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For the advancement of veterinary
and comparative pathology

THE DAVIS-THOMPSON FOUNDATION NEWSLETTER

March

VOL. 54



A 4-month-old, female wild boar (*Sus scrofa*) presented with mycotic rhinitis after being treated with antibiotics during a PCV2 infection. *Aspergillus fumigatus* and *Aspergillus niger* were isolated.

Confirmation of nasal aspergillosis in a dog is best done using which diagnostic test(s)?

- a) Culture alone
- b) Urine galactomannan assay
- c) Serum galactomannan assay
- d) Rhinoscopy and histopathology

INSIDE THIS ISSUE

Monthly cover photograph winner: David Driemeier

Universidade Federal do Rio Grande do Sul (UFRGS) - Departamento de Patologia Clínica Veterinária

Answer: D. Rhinoscopy and histopathology

A diagnosis based on culture results alone is not appropriate, because aspergilli are ubiquitous and can be isolated from the nasal cavities of healthy dogs. Serologic assays are generally considered unreliable because of frequent false negative results. A urine or serum galactomannan assay is sensitive for disseminated aspergillosis in dogs but cross-reacts with other fungal species.

-Dr. Katherine D. Watson - Cover Image Editor

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

- | | |
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MESSAGE FROM THE CEO

Dear colleagues,

Welcome to the March issue of the Davis-Thompson Foundation Newsletter. As usual, this newsletter comes to you with the compliments of our outstanding editors Jeann Leal and Javier Asin.

As every month, our newsletter comes loaded with information about the myriad training opportunities offered by the Foundation in several languages all over the world. Organization of our CLIIC, POLA and CLASS courses is in full swing and registration is already open. Look them up in the following pages or in our [website](#).

Our classic Descriptive Veterinary Pathology Course is being reimaged. We are working together with the American College of Veterinary Pathologists in what we expect to be a 3-day virtual component followed by a 2-half-day in-person component at the 2024 ACVP/ASVCP Annual Meeting. More information coming soon. Stay tuned!

This month we are proud to include in our Expert's Corner, what we hope will be the first of a series of articles written by the legendary Professor Donald McGavin, on tissue fixation. Thank you, Don!

And as it is already a tradition, I want to close this message highlighting our great Volunteer Appreciation Campaign organized by Dr Rafaela De Negri (thank you Rafa!!!). Remember that all the activities of the Foundation are done by volunteers, and they are the pillars of our organization. Please thank them warmly any time you have the pleasure to interact with them. This month we celebrate Dr Jeann Leal, one of our outstanding newsletter managing editors. Thank you and congratulations, Jeann!

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

Kind regards

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



JVDI IN FOCUS

Our March focus is an article appearing in the March issue: “**Coinfection by *Mycobacterium marinum* and *Mycolicibacterium fortuitum* in a captive adult diamondback water snake causing disseminated mycobacteriosis with acute cutaneous ulceration**” by Daniel Felipe Barrantes Murillo, Tatiane Terumi Negrão Watanabe, Emi Sasaki, Gordon J. Pirie, Nobuko Wakamatsu.

J Vet Diagn Invest 2024;36(2). <https://journals.sagepub.com/doi/abs/10.1177/10406387231224465>

An adult male captive diamondback water snake (*Nerodia rhombifer*) was found dead after a 1-d history of lethargy and cutaneous ulcers. The snake had eaten 2 sunfish (*Mola* spp.) 5 d before death. Gross examination revealed white-to-tan nodules in the lung and liver and segmental intestinal impactions with digested fish. Histopathology confirmed disseminated granulomas with numerous intrahistiocytic acid-fast bacteria in the skin, skeletal muscle, lung, liver, and intestines. *Mycobacterium marinum* and *Mycolicibacterium fortuitum* were identified by culture of the hepatic granuloma, followed by PCR and *rpoB* gene sequencing. To our knowledge, this is the first description of *M. marinum* and *M. fortuitum* coinfection in this species. Although *M. fortuitum* has been isolated from reptiles, lesions associated with its presence in tissues have not been described previously. Interestingly, the mineralization within granulomas that we observed in our case is not reported in mycobacterial infection in reptiles, whereas this finding is common in mammals.



Figure 1. Disseminated mycobacteriosis in a diamondback water snake (*Nerodia rhombifer*). A. Multifocal cutaneous ulceration and necrosis (arrowheads). Inset: cutaneous lesions extended to the subcutis, throughout the body including the right ventral cervical region (arrowhead). B. Slightly raised, white-to-pale-tan, pinpoint-to-0.5-cm nodules extended into the hepatic parenchyma (arrowheads). The small and large intestines had distended segments, and the intestinal wall was transmurally red-to-dark-red (asterisk). C. The hepatic parenchyma is effaced by granulomas composed of a central area of necrosis and degenerate leukocytes with occasional mineralization (asterisks) surrounded by epithelioid macrophages and multinucleate giant cells (Langhans and foreign-body types) admixed with scattered heterophils. H&E. Bar = 250 μ m. D. Myriad intrahistiocytic acid-fast-positive bacilli. Ziehl-Neelsen stain. Bar = 20 μ m.

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.

Editor-in-chief, Dr. Grant Maxie / <https://journals.sagepub.com/home/VDI>

EXPERT'S CORNER

FIXATION, TRIMMING and PROCESSING of TISSUES

By M. D. McGavin

This contribution was inspired by a comprehensive monograph on tissue processing for histology by M. D. McGavin, Professor Emeritus, Department of Pathology, College of Veterinary Medicine, University of Tennessee. It has been updated and partially rewritten by Roger Kelly and Paco Uzal.

GENERAL PHILOSOPHY

There is a tendency by inexperienced pathologists merely to whittle up an animal (especially one without any gross lesions), place the pieces in fixative and then trim in large numbers of tissues without thought to orientation, artifacts, optimal fixation, etc., in the hope of finding significant lesions.

In previous times, all trainees would have spent weeks or months in a histopathology laboratory, in order to acquire experience of the problems that occur on a routine basis. If a pathologist is to avoid making work difficult for the histotechnologist, she/he must understand the basic histological preparative processes:

- * The relative risk of autolytic and pressure artifact in different tissues
- * The chemical basis and principles of the various methods of tissue fixation
- * The principles and practice of tissue embedding and microtomy
- * The indications and limitations of the various histological stains.

This paper will deal with the first two of these operations: tissue sampling and fixation.

GENERAL PRINCIPLES OF SAMPLING, FIXATION AND TRIMMING

Fixation and the postmortem interval. Most tissues contain some contractile component (muscle or collagen) and if very fresh will contract in contact with 10% buffered neutral formalin (BNF). The result of this contraction will cause distortion, e.g. small

intestine rolls up like a roller blind, and muscle will develop contraction band artifacts.

But these are minor problems when set against the beauty of rapidly-fixed histological material. Enterocytes, for example, will begin to loosen and slide from the small intestinal villous basement membrane within 2 minutes after circulation ceases, so if small bowel disease is suspected, samples must be collected very rapidly after euthanasia, even if this means disruption of the usual dissection routine.

Dissection trauma. Tissues such as skin and bone are tough enough to withstand quite rough handling without sustaining much pressure artifact. But it is almost impossible to handle parenchymatous organs and hollow viscera with fingers or forceps without physically damaging them to some degree. So pathologists must acquire the ability to handle tissues much more gently than, say, surgeons, about whom pathologists have been known to murmur: 'Their mistakes have a chance to heal.' It is desirable to handle tissues with fingers as little as possible. Manipulate soft tissues by using toothed forceps on the connective tissue adjacent to the tissue to be sampled. Why toothed forceps? Well, if a piece of tissue that has been crushed by toothed forceps should by mistake be included in a histological section, there will be no doubt as to the cause of the artifact so produced.

The sharper the knife, the less the pressure needed to transect tissue. This is obvious, but it is alarming how many residents and pathologists are entirely incapable of sharpe-

EXPERT'S CORNER

ning a knife. During cutting, the knife must be drawn towards the prosector so the actual cutting is a mixture of downward and tangential pressures. When slicing brain, the prosector should use little downward pressure but a tangential cut from a long brain-slicing knife.

Scissors – even sharp ones – crush rather than cut, so one should avoid including scissor-cut surfaces in histological sections, although this may not always be possible, especially when dealing with lung or blood vessels.

Tissue sampling and fixation. The thinner the tissue sample, the quicker the fixation, obviously, but there are limits to the thinness one can shave off an organ, even with a very sharp knife. Five to 7mm from a solid organ is a reasonable compromise. It is obvious that fixation will be delayed in the center of bulky blocks of solid tissue, so if such samples are received from the field or inexperienced students, tissue must be trimmed from the surface of the block to obtain the best histology possible.

Brain fixation needs special consideration, as sometimes does lung. These will follow in later instalments.

The recommended ratio between volume of fixative needed, and volume of the sampled tissue is traditionally quoted at 10:1. But it is better to err generously; formalin is cheap.

Fixation time varies to some extent with the nature of the tissue and its thickness: the process can be accelerated by heat, agitation and microwaving. The mild heat in the tissue processor for a short while is excellent. These general remarks will apply to tissue fixation by formaldehyde in the form of 10% BNF. A saturated solution of formaldehyde gas in water (37% w/v) is known as “100% formalin”, so the 10% BNF fixative is 100% for-

malin diluted 10x in phosphate buffer. Without the buffer, the pH of the solution will often be less than 6, especially if formic acid has formed, as it does in industrial-grade formalin. At pH below 6, free haemoglobin polymerizes to brown artifactual ‘formalin pigment’ that resembles haemosiderin. Tissue samples received from field veterinarians will often be fixed in unbuffered formalin, so formalin pigment will often be a feature of these specimens, particularly after longer postmortem intervals. It can be removed by soaking in picric acid before staining.

Fixation of tissues with high mucin content. Intestinal mucosa is easily damaged, both by delayed fixation (as mentioned above), and by difficulty in handling the slippery tissue after fixation. But fixatives that contain acetic acid as well as formalin – such as Bouins – fix the mucin and the cells, and these can be useful for slimy tissues. As a bonus, they tend to make certain intranuclear viral inclusion bodies more obvious. However, these acidic fixatives interfere with haematoxylin staining if the tissue stays in them too long, and they hemolyse erythrocytes. The fixation of surface mucin by Bouins takes only an hour, so after that the sample should be transferred to 10% NBF to complete fixation. This will improve subsequent H&E staining of the sections.

Bouin's fixation has been discontinued by some laboratories because of its disadvantages, but it does have its proponents.

Trimming samples for paraffin embedment. Since embedment involves the use of tissue cassettes, it is easy to ensure that the histotechnologist will always know from which surface to start cutting sections: you just make sure trainees know that the surface from which the sections are to be cut is always placed facing the bottom of the cassette.

EXPERT'S CORNER

Ideally, if surgeons want to be sure about the relationship between malignant tissue and surgical excision lines (surgical margins), they will paint the incised surfaces of a biopsy with a dye that will identify the excised surfaces in histological sections. If the sample is bulky, they may incise it one or more times after dyeing it; these incisions will then be recognizable as post-surgical. Unfortunately, as we all know, surgeons tend to be a law unto themselves and have been known to ignore pathologists' advice. If they do paint cut surfaces, they are likely to do it as an afterthought, after having made a few incisions into the mass.



Dr. M.D. McGavin

VOLUNTEER CORNER



Hello! I'm
Jeann Leal



What's your background?

I am originally from Brazil. I received my DVM from Universidade Federal de Campina Grande (UFCG), where I also attained a Masters in Veterinary Medicine. After a brief period working in a private practice as a clinician, I sought out the opportunity to pursue a PhD in Veterinary Pathobiology and was fortunate to do it at Texas A&M University. After 5 years in College Station, TX (Gig'em Aggies!), I returned to Brazil for a postdoctoral research opportunity at the Universidade de São Paulo (USP) in Southeastern Brazil.

What's your role?

Currently I have been working with Dr. Javier Asin and Dr. Paco Uzal on the Foundation's newsletters. I have learned a lot from these guys! Our job is pretty much summarizing everything that the Foundation does and organizing all the pieces of information into the newsletter.

Tell us more about yourself!

I am currently assistant professor of Avian Pathology at Universidade Federal da Paraíba (UFPB) in Northeastern Brazil. Additionally, I serve as coordinator for the Research Group on Conservation Medicine at UFPB. I have been fortunate enough to work with wild and zoo pathology since Vet School. My research focus is on infectious and non-infectious diseases of wild, zoo and pet birds. Our group also conducts outreach projects on environmental education to the local community. Our students teach the importance of Wildlife conservation, the risks and impacts of the illegal wildlife trade, environmental degradation and predatory hunting to elementary and middle school students at the public education system. Our project ambassador, Indigo, is a Black-chested Buzzard-eagle (*Geranoetus melanoleucus*) seized from the illegal wildlife trade. It unfortunately lost one of its wings when illegally captured. Indigo is now a permanent resident of our Veterinary Hospital and has a very important job of educating new generations of citizens.



DIAGNOSTIC EXERCISE

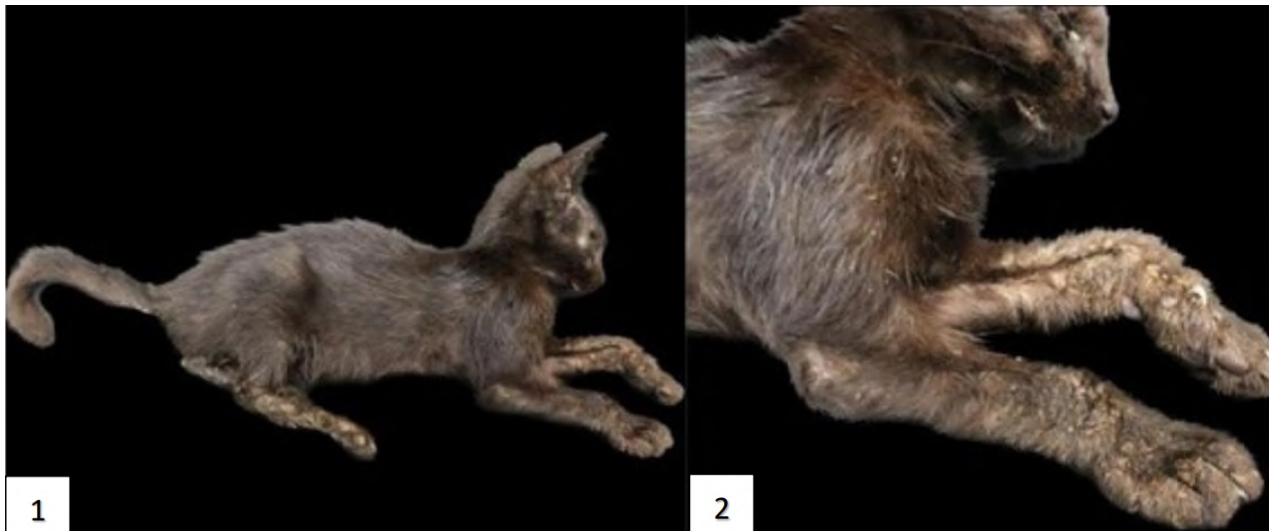


Case #: 230; **Month:** February; **Year:** 2024

Contributors: Regina T. Kemper, Brandon N. Dozer, and Maria Jose Navarrete Talloni. Department of Biomedical Sciences, Ross University School of Veterinary Medicine. rkemper@rossvet.edu.kn.

History: A stray domestic short hair cat, approximately 7 weeks of age, died under the care of a first contact practitioner and was submitted to autopsy.

Necropsy Findings: Gross examination revealed marked symmetric alopecia primarily affecting the limbs, with associated crusting, hyperkeratosis, and mild ulceration (Fig. 1). The lesions extended to the lateral and medial borders of the pinna. Similar lesions involving the nail beds, paw pads, and pressure points were evident (Fig. 2).

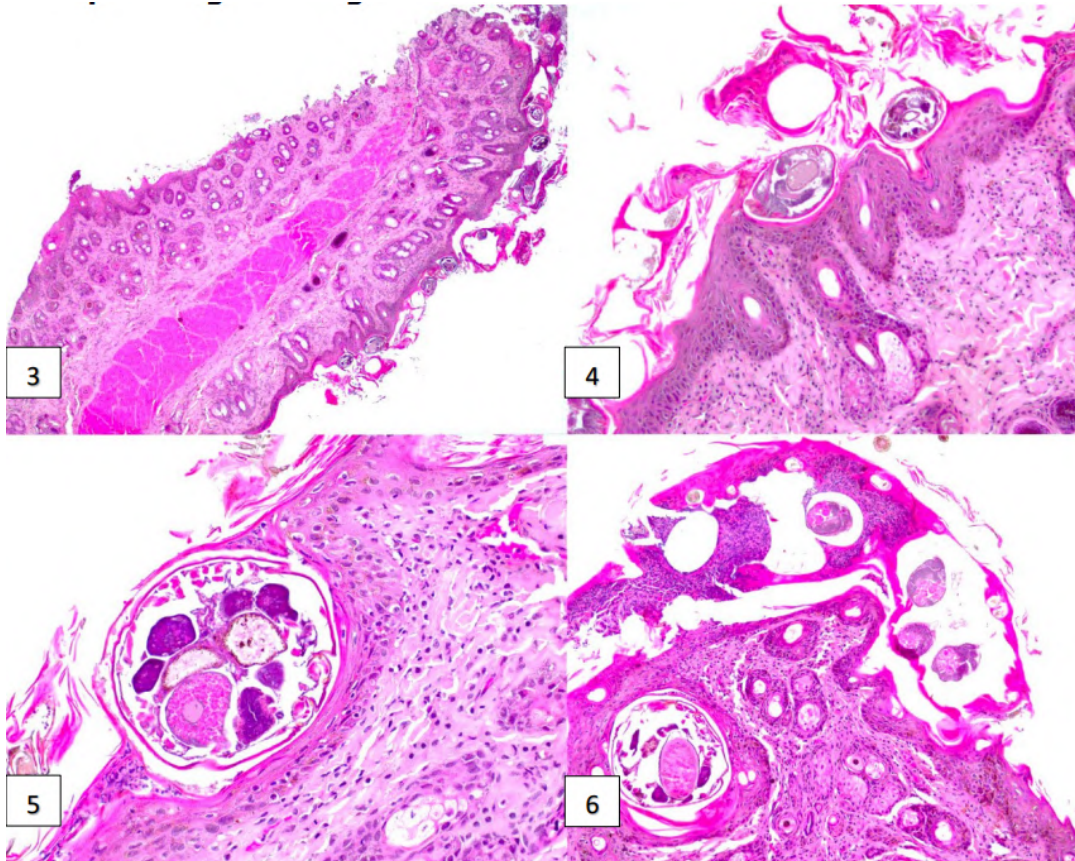




DIAGNOSTIC EXERCISE



Histopathological images:



Follow-up questions:

- Microscopic description
- Morphologic diagnosis
- Etiology
- Disease

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. 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 Foundation's website (<https://davisthompsonfoundation.org/diagnostic-exercise/>).

Associate Editor for this Diagnostic Exercise: Saulo Pavarini
Editor-in-chief: Claudio Barros

SEMINAR REVIEWS

GENERAL PATHOLOGY REVIEW COURSE 29 JAN - 2 FEB, 2024

Course Organizer



James Stanton
DVM, PhD, DACVP

BY RACHEL NETO



Drs. Koehler, Pesavento and Stanton welcome everyone on Day 1



Dr. Sakamoto shares breathing and stretching techniques

We had another successful year of reviewing general pathology with the annual course organized by Dr. James Stanton (UGA) with the Davis-Thompson Foundation!

The course had rich schedules, filled with productive lectures on Cell Adaptations, Tissue Repair, Acute and Chronic Inflammation, Hemodynamics, Diagnostic Tests, Microbial Pathogenesis, Immunity, and Neoplasia. The phenomenal instructors (pictured on the right) from all over the U.S. devoted several hours to preparing this precious content in addition to the time spent interacting with our attendees.

The live event (Zoom) had a rather active chat where residents posed all of their questions, peer interaction, and burst responses to faculty quizzes.

Of course, Dr. Sakamoto's traditional Yoga session provided a break for relaxation and refocus during lunchtime. We hope trainees remember some of the techniques before taking Phase 1! :)

Registrants for the Live version also had particular opportunities to go over mock questions carefully constructed by faculty with Test experience as well as those put together in collaboration with their own training peers. That way, they could work together, putting into action the qualities of a testable multiple-choice question (MCQ). They also received tailored feedback from instructors, like suggestions on how they could improve their MCQ skills! What a valuable experience!



Samantha Schlemmer
DVM, MS, DACVP



Patricia Pesavento
DVM, PhD, DACVP



Kaori Sakamoto
DVM, PhD, DACVP



Kevin Woolard
DVM, PhD, DACVP



Bridget C. Garner
DVM, PhD, DACVP



Jairo Nunes
DVM, MS, PhD, DACVP

On behalf of the Foundation, we express our immense gratitude and admiration to the course organizer and all instructors!

We wish an excellent Phase 1 to the trainees all over the world!

SEMINAR REVIEWS



শেরেবাংলা কৃষি বিশ্ববিদ্যালয়
Sher-e-Bangla Agricultural University
Since 1938



CPD TRAINING FOR ACADEMIC VETERINARIANS ON ANIMAL DISEASE PROGRESSION AND THEIR DIAGNOSIS IN THE LABORATORY AND FIELD

Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

February 12-15, 2024

By Dr. Tony Alves

The Global Health Pathology Network (GHPN), in conjunction with and supported by the Davis-Thompson Foundation (DTF), conducted a three-day workshop held February 12-14, 2024 on “Continued Professional Development (CPD) for Academic Veterinarians on Animal Disease Progression and Their Diagnosis in the Laboratory and Field” at Sher-e-Bangla Agricultural University (SAU) in Dhaka, Bangladesh.

The lead GHPN trainers for this didactic, interactive, and case-based scenario workshop (with postmortem examinations) were Drs. Derron “Tony” Alves and Javier Asin along with onsite facilitator Professor Dr. K.B.M. Saiful Islam, the Dean of the Faculty of Animal Science and Veterinary Medicine (FASVM) of SAU and Chairman of the Department of the Department of Medicine and Public Health, FAVSM. Dr. Branden Nettles, USDA-APHIS public health veterinarian assigned to New Delhi, India (with oversight of Bangladesh) also attended providing a unique veterinary public health aspect to the training. Approximately 30 registered academic veterinarians and lecturers (all from SAU) attended the workshop with a primary focus on basic mechanisms of disease and pathogenesis of select diseases of importance in Bangladesh. On Day 4 (15 February), Drs. Alves and Asin provided 3-hour pathology-based training to approximately 30 veterinarians employed in the Bangladesh poultry industry.

This one-of-a-kind CPD training coupled with the energetic, highly intelligent attendees consisting mostly of SAU academic veterinary lecturers was an astounding success as demonstrated through post-workshop comments and after-action reviews (“Thanks to the facilitators and the Davis Thompson Foundation also for arranging such an effective CPD training”; “The whole training session was very effective as well as interesting to us. We want this type of trainings more and more in the future”).



Drs. Alves, Saiful Islam and Asin at the opening day.



Organizers and speakers with books donated by the AAAP.

SEMINAR REVIEWS

DTF-GHPN certificates of attendance were delivered to all attendees. Additionally, on behalf of the American Association of Avian Pathologists and through Dr Carmen Jerry, four essential poultry pathology textbooks were donated to SAU FAVSM.



Case scenarios and group discussion.



Demonstration of the isolation of the sciatic nerve in a chicken.



Dr. Asin demonstrates a postmortem examination on a chicken.



Group photo.

GHPN NETWORK/DT FOUNDATION SCHOLARSHIP



CONGRATULATIONS



Hemida Houari, DVM, MSc, PhD, Professor of Pathology at the Tiaret Veterinary Institute, Algeria, received a scholarship through the Global Health Pathology Network to participate in a Davis-Thompson course. He chose the General Pathology course, and was very happy to receive the information, exclaiming, “This course was amazing, I am very grateful for the opportunity to learn so much in such a short period of time. I hope we can develop a strong relationship between the Tiaret Veterinary Institute and the GHPN/Davis-Thompson Foundation.”

HISTO ROUNDS IN PORTUGUESE



RODADAS DE
HISTOPATOLOGÍA DA LCPG



Davis-Thompson
Foundation

HISTOPATOLOGIA OCULAR

Quinta-feira 21 de março, 2024
10:30 AM - 11:30 AM CT



Ingeborg Langohr
DVM, PhD, DACVP

[Click here to register](#)

CURSO DE NECROPSIA

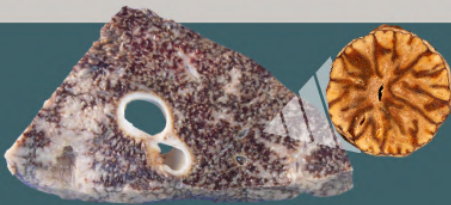


Davis-Thompson
Foundation



4to Curso de Necropsia: Identificación e interpretación de lesiones macroscópicas en animales

8, 10, 12, 15, 17 y 19 de abril, 2024 (16h- 19h, CST)



Francisco R. Carvalho Chaigneau
DVM, DSC, DACVP



Diana P. Galván Vela
MVZ, MMVZ



Mireya Juárez Ramírez
MVZ, EDV, MC, DRA



Mario A. Bedolla Alva
MVZ, MMVZ



Alfredo Pérez Guiot
MVZ, MMVZ



Laura P. Romero Romero
MVZ, MC, PhD



Luis J. García Márquez
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Gerardo Salas Garrido
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María Del Carmen Carmona Muciño
MVZ, EDVA



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Elizabeth Morales Salinas
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Elizabeth T. Rodríguez Galindo
MVZ, EDCV

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NECROPSY COURSE



Davis-Thompson
Foundation



PennVet
UNIVERSITY of PENNSYLVANIA

Necropsy Course

Prepare for the necropsy portion of
the ECFVG's CPE exam with
Veterinary Pathologists

RAFAELA DE NEGRI

DVM, MSc

NATHAN HELGERT

VMD, DACVP



PRE- REGISTER NOW

pre-registration closes March 20



DATE

20-21 APRIL 2024



COST

IN PERSON \$600
VIRTUAL \$200



LOCATION

UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE.
NEW BOLTON CENTER



In person
limited to 10



virtual- unlimited

[Click here to register](#)

NORTHEAST VETERINARY PATHOLOGY CONFERENCE



 Davis-Thompson Foundation

 Smithsonian
National Zoological Park
Conservation Biology Institute

NORTHEAST VETERINARY PATHOLOGY CONFERENCE

Zoo and Wildlife Pathology

-  April 26-27, 2024
-  Submit slides by March 31
-  In-person
-  Smithsonian's National Zoo & Conservation Biology Institute

Case presentations and Keynote speaker:

Karen Terio
DVM, PhD, DACVP



 \$ 75 (non-presenting)

[Click here to register](#)

ANNUAL WEST COAST VETERINARY PATHOLOGY CONFERENCE

JAWS! TERRIFYING TALES OF ORAL PATHOLOGY May 3-4, 2024



Davis-Thompson
Foundation



The 41st Annual West Coast Veterinary Pathology Conference



**BRIAN
MURPHY**



**MELISSA
SCHUTTEN**



In person



UC Davis, School of Veterinary Medicine, Gourley Clinical Teaching Center



Vet student registration	\$20
Pathology resident registration	\$50
General registration	\$150

[Click here to register](#)

EASTERN EUROPEAN MEETING

5th Annual Davis-Thompson Foundation Eastern European Veterinary Pathology Meeting

May 22-24, 2024



Davis-Thompson Foundation



Veterinarski fakultet
Faculty of Veterinary Medicine



Sveučilište u Zagrebu
University of Zagreb



Daniela Denk
DECVP, MRCVS, DR MED VET



Ivan-Conrado Šoštarić-Zuckermann
DVM, PhD, DECVP



Julie Engiles
VMD, DACVP



in person



220 - 250



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Slovenska avenija 25/112
10000 Zagreb, Croatia
e-mail: info@andb.hr
www.andb.hr



[Click here to register](#)

CLIC

CURRENT LITERATURE AND IMAGE INTERPRETATION COURSE



Davis-Thompson
Foundation

JUNE 3-7, 2024

\$675 NON-MEMBERS / \$575 MEMBERS



**DENAE
LOBATO**
DVM, PHD, DACVP



**KIM
NEWKIRK**
DVM, PHD, DACVP



**MICHELLE
DENNIS**
DVM, PHD, DACVP



**LINDEN
CRAIG**
DVM, PHD, DACVP



**WESLEY
SHELEY**
DVM, PHD, DACVP



**SARAH
LINN-PEIRANO**
DVM, PHD, DACVP

IN-PERSON @



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

[Click here to register](#)

EUROPEAN DESCRIPTIVE PATHOLOGY COURSE



Davis-Thompson
Foundation

SAVE THE DATE

EUROPEAN DESCRIPTIVE VETERINARY PATHOLOGY COURSE

JUNE 25-29 2024



JEY KOEHLER
DVM, PHD, DACVP



LINDEN CRAIG
DVM, PHD, DACVP



PATTY PESAVENTO
DVM, PHD, DACVP



SCHOOL OF VETERINARY MEDICINE,
CEU UNIVERSIDAD CARDENAL HERRERA, VALENCIA, SPAIN



IN PERSON



[Click here to register](#)

POLA & EUROPOLA SAVE THE DATE

A poster for the 'CLASS' and 'POLA' seminars. At the top left is the Davis-Thompson Foundation logo, and at the top right is the University of Pennsylvania logo. The main text reads 'SAVE the DATE' in large, bold letters, with 'the' in a smaller, blue script font. Below this, it says 'CURRENT LAB ANIMAL SCIENCE SEMINAR (CLASS) & PATHOLOGY OF LAB ANIMALS (POLA) 2024'. The dates are listed as 'CLASS JULY 20-21' and 'POLA JULY 22-26'. At the bottom, it indicates 'in person' and the location 'Hill Pavilion, UPenn. Philadelphia, PA'. There are small white mouse icons integrated into the 'SAVE the DATE' text.

In 2024 there will be CLASS, POLA...

...and EuroPOLA!

A poster for 'EuroPOLA 2024'. At the top left is the Davis-Thompson Foundation logo, and at the top right is the University of Bern logo. The main text reads 'SAVE THE DATE' in large, bold letters, with 'EuroPOLA 2024' below it. Underneath, it says 'PATHOLOGY OF LAB ANIMALS'. The dates are listed as 'OCT 28 - NOV 1'. At the bottom, it indicates 'in person' and the location 'University of Bern, BERN SWITZERLAND'. There is a 'COMPATH' logo with the tagline 'one medicine, one pathology, one platform.' and a white mouse silhouette.

More information in our website soon

ANNUAL SOUTHCENTRAL DIVISION MEETING



Davis-Thompson
Foundation

34TH ANNUAL SOUTHCENTRAL DIVISION MEETING

CASE PRESENTATIONS AND KEYNOTE SPEAKER

BONE PATHOLOGY



OCTOBER 4-5, 2024



SUBMIT CASES BY SPT 4



HYBRID



\$ 50 - 200



TEXAS A&M UNIVERSITY
AT GALVESTON



LINDEN CRAIG
DVM, PHD, DACVP

[Click here to register](#)

WESTERN ROUND ROBIN CASE

**CONTRIBUTING LABORATORY:
California Animal Health and Food Safety Laboratory –
San Bernardino Branch**

Clinical history:

Juvenil male macaw with history of mite infestation, loss of appetite and intermittent diarrhea starting ~4 days before death.

Gross findings:

The carcass was in poor nutritional condition, with no fat reserves and generalized muscle atrophy. Throughout the liver, there were multiple white/yellow, 0.1 x 0.2 cm, pinpoint, slightly raised foci. The bursa was enlarged and filled with tan caseous material.

Histopathology:

Multifocally, randomly disrupting the normal architecture of the hepatic cords, there are partially well-demarcated areas of tissue hypereosinophilia mixed with karyorrhectic debris that sometimes are limited by a rim of lytic necrosis and numerous multinucleated giant cells. There are scattered small aggregates of heterophils. Diffusely, there is hepatocellular vacuolar degeneration and multifocal aggregates of hemosiderin-laden macrophages and hemorrhage.

Diagnosis: Necrotizing and granulomatous hepatitis, multifocal, random, severe, subacute.

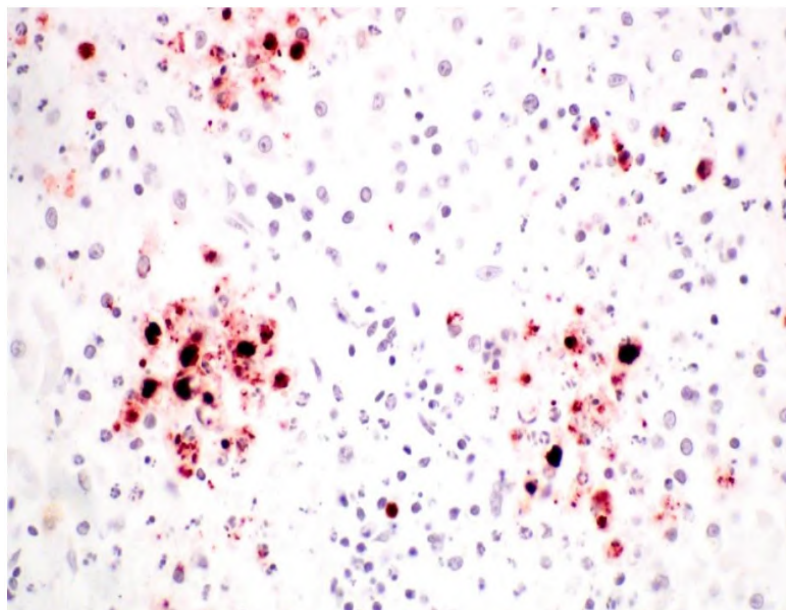


Figure 1. *Chlamydia* sp positive IHC in liver

WESTERN ROUND ROBIN CASE

Comments:

Chlamydiosis, also known as ornithosis and parrot fever in birds, or psittacosis in people, is a zoonotic disease caused by *Chlamydia psittaci*, a bacterium that usually infects birds, but can also rarely be transmitted to people resulting in a variety of clinical manifestations, from subclinical or self-limiting influenza-like illness, to atypical pneumonia and rarely multi-organ failure. Transmission is either by direct contact with the susceptible animals, avian nasal discharge, avian fecal matter, and feather dust inhalation. The major animals harboring *Chlamydia psittaci* include poultry and pet birds such as parrots, cockatiels, macaws, and parakeets. In birds, chlamydiosis caused by *Chlamydia psittaci* is characterized by intrasinusoidal accumulation of mononuclear cells accompanied by infiltration of portal areas by large numbers of macrophages that usually encroach into adjacent hepatocytes. Multifocal necrosis of hepatocytes can occur. Usually there is slight to marked bile duct hyperplasia. Accumulation of hemosiderin pigment in individual (or groups of) Kupffer cells may be found. In H&E-stained tissue sections, aggregates of elementary bodies of *Chlamydia* may be seen as basophilic smudges within the cytoplasm of macrophages and/or hepatocytes. Gimenez stain may help to visualize the bacteria, and the diagnosis can be confirmed by PCR, IHC, or FA.

Contributor: Hernando D. Acevedo, DVM.

References:

- Khadka S, Timilsina B, Pangeni RP, Regmi PR, Thapa AS. Importance of clinical history in the diagnosis of psittacosis: A case report. *Ann Med Surg (Lond)*. 2022 Sep 16;82:104695. doi: 10.1016/j.amsu.2022.104695. PMID: 36268359; PMCID: PMC9577640.

-Tahseen Abdul-Aziz, Oscar Jasper Fletcher, H. John Barnes, David E. Swayne, H. L. Shivaprasad. *Avian Histopathology*, 4th edition. American Association of Avian Pathologists, 2016.

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BSTP CORNER

BRITISH SOCIETY OF TOXICOLOGICAL PATHOLOGY

Notice of Future Meetings

Virtual Continuing Education Symposium 9: Digestive System

20th – 29th February 2024

Tuesday, Wednesday and Thursday

13.00 – 17.00 (GMT+0, London/UCT+0/ET-5)



CES 9 will be held over two weeks – on the afternoons of Tuesday 20th, Wednesday 21st, Thursday 22nd, Tuesday 27th, Wednesday 28th and Thursday 29th February 2024, from 13.00 – 17.00 (GMT+0, London/UCT+0) each day.

REGISTRATION IS NOW OPEN WITH AN EARLY BIRD DEADLINE OF FRIDAY 26th JANUARY 2024

This CES will give you the opportunity to have an overview of the normal anatomy and physiology of the digestive system; repair and regeneration mechanisms; spontaneous lesions of the rodent, rabbit, and non-human primate GI tract; toxicology and carcinogenesis of the exocrine pancreas; health monitoring of laboratory rodent colonies; pathology of infectious GI diseases of rodents, rabbits and non-human primates; anatomy, physiology, histology and pathology of the teeth. Other topics to be covered include spontaneous pathology and infectious disease in the canine and minipig digestive system; rodent models of inflammatory bowel disease; from biomarkers to AI; bioaccumulation of therapeutic drugs.

Reduced fee funding opportunities are also available for trainee/early career pathologists as well as a number of free registration bursary places.

If you would like further information, have any queries, or would like to reserve a place, please contact the Hg3 Conferences Ltd - events@hg3.co.uk

This symposium will be organised by Hg3 Conferences Ltd, who have been appointed by the Council of the BSTP to take over the administrative organisation of all BSTP events – events@hg3.co.uk

OR visit: <https://www.bstp.org.uk/events/ces-9-digestive-system/>

Virtual Continuing Education Symposium 10: Urinary System

9th – 18th July 2024

Tuesday, Wednesday and Thursday

13.00 – 17.00 (GMT+1, London/UCT+1)

CES 10 will be held over two weeks – on the afternoons of Tuesday 9th, Wednesday 10th, Thursday 11th, Tuesday 16th, Wednesday 17th and Thursday 18th July 2024, from 13.00 – 17.00 (GMT+1, London/UCT+1) each day.

This CES will give you the opportunity to learn about the urinary system. There will also be roundtable/share knowledge discussions and questions.

Updated information about this symposium will be posted on the BSTP website and BSTP group LinkedIn pages as it becomes available.

If you would like further information, have any queries or would like to reserve a place, please contact the Hg3 Conferences Ltd - events@hg3.co.uk

This symposium will be organised by HG3 Conferences Ltd, who have been appointed by the Council of the BSTP to take over the administrative organisation of all BSTP events – events@hg3.co.uk

OR visit: <https://www.bstp.org.uk/events/ces-10-urinary-system/>

For registration and more information about the events, visit the BSTP website:
<https://www.bstp.org.uk/events/bstp-events/>

IDEXX CASECONNEXX CORNER

Signalment: 3-year-old, male neutered, Domestic shorthair cat

Source/ History: Rapidly growing mass near carpal pad. Ulcerative with draining fistulae. Non-responsive to treatment.

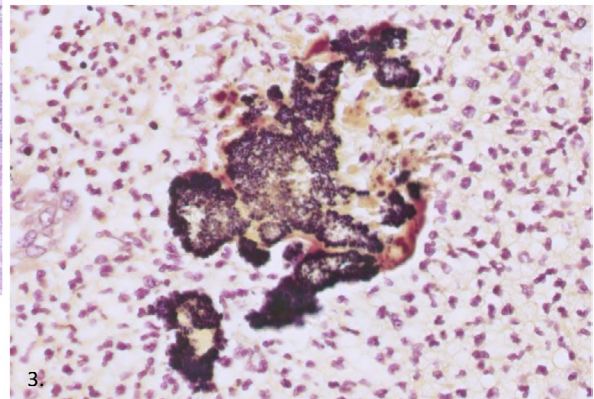
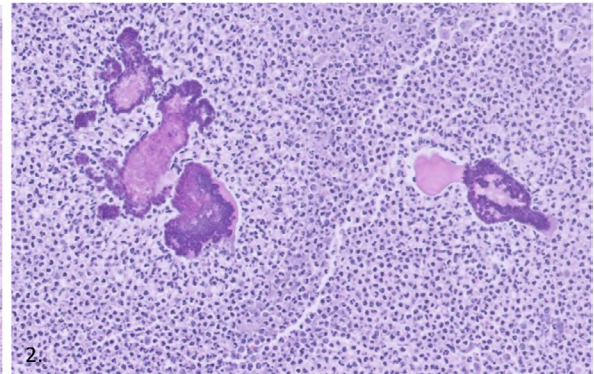
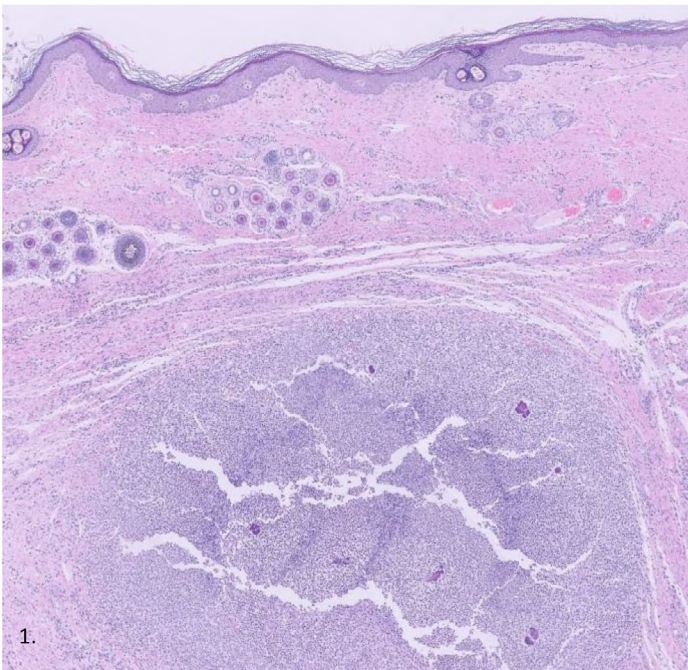


Figure 1. Marked nodular to diffuse deep dermal and subcuticular infiltrates of neutrophils centered around randomly scattered, geographic, brightly eosinophilic to magenta bacterial colonies. 20X, H&E. Figure 2. Higher magnification view of dense bacterial colonies embedded within magenta Splendore-Hoeppli-like material surrounded by marked neutrophilic inflammation. 400X, H&E. Figure 3. Gram stains highlight the coccoid gram-positive morphology of bacteria. 600X, Gram stain.

Histopathologic Description:

Markedly expanding and effacing the deep dermal and subcutaneous connective tissues, there is severe, multifocal to coalescing to diffuse, predominantly neutrophilic inflammation. The inflammation comprises abundant viable and degenerate neutrophils which are accompanied by lesser numbers of epithelioid macrophages and perivascular to interstitial infiltrates of small mature lymphocytes and plasma cells. Throughout the inflammation, there are numerous well demarcated, geographic, deeply basophilic colonies of gram-positive coccoid bacteria embedded within magenta to brightly eosinophilic, granular Splendore-Hoeppli-like material. Inflammatory infiltrates are accompanied organizing granulation tissue, edema, and multifocal ulceration of the overlying epidermis.

Interpretation:

Nodular dermatitis and cellulitis, suppurative to pyogranulomatous, severe, with florid intralesional bacterial colonies, consistent with a bacterial pseudomycetoma (a.k.a botryomycosis, bacterial granuloma)

Comments:

Histopathology revealed a discrete nodule of severe suppurative to pyogranulomatous centered around numerous dense bacterial colonies present as well-defined granules associated with deposition of a brightly eosinophilic Splendore-Hoeppli-like material. Bacterial pseudomycetomas, named as such due to their clinical and histological resemblance to actinomycotic and eumycotic mycetomas, usually present as solitary to occasionally multiple, firm nodules that ulcerate and develop draining tracts. The discharge is often purulent with white to yellow granules. These lesions are known occur in all domestic animal species. These infections are thought to develop as a result of wound contamination or trauma, such as bites, lacerations, or puncture wounds with foreign bodies. Coagulase-positive staphylococci are the most frequently implicated bacterial species; however, other species such as *Streptococcus* spp., *Pseudomonas* spp., *Actinobacillus* spp., *Pasteurella* spp., *Proteus* spp. and *Escherichia* spp., *Trueperella* spp., and *Bibersteinia* spp. have been isolated from these lesions. Identification of the inciting bacteria is dependent upon microbiological culture.

Reference: Mauldin, E., Peters-Kennedy, J. (2015). Chapter 6 - Integumentary System. In Jubb, Kennedy, and Palmer's Pathology of Domestic Animals (6th ed., pp. 509-736.e1). Elsevier Ltd.

Case by
Luke Haydock BVSc (Dist.) DVSc DACVP

IDEXX

CaseConnexx
Visit CaseConnexx.com to Register

LCPG CORNER

Obituary: Dr Bernardo Jorge Carrillo

By Paco Uzal

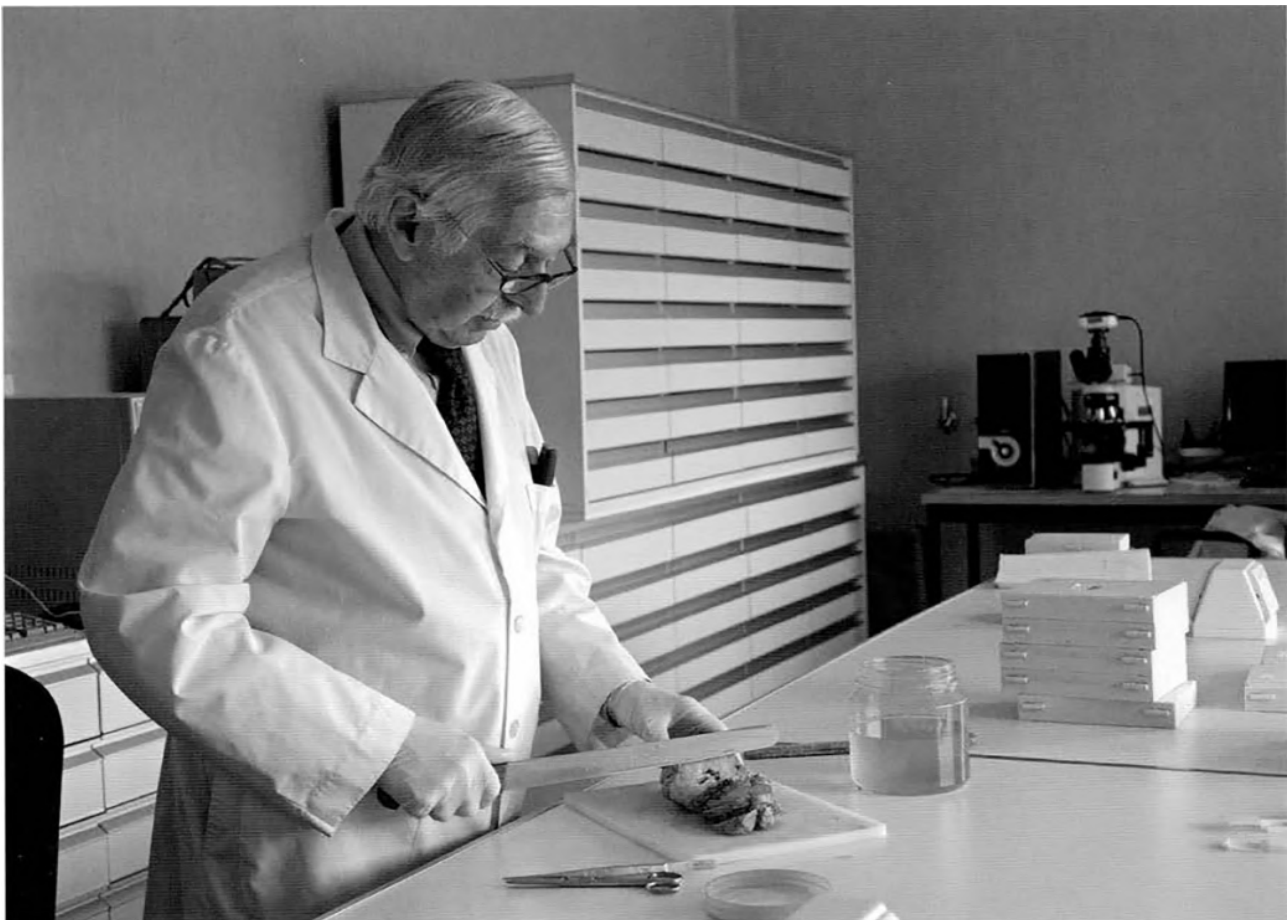


Photo: Forjadores del INTA, 2011.

Dr Bernardo Jorge Carrillo, a pioneer of veterinary pathology, passed away on February 26 in his native town of San Salvador de Jujuy, Argentina, at the age of 92. Dr Carrillo received his DVM at Universidad de Buenos Aires, Argentina, and MS and PhD at Cornell University and University of California-Davis, respectively. For the latter he worked under the supervision of the legendary Professor Peter Kennedy. He was the creator and a leader of several national pathology and veterinary diagnostic programs in Argentina. During his long career, Dr Carrillo performed research that helped elucidate the cause of several historic diseases, the etiology of which had eluded veterinarians for decades. A classical example is his work on "enteque seco", a debilitating systemic calcinosis produced by consumption of *Solanum glaucophyllum*, which has a vitamin D analogue. His research on this disease provided information on etiology and pathogenesis, and, most importantly, prevention and control measures. His legacy will continue benefiting many generations to come.

LCPG CORNER



RONDAS DE HISTOPATOLOGÍA DEL LCPG 2024 10:30 - 11:30 CT



Davis-Thompson
Foundation

Janeiro



Doenças de pele
Cesar Menk, DVM, DACVP
em Português

Febrero



Enfermedades virales
Mariano Carossino, DVM, PhD, DACVP, DACVM
en español

Março

21



Histopatologia ocular
Ingeborg Langohr, DVM, PhD, DACVP
em Português

Abril

18



Casos miscelâneos
Federico Giannitti, DVM, PhD, DACVP
en español

Maio

16



Casos variados de animais de dermatopatología
Rachel Neto DVM, MS, DACVP
em Português

Junio

20



Casos miscelâneos
Javier Asin, DVM, PhD, DECVP
en español

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2024 LCPG & DTF ACTIVITIES IN LATIN AMERICA

Country	Name of Seminar	Dates	Place/University	Speakers	Organizers
Argentina	XVIII Seminar of the Argentinean Subdivision of the Davis-Thompson Foundation and XII Forum on Teaching Veterinary Pathology.	August	Rosario, Argentina. Facultad de Ciencias Veterinarias, Universidad Nacional de Rosario	TBD	Leonardo Minatel
Argentina	Latin American roadshow: Gastrointestinal pathology	Oct 24-25	Buenos Aires, Argentina. Universidad de Buenos Aires.	Francisco Uzal	Leonado Minatel
Brazil	2024 Brazilian Symposium of the DTF - Pathology of zoo and wildlife	September	Universidade Federal de Minas Gerais - Belo Horizonte, MG, Brazil	D. McAloose	Renato de Lima Santos / Ayisa Rodrigues de Oliveira
Chile	Pathology of wildlife	August	Valdivia, Chile. Universidad Austral de Chile	Enrique Paredes, Mauricio Navarro, Manuel Moroni.	Mauricio Navarro
Colombia	Latin American roadshow: Gastrointestinal pathology	Nov 1-2	Barranquilla, Colombia. Universidad San Martin	Francisco Uzal	Paola Barato
Costa Rica	Workshop in freshwater fish medicine and pathology in Latin America	Mar 22-23	San Jose, Costa Rica. Escuela de medicina y cirugia veterinaria San Francisco de Asis	Esteban Soto, Paola Barato	Roberto Olivares
Guatemala	Latin American roadshow: Gastrointestinal pathology	Nov 4-5	Ciudad de Guatemala, Guatemala. Universidad de San Carlos.	Francisco Uzal	Deborah Rodriguez
México	IV on-line necropsy course	Apr 8-19	México (On-line)	Elizabeth Rodriguez, Maria del Carmen Carmona, Alfredo Perez, Mario Bedolla, Carlos Gonzalez, Elizabeth Morales, Gerardo Salas, Mireya Juarez, Luis Garcia-Marquez, Diana Galvan, Ruben Lopez, Laura Romero, Francisco Carvallo.	Roben Lopez
México	V seminar of the mexican subdivision of the Davis-Thompson Foundation	September	Tamaulipas, Mexico. Universidad Autonoma de Tamaulipas	TBD	Ubicelio Martín
México	Workshop in freshwater fish medicine and pathology in Latin America	November 21-22	Faculta de Medicina Veterinaria y Zootecnia, Universidad Nacional Autonoma de Mexico.	Esteban Soto, Paola Barato	Ruben Lopez
Paraguay	Latin American roadshow: Gastrointestinal pathology	Oct 28-29	Asuncion, Paraguay. Universidad Nacional de Asuncion.	Francisco Uzal	Leila Maidana, Mirtha Suarez
Uruguay	Latin American roadshow: Gastrointestinal pathology	Oct 21-22	Montevideo, Uruguay. Universidad de la Republica.	Francisco Uzal	Jose Manuel Verdes
Venezuela	II Seminar of the Venezuelan Subdivision of the Davis-Thompson Foundation	July	TBD	Francisco Uzal	Yaritza Salas

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LATIN AMERICAN ROAD SHOW
2024

Patología del sistema digestivo

Francisco A. Uzal
DVM, MSc, PhD, DACVP

→ Arrivals

FECHA	DESTINO	ESTATUS	
OCT 21-22	URUGUAY	EN PERSONA	REGISTER HERE
OCT 24-25	ARGENTINA	EN PERSONA	COMING SOON
OCT 28-29	PARAGUAY	EN PERSONA	COMING SOON
NOV 1-2	COLOMBIA	EN PERSONA	COMING SOON
NOV 4-5	GUATEMALA	EN PERSONA	COMING SOON

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San Francisco de Asís. Vázquez de Coronado

Valor US\$100

Información para el pago en el link registro

REGISTRO: <https://forms.gle/7fzvYcf7aQrncEAYA>

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Esteban Soto
MSc, DVM, PhD, Dipl. ACVM,
CertAqV



Paola Barato
DVM, Esp, PhD

Dear all:

This is just a friendly reminder we are in that time of the year to renew your LCPG membership. The LCPG has offered a lot of activities lately and a lot more wait ahead.

If you remember, membership fees can be paid directly with a credit card through the Charles Louis Davis and Samuel Wesley Thompson foundation in the following link.

<https://davisthompsonfoundation.regfox.com/lcpg-membership>

We also encourage all interested to spread the word so more people interested in Veterinary Pathology can become members of this organization.

In the next page, you can find the 2024 ANNUAL MEMBERSHIP APPLICATION, please fill it in with your updated information and send it to lcpgsecretary@gmail.com

The registration and payment deadline are March 31, 2024.

Thank you for your interest in joining and supporting the LCPG!

LCPG CORNER

LATIN COMPARATIVE PATHOLOGY GROUP 2024 ANNUAL MEMBERSHIP APPLICATION

Please fill out this document and e-mail it to Latin Comparative Pathology Group lcpgsecretary@gmail.com



FAMILY NAME:

FIRST NAME:

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E-mail:

LANGUAGES: English () Spanish () Portuguese () Other (Specify _____)

DEGREE(S) & CERTIFICATION(S)

DVM PhD MS MD DACVP ECVP ASVCP POST-DOC Other:

SPECIALTY & AREA(S) OF INTEREST:

AMOUNT PAID for 2024: \$

All payments should be done with credit card at the Charles Louis Davis and Samuel Wesley Thompson foundation on the following link.

<https://davisthompsonfoundation.regfox.com/lcpg-membership>

Contributions above the minimum values are encouraged and welcome!

Thank you for your interest in joining and supporting the LCPG!

MISCELLANEOUS ANNOUNCEMENTS

vetdermboston.com



Celebrate WCVD's 25th Anniversary

Welcome to the 10th World Congress of Veterinary Dermatology

July 25-29, 2024 | Boston, Massachusetts, USA

In person +30 hours of virtual content!

6 Themes

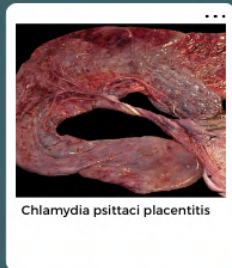
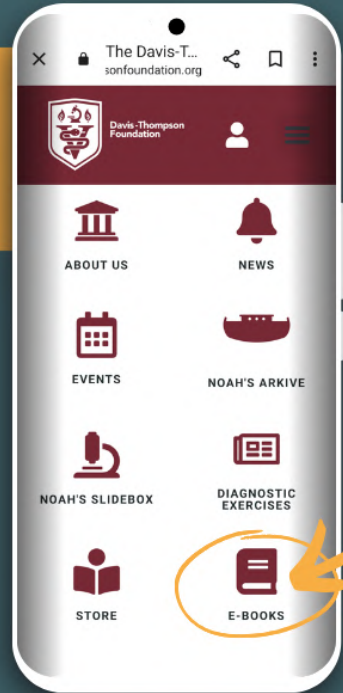
- Atopic Disease and Allergy
- Dermatology and One Health
- Immunodermatology
- Innovations in Dermatology
- Otology
- Skin Biology in Health and Disease



MISCELLANEOUS ANNOUNCEMENTS

NEW MANUALS FOR CLINICIANS AND PATHOLOGISTS

Investigating Equine Abortion and Reproductive Loss

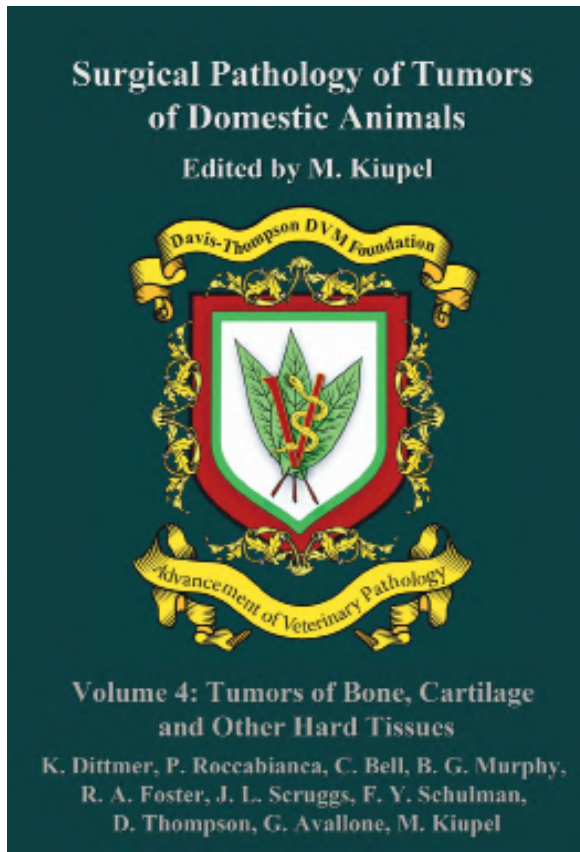


A multidisciplinary team of equine clinicians, epidemiologists and pathologists in Australia create 2 atlas of Histopathology and Gross Pathology of equine reproductive loss.

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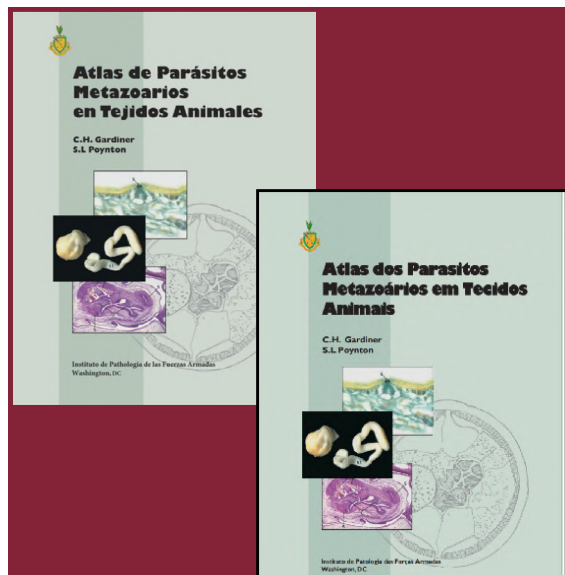
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Davis-Thompson Foundation Pathology Externship

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; 501-912-1449.



Atlas De Parasitos Metazoarios En Tejidos Animales and Atlas dos parasitos metazoários em tecidos animais - [Click Here](#) to Get a Digital Download!



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March 2024