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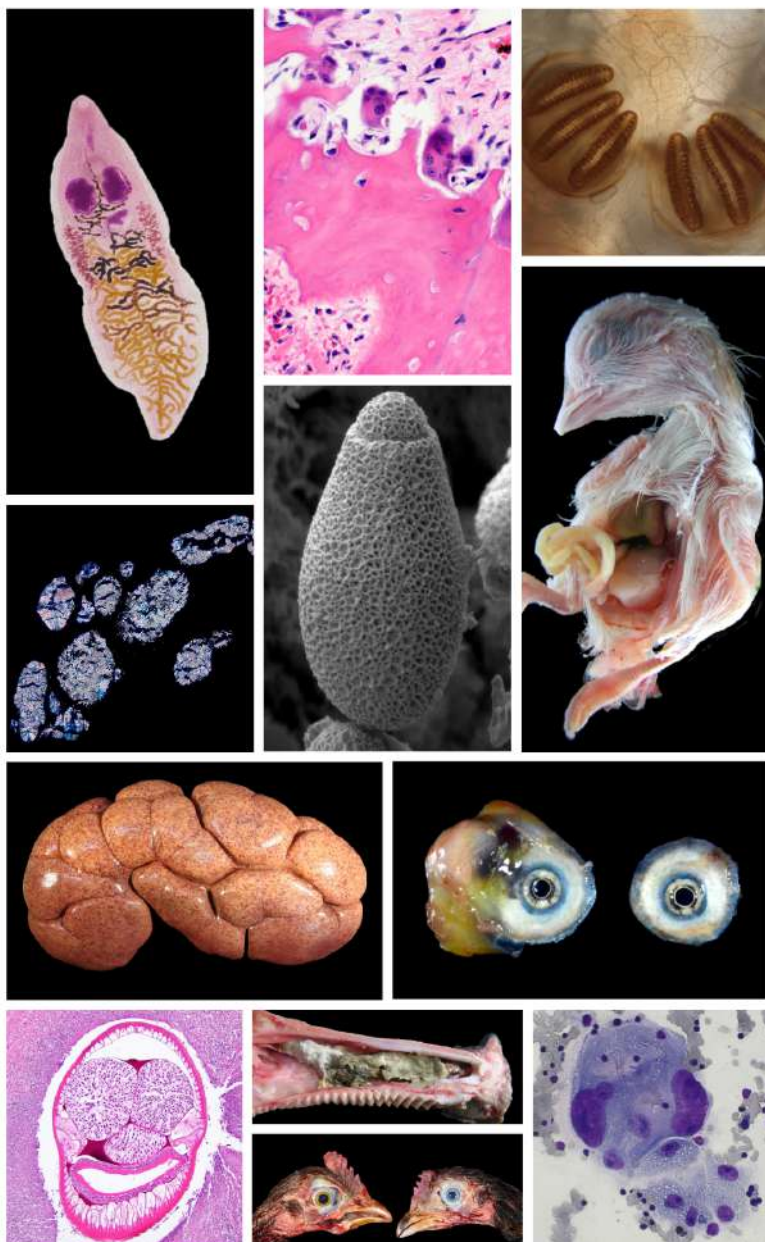
C.L. DAVIS/S.W. THOMPSON  
DVM FOUNDATION

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For the advancement of veterinary  
and comparative pathology

# THE DAVIS-THOMPSON FOUNDATION NEWSLETTER

January

VOL. 55



## Images:

Top left: 06/2023 - Josué Campos, *Platynosomum illiciens*

Top middle: 09/2022 - Julie Engiles, septic osteomyelitis

Top right: 11/2021 - Laura K. Bryan, *Cochliomyia macellaria*

2nd row left: 02/2023 - Viviana Gonzalez-Astudillo, calcium oxalate crystals

2nd row middle: 08/2021 - Andressa Maria Rorato Nascimento de Matos, *Renicola sloanei*

2nd row right: 04/2023 - Rute Noiva, Celosomia

3rd row left: 02/2022 - Bert De Jonge, acorn intoxication

3rd row right: 08/2022 - Elliott S. Chiu, anaplastic sarcoma

Bottom left: 12/2023 - Marta Mainenti, *Spirocerca lupi*

Bottom middle (top) : 03/2024 - David Driemeier, mycotic rhinitis

Bottom middle (bottom): 02/2024 - Brianne M. Taylor, Marek's disease

Bottom right: 05/2023 - Francesco Carrani, metastatic cell of prostatic carcinoma

# INSIDE THIS ISSUE

It is hard to believe that the first DTF newsletter cover image winner was showcased in the August 2021 issue. Since then, many amazing covers have followed over the years! Thank you to the pathology community for sharing your stunning images. We are always seeking new submissions, whether it's a striking visual from your research, a beautiful diagnostic slide, or an artistic interpretation of pathology, your contribution can inspire and represent our field. Don't miss this chance to share your creativity—submit your image today ([images@davisthompsonfoundation.org](mailto:images@davisthompsonfoundation.org))!

-Dr. Katherine D. Watson - Cover Image Editor

-Dr. M. Donald McGavin - Cover Image Composition Analyst

- |           |                            |           |                          |
|-----------|----------------------------|-----------|--------------------------|
| <b>3</b>  | Message from the CEO       | <b>16</b> | CLIIC UK                 |
| <b>4</b>  | JVDI in Focus              | <b>17</b> | Western Round Robin Case |
| <b>6</b>  | Diagnostic Exercise        | <b>19</b> | ASVP Corner              |
| <b>9</b>  | Ghana GHPN Workshop review | <b>20</b> | IDEXX CaseConnexx Corner |
| <b>12</b> | Rodadas de Histopatologia  | <b>21</b> | LCPG Corner              |
| <b>13</b> | Gen Path Course            | <b>30</b> | GHPN Scholarships        |
| <b>14</b> | Rondas de Histopatologia   | <b>34</b> | Miscellaneous            |
| <b>15</b> | CLIIC US                   |           |                          |

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# MESSAGE FROM THE CEO

Dear colleagues

As 2024 has come to an end, we welcome you to the first issue of the Davis-Thompson Foundation Newsletter for 2025, brilliantly prepared, as usual, by our Managing Editors, Jeann Leal and Javier Asin.

This has been an incredibly productive year for the Foundation and its associated organizations, the Latin Comparative Pathology Group and the Global Health Pathology Network, which have offered training activities in many countries of the world, and which were attended by thousands of people.

At risk of repeating myself, the most important thing to say to close the year is “Thank you” to all our wonderful volunteers and to all the colleagues who supported the Foundation in one way or another. We would not have been able to do it without you!

Looking forward to seeing you in one of our training activities.

Happy New Year.

Francisco (Paco) Uzal  
Chief Executive Officer  
Davis-Thompson Foundation



## JVDI IN FOCUS

Our January focus is an article appearing in the January issue: **“Distribution of lesions and detection of influenza A (H5N1) virus, clade 2.3.4.4b, in ante- and postmortem samples from naturally infected domestic cats on U.S. dairy farms”** by Marta Mainenti, Christopher Siepker, Drew R. Magstadt, Phillip Gauger, David Baum, Barbara Petersen, Taylor Aubrey, Katie Sett, Eric R. Burrough.

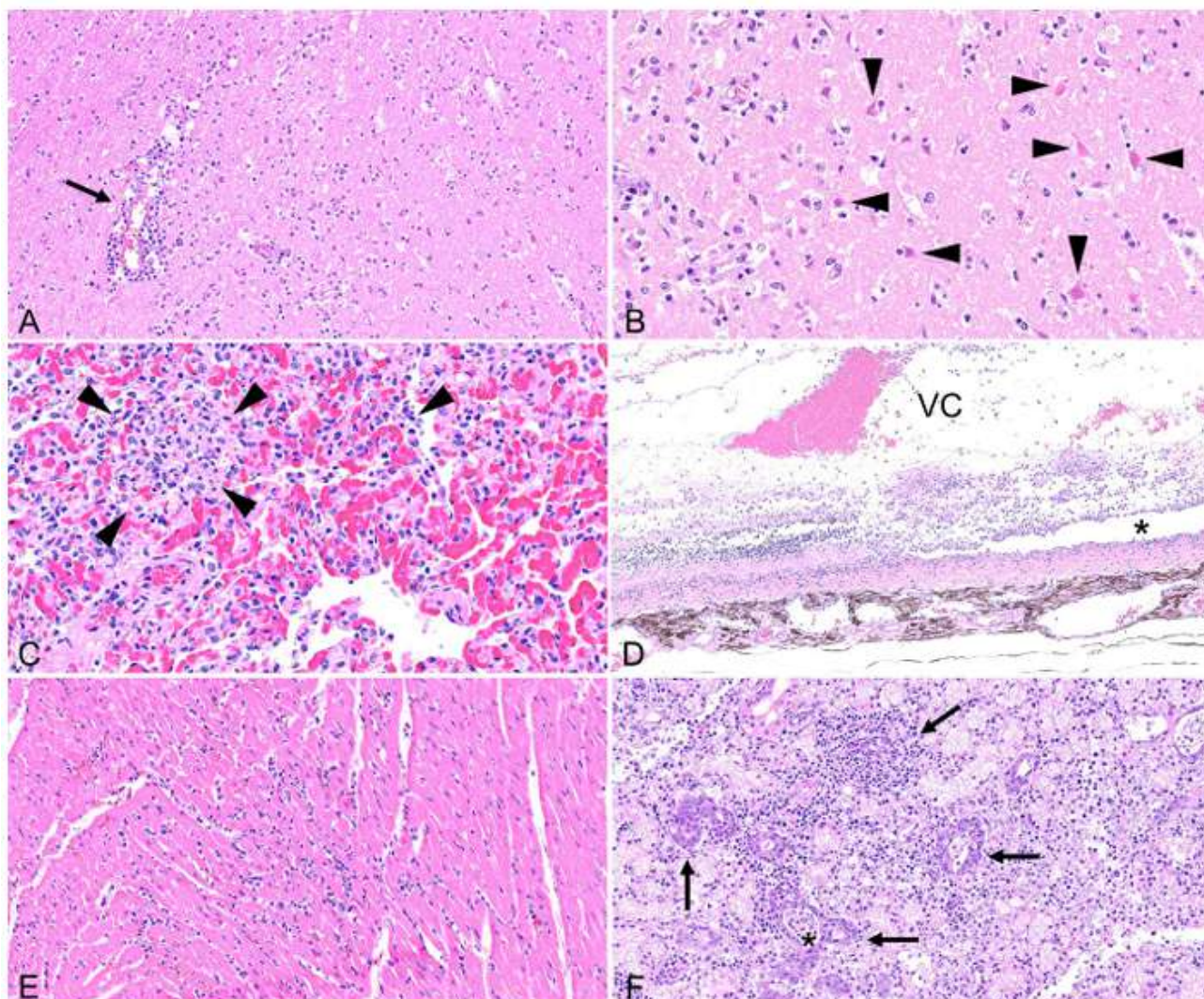
J Vet Diagn Invest 2025;37(1). <https://journals.sagepub.com/doi/abs/10.1177/10406387241300464>

In March 2024, highly pathogenic avian influenza A (H5N1) virus, clade 2.3.4.4b, was detected in dairy cows in the United States, and at the same time in resident cats on affected farms. To help guide sample collection and diagnosis in cats, here we report the distribution of lesions and detection of H5N1 clade 2.3.4.4b influenza A virus (IAV) infection by PCR, immunohistochemistry (IHC), and serology in samples from 4 deceased and 2 living cats from 3 separate affected dairy farms. Although gross lesions were not diagnostic, histologically, all 4 deceased cats had nonsuppurative and necrotizing encephalitis and subtle interstitial pneumonia, and some also had significant myocarditis (3 of 4), chorioretinitis (2 of 4), and sialadenitis (1 of 2). The virus was detected by IHC in the aforementioned tissues, and by PCR in each brain (Ct = 9.9–25.1), lung (17.4–32.7), oropharyngeal swab (28.3–30.5), urine (30.3–34.4), and nasal swab (33.5–34.1) collected postmortem; fecal swabs were PCR-negative. In the antemortem samples, the virus was detected by PCR in the oropharyngeal swabs (34.1–36.1), whole-blood samples (30.8–36.6), and one serum sample (31.7). Seroconversion was detected in one cat. Our results support histologic evaluation of brain, lung, eyes, and heart, and PCR testing of brain and lung for postmortem diagnosis, and show that oropharyngeal swabs, urine, serum, and whole blood are suitable samples for antemortem detection of IAV infection in clinically affected cats.

The Journal of Veterinary Diagnostic Investigation is the official journal of the [American Association of Veterinary Laboratory Diagnosticians](#). The mission of the Journal is to educate by informing readers of progress in veterinary laboratory medicine and related fields of endeavor. The key objectives of the JVDI are to promote the science of veterinary laboratory medicine and the betterment of animal and public health. JVDI fully supports diversity, equity, and inclusion in our publishing activities.



# JVDI IN FOCUS



**Figures 1.** Highly pathogenic avian influenza A (H5N1) virus clade 2.3.4.4.b infection in domestic cats. **A.** Multifocal necrotizing encephalitis with vasculitis (arrow) and gliosis within cerebral cortex. Blood vascular tunics are obscured by mononuclear inflammation. **B.** Acute neuronal necrosis (shrunken, angular, hypereosinophilic pyramidal neurons; arrowheads) and gliosis within the cerebral neuropil. **C.** Acute multifocal necrotizing interstitial pneumonia with alveoli containing fibrin, neutrophils, and necrotic cellular debris (arrowheads). **D.** Segmental, necrotizing chorioretinitis with retinal vasculitis and loss of nerve fibers, ganglion cell, plexiform, and nuclear layers. Photoreceptors are abruptly lost with retinal detachment (asterisk). An exudate of fibrin, hemorrhage, neutrophils, and macrophages is present within the vitreous chamber (VC). **E.** Acute interstitial myocarditis with cardiac myocyte degeneration and necrosis. **F.** Sialadenitis within a submandibular salivary gland with a mononuclear inflammatory infiltrate, degeneration and necrosis of the salivary gland epithelium (arrows), and intraluminal necrotic debris (asterisk).

The Journal of Veterinary Diagnostic Investigation is the official journal of the [American Association of Veterinary Laboratory Diagnosticians](#). The mission of the Journal is to educate by informing readers of progress in veterinary laboratory medicine and related fields of endeavor. The key objectives of the JVDI are to promote the science of veterinary laboratory medicine and the betterment of animal and public health. JVDI fully supports diversity, equity, and inclusion in our publishing activities.



## DIAGNOSTIC EXERCISE



**Case #:** 248; **Month:** November; **Year:** 2024

**Contributors:** Amelia Andersson<sup>1</sup>, Tom Campbell<sup>2</sup>, Marc Seitz<sup>2</sup>, Timothy Morgan<sup>1</sup>

<sup>1</sup>Department of Pathobiology and Population Medicine, Mississippi State University College of Veterinary Medicine;

<sup>2</sup>Department of Clinical Sciences, Mississippi State University College of Veterinary Medicine.

**Corresponding author:** Amelia I Andersson ([aia30@msstate.edu](mailto:aia30@msstate.edu))

**Clinical History:** A 5-year-old castrated male Goldendoodle was presented for a week-long history of seizures and lethargy. There were no past health concerns per the owners and the dog was up to date on vaccines and taking monthly preventatives. Due to prognosis and lack of clinical improvement, the patient was euthanized.

**Necropsy findings:** A centrally located, tan to white extradural mass was present filling the rostral cranium and was loosely adhered to the dura overlying the right and left frontal lobes. The mass was large, multilobulated measured approximately 3.2 cm x 2.8 cm x 2.1 cm, and was soft to firm. On cut surface, the mass was tan to white with a small central cavitation that contained scant friable material. Removal of the mass revealed a slight indentation in the forebrain and there was mild flattening of the caudal cerebellum. The spaces between the gyri and sulci were mildly narrowed.





# DIAGNOSTIC EXERCISE



## Advanced Imaging (Head CT with contrast):

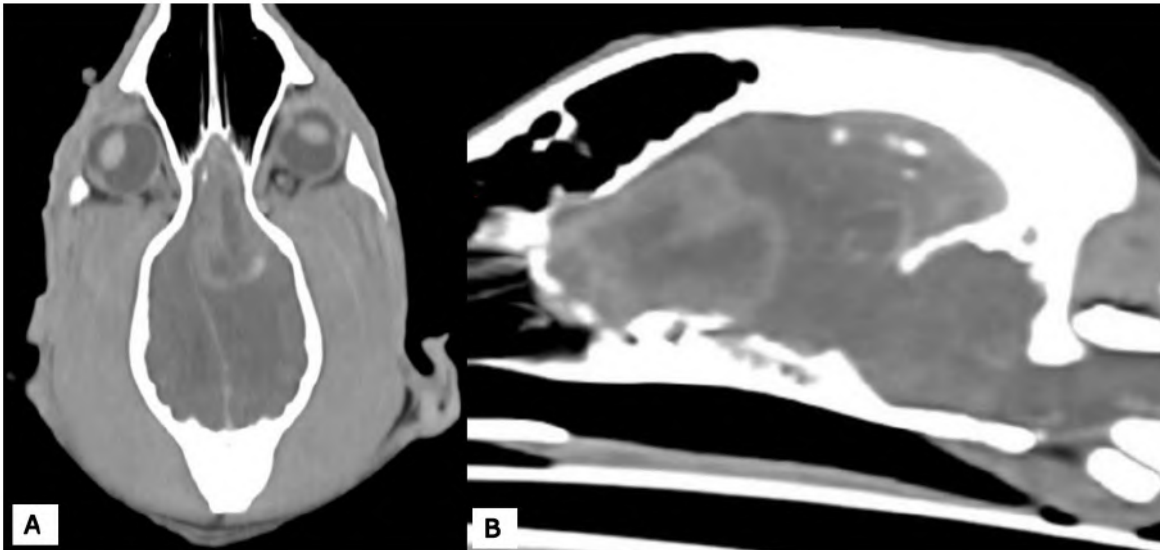


Figure 1.

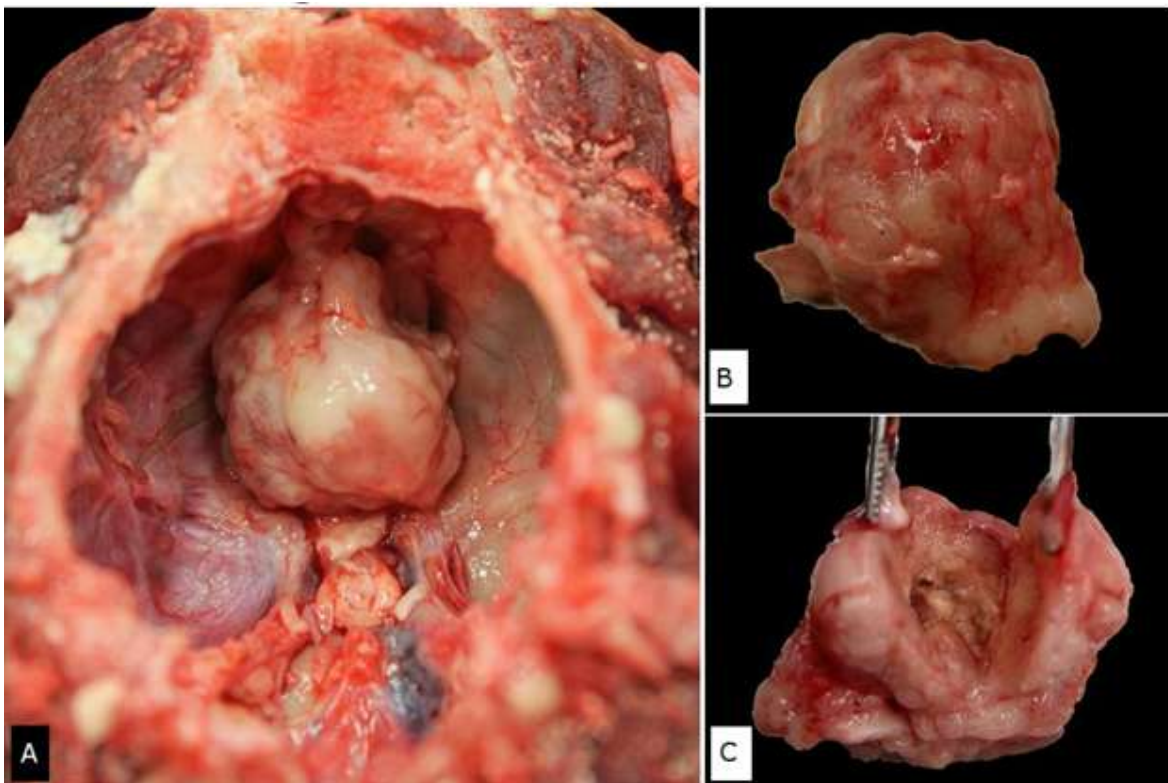


Figure 2.



## DIAGNOSTIC EXERCISE

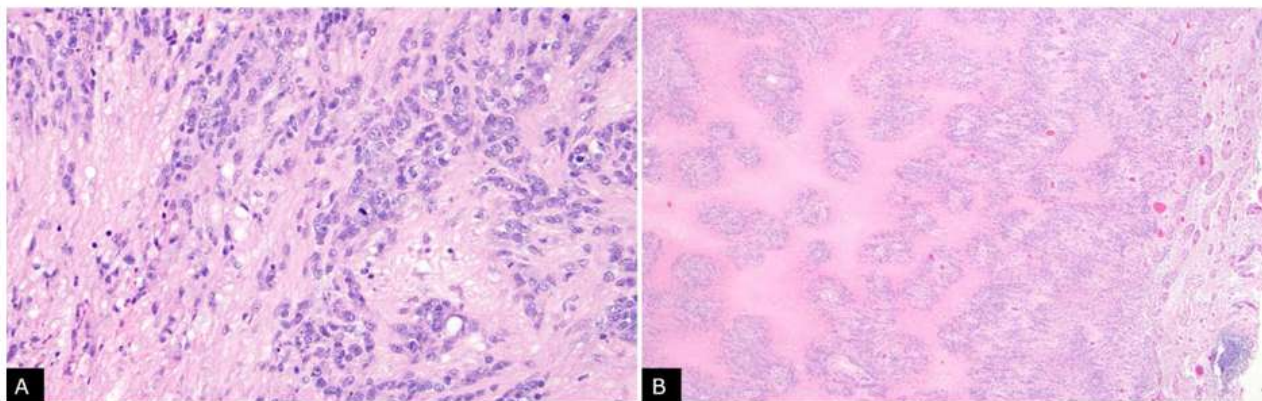


Figure 3.

### Follow-up questions:

- *Based on the imaging and gross lesion, what are your differential diagnoses (Figures 1 and 2)?*
- *Describe the microscopic lesions (Figure 3)?*
- *What differentials would you provide based on the gross and microscopic findings?*
- *What immunohistochemical (IHC) markers or special stains would be useful for diagnostic confirmation?*

[Click here for answers](#)

The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation (DTF). These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the DTF website (<https://davis-thompsonfoundation.org/diagnostic-exercise/>)

**Associate Editor for this Diagnostic Exercise:** Claudio Barros  
**Editor-in-chief:** Daniel Rissi



# GHPN WORKSHOP REVIEW



Davis-Thompson  
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UNIVERSITY  
OF GHANA



## **Global Health Pathology Network and Davis-Thompson Foundation Workshop on Basic Mechanisms of Disease and Regional Diseases of Livestock and Poultry**

**University of Ghana, Accra  
December 11-13, 2024**

*by Dr Sarah Corner and Dr Javier Asin*

The first Global Health Pathology Network (GHPN) workshop in Ghana in conjunction with and supported by the Davis-Thompson Foundation was held over three full days in collaboration with The University of Ghana School of Veterinary Medicine (SVM) in Legon, Accra, and the Accra Veterinary Laboratory on December 11-13, 2024. This workshop focused on basic mechanisms of disease, necropsy, and important regional diseases of livestock and poultry. This workshop was led by GHPN members Dr. Sarah Corner (MSU) and Dr. Javier Asin Ros (UC Davis), along with local hosts Dr. Theophilus Odoom (Director of the Accra Veterinary Laboratory), Dr. Sherry Johnson (Senior Lecturer and Field Epidemiologist at University of Ghana SVM), and Dr. Benita Anderson (Deputy Director and Unit Head of the TseTse Fly Control Unit). Thirty-five workshop participants that included a mixture of field veterinarians and last-year veterinary students engaged in interactive sessions using case scenarios on basic mechanisms of disease and local diseases of poultry and sheep and goats. A full day of hands-on necropsies took place at the Accra Veterinary laboratory where participants

# GHPN WORKSHOP REVIEW

worked on several goat, dog and poultry carcasses submitted to the lab's diagnostic service. The participants' feedback was overwhelmingly positive and highlighted the interactive nature of the training and the hands-on necropsy session as the main strengths of the workshop. The resounding success of this workshop was largely driven by the local hosts, who worked very hard to acquire a meeting event venue to fit the number of participants, organized transportation for the students, and funded lunch and two snack/coffee breaks per day for the participants and facilitators. In addition, during this visit to Ghana, the GHPN formally donated a microscope with camera to the SVM, and a telepathology node will be started using this tool.



**Figure 1.** Participants discussing case scenarios



**Figure 2.** Participants present their answers to the case scenarios



**Figure 3.** Lecture venue



**Figure 4.** Necropsy area at the Accra Veterinary lab



# GHPN WORKSHOP REVIEW



**Figure 5.** Necropsy session



**Figure 6.** Donation of a microscope



**Figure 7.** Last-day group photo with certificates



# RODADAS DE HISTOPATOLOGIA



RODADAS DE  
HISTOPATOLOGÍA DA LCPG



Davis-Thompson  
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## CASOS DE ROTINA

Quinta-feira 16 de janeiro, 2025  
10:30 AM - 11:30 AM CT



**Cesar Menk**  
DVM, DACVP

[Click here to register](#)

# GEN PATH COURSE



Davis-Thompson  
Foundation

## GENERAL PATHOLOGY REVIEW COURSE

SPEAKERS

**JANUARY 27 - 31 + FEBRUARY 6, 2025**



**James Stanton**  
DVM, PhD, DACVP



**Cleverson De Souza**  
DVM, PhD, DACVP



**Patricia Pesavento**  
DVM, PhD, DACVP



**Jairo Nunes**  
DVM, MS, PhD, DACVP



**Kevin Woolard**  
DVM, PhD, DACVP



**Samantha Schlemmer**  
DVM, MS, DACVP



**Bridget C. Garner**  
DVM, PhD, DACVP



**Denise Imai**  
DVM, PhD, DACVP

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# RONDAS DE HISTOPATOLOGIA



RODADAS DE  
HISTOPATOLOGÍA DA LCPG



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## ENFERMEDADES VIRALES PARTE II

**Jueves 20 de Febrero, 2025**  
**10:30 AM - 11:30 AM CT**

INTERACTIVO



VIRTUAL

EN ESPAÑOL



**Mariano Carossino**  
DVM, PhD, DACVP, DACVM

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# CLIC US

## CURRENT LITERATURE AND IMAGE INTERPRETATION COURSE



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CAMBRIDGE

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# WESTERN ROUND ROBIN CASE

## CONTRIBUTING LABORATORY:

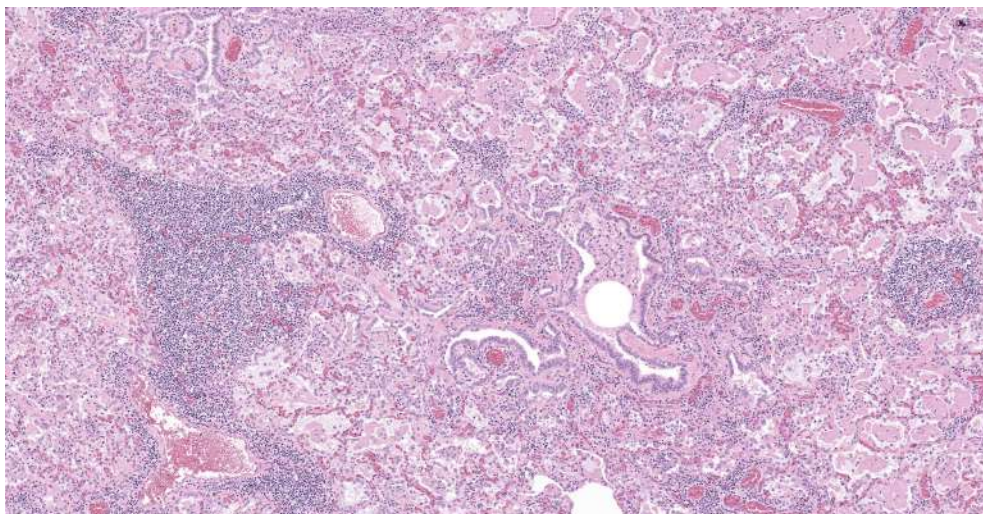
**California Animal Health and Food Safety Laboratory,  
Davis branch, Davis, California**

### **Signalment and history/gross findings:**

6-year-old female La Mancha goat died following a history of weight loss. The animal was submitted for postmortem examination and diagnostic workup. The carcass was in poor nutritional condition with minimal amounts of visceral and subcutaneous fat reserves, and in a mild state of post-mortem decomposition. Lungs were severely enlarged, failed to collapse and had diffuse rubbery texture with rib impressions on the pleural surface. Tracheobronchial lymph nodes were mildly enlarged. All other organs are grossly unremarkable.

### **Histology:**

Lung: Diffusely, alveolar septa are expanded by fibrosis and infiltrates of macrophages, lymphocytes, plasma cells. Alveolar walls are multifocally lined by type II pneumocyte hyperplasia. Additionally, there is marked congestion of the alveolar capillaries and diffuse dense eosinophilic proteinaceous alveolar edema. Numerous foamy macrophages are noted within the alveolar lumen. There is bronchus-associated lymphoid tissue (BALT) hyperplasia associated with the large airways and aggregates of small lymphocytes surrounding vessels.



### **Diagnosis:**

Severe, diffuse, chronic histiocytic, and lymphoplasmacytic interstitial pneumonia with interstitial fibrosis, BALT hyperplasia, type II pneumocyte hyperplasia and alveolar proteinaceous material.



# WESTERN ROUND ROBIN CASE

**Etiology:** Caprine arthritis encephalitis virus (CAEV)

**Comments:** Severe chronic interstitial pneumonia compatible with a lentiviral infection was noted in this goat. Immunohistochemistry revealed lentiviral antigen mainly within the macrophages. CAEV-antibodies were detected via ELISA. CAEV is a monocyte/macrophage-tropic lentivirus, family Retroviridae, which infects goats and is closely related to maedi-visna virus of sheep. This virus causes chronic progressive inflammatory syndromes. The classic lesions include arthritis (>1 year old), encephalomyelitis (2–4-month-old), interstitial pneumonia, and indurative mastitis (“hard udder”). Microscopically, lesions are characterized by interstitial lymphoplasmacytic and histiocytic infiltrates, lympho-follicular hyperplasia, and fibrosis. Recently, interstitial nephritis and cardiac lesions (vascular, myocardial or endocardial) have been described as part of a chronic, multisystemic CAEV infection in goats. The same authors also identified a case of CAEV-associated thrombotic arteritis and infarction.

## References:

1. Caswell JL, Williams KJ. 2016. Respiratory System. In: Jubb Kennedy and Palmer's Pathology of Domestic Animals. 6th ed. Saunders Elsevier, Philadelphia, USA, Ed Maxie MG. Vol 2, 465-590.
2. Murphy BG, Castillo D, Mete A, Vogel H, Goldsmith D, Barro M, Gonzales-Viera O. Caprine Arthritis Encephalitis Virus Is Associated with Renal Lesions. *Viruses*. 2021 Jun 1;13(6):1051. doi: 10.3390/v13061051. PMID: 34206110; PMCID: PMC8230173.
3. Toplu N, Oğuzoğlu TÇ. Caprine arthritis encephalitis virus-induced apoptosis associated with brain lesions in naturally infected kids. *J Comp Pathol*. 2023 Oct;206:36-43. doi:10.1016/j.jcpa.2023.08.008. Epub 2023 Oct 3. PMID: 37797470.

**Contributor:** Nicolas Streitenberger, DVM, PhD, DACVP

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SLIDE IN NOAH'S SLIDEBOX

# ASVP CORNER



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**ASVP**  
Australian Society for  
Veterinary Pathology



**TARONGA  
ZOO**



**AAPSP**  
Australian Animal Pathology  
Standards Program

★ **Australian** ★

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Pathology course**

**Mar 31 to Apr 4, 2025**

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DVM, PHD, DACVP



**LINDEN CRAIG**  
DVM, PHD, DACVP



**PATTY PESAVENTO**  
DVM, PHD, DACVP

- Interpretation and description of gross, macro-micro, microscopic, and ultrastructural lesions
- Image interpretation
- Histo tests
- Peer grading assessments

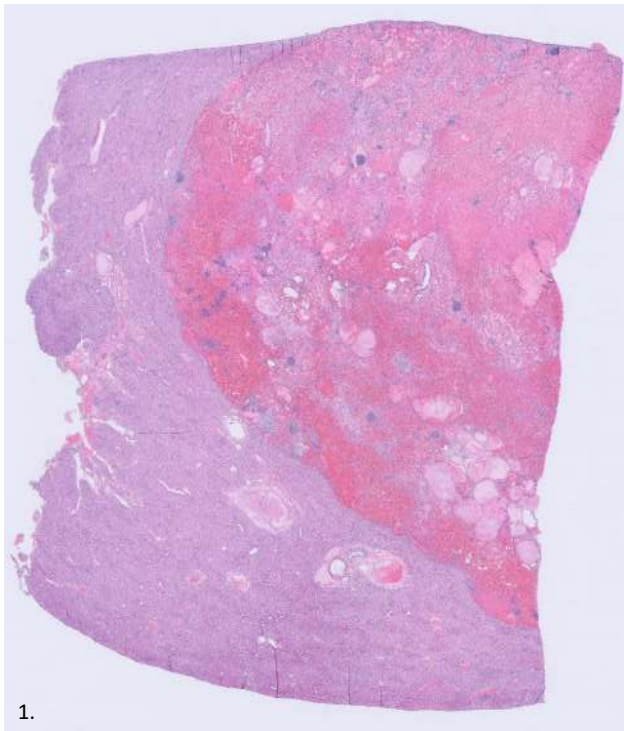


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# IDEXX CASECONNEXX CORNER

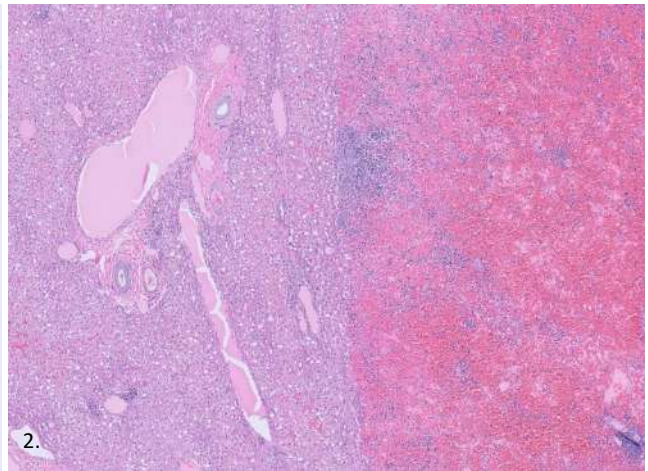
**Signalment:** 9-year-old female, spayed, mixed-breed dog

**Source/ History:** Multifocal hepatic masses. History of previous splenectomy.

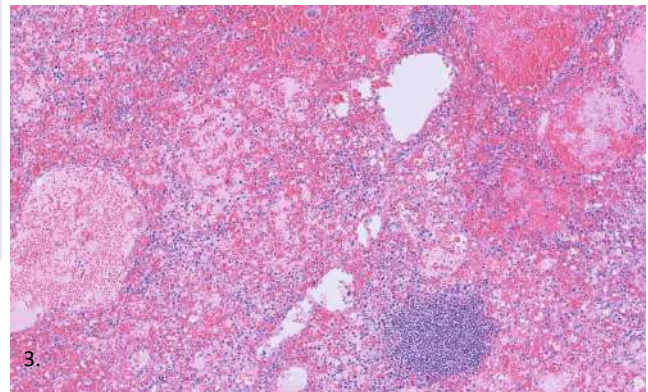


1.

Figure 1. Well-circumscribed expansile nodule of splenic tissue arising within the hepatic parenchyma. 1X, H&E. Figure 2. Abrupt transition from histologically normal hepatic parenchyma to splenic parenchyma. 10X, H&E. Figure 3. Most normal components of splenic parenchyma are present including lymphoid aggregates, congested red pulp stroma, dilated red pulp sinusoids, scattered hemosiderin-laden macrophages, foci of extramedullary hematopoiesis, and rare smooth muscle trabeculae and trabecular vasculature (not pictured). 20X, H&E.



2.



3.

## Histopathologic Description:

**Liver:** The hepatic parenchyma is focally and markedly expanded and replaced by a well-circumscribed, unencapsulated mass consisting of congested but otherwise relatively histologically unremarkable splenic parenchymal elements. Most normal elements of splenic parenchyma are present including variably congested red pulp stroma, multifocal lymphoid aggregates, scattered hemosiderin laden macrophages, foci of extramedullary hematopoiesis, rare widely separated smooth muscle trabeculae and trabecular vasculature, and multifocally dilated red pulp sinusoids containing blood, wispy fibrin, and proteinaceous fluid.

## Interpretation:

Hepatic splenosis

## Comments:

Histopathology of this hepatic mass revealed a well-circumscribed lesion consisting of largely histologically unremarkable splenic tissue. This finding is consistent with a diagnosis of hepatic splenosis. Hepatic splenosis is a rare occurrence involving heterotopic autotransplantation of splenic tissue into the hepatic parenchyma secondary to previous splenic trauma or splenectomy. It is presumed that these lesions arise as a result of seeding of the liver by splenic tissue embolized during splenic trauma or splenectomy via the splenic vein to the gastrosplenic vein and subsequently to the portal vein. Once implanted within the liver, the splenic tissue gradually enlarges and can cause a compressive mass effect within the liver. These lesions can be solitary but, due to the nature of their embolic pathogenesis, frequently present as multifocal masses. In some cases, these masses can rupture and result in hemoabdomen and acute clinical decline; otherwise, these lesions are typically benign, nonneoplastic, and can otherwise present as incidental, clinically silent lesions.

References: Knostman KAB, Weisbrode SE, Marrie PA, Worman JL. Intrahepatic Splenosis in a Dog. *Veterinary Pathology*. 2003;40(6):708-710.; Moser, J., Bacon, N., & Guilherme, S. (2023). Intrahepatic splenosis as a differential diagnosis for hepatic neoplasia in a dog. *Veterinary Record Case Reports*, 11(4).

Case by  
Luke Haydock BVSc (Dist.) DVSc DACVP

IDEXX

CaseConnexx  
Visit CaseConnexx.com to Register



## LCPG CORNER

### **Dr. Paco Uzal, DTF CEO, receives the 2024 Zoetis Veterinary Research Award**

*from the UC Davis SVM website*

Dr. Francisco (Paco) Uzal was honored with the Zoetis Veterinary Research Award for his outstanding research achievements in clostridial diseases and animal models of clostridial infections. As Professor of Pathology, Microbiology & Immunology and branch chief of the California Animal Health and Food Safety Laboratory at San Bernadino, Uzal has devoted nearly 30 years to studying pathogenesis of clostridial infections and led the animal model component of an NIH-funded research program spanning more than two decades. During the last 30 years, Uzal has authored 350 publications with more than half of those on clostridial diseases, in the form of experimental studies or reports of naturally occurring clostridial disease outbreaks in animals.



Clostridia are common bacteria often inhabiting the gut, encompassing several human pathogens such as *C. difficile*, which contribute to more than 30,000 human deaths a year and pose a significant risk for animals. Through his research, Uzal has contributed significantly to pathogenesis, diagnostics, therapeutics, and understanding of the clinical impact of clostridial bacteria. He has identified novel clostridial toxins (toxins produced by clostridial bacteria), pioneered a new classification system for *C. perfringens* toxin types, revealed the mechanistic role of toxins in disease, their mechanism of action, and the triggers that lead to host susceptibility, and developed new tools for diagnosis of clostridial diseases.

## LCPG CORNER

Uzal has developed a diagnostic method for separating innocuous bacteria from toxigenic bacteria in enterotoxemia, which is a condition occurring in nearly every species of veterinary interest and caused by absorption of large amounts of toxins produced by *C. perfringens*. Within the last three years of research, he has focused especially on pathogenesis and clinical sequelae of the *C. perfringens* enterotoxin and the epsilon toxin. In a 2019 publication, he unraveled the mechanism of how the epsilon toxin penetrates the blood-brain barrier.

Alongside his research contributions in clostridial diseases and infections, Uzal has directed the necropsy program of the California Horse Racing Board for about 15 years, which has led to significant reduction in the number of fatalities due to catastrophic bone fractures in racehorses in California. He is a diagnostic pathologist of the California Animal Health and Food Safety Laboratory System, serving as branch chief of the San Bernadino laboratory since 2016. He mentors residents, new faculty, and staff at the San Bernadino laboratory everyday while also sustaining a heavy teaching load in the DVM (block leader- Gastrointestinal), graduate, and resident curricula. In 2023, he advanced to the highest professorial level of University Distinguished Professor and is notably the first veterinary diagnostic pathologist to attain this level in the school's 75-year history.

[Click here for more information about the awards](#)

## LCPG CORNER

### Article by researchers from Argentina, Brazil, and Uruguay receives the Veterinary Pathology Editors' Choice Award


A recent article published in Veterinary Pathology, received the Veterinary Pathology Editors' Choice Award. The article describes that oral administration of *Astylus atromaculatus* preparations lead to acute fatal disease in Hereford calves. Congratulations to the authors!

Domestic Animals – Original Article

#### Experimental oral administration of pollen beetle (*Astylus atromaculatus*) to cattle results in an acute lethal gastrointestinal disease

Veterinary Pathology  
2024, Vol. 61(4) 590–603  
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DOI: 10.1177/03009858241231557  
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Federico Giannitti<sup>1</sup>, Mizael Machado<sup>2</sup>, Caroline da Silva Silveira<sup>1</sup>, Ximena Cibils-Stewart<sup>1</sup>, Nicolás Baráibar<sup>1</sup>, Cintia R. R. Queiroz-Machado<sup>3</sup> , Robert H. Poppenga<sup>4</sup>, Alejo Menchaca<sup>1</sup>, Francisco A. Uzal<sup>5</sup>, Juan A. García<sup>6</sup>, Carolina Matto<sup>7</sup>, Fernando Dutra<sup>8</sup>, Gretel Rupprechter<sup>9</sup>, Darío Caffarena<sup>1,9</sup>, and Anderson Saravia<sup>1</sup>

#### Abstract

In the summer of 2023, ingestion of *Astylus atromaculatus* (pollen beetle) was linked to spontaneous fatal disease in grazing cattle and sheep in Argentina and Uruguay. While the disease was experimentally reproduced in sheep and guinea pigs in the 1970's, no experimental reproductions have been attempted in cattle, and controversy exists as to whether this insect is indeed noxious to cattle and at which dose. Here, we demonstrate that *A. atromaculatus* causes acute fatal disease in Hereford calves at single oral dosages of 2.5, 4.5, 10.0, and 15.0 g of insect/kg body weight. Death or severe disease necessitating euthanasia occurred at 38 to 48 hours postinoculation regardless of the dose, suggesting that the single fatal dosage is likely <2.5 g/kg body weight (this dose representing approximately 850 mL of intact beetles in a 100 kg calf). Clinically, the disease was characterized by acute anorexia, prolonged recumbency, reluctance to move, listlessness/apathy, depression, ruminal hypomotility and tympany, hypothermia, bruxism with frothing at the mouth, and mucoid diarrhea progressing to death. Hematologic and biochemical alterations included hemoconcentration, stress/acute inflammatory leukogram, negative energy balance, and ketosis. The pathological hallmark of this experimental disease is acute necrotizing omaso-reticulo-rumenitis, fibrinohemorrhagic enteritis, and exfoliative colitis with intralesional chitinous insect fragments. While *A. atromaculatus* might contain a gastrointestinal toxin or pathogen, extensive toxicological testing failed to identify a causative toxin. Other pathomechanisms such as direct physical damage caused by insect fragments on the alimentary tract seem plausible, although further studies are needed to elucidate the pathogenesis of *A. atromaculatus*-associated disease.

#### Keywords

alimentary tract, *Astylus atromaculatus*, bovine, experimental disease, enteritis, insects, rumenitis, South America

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THE ARTICLE!



## LCPG CORNER

### **10th Uruguayan Seminar of the CL Davis – SW Thompson Foundation December 5, 2024 Montevideo – Uruguay**

*by Jose Verdes*

The 10th Uruguayan Seminar of the CL Davis – SW Thompson Foundation was held as a satellite symposium during the XXVII Pan American Congress on Veterinary Sciences (PANVET 2024) at the Radisson Montevideo Victoria Plaza, Montevideo, Uruguay. The meeting was organized by faculty of the Department of Pathology, Veterinary Faculty (FVET), and sponsored by the CL Davis/SW Thompson Foundation and the Latin Comparative Pathology Group. The Organizing Committee was led by Prof Dr José Manuel Verdes, and included colleagues of FVET and the National Veterinary Laboratories (DILAVE) “Miguel C. Rubino” MGAP. The seminar was attended by an enthusiastic group of more than 60 participants, including pathologists, equine practitioners, scientists, lecturers, undergraduate and postgraduate students from several institutions the Americas.

Francisco Uzal, UC Davis School of Veterinary Medicine and Fernando Dutra, DILAVE, Uruguay, were the keynote speakers, and lectured on several aspects of equine pathology and some interesting epidemiologic, clinic, pathologic and historic aspects of Potomac Horse Fever in Uruguay. Drs Cecilia Abreu and Belén Varela, lectured on other complementary topics of Equine Medicine and Pathology. This 10th Uruguayan Seminar of the CL Davis – SW Thompson Foundation received financial support from FVET, CSIC-Udelar (Comisión Sectorial de Investigación Científica, Universidad de la Republica).

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Participants and speakers of the 10th Uruguayan Seminar of the CL Davis – SW Thompson Foundation (top). Francisco Uzal during one of his keynote lectures (bottom).

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## **XXV Interinstitutional Seminar of Histopathology in Argentina**

*by Dra. Mariana Machuca and Mag. Natalia Caggiano*

These meetings have been organized two or three times a year since 2012 by the Laboratory of Special Pathology Dr. B. Epstein (LAPEVET) of the Faculty of Veterinary Sciences at UNLP, in collaboration with the Pathology Area of the Faculty of Veterinary Sciences at the University of Buenos Aires (UBA). Their primary objective is to enhance the description and evaluation of microscopic lesions and to develop diagnostic interpretation skills. The seminars provide a valuable and supportive space for sharing interesting cases, exchanging ideas, and training teachers and advanced students in histopathology. The seminar was attended by 77 participants, including pathologists, professors from 11 institutions, postgraduate students, and private practitioners from Argentina, Chile, and Spain. Some participants joined virtually from various provinces, other countries, and overseas.

On this occasion, the traditional histopathology seminar featured the presentation of nine fascinating cases involving domestic and non-domestic species, contributed by seven different institutions or private practitioners. The slides were scanned by Dr. Fernando Delgado and collaborators from INTA Castelar, allowing all participants to review the cases virtually before the seminar.

Thank you to all the participants!



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Participants and speakers of the XXV Interinstitutional Seminar of Histopathology in Argentina.

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**XIV**

## REUNION ARGENTINA DE PATOLOGIA VETERINARIA

24, 25 Y 26 DE  
SEPTIEMBRE, 2025

Actividades pre jornada el 23!

ORADORES: DON MEUTEN, VERENA AFFOLTER, CLAUDIO BARBEITO,  
JUAN MICHELOUD , FRANCISCO UZAL, Y MÁS

**EVENTOS PREVIOS**

**EVENTOS ESPECIALES**

▶ Taller de escritura científica

Taller de histopatología ◀

Encuentro SAOV ◀



EN PERSONA



UNIVERSIDAD CATOLICA DE CORDOBA, ARGENTINA



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A graphic for the Latin Comparative Pathology Group (LCPG). It features a central map of Latin America with a purple and blue color scheme. Surrounding the map are five circular inset images: a cow's head with a red tumor, a microscopic view of purple-stained cells, a white cat's face with a red tumor, a cross-section of a reddish-brown organ, and a group of people in a lecture hall. The LCPG logo is in the top left corner.

**Become a member of the Latin Comparative Pathology Group**

**LCPG:**

- Provides Diagnostic Exercises
- Offers travel awards
- Coordinates externships in US labs for Latin Americans
- Organizes and lectures in Latin American seminars and courses

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# GHPN SCHOLARSHIPS



## DTF-GHPN Education Scholarship For Select DTF On-Line and/or Course Material



**Background.** The Global Health Pathology Network (GHPN), under the umbrella of the Davis-Thompson Foundation (DTF) for Veterinary Pathology, conducts workshops in resource-constrained settings focused on enhancing veterinary diagnostic abilities using interactive educational modalities and adult learning principles. In part, the success of the GHPN training workshops is built on the successes of in-country veterinary pathologists and professionals in various locations worldwide. Consequently, to expand the sphere of the network through the development of capable, motivated professional cadre, the GHPN recognizes the importance of practicing professionals to have the opportunities for continued professional development.

**Objective.** Through GHPN's alignment with the DTF, the DTF will offer up to 10 educational scholarships to attend select DTF on-line courses and/or have access to the course material at no-cost.

**Application Criteria.** All applicants must prepare a 2-3 paragraph statement (no more than 300 words) addressing the following:

- Biographical information to include current work or academic history
- Reason(s) for applying for the DTF educational scholarship
- If awarded, the applicant's willingness to host a future GHPN workshop in his/her country.

**Selection procedures and policies.** GHPN leadership will screen all applications and submit the qualified applicants to the DTF for recommendation and final approval. Scholarship selection is based on the assessment of the applicant's statement and will be determined based on several factors

# GHPN SCHOLARSHIPS

to include relevant background, aptitude, training and mentorship abilities in veterinary pathology and animal health. The applicant's current location of employment and/or training will also be considered to ensure equitable distribution of scholarship opportunities in the given year. Applicants should send applications 30-60 days prior to the beginning of the course to allow for adequate review of the application. A list of upcoming and/or recurring select courses can be found under "Events" tab on the DTF website: <https://davisthompsonfoundation.org/>

## **Application Procedures Questions and Answers:**

**Q:** Where and when are applications available/due?

**A:** Open registration; applications can be received at any time

**Q:** Where should applications be sent?

**A:** A signed PDF or word document paragraph statements are sent to [GH-PathNetwork@gmail.com](mailto:GH-PathNetwork@gmail.com)

**Q:** What additional information/documents must accompany the application?

**A:** None; the signed paragraph statement is the only item required

**Q:** How and when will the scholarship award winners be notified?

**A:** Award winners will be notified via electronic correspondence sent to the email address in the paragraph statement

**Q:** When can the educational scholarships to attend select DTF on-line courses and/or have access to the course material be used?

**A:** Once awarded, the scholarship can be used at any time over a 365 day period from the date at which the scholarship is awarded. Any additional questions regarding the DTF-GHPN educational scholarships and/or the GHPN general can be submitted to [GHPathNetwork@gmail.com](mailto:GHPathNetwork@gmail.com)

# MISCELLANEOUS ANNOUNCEMENTS

**JVDI** Journal of  
Veterinary  
Diagnostic  
Investigation



The Official Journal of  
American Association of Veterinary Laboratory Diagnosticians



## JVDI Call for Submissions

please submit an abstract of up to 250  
words describing your proposed topic by March 1, 2025

### “Special issue on racehorse diseases, injuries, welfare, and safety”

Racehorse welfare and safety is a vital component of the racing industry, with ever-increasing scrutiny and expectations from both the general public and the racing community. Since 2009, catastrophic musculoskeletal injuries sustained during Thoroughbred racing have decreased by over 40%, with continued room for improvement. The postmortem examination provides invaluable information not only in cases of catastrophic musculoskeletal injury, but in the event of exercise-associated sudden death, or deaths due to medical causes.

We are inviting submissions to a JVDI special issue on racehorse diseases, injuries, welfare, and safety to be guest edited by Dr. Laura Kennedy, University of Kentucky; Dr. Francisco Uzal, University of California–Davis; Dr. Julie Engiles, University of Pennsylvania; and Dr. Sue Stover, University of California–Davis.

If you are interested, **please submit an abstract of up to 250 words describing your proposed topic by March 1, 2025.** Full research papers, case series, brief reports, and reviews of a focused topic will be considered, as will single-animal case reports if they are novel and include a review of the literature on the focused topic of the report. For abstracts on topics considered suitable for the special issue, authors will be notified by March 15, 2025, and full submissions will be expected by September 1, 2025. Submitted manuscripts will proceed through the usual JVDI peer-review and editorial process, with publication expected in the winter of 2025–2026. Page charges of \$75/printed page will apply —there is no color page charge for online-only publications.

Please submit your abstract to guest editor Dr. Laura Kennedy,

[dlaurakennedy@uky.edu](mailto:dlaurakennedy@uky.edu)



# MISCELLANEOUS ANNOUNCEMENTS



## STP 44TH ANNUAL SYMPOSIUM

Toxicologic Neuropathology: Basics and Beyond

Chicago, Illinois, June 22–25, 2025



Dear Colleague,

The Society of Toxicologic Pathology (STP) is seeking to broaden its membership by reaching out to scientists and students (veterinary/residents/graduate) involved or interested in safety assessment, teaching, or research in toxicologic pathology/toxicology and inviting them to join the STP and attend our 44th Annual Symposium: Toxicologic Neuropathology: Basics and Beyond, scheduled for **June 22–25, 2025**, at the **Fairmont Chicago – Millennium Park** in **Chicago, Illinois**. The symposium promises an exceptional opportunity to engage with leading experts, share insights, and deepen our understanding of critical topics in toxicologic neuropathology.

To help us reach scientists and students at your institution with a variety of backgrounds and research interests, we kindly ask that you post our Annual Symposium (see below) in your departmental newsletter and/or continuing education section of your Website. Alternatively, please forward this information to the appropriate person or provide us with the contact information.

Please note that there are several different opportunities for **students** to apply for monetary awards through the generous Student Awards program. The deadline for most awards is **March 30**. See individual award details for nomination/application and selection processes. Registration fees are waived for active STP student members. Nonmember students who apply by **April 1** for STP student membership (\$35 annual dues) and are approved can also register for free. In addition, *nonmember meeting registrants who apply for membership by July 1 and are accepted will receive complimentary membership for the remainder of 2025*. Please visit [www.toxpath.org](http://www.toxpath.org) to apply for membership.

### Important Deadlines

- Abstract Submission Deadline: **March 30**
- Student Awards Application Deadline: **March 30**
- Early Bird Registration Deadline: **April 30**

### Student Awards and Grants (Deadline: March 30) (<http://www.toxpath.org/am2025/awards.asp>)

- Student Travel Grants
- STP Young Investigator Awards
- STP Environmental Toxicologic Pathology SIG Student Research Award
- The Daniel Morton and Laura Dill Morton Scholarship (*Deadline: November 1, 2025*)
- IATP/STP Charles Capen Trainee Award (*Deadline: November 1, 2025*)

### For the Web:

#### SOCIETY OF TOXICOLOGIC PATHOLOGY (STP) 44TH ANNUAL SYMPOSIUM

STP cordially invites you to the **STP 44th Annual Symposium: Toxicologic Neuropathology: Basics and Beyond**, scheduled for June 22–25, 2025, at the Fairmont Chicago – Millennium Park in Chicago, Illinois. The unifying theme of the symposium, “Effective animal-to-human translation in neurotherapeutic development,” features five comprehensive sessions, covering topics such as Fundamentals of Neuropathology, Neurodegenerative Diseases, Neurobiomarkers, Neuro-Omics, Hot Topics, Challenges, and Future Directions. Join your colleagues and immerse yourself in a dynamic program with cutting-edge scientific sessions, enriching continuing education courses, and valuable networking opportunities. Please visit the [Annual Symposium website](#) for additional information and to review the preliminary program.

Thank you very much.

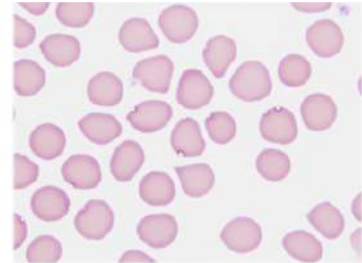
Best regards,  
STP Membership Committee

# MISCELLANEOUS ANNOUNCEMENTS

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# MISCELLANEOUS ANNOUNCEMENTS



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**NEW  
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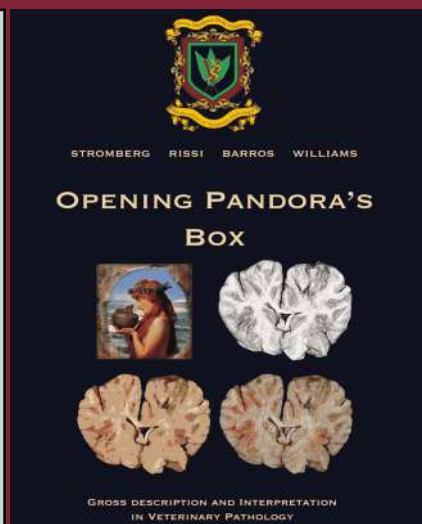
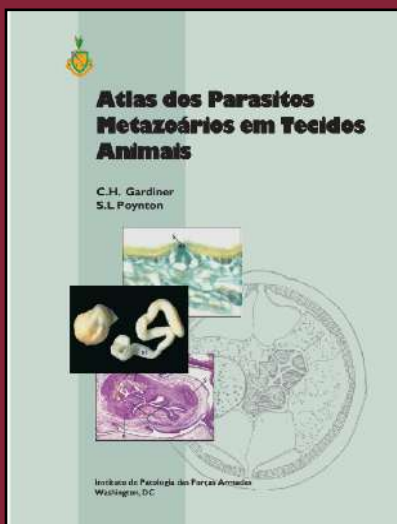
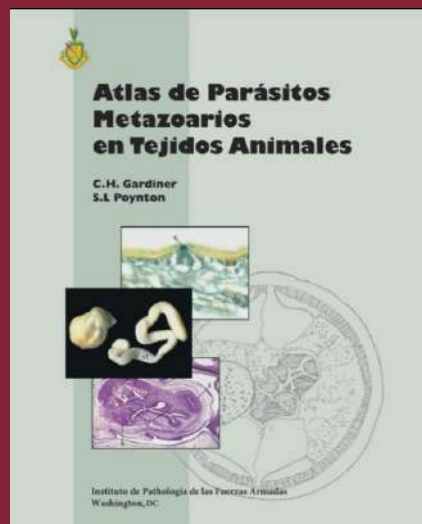


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# MISCELLANEOUS ANNOUNCEMENTS



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## RETIRING?

Have slides left over from your recent slide seminar? Just looking to free up some storage space? The Foundation is looking for additional glass slides, kodachromes and other similar materials for its Correspondence Division and Study Centers. All materials should be well identified with as much accompany history and discussion as possible, as these materials are expressly used for teaching. Moreover, as the Foundation is a publicly donative charity, all donated materials are tax-deductible. For more information, please contact Dr. Bruce Williams at [bruce.h.williams.dvm@gmail.com](mailto:bruce.h.williams.dvm@gmail.com).

## Davis-Thompson Foundation Pathology Externship

Since 1980, the Davis-Thompson Foundation lab sites have hosted more than 125 veterinary students at 8 participating diagnostic laboratories. These students usually have a strong interest in pathology itself or zoo or poultry medicine that require a strong pathology background. The Foundation is always interested in having veterinary students apply for an externship and we would like to add more externship sites that do not usually have veterinary students, to help increase their interest and knowledge of pathology with some off-campus experience. For more information, contact Dr. Jim Britt, [jobritt@sbcglobal.net](mailto:jobritt@sbcglobal.net); 501-912-1449.



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Phone: 847-367-4359

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JANUARY 2025