDE AVAILABLE

The annual "MU VMDL Fee Guide" has been distributed. As the name implies, this publication serves as a convenient reference on costs for our most common tests. Take a closer look because it offers much more!

Answers to "how to"

- Should this sample be frozen or refrigerated?
- What type of tube should house this blood sample?
- How much feed should you submit for toxicology testing?
- How thick should tissue sections submitted be for biopsy?
- What is the recommended protocol on submitting a cavity effusion for fluid analysis?
- What type of sample should you submit for serology testing, molecular diagnostics or bacteriology?

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Fee Guide, continued

Answers to these questions and more are found in the first few pages of our fee guide, along with instructions on how to have samples picked up directly from your clinic and utilize VMDL-negotiated pricing for FedEx. Following this section you will see a listing of our commonly performed tests categorized by laboratory section. This area provides the cost, expected turnaround times, and a reiteration of sample handling guidelines.

Have you checked our prices and services? Could the MU VMDL save you time and money?

The arrival of the “MU VMDL Fee Guide” is an opportunity to investigate whether the MU VMDL may be able to save you money on tests you currently submit elsewhere. It is important to note that the guide only lists our most popular tests. We encourage you to contact us at (800) 862-8635 if you would like more information on specific testing that you do not see listed.

How do I obtain a fee guide?

Hard copies are mailed out each summer. If you do not receive one, please stop by our website to check it out or call us to have a copy mailed to you. A copy of the most recent fee guide is always posted for our clients at www.vmdl.missouri.edu/, click on Test & Fees, and then click on Summary & Fees Download.

NEWS BRIEFS



Tamara Gull to Lead Bacteriology Section

Tamara Gull is the new bacteriologist in the VMDL. She is board-certified in veterinary microbiology, preventive medicine and large animal internal medicine.

Originally from Chicago, she received her veterinary degree from Tufts University and her PhD from Texas A&M University. Prior to coming to Columbia, she spent eight years at Oklahoma State University, where she taught veterinary bacteriology and large animal internal medicine. Her research interests include bacterial respiratory diseases of livestock and horses and veterinary disaster response.

Gull is a lieutenant colonel in the U.S. Army Veterinary Corps and serves with the 321st Civil Affairs Brigade in San Antonio. She welcomes submissions and questions and hopes to meet many VMDL clients during the next few months.

Packaging Tissues in Formalin

Proper packaging of biopsy and necropsy tissue specimens is of critical importance! Formalin is a hazardous material, and accordingly formalin jars need to be sealed within a second container before placing

them in a box for shipping. This practice ensures that our staff and the individuals transporting shipments remain safe and dry. Formalin leaks put people at risk and render enclosed submission forms and unstained cytology slides unusable.

We can provide kits containing secondary containers and shipping boxes for our clients to use. Contact the VMDL for more information.

Clinical and Anatomic Residency Programs Update

Tara Piech successfully completed her clinical pathology residency program this summer and will join the faculty at Midwestern University College of Veterinary Medicine this fall. We work closely with our residents during their three-year terms, so it is always bittersweet to see them leave.

The VMDL prides itself on our robust pathology training programs, and two new residents have begun their tenure with us. Catherine Shoemake, DVM, (University of Tennessee 2011) and Rosalie Ierardi, DVM, (University of Illinois 2017) have joined our clinical and anatomic pathology training programs, respectively. Ierardi is the first trainee in our new food animal pathology residency program.

USDA VSPS Health Certificate, Coggins Form

USDA offers free access to electronic Coggins forms via the USDA Veterinary Services Process Streamlining (VSPS). This program has functions similar to that of Global Vetlinks' EquusLINK

Digital Equine Health Certification System. The MU VMDL is a member laboratory and Coggins forms can be submitted electronically via portal for

NEWS BRIEFS



VSPS, continued

VMDL electronic reporting. While the lab testing is not free, you can save some money on portal fees charged by private companies, such as Global Vetlink.

To use VSPS to create electronic health certificates or create electronic Coggins forms, you need:

1. eAuthentication — Level 2 (a multi-step process) — eAuthentication is a USDA imposed identity proofing concept for security purposes
2. VSPS profile with the role of Accredited/Licensed Veterinarian

To create an account on Veterinary Service Process Streamlining (VSPS), follow this link: http://www.aphis.usda.gov/animal_health/vsps_int_lib/downloads/welcome_vsps_accredited_vets.pdf

To create an online Coggins form in VSPS for Accredited/Licensed Veterinarians, follow this link: https://www.aphis.usda.gov/animal_health/vsps_int_lib/downloads/How_to_Create_an_On-Line_Coggins_form_for_Accred_Vets.pdf

To submit an online Coggins — Multiple Animals form, follow this link: www.aphis.usda.gov/animal_health/vsps_int_lib/downloads/How_to_Submit_a_Coggins_with_multiple_animals.pdf

You may contact the VSPS help desk, 877-944-8457. For additional help, contact Geri Hegstad at the MU VMDL.

New Tests at the VMDL

CLINICAL PATHOLOGY

We have a lot of testing news from Clinical Pathology Section. We recently implemented two new instruments for coagulation and endocrine testing.

Phenobarbital levels

We are now offering in-house phenobarbital levels, saving time and money. This test requires 0.5 mL of serum, and submissions received by 4 p.m. Monday through Friday will be result the same day. The cost is \$25.

Coagulation testing updates

We are now offering the following coagulation tests and panels:

- PT and PTT — \$41.
- D-dimer — \$45.
- Fibrinogen — \$26.
- PT, PTT, D-dimer — \$75.
- PT, PTT, D-dimer, fibrinogen — \$95.

Endocrine testing updates

We now offer the following tests:

- Total T4 — \$25
- Free T4 by chemiluminescent immunoassay (dogs, cats) — \$25.
- TSH (canine) — \$25
- Total T4 + TSH (canine) — \$45

- Total T4 + free T4 + TSH (canine) — \$55
- Endogenous ACTH (equine) — \$25.
- Cortisol — \$25.
- Two cortisol measurements (stimulation, suppression tests) — \$45.
- Three cortisol measurements (suppression tests) — \$60.
- Insulin + glucose (equine) — \$25.
- Progesterone — \$16.

The updated testing list and panels are available for easy selection on the current versions of our submission forms. Find them on the VMDL website: http://vmdl.missouri.edu/submission_forms.html

SEROLOGY

The Serology Section will now be offering Feline Calicivirus VN (Virus Neutralization). The test will cost \$12 per sample. Preferred sample is 1mL serum, red top or separator tube, shipped on ice. Test can also be performed using unclotted, whole blood (purple top or green top tube). Typical turnaround time for submitted samples will be three to five business days. Calicivirus VN's will be set up Monday, Tuesday and Fridays.

Farewell to Dr. Fales

After 40 years at the VMDL, William Fales, PhD, retired at the end of August. Fales has been a pillar of the VMDL. His impact on students, colleagues, practitioners, and the field of veterinary microbiology is immeasurable. Thousands of students have benefited from his instruction — all sent on their way with an open invitation to call him for help at any time. Indeed many took him up on that offer, and the public service Fales consis-

tently provided brought him the honor of being named the only non-DVM on the MVMA Honor Roll, honorary membership in the Missouri Academy of Veterinary Practice, and most recently the designation as the first Honorary Veterinarian in the MU CVM's history. It was tough for us to say goodbye as "Billy the Bacteriologist" left the building, but we wish him all the best and hope he enjoys his well-deserved retirement. Thank you for everything, Doc Fales!

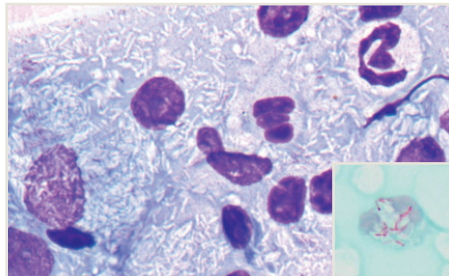
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SOLVING A BACTERIOLOGY PUZZLE

The Bacteriology Section recently received a bovine fecal sample for routine surveillance for Johne's disease (*Mycobacterium avium* ssp. *paratuberculosis*). This sample was received from a herd that had never had a positive Johne's culture and all the cattle were reported as healthy.

The sample was inoculated into a selective broth bottle and placed into our VersaTrek culture system, which automatically monitors microbial oxygen consumption for up to 45 days and indicates when mycobacterial growth is present. This culture became positive very close to 45 days, indicating very low shedding of a mycobacterial organism.

An acid-fast stain on the bottle was positive for mycobacteria, but two rounds of PCR on the broth were negative for *Mycobacterium avium* ssp. *paratuberculosis*. The isolate was sent to the National Veterinary Services Laboratory in Ames, Iowa for sequencing and was identified as *Mycobacterium avium* ssp. *hominissuis*.



Mycobacterium spp fail to stain with Wright-Giemsa or Diff Quick, but will appear bright pink with acid-fast staining (inset).

This organism, which is primarily found in the environment, has been reported as a cause of rare opportunistic disease in multiple domestic and wildlife species as well as humans. This case highlights how a combination approach of bacterial culture, PCR, selective staining and genetic sequencing can help identify unusual and emerging organisms

The VMDL is always ready to assist clients in the diagnosis of disease, whether routine or unusual; please contact us if you have any questions about submissions. (573) 882-8928

"Doc" Fales Reception



VMDL PORTAL ACCESS

This free service for clients enables 24-hour daily access to test results and improves transparency of the status of the sample and cost of testing.

<https://vetview.cvm.missouri.edu/login/auth>



Veterinary Medical Diagnostic Laboratory
Phone: (573)882-6811

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