New Diagnostics at AVDL: What they mean to your patients

This presentation will review selected clinical cases to illustrate how laboratory testing supports the diagnosis and management of infectious diseases in animals. Through real examples, the talk will cover the interpretation of antimicrobial susceptibility testing (MICs), PCR and sequencing results, as well as common limitations of these techniques. The session will also discuss how newer diagnostic approaches, including next-generation sequencing, can complement traditional methods and assist clinicians in resolving complex cases.

Presented by Dr. Gazieli Maboni, DVM, MSc, PhD, FHEA, Dipl. ACVM (AVDL Microbiology and Molecular Diagnostics Section Head): Dr. Maboni is Section Head of the Microbiology and Molecular Diagnostic Laboratories at the Athens Veterinary Diagnostic Laboratory and Assistant Professor. She is board-certified in Bacteriology/Mycology and Virology by the ACVM. Dr. Maboni earned her PhD in Microbiology from the University of Nottingham (UK), an MSc in Microbiology, and a DVM degree from the Federal University of Santa Maria (Brazil). She has also completed a three-year Clinical Microbiology residency at the University of Georgia, and previously served as Assistant Professor in Veterinary Microbiology at the University of Guelph (Canada). Her training and professional experience in Brazil, England, Canada, and the United States shape her global perspective in microbiology diagnostics.

Dr. Maboni's current research focuses on precision diagnostics, integrating molecular tools, antimicrobial resistance, and next-generation sequencing into clinical microbiology workflows to improve diagnostic efficiency and clinical relevance.

Regulatory Perspective: Emerging and High Consequence Diseases and Diagnostics (1 HR LEAP)

A. Introduction – GDA or USDA?
   a. Role of state v. federal departments of agriculture

B. GA Department of Agriculture Animal Health team
   a. Current Veterinary Medical Officers and other staff
   b. Duties of the State Veterinarian and Animal Health team

C. Overview of Foreign and Reportable Animal Disease investigations
   a. Over the last several years, GDA has conducted ~4x more disease investigations compared to previous years.
      i. What happens when a disease report is received?
      ii. Cases & UGA VDL testing (pending current events)

D. How to report
   a. Routine, endemic, less-time sensitive reportable conditions
   Report online: https://gdaforms.wufoo.com/forms/georgia-reportable-animal-disease-form/
   Example: Caseous lymphadenitis in sheep
   b. Time-sensitive, suspect FADs, unusual events
   CALL 404-656-3667 (GDA) or 770-761-5420 (USDA)
   Poultry conditions only: 770-766-6850 (GPLN)
   Example: Vesicular conditions in swine; unusual maggot infestation in a dog; TB suspects

Questions, comments, or concerns:
GDA Animal Health, AnimalHealth@agr.georgia.gov, 404-656-366

Presented by Dr. Janemarie Hennebelle, DVM, MPVM (GA State Veterinarian): Janemarie Hennebelle currently serves as the State Veterinarian and Animal Health program manager for the Georgia Department of Agriculture. Dr. Hennebelle received her Doctor of Veterinary Medicine from the University of Georgia College of Veterinary Medicine and her Master of Preventive Veterinary Medicine from the University of California, Davis, School of Veterinary Medicine

GA Rabies Testing and Public Health Response – Consultation and Follow-up (1 HR LEAP)

This talk will be focused on the practical application of rabies guidance found in the most recent, 2024 Georgia Rabies (https://dph.georgia.gov/epidemiology/zvbd/rabies) and the National Compendium (https://www.nasphv.org/Documents/NASPHVRabiesCompendium.pdf) for the public health management of animals regarding rabies – prevention and control. The presentation will also provide specific guidance on submitting specimens to the Athens Veterinary Diagnostic Laboratory, including proper specimen collection (e.g., whole head preferred), packaging, and documentation requirements (e.g., obtaining a bite number through public health authorities). In addition, common submission errors that delay testing and post-exposure prophylaxis decisions, laboratory workflow, and Direct Fluorescent Antibody testing process will be discussed.

Presented by Dr. Amanda Feldpausch, DVM, MPH (Deputy State Public Health Veterinarian) and Kaylon Coats (Lead AVDL Serology/Virology Laboratory Technician):

Dr. Feldpausch serves as the Deputy State Epidemiologist, Deputy State Public Health Veterinarian, and One Health Epidemiology Director at the Georgia Department of Public Health (DPH). She has been with DPH for over 13 years serving in a variety of roles including CDC/CSTE Applied Epidemiology Fellow, Zoonotic and Vectorborne Disease Epidemiologist, Zika Epidemiology Team Lead, and Senior Epidemiology Consultant. She is a Returned Peace Corps Volunteer and earned her MPH in Global Epidemiology from Emory University and her Doctor of Veterinary Medicine from the University of Georgia. In her current role, she oversees One Health activities in Epidemiology in Georgia, serves as co-lead for Emerging Health Threat responses in Epidemiology, and the lead for the H5N1/HPAI response. Dr. Feldpausch has served as a rabies subject matter expert for the state for 10 years and is co-author of the two most recent state rabies compendiums. Dr. Feldpausch is president elect for the National Association of State Public Health Veterinarians (NASPHV), the organization responsible for management of the national Compendium of Animal Rabies Prevention and Control.

Kaylon is the Lead Laboratory Technician in the Serology/Virology Section. She received her Bachelors in Biology from the University of Georgia in 2023 and will be starting her Masters in Comparative Biomedical Sciences in August of 2026. Kaylon has always had a passion for animals and plans to pursue a career in disease surveillance.

Behind the Scenes of the Lab: Submission Tips and Insights
Join us to learn more about our laboratory sections (Serology/Virology, Clinical Pathology, Bacteriology, and Histology) and meet the team behind the testing. Each section will showcase their diagnostic services and share helpful submission tips to ensure you get the most accurate and useful results from your samples.

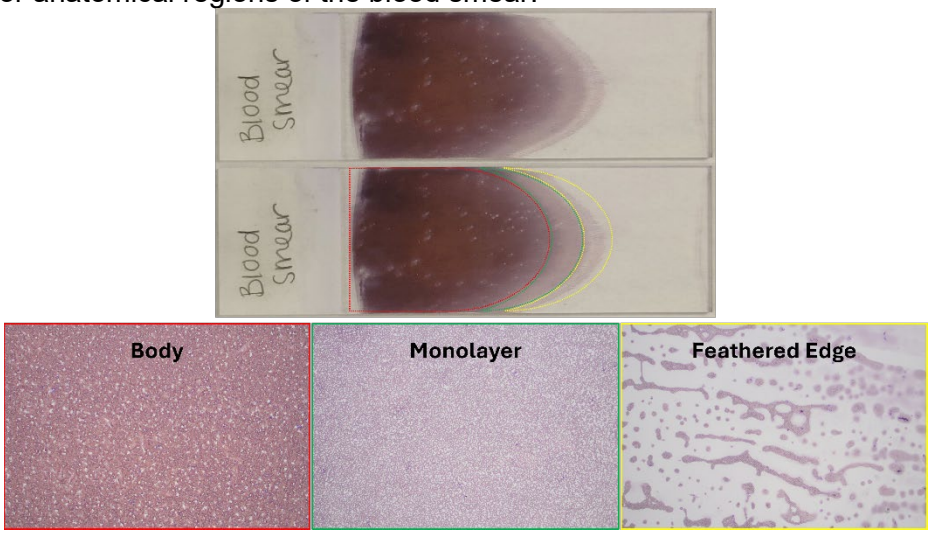
Presented by AVDL Lab Members: Dr. Binu Velayudhan BVSc, MVSc, PhD, DACVM, MBA (AVDL Lab Director), Kaylon Coats (Lead Serology/Virology Laboratory Technician), Dr. Mackenzie Long, DVM, PhD, DACVP (Clinical Pathologist), Ashley Phillips (Bacteriology Laboratory Manager), Ingrid Fernandez-Marrero (Molecular Laboratory Manager), Amy McKinney (Microbiology/Molecular Biology Laboratory Manager), and Keith Sikora, MS (Histology Laboratory Manager)

WET LAB-Blood Smear Basics: Removing the Intimidation Behind Blood Smear Evaluation

Despite the advancements in automated technology, the blood smear remains a critical part of the hematologic evaluation of our veterinary patients. Blood smear examination is a useful, low-cost diagnostic tool that allows for the detection of critical morphologic abnormalities that the analyzer cannot evaluate. Blood smears are prepared using a small drop of well-mixed, EDTA-anticoagulated blood that is placed near the frosted edge or label of a clean glass slide. Then, another clean slide, called the spreader slide, is held loosely against its surface at a 30-45° angle in front of the drop. The spreader slide is drawn back until it contacts the blood, allowing the drop to spread along the edge of the spreader slide. The spreader slide is then pushed smoothly and quickly forward across the slide, distributing the blood into a thin film that gradually tapers to form a feathered edge. The smear should cover about two-thirds of the slide and create a gradient from a thicker body region to a thin monolayer where individual cells are well separated. The slide is then allowed to air dry rapidly to preserve cell morphology and prevent artifacts, before staining and performing microscopic examination. Blood smear evaluation begins with a low magnification scan (10x objective) of the entire smear, which helps identify the smear's anatomy, including the body, the monolayer, and the feathered edge. The low magnification scan allows for the assessment of overall cellular distribution, erythrocyte and leukocyte densities, and for the detection of large, atypical structures (e.g., microfilaria, platelet clumps). The monolayer is then examined at a higher magnification (40-100x objective), where most of the detailed evaluation of the blood smear occurs. This structured, stepwise approach to blood smear evaluation allows clinicians to confirm analyzer data, detect abnormal morphology, and gain insight into underlying diseases affecting patients.

Here are some images highlighting adequately and inadequately prepared blood smears:

And the major anatomical regions of the blood smear:



Further detail on the process of blood smear evaluation and common morphologic findings can be found in the following articles:

- Blood smear approach and review: https://todaysveterinarypractice.com/cytology/blood-smear-review-a-step-by-step-guide-to-normal-findings-for-cats-and-dogs/
- Blood smear: lymphocytes: https://todaysveterinarypractice.com/cytology/blood-smear-review-lymphocyte-changes-in-dogs-and-cats/
- Blood smear: platelets: https://todaysveterinarypractice.com/cytology/blood-smear-review-a-step-by-step-guide-to-platelets-in-dogs-and-cats/
- Blood smear: neutrophils: https://todaysveterinarypractice.com/cytology/blood-smear-review-how-to-identify-and-interpret-neutrophil-abnormalities/
- Blood smear: erythrocyte morphology: https://todaysveterinarypractice.com/cytology/erythrocyte-morphology-changes-in-dogs-and-cats/
- Blood smear: erythrocyte inclusions and integrating RBC changes: https://todaysveterinarypractice.com/cytology/erythrocyte-inclusions-and-integrating-red-blood-cell-changes/

Presented by Dr. Katie Metcalf, DVM, MS, DACVP (Clinical Pathologist) and Dr. Samantha Schlemmer, DVM, MS, DACVP (Clinical Pathologist):

Dr. Metcalf is a board-certified veterinary clinical pathologist at the UGA Veterinary Teaching Hospital. She received her bachelor's degree from Clemson University and completed her Doctor of Veterinary Medicine training at the University of Georgia. Her passion for pathology led her to Louisiana State University, where she completed a 3-year residency in clinical pathology and a Master's degree in Veterinary Clinical Sciences. After completing her residency, she was appointed as an assistant professor of pathology at the UGA College of Veterinary Medicine, where she teaches hemostasis and exotic animal hematology and participates in the training of veterinary students and residents.

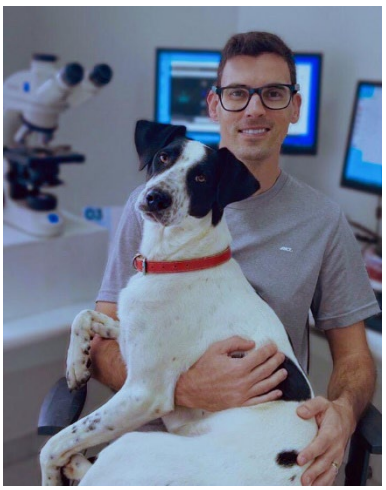
Dr. Schlemmer received her DVM from the University of Florida. Following small animal rotating and oncology internships at the Animal Medical Center in New York City, she completed a clinical pathology residency and master's in biomedical sciences at Texas A&M University and, subsequently, the Seeker Oncology Postdoctoral Research Fellowship at Colorado State University's Flint Animal Cancer Center. Dr. Schlemmer joined the University of Georgia in 2021 as an assistant professor of clinical pathology, focused on diagnostic service and teaching, as well as collaborative research. She is passionate about educating and collaborating with trainees, clinicians, and the veterinary team. Her interests include diagnostic clinical pathology and oncology, particularly tumor markers.

WET LAB-Cutting to the Cow-chase: A Hands-On Guide to Bovine Necropsy

Ready to level up your necropsy skills? Join us for an immersive, high-energy wet lab where you'll experience a full bovine necropsy from start to finish—guided by an expert who loves sharing practical, real-world techniques. You'll see every essential step up close: how to approach a systematic examination, recognize key findings, and collect high-quality fixed and fresh samples with confidence.

This isn't just a demonstration—it's a behind-the-scenes look at the tips, tricks, and smart shortcuts that make field and laboratory necropsies smoother, safer, and more diagnostically rewarding. We'll even walk through complete CNS removal, giving you a rare opportunity to watch, learn and with luck practice the procedures that many veterinarians are apprehensive when asked.

Whether you're early in your career or simply looking to sharpen your technique, this wet lab will leave you motivated, informed, and better equipped to get the most out of every bovine post-mortem you perform.



Presented by Dr. Ricardo E. Mendes, DVM, Dip.Ed, Spec., MBA, M.Sc., Ph.D., Dipl. ACVP (Anatomic Pathologist): Before joining UGA, Dr. Mendes was a full professor at the *Instituto Federal Catarinense* (IFC) in Concórdia, Santa Catarina, Brazil. He successfully secured multiple research grants at both federal and state levels, demonstrating his expertise and strong research background. His career in veterinary pathology spans more than two decades, beginning with his Master's degree in the field from 2004 to 2006. At the IFC, Dr. Mendes's work was central to the Veterinary Pathology Laboratory. From 2013 onward, he performed a total of 2,482 autopsies on farm animals (1,875 bovine, 388 swine, and 219 ovine) and handled 593 biopsies. He also broadened his experience by working with poultry, pets, and wild animals. Under his coordination, the laboratory also performed an average of 200 pet autopsies annually. The lab's primary goal was to provide definitive diagnoses and implement control and prevention strategies for future cases. Prior to his academic and research roles, Dr. Mendes spent three years (2001-2004) in veterinary practice. He provided care for numerous dairy farms, where he was responsible for implementing preventive medicine programs, performing surgeries, prescribing treatments, and conducting autopsies as needed. His extensive experience in both clinical practice and research has given him a unique and comprehensive understanding of veterinary pathology.