Table of Contents

Focused Scientific Poster Session ........................................... 3
Future Annual Meetings .......................................................... 5
Late Breaking Poster Session ................................................... 3
Meeting Room Floor Plans ........................................................ 4
Mobile App ................................................................................ 2
Poster Session Schedules ......................................................... 3
Proceedings .............................................................................. 2
Program
   Friday, November 8, 2019 ...................................................... 6
   Saturday, November 9, 2019 ................................................... 6-9
   Sunday, November 10, 2019 .................................................... 9-18
   Monday, November 11, 2019 ................................................... 19-22
   Tuesday, November 12, 2019 ................................................... 22-28
   Wednesday, November 13, 2019 ............................................. 28-30
RACE Credits .............................................................................. 2
Registration ............................................................................... 2
Speaker Ready Room ............................................................... 2
Wireless Internet ....................................................................... 2
Registration

Registration will be located in the Third Floor Foyer.

Registration Hours:

- **Friday, November 8**: 5:00 p.m.-7:00 p.m.
- **Saturday, November 9**: 7:00 a.m.-7:30 p.m.
- **Sunday, November 10**: 7:30 a.m.-5:00 p.m.
- **Monday, November 11**: 7:30 a.m.-1:00 p.m.
- **Tuesday, November 12**: 7:30 a.m.-3:30 p.m.
- **Wednesday, November 13**: 8:00 a.m.-12:30 p.m.

Wireless Internet Access

Complimentary basic wireless internet service is available at the Marriott Rivercenter Hotel. Access the wireless internet in the meeting rooms:

- **Network**: Marriott_Conference
- **Passcode**: ACVP19

However, the strength of the bandwidth cannot be guaranteed.

Mobile App

Download the free 2019 ACVP and ASVCP Combined Annual Meeting mobile app through the iTunes store or Google Play. Select your personal favorites—abstracts, program, proceedings, and more information about the Annual Meeting. Search for the “Attendify” app, download it, click into the app and search for 2019 ACVP, then join.

Be sure to share your photos through the activity stream section of the mobile app. We like to see what attendees are up to during the Meeting!

If you are traveling from another country, please check your cell phone plan for international rates.

Proceedings

You can access the Proceedings through the mobile app and online during the Meeting.

ACVP RACE Credits

This program (35-38424) is approved by the AAVSB RACE to offer a total of 114.00 CE Credits (39.00 max) being available to any one veterinarian, and/or 114.00 veterinary technician CE Credits (39.00 max). This RACE approval is for the subject matter categories of:

- Category One: Scientific using the delivery method of Seminar/Lecture.

This approval is valid in jurisdictions which recognize AAVSB RACE; however, participants are responsible for ascertaining each board’s CE requirements. RACE does not “accredit”, or “endorse”, or “certify” any program or person, nor does RACE approval validate the content of the program.

ACVP is now an approved sponsor of continuing education in New York State. Those ACVP members in New York who need RACE credits will now be able to receive them at the upcoming Annual Meeting.

After the 2019 Annual Meeting, a RACE credit verification will be sent by email to each individual registering for those credits.

Speaker Ready Room

Conference Room 2

Speakers (oral presenters) are required to download their presentations in the Speaker Ready Room prior to their sessions.

Speaker Ready Room Hours:

- **Friday, November 8**: 5:00 p.m.-8:00 p.m.
- **Saturday, November 9**: 7:00 a.m.-7:00 p.m.
- **Sunday, November 10**: 7:00 a.m.-6:00 p.m.
- **Monday, November 11**: 7:00 a.m.-6:00 p.m.
- **Tuesday, November 12**: 7:00 a.m.-6:00 p.m.
- **Wednesday, November 13**: 7:00 a.m.-10:30 a.m.

You can always download your slides earlier than the dates and times in the chart below. Leave plenty of time to visit the Speaker Ready Room before your presentation.

If Your Presentation Date/Time is... Then Your Scheduled Check-In Time is...

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Check-In Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 8:00 a.m.-12:00 noon on Saturday, November 9</td>
<td>Report prior to 8:00 p.m. on Friday, November 8</td>
</tr>
<tr>
<td>Between 1:30 p.m.-5:00 p.m. on Saturday, November 9</td>
<td>Report prior to 11:00 a.m. on Saturday, November 9</td>
</tr>
<tr>
<td>Between 8:00 a.m.-12:00 noon on Sunday, November 10</td>
<td>Report prior to 7:00 p.m. on Saturday, November 9</td>
</tr>
<tr>
<td>Between 1:30 p.m.-5:00 p.m. on Sunday, November 10</td>
<td>Report prior to 11:00 a.m. on Sunday, November 10</td>
</tr>
<tr>
<td>Between 8:00 a.m.-12:00 noon on Monday, November 11</td>
<td>Report prior to 6:00 p.m. on Sunday, November 10</td>
</tr>
<tr>
<td>Between 1:30 p.m.-5:00 p.m. on Monday, November 11</td>
<td>Report prior to 11:00 a.m. on Monday, November 11</td>
</tr>
</tbody>
</table>
Annual Meeting Information

Poster Session Schedules

Veterinary Student Poster Session

Saturday, November 9, 2019

Poster Setup . . . . . . . . . . . . . . . . 5:30 p.m.–6:30 p.m.
Awards Judging . . . . . . . . . . . . . . . . 6:30 p.m.–7:30 p.m.
Authors Present . . . . . . . . . . . . . . . . 7:30 p.m.–9:00 p.m.
Teardown . . . . . . . . . . . . . . . . . . 9:00 p.m.–9:30 p.m.

Young Investigator Award Poster Sessions

There has been a change to the Young Investigator Award poster assignments. Please review the information below if you are presenting a YIA poster. All YIA posters will be on display during Poster Session B.

Young Investigator Award Poster Session A and Poster Session B

Poster Setup:
Sunday, November 10, 2019 . . . . . . 8:30 a.m.–9:30 a.m.

Poster Dismantle:
Monday, November 11, 2019 . . . . . . 4:30 p.m.–5:00 p.m.
(late tear-down to allow for afternoon judging)

This includes the following Young Investigator Award Poster Presentations:
Diagnostic Pathology: DY-01 - DY-21
Experimental Disease: EY-44 - EY-52
Industrial & Toxicologic Pathology: TY-63 - TY-64
Natural Disease: NY-68 - NY-80

Young Investigator Award Poster Session B and Poster Session C

Poster Setup:
Monday, November 11, 2019 . . . . . . 8:30 a.m.–9:30 a.m.

Poster Dismantle:
Tuesday, November 12, 2019 . . . . . . 3:30 p.m.–4:00 p.m.

This includes the following Young Investigator Award Poster Presentations:
Diagnostic Pathology: DY-22 - DY-42
Experimental Disease: EY-53 - EY-61
Industrial & Toxicologic Pathology: TY-65 - TY-66
Natural Disease: NY-81 - NY-93

Focused Scientific Poster Sessions

Poster Session A
Sunday, November 10, 2019

Poster Setup . . . . . . . . . . . . . . . . 8:30 a.m.–9:30 a.m.
Poster Viewing . . . . . . . . . . . . . . . . 9:30 a.m.–4:30 p.m.

Authors Present for Discussion Based on Poster Session Assignment:
Clinical Pathology: Mid-afternoon refreshment break
Diagnostic Pathology: Mid-afternoon refreshment break
Education: Mid-morning refreshment break
Experimental Disease: Mid-afternoon refreshment break
Industrial and Toxicologic Pathology: Mid-morning refreshment break
Natural Disease: Mid-morning refreshment breaks

Poster Dismantle . . . . . . . . . . . . . . . . 4:30 p.m.–5:00 p.m.

Poster Session B

Late-Breaking Poster Session
Monday, November 11, 2019

Poster Setup . . . . . . . . . . . . . . . . 8:30 a.m.–9:30 a.m.
Poster Viewing . . . . . . . . . . . . . . . . 9:30 a.m.–1:00 p.m.
Authors Present . . . . . . . . . . . . . . . . 9:45 a.m.–10:15 a.m.
Poster Dismantle . . . . . . . . . . . . . . . . 1:00 p.m.–1:30 p.m.

Poster Session C
Tuesday, November 12, 2019

Poster Setup . . . . . . . . . . . . . . . . 8:30 a.m.–9:30 a.m.
Poster Viewing . . . . . . . . . . . . . . . . 9:30 a.m.–3:30 p.m.

Authors Present for Discussion:
Clinical Pathology: Mid-afternoon refreshment break
Diagnostic Pathology: Mid-afternoon refreshment break
Education: Mid-morning refreshment break
Experimental Disease: Mid-afternoon refreshment break
Industrial and Toxicologic Pathology: Mid-afternoon refreshment break
Natural Disease: Mid-morning refreshment break

Poster Dismantle . . . . . . . . . . . . . . . . 3:30 p.m.–4:00 p.m.

Personal interaction with meeting attendees is an optional but important part of your poster presentation. If possible, please make yourself available at your poster during the morning and/or afternoon refreshment breaks, corresponding with the schedule above, to answer questions and interact with your colleagues.
San Antonio Marriott Rivercenter Hotel - Third Floor
If you are concerned about proprietary information in our world of social media, consider advising attendees by placing ‘DO NOT POST’ on your poster.

**Lactation Room**

A lactation room is available at the Annual Meeting. Stop by the registration desk to pickup a key to the room.

**Future Annual Meetings**

2020 Annual Meeting
- Saturday, October 31-Tuesday, November 3, 2020
- Chicago Marriott Downtown Magnificent Mile, Chicago, IL

2021 Annual Meeting
- Saturday, October 30-Tuesday, November 2, 2021
- Hyatt Regency Seattle, Seattle, Washington

2022
- Saturday, November 12-Tuesday, November 15, 2022
- Westin Boston Waterfront Hotel, Boston, Massachusetts

2023
- Joint Annual Meeting with the American Association of Veterinary Laboratory Diagnosticians (AAVLD)
- Site and dates to be determined

**ACVP Policies**

Last year, ACVP adopted policies in regards to:

- Code of Professional Ethics
- Code of Conduct
- Anti-Harrassment and Discrimination

You can find and review these three policies at www.acvp.org under the “About” category.


**Friday, November 8, 2019**

10:00 a.m.-6:00 p.m.  
Conference Room 12  
ACVP Council

5:00 p.m.-7:00 p.m.  
Third Floor Foyer  
Registration Open  
Don’t forget to download the ACVP and ASVCP mobile app!

5:00 p.m.-7:00 p.m.  
Conference Room 5  
ASVCP Executive Board

5:00 p.m.-8:00 p.m.  
Conference Room 2  
Speaker Ready Room  
Presenting an oral presentation? Be sure to download your presentation in the Speaker Ready Room.

**Saturday, November 9, 2019**

7:00 a.m.-7:30 p.m.  
Third Floor Foyer  
Registration and Information Desk

7:00 a.m.-7:00 p.m.  
Conference Room 2  
Speaker Ready Room

8:00 a.m.-4:00 p.m.  
Conference Room 5  
ASVCP Executive Board

8:00 a.m.-5:00 p.m.  
Salon B  
ACVP Pre-Meeting Workshop (available at an additional fee)  
Comparative Pathologists Special Interest Group  
**Mouse Models of Immunobiology and Immunotherapy: Emerging Topics and Trends**

**Organizers:** Jessica M. Snyder, DVM, DACVP  
University of Washington, Seattle, WA

Hibret Adissu-Amare, DVSc, DVM, PhD, DACVP  
National Cancer Institute, Bethesda, MD

Susan Knoblaugh, DVM, DACVP  
The Ohio State University, Columbus, OH

Heather Tillman, DVM, PhD, DACVP  
St. Jude Children’s Research Hospital, Memphis, TN

This one-day workshop will provide four unique sessions that cover aspects of the emerging field of immune-centered approaches to treating human diseases as modeled in the laboratory mouse. Sessions include: 1) background lesions relevant to basic and preclinical investigations using immunodeficient mouse strains; 2) mouse models for understanding cancer immunity and testing immunotherapies; 3) mouse models of autoimmune diseases; and 4) mouse models of infectious diseases. Comparative pathologists from both academia and industry will give 20-to-25-minute presentations on topics including background lesions arising in the NSG stock strain as well as other severely immunodeficient, humanized, and germ-free mouse strains. Additional disease-focused talks will include the development and characterization of critical model systems in mice to study non-lymphoid leukemias, lymphoma, the effects of CAR-T cell therapies, immune complex disease, graft-versus-host disease, and multiple sclerosis. The session will end with discussions of models of infectious diseases to include: mouse models of Lyme disease, Helicobacter infections, and fungal infections in immunocompromised patients.

Presentations will focus on practical, take-home and readily applicable information for pathologists working with mouse models of human disease in these disease areas.

8:00 a.m.-8:15 a.m.  
**Introduction**  
Sue E. Knoblaugh, DVM, DACVP  
Jessica M. Snyder, DVM, DACVP

8:20 a.m.-8:45 a.m.  
**A Review of Common Background Lesions and Newly Recognized/Emerging Pathogens Affecting NOD Scid Gamma Mice**  
Sara Santagostino, DVM, PhD, DACVP  
Genentech, South San Francisco, CA

8:50 a.m.-9:10 a.m.  
**Proliferative Typhlocolitis with Multinucleated Giant Cells in Immunodeficient Sentinel Mice**  
Denise Imai, DVM, PhD, DACVP  
University of California, Davis, CA

9:15 a.m.-9:35 a.m.  
**Anexic Mice: Expected Lesions and Utility in Cystic Fibrosis Research**  
Piper Treuting, DVM, DACVP  
University of Washington, Seattle, WA

9:40 a.m.-10:00 a.m.  
**All Employees Must Wash Hands Before Returning to Work: An Outbreak of Enterotoxigenic E. Coli in an NSG Colony**  
Kelli Boyd, DVM, PhD, DACVP  
Vanderbilt University Medical Center, Nashville, TN

10:05 a.m.-10:25 a.m.  
**Refreshment Break**
10:25 a.m.-10:50 a.m.
Evaluation of Human Non-lymphoid Leukemia Models in NSGS Mice: Challenges and Strain Idiosyncrasies
Laura Janke, DVM, PhD, DACVP
St. Jude Children’s Research Hospital, Memphis, TN

10:55 a.m.-11:25 a.m.
Lymphoproliferations: A Complication of Patient Derived Solid Tumor Xenografts (PDTXs) in NSG Mice
Jerold Rehg, DVM, DACVP
St. Jude Children’s Research Hospital, Memphis, TN

11:30 a.m.-11:50 a.m.
Approaches to Characterizing the Effects of Chimeric Antigen Receptor T Cell Therapy for Pediatric Tumors in Mice
Heather Tillman, DVM, PhD, DACVP
St. Jude Children’s Research Hospital, Memphis, TN

11:50 a.m.-1:00 p.m.
Lunch Break (on your own)

1:00 p.m.-1:25 p.m.
Immunogenicity and Immune-Related Toxicity: A Biopharmaceutical Perspective
Michael Leach, DVM, PhD, DACVP
Pfizer, Cambridge, MA

1:30 p.m.-1:55 p.m.
Experimental Autoimmune Encephalitis (EAE) and the Microbiome: Modulation of the Systemic Immune Response by Gut-derived Commensal Bacteria
Katherine Gibson-Corley, DVM, PhD, DACVP
University of Iowa, Iowa City, IA

2:00 p.m.-2:25 p.m.
GvHD 101: Acute and Chronic Graft Versus Host Disease & Comparative Manifestations in Humanized Mice
Kara N. Corps, DVM, PhD, DACVP (speaker)
The Ohio State University, Columbus, OH
Krista La Perle, DVM, PhD, DACVP
The Ohio State University, Columbus, OH

2:30 p.m.-2:50 p.m.
Miscellaneous Mouse Models of Autoimmune Disease
Jessica M. Snyder, DVM, DACVP

2:55 p.m.-3:15 p.m.
Refreshment Break

3:15 p.m.-3:45 p.m.
Immune Variation in Common In-bred Mouse Strains: Points to Consider
Rani Sellers, DVM, PhD, DACVP
Pfizer, Pearl River, NY

3:50 p.m.-4:10 p.m.
Mouse Models of Lyme Disease
Sebastian E. Carrasco, DVM, MPVM, MSc, PhD, DACVP
Massachusetts Institute of Technology, Cambridge, MA

4:15 p.m.-4:35 p.m.
Mouse Models of Helicobacter Infection
Sureshkumar Muthupalani, BVSc, MVSc, PhD, DACVP
Massachusetts Institute of Technology, Cambridge, MA

4:40 p.m.-5:00 p.m.
The Fungus Among Us: Mouse Models of Fungal Pathogenesis and Host Immune Response
Sue E. Knoblaugh, DVM, DACVP

8:00 a.m.-5:00 p.m.
Salon J
ACVP Pre-Meeting Workshop (available at an additional fee)
Primate Pathology Special Interest Group
Back to Basics: A Primer on NHP Pathology
Session Chair: Theresa Boulineau, DVM, MS, DACVP
Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT

The theme of this year’s Primate Pathology Workshop is, “Back to Basics: A Primer on Non-Human Primate Pathology”. Each lecture will review classic pathologic conditions in different classes of NHPs, including baboons, marmosets, macaques, and apes. A separate lecture will present an overview of clinical pathology in NHPs, with a focus on differences between species (especially macaques). The workshop will be valuable to students and young pathologists but also appeal to all who don’t get to work regularly with these species and would like to learn more. In addition to presentations by invited speakers, there will be “mystery” NHP case presentations from workshop attendees in the afternoon. Case material with a focus on classic cases in different primate models is encouraged, but material can be from any interesting or unique primate case. Oral case presentations will be 10-12 minutes with 3-5 minutes for questions/discussion.

8:00 a.m.-8:10 a.m.
Welcome and introductions

8:10 a.m.-9:00 a.m.
Review of Baboon Pathology
Olga Gonzalez, DVM, DACVP
Southwest National Primate Research Center, San Antonio, TX

9:00 a.m.-9:45 a.m.
Review of Marmoset Pathology
Heather Simmons, DVM, DACVP
Wisconsin National Primate Research Center, University of Wisconsin, Madison, WI

9:45 a.m.-10:05 a.m.
Refreshment Break
Final Program

10:05 a.m.-11:00 a.m.
**Review of Macaque Pathology**
Rebekah Keesler, DVM, DACVP
California National Primate Research Center, University of California, Davis, CA

11:00 a.m.-12:00 noon
**Review of Ape Pathology**
Linda Lowenstine, DVM, PhD, DACVP
University of California Veterinary School, Davis, CA

12:00 noon-1:00 p.m.
**Lunch Break (on your own)**

1:00 p.m.-2:00 p.m.
**Back to Basics Review of Primate Clinical Pathology**
Kirstin Barnhart, DVM, PhD, DACVP
Envigo, Alice, TX

2:00 p.m.-5:00 p.m.
**Short Case Presentations**
15 minutes per case: 10 minutes for presentation, 5 minutes for discussion

8:00 a.m.-5:00 p.m.
Salon D
**ASVCP Pre-Meeting Workshop (sold out)**
**Comparative Bone Marrow Hematopathology**

**Session Chairs:** Kurt Zimmerman, DVM, PhD, DACVP
Virginia Tech, Blacksburg, VA

Laura Snyder, DVM, DACVP
Marshfield Medical Center, Marshfield, WI

Participants will review the comparative (cytology and histopathology) for a spectrum of marrow disorders followed by an interactive guided discussion using mystery cases lead by hematopathology experts from both veterinary and human medicine.

8:00 a.m.-8:10 a.m.
**Welcome**
Kurt Zimmerman, DVM, PhD, DACVP
Laura Snyder, DVM, DACVP

8:10 a.m.-10:30 a.m.
**Bone Marrow Histopathological Evaluation and Bone Marrow Cytologic Evaluation**
Rose E. Raskin, DVM, PhD, DACVP
Purdue University, West Lafayette, IN
Joanne Messick, VMD, PhD, DACVP
Purdue University, West Lafayette, IN

10:30 a.m.-11:00 a.m.
**Refreshment Break**

11:00 a.m.-12:00 noon
**Bone Marrow Case Presentations**
Joanne Messick, VMD, PhD, DACVP
Rose E. Raskin, DVM, PhD, DACVP

12:00 noon-1:30 p.m.
**Lunch Break (on your own)**

1:30 p.m.-3:30 p.m.
**Mystery Cases**
Dorothee Bienzle, DVM, PhD, DACVP
University of Guelph, Guelph, Ontario, Canada
Anne Avery, VMD, PhD
Colorado State University, Fort Collins, CO
Sa Wang, MD, DABP
University of Texas MD Anderson Cancer Center, Houston, TX
Joanne Messick, VMD, PhD, DACVP
Rose E. Raskin, DVM, PhD, DACVP

3:30 p.m.-4:00 p.m.
**Refreshment Break**

4:00 p.m.-5:00 p.m.
**Flow Cytometry in the Diagnosis of T-/NK Cell Neoplasms**
Sa Wang, MD, DABP

8:00 a.m.-5:00 p.m.
Salon I
**C.L. Davis-S.W. Thompson Foundation Pre-Meeting Workshop (available at an additional fee)**
**Skin and Mammary Tumors: Standardization and Simplification**

**Speakers:** Drs. Valentina Zappulli, Laura Peña, and Michael Goldschmidt

The workshop will be divided into two sections: “Epithelial Tumors of the Skin” and “Tumors of the Mammary Gland”. The presentations will emphasize material from Volumes 1 and 2 of Surgical Pathology of Tumors of Domestic Animals, published by the Davis-Thompson DVM Foundation. The presentation on skin tumors will be focused specifically on more challenging diagnoses and include distinctive histologic features of neoplastic and non-neoplastic epithelial “tumors” of the skin, differential diagnosis, and clinically important information. A majority of the session will be comprised of presentations on mammary tumors. This discussion will emphasize those criteria that are important in establishing a definitive diagnosis, including criteria of malignancy and grading of mammary tumors. Diseases of the teat will focus on neoplastic and non-neoplastic diseases that may be encountered in veterinary diagnostic pathology. Finally, difficult cases will be discussed; attendees will have an opportunity to review these cases before the workshop.

8:00 a.m.-8:15 a.m.
**Welcome and Introductions**
8:15 a.m.-10:00 a.m.  
Tumors of the Skin  
Anatomy and Histology of the Canine and Feline Mammary Gland

10:00 a.m.-10:30 a.m.  
Refreshment Break

10:30 a.m.-12:00 noon  
Mammary Tumors: Important Diagnostic Criteria

12:00 noon-1:00 p.m.  
Lunch Break (on your own)

1:00 p.m.-3:00 p.m.  
Mammary Tumors: Grading and Criteria for Determining Malignancy

3:00 p.m.-3:30 p.m.  
Refreshment Break

3:30 p.m.-4:15 p.m.  
Diseases of the Canine and Feline Teat

4:15 p.m.-5:00 p.m.  
Mammary Tumors: Cases Discussion

12:00 noon-2:00 p.m.  
Conference Room 4  
ACVP Council and ASVCP Executive Board Luncheon

12:00 noon-2:00 p.m.  
Conference Room 8  
Veterinary Pathology Editors Meeting

3:00 p.m.-8:00 p.m.  
Conference Room 1  
Career Center  
Looking for a job? Looking for a candidate? Stop by the Career Center!

4:00 p.m.-5:30 p.m.  
Conference Room 14  
ASVCP Executive Board and Committees

4:00 p.m.-7:00 p.m.  
Conference Room 8  
ACVP Education Committee

5:00 p.m.-6:15 p.m.  
Salon B  
Meet the Pathologists:  
A Discussion of Careers in Pathology  
Session Chair: R. Mark Simpson, DVM, PhD, DACVP  
National Cancer Institute, Bethesda, MD

6:00 p.m.-7:30 p.m.  
Third Floor Foyer  
Professional Photos  
A professional photographer will be available to take your photo to use in your work environment. Thank you to IDEXX for sponsoring this area!

6:15 p.m.-7:15 p.m.  
Salon D  
Student and Resident Reception  
Sponsored by Antech

7:00 p.m.-9:00 p.m.  
Conference Room 4  
ACVP Clinical Pathology Exam Committee - EAAG and TIWG

7:00 p.m.-9:00 p.m.  
Conference Room 11  
Japanese Association of Veterinary Pathologists+

7:30 p.m.-10:00 p.m.  
Salon K  
Opening Reception, Exhibits, and Veterinary Student Poster Session including a special performance at 9:00 p.m. by the ACVP Band, all the way from Stillwater, Oklahoma

8:00 p.m.-9:00 p.m.  
Conference Room 7  
ACVP Exam Assembly and Administrative Group AP

---

Sunday, November 10, 2019

6:30 a.m.-7:30 a.m.  
Conference Room 11  
Yoga Basics for Pathologists  
Katherine Gibson-Corley, DVM, PhD, DACVP  
University of Iowa, Iowa City, IA  
All levels of experience welcome!

7:00 a.m.-5:00 p.m.  
Third Floor Foyer  
Registration and Information Desk

7:00 a.m.-6:00 p.m.  
Conference Room 2  
Speaker Ready Room

7:00 a.m.  
Third Floor Foyer  
Internet Station  
Sponsored by VIN

7:00 a.m.-8:30 a.m.  
Conference Room 8  
Academic Leadership Special Interest Group

7:00 a.m.-8:00 a.m.  
Conference Room 9  
ASVCP Education Committee
10:00 a.m.-11:00 a.m.
**Borrelia spp. Infections: Lyme Disease or Tick-Borne Relapsing Fever (TBRF)?**
Julie Piccione, MS, DVM, DACVP
Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL), College Station, TX

11:00 a.m.-11:50 a.m.
**Questions and Discussion**

**Career Development**
*Copewith Technology: Real People and Real-life Stories of Digital Pathology Applications*

Session Chairs: Kelli L. Boyd, DVM, PhD, DACVP
Vanderbilt University Medical Center, Nashville, TN
Gillian L. Beamer, VMD, PhD, DACVP
Tufts University, Grafton, MA

This half-day session will give examples of real-life uses of digital pathology applications in research, diagnostic, and academic settings. The emphasis of the session is to introduce the audience to multiple digital pathology platforms and demonstrate the ways pathologists will be using these applications in the future. The first part of the program will focus on quantitative applications including some examples using artificial intelligence. The latter half of the program will focus on the implementation of digital pathology and artificial intelligence into large diagnostic laboratories. The final presentation will be an overview of how digital pathology platforms have been used in medical education and present concepts on how these technologies can be adapted to veterinary pathology training programs. The session will end with a roundtable discussion providing participants the opportunity to discuss key topics with the panel of speakers.

8:00 a.m.-8:30 a.m.
**Real-World Uses for Digital Pathology Introduction**
Kelli Boyd DVM, PhD, DACVP

8:30 a.m.-8:50 a.m.
**Using Aiforia**
Gillian Beamer DVM, PhD, DACVP

8:50 a.m.-9:10 a.m.
**“Qu Can Do it!” An Image Analysis Case Study in QuPath**
Lauren Himmel, DVM, PhD, DACVP
Vanderbilt University Medical Center, Nashville, TN

9:10 a.m.-9:50 a.m.
**Practical Applications of VisioPharm Image Analysis in Comparative Pathology**
Jessica M. Snyder, DVM, MS, DACVIM, DACVP
University of Washington, Seattle, WA
9:10 a.m.-9:30 a.m.
Approaches to Quantifying Lipid Accumulation in a Mouse Model of Chemotherapy-induced Toxicity: Analysis of Hepatic Lipidosis and Adipocyte Size Using ImageScope and Image-J/Fiji
Laura Janke, DVM, PhD, DACVP
St. Jude Children's Research Hospital, Memphis, TN

9:30 a.m.-9:50 a.m.
Halo: An Intuitive and Versatile Image Analysis Tool
Nicholas A. Crossland DVM, PhD, DACVP
Boston University, Boston MA

9:50 a.m.-10:20 a.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

10:20 a.m.-10:40 a.m.
Transitioning Diagnostic Lab to Whole-Slide Image
Richard Luong, BVSc, DACVP
IDEXX, Portland, OR

10:40 a.m.-11:00 a.m.
The Cutting Edge of Clinical Pathology
Jan Andrews, DVM, PhD, DACVP
Antech Diagnostics, Raleigh, NC

11:00 a.m.-11:20 a.m.
Digital Pathology in an Academic Setting
Alex Baras, MD, PhD
Johns Hopkins, Baltimore, MD

11:20 a.m.-12:00 noon
Roundtable Discussions

8:00 a.m.-12:00 noon
Salon B
Concurrent Session I
Peripheral Nervous System

Session Chairs: Lisa Lanigan, DVM, PhD, DACVP
StageBio, Frederick, MD

Brad Bolon, DVM, PhD, DABT, FATS, FIATP, DACVP
GEMPath, Longmont, CO

This half-day session will present an overview of peripheral nervous system (PNS) biology, lesions, and disease mechanisms. The session will begin with talks on PNS organization and function, specialized sampling and processing practices for PNS tissues, and common morphologic lesions and artifacts. After the break, our speakers will delve into the specific PNS lesions and mechanisms, including infectious inflammatory diseases, neoplastic diseases, and metabolic/paraneoplastic diseases. The goal of this session is to provide a brief but well-rounded synopsis of the PNS—a frequently overlooked but extremely important system.
Final Program

Invited Speaker
8:05 a.m.-9:00 a.m.
NEW DEVELOPMENTS IN CARCINOGENICITY TESTING - SHOULD WE DO AWAY WITH IT?
Aaron M. Sargeant, DVM, PhD, DACVP
Charles River Laboratories, Spencerville, OH

9:00 a.m.-9:30 a.m.
VALIDATING RASH2 CARCINOGENICITY STUDIES USING ARTIFICIAL INTELLIGENCE
Beth Dray1, Colin Doolan2, Mark Gregson2, and Daniel Rudmann1
1Charles River Laboratories, 2Deciphex

9:30 a.m.-9:45 a.m.
IQ DRUSAFE PHARMA SURVEY ON NONCLINICAL AND CLINICAL USE OF EMERGING SAFETY BIOMARKERS
John Burkhardt1, Deidre Dalma2, Dominique Brees3, Jean-Charles Gautier4, Warren Glaab5, Magali Guffroy6, JoAnn Harding7, Eric McDuffie8, Lila Ramaiah9, William Reagan1, Albert Schultz10, James Smith11, and Tanja Zabka12
1Pfizer, 2GlaxoSmithKline, 3Novartis, 4Sanofi, 5Merck, 6Abbvie, 7AstraZeneca, 8Janssen, 9Bristol-Myers Squibb, 10Eli Lilly, 11Boehringer Ingelheim, 12Genentech

9:45 a.m.-10:00 a.m.
GOING GREEN - REDUCING WORK-RELATED TOXICITY IN ANATOMIC PATHOLOGY
Polina Aukon, Wendy O’Rourke, Andrew Ernest, Jennifer Nelson, Justin Griffin, and Alexandra Brower
Midwestern University College of Veterinary Medicine

10:00 a.m.-10:30 a.m.
Salon K
Refreshment Break

Visit the Focused Scientific Posters

Invited Speaker
10:30 a.m.-11:30 a.m.
CHALLENGES IN MULTIPLEXING AND IMAGING TECHNIQUES
Manu M. Sebastian, DVM, PhD, DABT, DACLAM, DACVP
University of Texas MD Anderson Cancer Center, Smithville, TX

11:30 a.m.-12:00 noon
IMPACT OF FOOD RESTRICTION, WATER DEPRIVATION, RESTRAINT, OR ISOPROTERENOL ON PLASMA CARDIAC TROPONIN I AND N-TERMINAL PRO-ATRIAL NATRIURETIC PEPTIDE IN MALE SPRAGUE-DAWLEY RATS
James Turk, George Hu, Sally Lei, Jean Fu, Kathy Chai, Nancy Poy, and Ron Tyler
Amgen

Keyword: Cardiovascular

8:00 a.m.-12:00 noon
Salon E
Natural Disease Focused Scientific Session I

Focused Group Chair: Angela Pillatzki

Focused Group Members: Pompei Bolfa, Julie Engiles (Co-Chair), Brandon Plattner, Simon Priestnall, and Dan Rissi (Past Chair)

Platform Presentations

Invited Speaker
8:00 a.m.-9:00 a.m.
PATHOLOGY OF VIRULENT NEWCASTLE DISEASE: THE 2018-19 CALIFORNIA OUTBREAK
Francisco A. Uzal, DVM, MSc, PhD, DACVP
University of California, Davis, San Bernardino, CA

9:00 a.m.-9:15 a.m.
THE EFFECT OF DEXAMETHASONE ON HEMATOLOGICAL PROFILES, HAEMOSPORIDIAN INFECTION, AND SPLENIC HISTOLOGY IN HOUSE FINCHES (HAEMORHOUS MEXICANUS)
Esther Crouch, Maria Teresa Reinoso-Perez, Keila Dhondt, André Dhondt, José Cruz Otero, and Maria Forzán
Cornell University

Keyword: Avian

9:15 a.m.-9:30 a.m.
CURRENT STATE OF THE GOLDEN RETRIEVER LIFETIME STUDY: SEVEN YEARS OF DATA, DIAGNOSES, AND POTENTIAL INSIGHTS INTO CANINE CANCER EPIDEMIOLOGY
Missy Simpson1, Rod Page2, Kelly Diehl1, Michael Cinkosky1, and Janet Patterson-Kane1
1Morris Animal Foundation, 2Colorado State University

Keyword: General Topic

9:30 a.m.-9:45 a.m.
CANINE GASTRIC CARCINOMAS - A HISTOPATHOLOGICAL STUDY
Alexandros Chardas1, William Becker1, Alejandro Suarez-Bonneterre2, Sam Beck1, and Simon Priestnall1
1The Royal Veterinary College, 2The Royal Veterinary College / Beck VPG, 3VPG Histology

Keyword: Histology

9:45 a.m.-10:00 a.m.
ASSOCIATION OF DOMESTIC CAT HEPADNAVIRUS WITH HEPATITIS AND HEPATOCellular CARCINOMA
Patricia Pesavento1, Tiffany Tse1, Bronte Hampson2, Kenneth Jackson1, John Munday2, and Julia Beatty4
1University of California, Davis; 2Sydney School of Veterinary Science / University of California, Davis; 3Massey University; 4Sydney School of Veterinary Science

Keyword: Infectious Disease

10:00 a.m.-10:30 a.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters
10:30 a.m.-10:45 a.m.
CULTURE AND METAGENOMIC MINION SEQUENCING TO DETECT AND CHARACTERIZE RNA VIRUSES
James Stanton¹, Kevin Lahmers², Kelsey Young¹, Salman Butt¹, Holly Sellers¹, David Stalknècht¹, Jerry Saliki¹, S. Mark Tompkins¹, Ian Padykula¹, S. Michelle Todd¹, Chris Siepker¹, and Elizabeth Howther¹
¹University of Georgia, ²Virginia Tech University
Keyword: Infectious Disease

10:45 a.m.-11:00 a.m.
HEPATIC DISTOMIASIS IN UPPER MIDWEST FETAL AND NEONATAL BEEF CALVES
Heidi Pecoraro, Teresa Newell, and Brett Webb
North Dakota State University Veterinary Diagnostic Laboratory
Keyword: Liver and Pancreas

11:00 a.m.-11:15 a.m.
THE CONTRIBUTION OF KERATINOCYTE STRESS TO EQUINE LAMINITIS PATHOGENESIS: MACRO- AND MICRO-ANATOMICAL LESIONS AND UP-REGULATION OF A STRESS MARKER, GRP78/BIP
Hannah Galantino-Homer¹, Julie Engiles¹, Lynne Cassimeris², Caitlin Armstrong¹, and Kimberly Hildreth¹
¹University of Pennsylvania, ²Lehigh University
Keyword: Skin

11:15 a.m.-11:30 a.m.
IMMUNOHISTOCHEMICAL EVALUATION OF REGULATORY T LYMPHOCYTE INFILTRATION OF CANINE GLIOMA
Gregory Krane¹, David Malarkey¹, Andrew Miller², C. Ryan Miller¹, Debra Tokarz³, and Christopher Marijan⁵
¹National Institute of Environmental Health Sciences, North Carolina State University; ²Cornell University; ³University of North Carolina; ⁴Experimental Pathology Laboratories; ⁵North Carolina State University
Keyword: Neoplasia

11:30 a.m.-11:45 a.m.
MITOTIC COUNT IN CANINE CUTANEOUS MAST CELL TUMORS: MANUAL COUNTS CONSISTENT WITH HIGHEST MITOTIC DENSITY?
Christof Bertram¹, Marc Aubreville², Corinne Gurtner³, Alexander Bartel¹, Sarah Corner⁴, Martina Dettwiler⁵, Olivia Kershaw¹, Erica Noland⁴, Anja Schmidt⁶, Dodd Sledge⁴, Rebecca Smedley⁵, Tuddow Thawong⁵, Matti Kiupel⁴, Andreas Maier⁵, and Robert Klopfleisch¹
¹Freie Universität Berlin, ²Friedrich-Alexander-Universität Erlangen-Nürnberg, ³University of Bern/Freie Universität Berlin, ⁴Michigan State University, ⁵University of Bern, ⁶IDEXX Laboratories
Keyword: Neoplasia

11:45 a.m.-12:00 noon
A HIGH MORTALITY OUTBREAK OF MYCOPLASMA BOVIS IN WYOMING PRONGHORN (ANTILOCAPRA AMERICANA)
Jennifer Malmberg¹, Terry Creekmore², Marguerite Johnson¹, Erika Peckham², Hally Killion¹, Madison Vance¹, Donal O’Toole¹, and Kerry Sondgeroth¹
¹University of Wyoming, ²Wyoming Game and Fish Department
Keyword: Wildlife
12:15 p.m.-1:15 p.m.  
**Emerging Disease Focused Seminar**

**Introduction:**  
A. Sally Davis, DVM, PhD  
Kansas State University, Manhattan, KS

**African Swine Fever: How it Got a Global Passport**  
Mary Louise Penrith, BSc, BSc (Hon), PhD Zoology, PhD Entomology, BVSc, BVSc (Hon)  
University of Pretoria, Menlo Park, South Africa

1:00 p.m.-5:00 p.m.  
**Third Floor Foyer**  
ACVP Logo Merch for Sale!

1:00 p.m.-4:30 p.m.  
**Salon C**  
**ASVCP Veterinary Laboratory Professionals Session I**

**Session Chair:**  
Nicole Rosen, MT (ASCP)  
Purdue University, West Lafayette, IN

1:00 p.m.-2:00 p.m.  
**Managing Conflict: Me First!**  
John Christian, DVM, PhD  
Purdue University, West Lafayette, IN

2:00 p.m.-3:00 p.m.  
**Advia Hematology Multispecies Cytogram Review**  
David Odneal, BS, MT  
Siemens-Healthineers, Kirbyville, MO

3:00 p.m.-3:30 p.m.  
**Salon K**  
Refreshment Break - Visit the Focused Scientific Posters

3:30 p.m.-4:30 p.m.  
**ProCyte Dx Cytograms Interpretations**  
Dennis B. DeNicola, DVM, PhD, DACVP  
IDEXX Laboratories, Inc., Westbrook, ME

1:30 p.m.-4:30 p.m.  
**Salon B**  
**Mini-Symposium I**  
**Cutting Edge Biologic Cancer Therapeutics**

**Session Chairs:**  
James B. Rottman, DVM, PhD, DACVP  
bluebird bio, Cambridge, MA

Keith G. Mansfield, DVM, DACVP  
Novartis, Cambridge, MA

1:30 p.m.-2:15 p.m.  
**Engineered Cell Therapy Products for Oncology**  
Richard A. Morgan, PhD  
Editas Medicine, Cambridge, MA

2:15 p.m.-3:00 p.m.  
**Learnings from Blincyto® and the BiTE® (Bispecific T-Cell Engager) Platform, from Bench to Bedside**  
Benno Rattel, DVM, PhD  
Amgen, Munich, Germany

3:00 p.m.-3:30 p.m.  
**Salon K**  
Refreshment Break - Visit the Focused Scientific Posters

3:30 p.m.-4:15 p.m.  
**Development of ONCR-177, a miR-attenuated Oncolytic HSV-1 Designed to Potently Activate Systemic Anti-tumor Immunity**  
Christophe Queva, PhD  
Oncorus, Cambridge, MA

4:15 p.m.-5:00 p.m.  
**Therapeutic mRNA s: Overview and Examples**  
Daher Ibrahim Aibo, DVM, PhD, DACVP  
Novartis, East Hanover, NJ

1:30 p.m.-4:30 p.m.  
**Salon D**  
**Clinical Pathology Focused Scientific Session I**

**Focused Group Chair:**  
Amy Warren

**Focused Group Members:**  
Shawn Clark, Mike Fry, Karen Jackson, Catherine Wagg, Valerie Wong, and Kathryn Wycislo

**Platform Presentations**

1:30 p.m.-1:45 p.m.  
**EVALUATION OF THE URINARY MIRNA EXPRESSION PROFILE IN DOGS WITH CHRONIC KIDNEY DISEASE DUE TO X-LINKED HEREDITARY NEPHROPATHY**  
Sabrina Clark*, Candice Chu, George Lees, and Mary Nabity  
Texas A&M University  
**Keyword:** Urinary System

1:45 p.m.-2:00 p.m.  
**URINARY MICRORNA PROFILING IN DOGS WITH CHRONIC KIDNEY DISEASE CAUSED BY GLOMERULAR DISEASES**  
Candice Chu*  
Jessica Hokamp  
George Lees  
Mary Nabity  
Texas A&M University, The Ohio State University  
**Keyword:** Urinary System

1:30 p.m.-3:00 p.m.  
**WE’RE NOT CRAZY!: INTEGRATION OF CLINICAL PATHOLOGY AND TISSUE ANALYSIS FOR COMPREHENSIVE KIDNEY EVALUATION**  
Mary B. Nabity, DVM, PhD, DACVP  
and Rachel E. Cianciolo, VMD, PhD, DACVP  
Texas A&M University College of Veterinary Medicine and Biomedical Sciences and The Ohio State University  
**Keyword:** Urinary System

2:00 p.m.-3:00 p.m.  
**Invited Speaker**

WE’RE NOT CRAZY!: INTEGRATION OF CLINICAL PATHOLOGY AND TISSUE ANALYSIS FOR COMPREHENSIVE KIDNEY EVALUATION  
Mary B. Nabity, DVM, PhD, DACVP  
and Rachel E. Cianciolo, VMD, PhD, DACVP  
Texas A&M University College of Veterinary Medicine and Biomedical Sciences and The Ohio State University
3:00 p.m. - 3:30 p.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

3:30 p.m.-3:45 p.m.
CHARACTERIZING THE PRESENCE OF MELAMED-WOLINSKA BODIES IN CANINE URINE CYTOLOGY
Alyssa Brooker*, Bridget Garner, Melinda Camus, and Kristina Meichner
University of Georgia
Keyword: Cytology

3:45 p.m.-4:00 p.m.
DETECTION OF SERUM AND URINE FREE LIGHT CHAINS IN VETERINARY PATIENTS
R. Adam Harris*, Dillon Donaghy, and A Russell Moore
Colorado State University
Keyword: Neoplasia

4:00 p.m.-4:15 p.m.
PRECISION, ACCURACY, AND TOTAL ERROR DETERMINATION FOR SERUM AND URINARY CORTISOL IN DOGS: WHAT IS ACHIEVABLE WITH THE IMMULITE 2000XPI, AND HOW DOES THAT IMPACT RESULTS’ INTERPRETATION?
Jeremie Korchia¹ and Kathy Freeman²
¹Texas A&M University, ²University of Exeter
Keyword: Endocrine

4:15 p.m.-4:30 p.m.
COMPARISON OF SERUM VS. EDTA-PLASMA IN CANINE MAJOR CROSSMATCH REACTIONS
Megan Caudill*, Kristina Meichner, Amie Koenig, Roy Berghaus, and Bridget Garner
University of Georgia
Keyword: Hematology

1:30 p.m.-5:00 p.m.
Salon I
Diagnostic Pathology Focused Scientific Session I

Focused Session Chair: Aline Rodrigues Hoffmann

Focused Group Members: Eric Burrough (Past Chair), Rachel Derscheid, Ian Hawkins, Fabiano Oliveira (Co-Chair), Heindrich Snyman, Francisco Uzal, and Arnaud Van Wettere

Platform Presentations

1:30 p.m.-1:35 p.m.
INTRODUCTION AND ANNOUNCEMENTS
Aline Rodrigues Hoffmann, DVM, PhD, DACVP
Texas A&M University, College Station, TX

1:35 p.m.-1:45 p.m.
CHARACTERIZATION OF NEUROPATHOLOGIC LESIONS ASSOCIATED WITH AVIAN REOVIRUS INFECTION IN COMMERCIAL BROILER CHICKENS
Tzushan Yan¹#, Natalie Armour², Martha Pulido-Landinez², Alejandro Banda¹, Heidi Rose², and Brittany Baughman¹
¹Mississippi State University College of Veterinary Medicine, ²Mississippi Veterinary Research and Diagnostic Laboratory
Keyword: Avian

1:45 p.m.-1:55 p.m.
SPONTANEOUS PROLIFERATIVE TYPHLOCOLITIS OF AN UNKNOWN CAUSE IN FVB/N MICE
Lauren Peiffer#, Cory Brayton, and Karen Sfanos
Johns Hopkins University School of Medicine
Keyword: Alimentary

1:55 p.m.-2:05 p.m.
MYCOBACTERIUM ABSCESSUS PNEUMONIA IN A CAT
Cheng-Hsin Shih¹#, Ying-Chen Wu², and Wei-Hsiang Huang¹
¹National Taiwan University, ²National Chung Hsing University
Keyword: Infectious Disease

2:05 p.m.-2:15 p.m.
BRONCHOPULMONARY DYSPLASIA WITH SECONDARY BULLA RUPTURE AND BACTERIAL BRONCHOPNEUMONIA IN A YOUNG SPHYNK CAT
Megan Schreeg¹#, Bennett Deddens¹, Zachary Kern¹, Julie Allen², Devorah Stowe¹, Ian Robertson¹, Adam Birkenheuer¹, Eleanor Hawkins¹, and Janice Harvey¹
¹North Carolina State University College of Veterinary Medicine, ²North Carolina State University College of Veterinary Medicine / Cornell University College of Veterinary Medicine
Keyword: Respiratory System

2:15 p.m.-2:25 p.m.
A PERITONEAL INFLAMMATORY MYOFIBROBLASTIC TUMOR IN AN ARABIAN MARE
Nataly Mamaliger¹#, Alicia Olivier, and Amy Lack
Mississippi State University College of Veterinary Medicine
Keyword: Neoplasia

2:25 p.m.-2:35 p.m.
HISTOLOGY GUIDED MASS SPECTROMETRY DISTINGUISHES BETWEEN MAST CELL TUMOR GRADES
Melissa Swan¹#, Katy Smoot², Matt Powell³, Shelley Newman¹, Yava Jones-Hall¹, and Abigail Cox¹
¹Purdue University, ²New River Labs, ³Long Island University
Keyword: Neoplasia

2:35 p.m.-2:45 p.m.
SYSTEMIC MASTOCYTOSIS PRESENTING AS SUBCUTANEOUS HEMORRHAGE AND EDEMA IN A GREYHOUND
Alexander Aceino², Unity Jeffery, and Carolyn Hodo
Texas A&M University
Keyword: Neoplasia
Final Program

Veterinary Student Presenter
2:45 p.m.-2:50 p.m.
PROGNOSTIC FEATURES OF CANINE GLIAL TUMORS
Joshua L. Merickel, G. Elizabeth Pluhar, and Gerard O’Sullivan
University of Minnesota

Veterinary Student Presenter
2:50 p.m.-2:55 p.m.
UNIQUE CLINICAL PRESENTATION OF MANDIBULAR
OSTEOMYELITIS IN A WALLABY
Allison Gerras¹, Kimberly Thompson², and Victoria Watson¹
¹Michigan State University, ²Binder Park Zoo

Veterinary Student Presenter
2:55 p.m.-3:00 p.m.
SPECIFIC IN SITU DETECTION OF TRYPANOSOMA CRUZI IN
CHAGAS DISEASE
Anna K. Blick and Raquel R. Rech
Texas A&M University

3:00 p.m.-3:30 p.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

3:30 p.m.-3:40 p.m.
METASTATIC CERVICAL PARAGANGLIOMAS WITH BONE
INVASIONS IN TWO DOGS
Albert Jeon¹, Lilian Oliveira, Alexis Livacarri, Christina Scanlon, Philip Hamel, Erin Porter, and Jeffrey Abbott
University of Florida
Keyword: Neoplasia

3:40 p.m.-3:50 p.m.
CANINE EXTRA-GASTROINTESTINAL STROMAL TUMORS
Hannah Laurence¹, Lauren Harris, and Juan Muñoz Gutiérrez
Colorado State University
Keyword: Neoplasia

3:50 p.m.-4:00 p.m.
HISTOLOGY GUIDED MASS SPECTROMETRY ACCURATELY
DISTINGUISHES BENIGN AND MALIGNANT SKIN MELANOMAS
IN DOGS
Caitlin Brown¹, Katy Smoot², Matthew Powell², and Yava Jones-Hall¹
¹Purdue University, ²New River Labs
Keyword: Skin

4:00 p.m.-4:10 p.m.
PUTATIVE EPIDERMOLYSIS BULLOSA IN A LITTER OF NEONATAL
BASSET HOUNDS
Teresa Garcia¹ and Duncan Russell
Oregon State University
Keyword: Skin

4:10 p.m.-4:20 p.m.
A NOVEL BURSAL VIRUS, VISCERAL GOUT, AND CEREBRAL
VASCULAR URATE DEPOSITION IN A DOUBLE-CRESTED
CORMORANT, PHALACROCORAX AURITUS
Bianca Pfisterer¹, Cheryl Greenacre, Mohamed Abouelkhair, Stephen Kania, and Mee-Ja Sula
University of Tennessee
Keyword: Wildlife

4:20 p.m.-4:30 p.m.
MENINGEAL GRANULAR CELL TUMOR IN THE CEREBRUM OF A
GREEN TREE PYTHON (MORELIA VIRIDIS)
Daniel Finnegan¹, Andrew Cartoceti, Amanda Hauck¹, and Elise LaDouceur¹
¹Joint Pathology Center, ²Smithsonian National Zoo
Keyword: Wildlife

4:30 p.m.-4:40 p.m.
PSITTACOSIS IN A CAT (FELIS DOMESTICUS)
Hailey Sanderson, Marce Vasquez, Hally Killion, Kenny Sondgroth, and Jonathan Fox
University of Wyoming
Keyword: Infectious Disease

4:40 p.m.-4:50 p.m.
HISTOPATHOLOGIC CHARACTERIZATION OF SYNOVIAL
BIOPSIES FROM CLINICAL CANINE PATIENTS WITH CRANIAL
CRUCIATE LIGAMENT DISEASE
Kei Kuroki¹, Ned Williams², and James Cook¹
¹University of Missouri, ²Eastern Carolina Veterinary Referral
Keyword: Bone and Joint

4:50 p.m.-5:00 p.m.
HISTIOCYTIC SARCOMA IN TWO FREE-RANGING FLORIDA
MANATEES (TRICHECHUS MANATUS LATIROSTRIS)
David Rotstein¹, Martine deWit², Nicole Stacy³, and Mike Kinse⁴
¹Marine Mammal Pathology Services, ²Florida Fish and Wildlife Conservation Commission, ³University of Florida College of Veterinary Medicine, ⁴University of Illinois Zoological Pathology Program
Keyword: Wildlife

#ACVP/AAVLD Diagnostic Pathology Travel Award competitor

1:30 p.m.-5:00 p.m.
Salon J
Experimental Disease Focused Scientific Session I

Focused Group Chair: Oded Foreman

Focused Group Members: Vivian Chen, Sanjeev Gumber (Past Chair), Stephanie Montgomery, Chris Pinelli, Sara Santagostino (Co-Chair), Manu Sebastian, Joshua Webster, and Kevin Woolard
1:30 p.m.-1:35 p.m.
INTRODUCTION
Oded Foreman, DVM, DACVP
Genentech Inc., South San Francisco, CA

Invited Speaker
1:35 p.m.-2:30 p.m.
THE CONNECTION BETWEEN CANCER AND THE GUT MICROBIOME
Vanessa B. Jensen, DVM, DACLAM
University of Texas MD Anderson Cancer Center, Houston, TX

2:30 p.m.-2:45 p.m.
PATHOLOGY OF THE BLOOD-TUMOR BARRIER IN THE DEVELOPMENT OF NON-SMALL CELL LUNG CANCER BRAIN METASTASES
L. Tiffany Lyle, Alexandra Dieterly, Chinyere Kemet, Hsin-Yi Weng, Arvin Soepriatna, Craig Goergen, Aparna Shinde, Michael Wendt, and Gozde Uzunalli
Purdue University
Keyword: Neoplasia

2:45 p.m.-3:00 p.m.
REQUIREMENT OF STEROL REGULATORY ELEMENT-BINDING PROTEIN PATHWAY IN PANCREATIC DUCTAL ADENOCARCINOMA
Stephanie Myers, Meredith McGuire, Wei Shao, Chune Liu, Theodore Ewachiw, Zeshaan Rasheed, William Matsui, and Peter Espenshade
Johns Hopkins University
Keyword: Liver and Pancreas

3:00 p.m.-3:30 p.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

Invited Speaker
3:30 p.m.-4:30 p.m.
ANALYZING GENETIC AND MICROENVIRONMENTAL MEDIATORS OF CARCINOGENESIS WITH THE ZEBRAFISH MODEL
Heather R. Shive, DVM, PhD, DACVP
The Ohio State University Columbus, OH

4:30 p.m.-4:45 p.m.
EARLY INFLAMMATORY LESIONS IN THE PROXIMAL OVUDCT OF THE LAYING HEN: PRECURSORS TO OVARIAN CARCINOMA
K. Denise Apperson1, Karyn Bird3, Gita Cherian1, and Christiane Löhr2
1Arkansas Veterinary Diagnostic Lab | Oregon State University, 2Oregon State University
Keyword: Reproductive System

4:45 p.m.-5:00 p.m.
AGE-RELATED DIFFERENCES IN THE PATHOGENESIS OF CLADE 2.3.4.4A H5N2 HPAIV IN COMMERCIAL BROAD BREASTED WHITE TURKEYS
Silvia Carnaccini1, Daniel Perez1, Daniela Rajao1, Jefferson Santos1, Ademimpe Obadan1, Mary Pantin-Jackwood2, and David Suarez2
1University of Georgia, 2U.S. Department of Agriculture
Keyword: Avian

1:30 p.m.-5:00 p.m.
Salon E
Natural Disease Focused Scientific Session II

Focused Group Chair: Angela Pillatzki
Focused Group Members: Pompei Bolfa, Julie Engiles (Co-Chair), Brandon Plattner, Simon Priestnall, and Dan Rissi (Past Chair)

Platform Presentations

Invited Speaker
1:30 p.m.-2:30 p.m.
THE WONDERFUL WORLD OF VITAMIN D: BONE DISEASE AND MORE
Keren E. Dittmer, BVSc, Dist PhD, DACVP
Massey University, Palmerston North, New Zealand

2:30 p.m.-2:45 p.m.
CATASTROPHIC TIBIAL FRACTURES IN RACEHORSES
Monika Samol, Susan Stover, Francisco Uzal, and Rick Arthur
University of California, Davis
Keyword: Bone and Joint

2:45 p.m.-3:00 p.m.
MOLECULAR CHARACTERIZATION OF 119 MAMMARY CARCINOMAS IN PET RABBITS
Sophie Degner1, Heinz-Adolf Schoon1, Mathias Baudis2, Claudia Schandelmair3, Heike Aupperle-Lellbach1, and Sandra Schöniger4
1University of Leipzig, 2Tierarztpraxis Ralf Bischoff, 3Laboklin GmbH & Co. KG, 4Targos Molecular Pathology GmbH
Keyword: Mammary

3:00 p.m.-3:30 p.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

3:30 p.m.-3:45 p.m.
SEVERE ESOPHAGITIS IS A COMMON CAUSE OF MORBIDITY IN CAPTIVE NAKED MOLE RATS
Wesley Siniard1, Megan Smith2, Rochelle Buffenstein3, and Denise Imai-Leonard1
1University of California, Davis, 2Calico Life Sciences
Keyword: Alimentary
Final Program

3:45 p.m.-4:00 p.m.
PATHOLOGY OF OPHIDIAN SERPENTOVIRUS INFECTIONS IN SNAKES
Robert Ossiboff
University of Florida

Keyword: Other

Invited Speaker
4:00 p.m.-5:00 p.m.
NEWLY DESCRIBED DISEASES IN ARCTIC FOXES, ELEPHANT SEALS, AND HARBOR SEALS
Terry Spraker, DVM, PhD, DACVP
Colorado State University, Fort Collins, CO

3:45 p.m.-4:00 p.m.
PATHOLOGY OF OPHIDIAN SERPENTOVIRUS INFECTIONS IN SNAKES
Robert Ossiboff
University of Florida

Keyword: Other

Invited Speaker
4:00 p.m.-5:00 p.m.
NEWLY DESCRIBED DISEASES IN ARCTIC FOXES, ELEPHANT SEALS, AND HARBOR SEALS
Terry Spraker, DVM, PhD, DACVP
Colorado State University, Fort Collins, CO

2:00 p.m.-5:00 p.m.
Conference Room 12
ACVP Council Meeting

2:30 p.m.-3:30 p.m.
Third Floor Foyer
Professional Photos
A professional photographer will be available to take your photo to use in your work environment. Thank you to IDEXX for sponsoring this area!

4:00 p.m.-6:00 p.m.
Conference Room 14
Exhibitor Hosted Session: Demystifying Deep Learning AI and Digital Pathology
Company Name: Aiforia, Inc.
Company Profile: The Aiforia AI cloud-platform increases the speed and accuracy of analyzing medical images. To train AI models, you point out what you look for, the platform does the rest. Detect subtle changes, increase consistency, and produce quantitative data starting today.

Session description:
Hands-on AI workshop: you will train your own AI model, live on “Aiforia Create”. Bring your laptop and mouse to learn how to annotate, train, and test neural networks. This will be run as a friendly competition. The lowest error rate walks away with a prize and bragging rights.

4:30 p.m.-6:00 p.m.
Salon D
ASVCP Business Meeting

5:00 p.m.-6:00 p.m.
Conference Room 4
Diversity Initiative Reception
All members are invited to attend!

5:15 p.m.-6:00 p.m.
Salon B
Maintenance of Certification Q&A Session

6:00 p.m.-7:30 p.m.
Salon E
ACVP Town Hall Business Meeting
All ACVP Diplomates are encouraged to attend and discuss timely College business topics such as the Affiliate Member proposals, progress on the 2018-2022 Strategic Plan, and updates on reports from 2019 task forces.

7:00 p.m.-9:00 p.m.
Salon D
Antech Reception (by invitation only)+

7:00 p.m.-9:00 p.m.
Salon J
The Ohio State University College of Veterinary Medicine Alumni Reception+

7:00 p.m.-9:00 p.m.
Conference Room 9
University of Florida College of Veterinary Medicine Alumni Reception+

7:00 p.m.-9:00 p.m.
Located off-site at Casa Rio (430 E. Commerce Street)
Virginia-Maryland Alumni Reception+

7:30 p.m.-8:45 p.m.
Salon I
ACVP Speed Networking (pre-registration required)

7:30 p.m.-9:30 p.m.
Salon F
Mystery Slide Review: Neuropathology

Session Chair: Andrew Miller
Cornell University

Review the mystery slides and win a free beverage at the session! Check the ACVP website at www.acvp.org.

7:30 p.m.-9:30 p.m.
Conference Room 3
North Carolina State University Alumni Reception+

7:30 p.m.-9:30 p.m.
Conference Room 7
University of Pennsylvania School of Veterinary Medicine Alumni Reception+

7:30 p.m.-9:30 p.m.
Conference Room 4
Washington State University College of Veterinary Medicine Alumni Reception+

+Affiliate Event
Monday, November 11, 2019

6:30 a.m.-7:30 a.m.
Conference Room 11
Yoga for the Microscope (Chair Yoga)
Katherine Gibson-Corley, DVM, PhD, DACVP
All levels of experience welcome!

7:00 a.m.-6:00 p.m.
Conference Room 2
Speaker Ready Room

7:00 a.m.
Third Floor Foyer
Internet Station
Sponsored by VIN

7:00 a.m.-8:00 a.m.
Conference Room 4
ACVP Council and Education Committee

7:00 a.m.-8:00 a.m.
Conference Room 9
ASVCP Veterinary Laboratory Professionals Program Committee

7:00 a.m.-8:00 a.m.
Meeting Off-Site at the Oro Restaurant
ASVCP Web Committee

7:00 a.m.-8:00 a.m.
Conference Room 15
IEPC Committee

7:00 a.m.-8:00 a.m.
Conference Room 7
Pathology Informatics Committee

7:00 a.m.-10:00 a.m.
Conference Room 8
C.L. Davis and S.W. Thompson Foundation Board of Directors+

7:30 a.m.-1:00 p.m.
Third Floor Foyer
Registration and Information Desk

8:00 a.m.-11:00 a.m.
Conference Room 10
Certifying Exam Board

8:00 a.m.-1:00 p.m.
Conference Suite 529
Lactation Room
(stop by the ACVP registration desk to pick up a key)

8:00 a.m.-12:00 noon
Salon F
ACVP and ASVCP Plenary Session
Cancer Immunotherapy

Session Chairs: Peter Vogel, DVM, PhD, DACVP
St. Jude Children’s Research Hospital, Nashville, TN

Lauri Diehl, DVM, PhD, DACVP
Gilead Sciences, Inc., Foster City, CA

8:00 a.m.-9:00 a.m.
The End of the Beginning: Cancer, Immunity, and the Future of a Cure
Michael S. Kinch, PhD
Washington University, St. Louis, MO

9:00 a.m.-9:45 a.m.
T-cell Intrinsic and Extrinsic Mechanisms Limiting Tumor Immunotherapy
Benjamin A. Youngblood, PhD
St. Jude Children’s Research Hospital, Memphis, TN

9:45 a.m.-10:15 a.m.
Salon K
Refreshment Break - Visit the Young Investigator Award Competitor and Late-Breaking Posters

10:15 a.m.-11:00 a.m.
New Approaches to Cancer Immunotherapy in Dogs: More Than Checkpoint Inhibitors
Steven Dow, DVM, PhD, DACVP
Colorado State University, Fort Collins, CO

11:00 a.m.-11:45 a.m.
Adoptive T Cell Therapies for Dogs with Cancer and Autoimmune Disease
Nicola Mason, BVetMed, PhD, DACVIM
University of Pennsylvania, Philadelphia, PA

11:45 a.m.-12:00 noon
Questions and Discussion

8:30 a.m.-12:00 noon
Salon C
ASVCP Veterinary Laboratory Professionals Session II

Session Chair: Nicole Rosen, MT (ASCP)

8:30 a.m.-9:30 a.m.
Laboratory Professionals as Stewards for Quality Point-of-Care Testing
Kim Futrell, MT(ASC), MSHI
Orchard Software Company, Carmel, IN

2019 ACVP/ASVCP Concurrent Annual Meeting 19
A Tale of Four Glucose Measurements: Comparison of Three POC Glucometers to a Reference Standard
Aimee Brooks, MS, DVM, DACVECC
Purdue University, West Lafayette, IN

11:00 a.m.-12:00 noon
Implementing a Point-of-Care Testing (POCT) Quality Assessment Program in an Academic Veterinary Medical Center: Challenges and Lessons Learned
Bente Flatland, DVM, DACVIM, DACVP
University of Tennessee, Knoxville, TN

Focused Scientific Poster Session B

Zoonotic Diseases: How Animals and Humans Trade Disease
Claus Buergelt, DVM, PhD, DACVP
University of Florida, Gainesville, FL

How Would You Call it: Axonal Swelling, Spheroid, or Dystrophy?
Ingrid D. Pardo, MS, DVM, DACVP
Pfizer, Groton, CT

Parrot Bornavirus
Jeann Leal, MS, DVM, PhD
Universidade Federal da Paraiba - UFPB (Brazil)

Relaxation Room
Sponsored by IDEXX

ASVCP Case Discussion Session
Session Chair: Sharon M. Dial, DVM, PhD, DACVP
University of Arizona, Tucson, AZ

70th Anniversary Pillars of Pathology
Session Chair: Krista La Perle, DVM, PhD, DACVP
The Ohio State University, Columbus, OH

Looking Through the Microscope at Seven Decades of ACVP History
Krista La Perle, DVM, PhD, DACVP

Diagnostic Pathology
M. Grant Maxie, DVM, PhD, DACVP
University of Guelph, Guelph, Ontario, Canada

Zoo & Wildlife Pathology
Linda J. Lowenstine, DVM, PhD, DACVP
University of California, Davis, CA
3:30 p.m.-4:00 p.m.  
**Lab Animal & Toxicologic Pathology**  
Jerrold M. Ward, DVM, PhD, DACVP  
Global VetPathology, Montgomery Village, MD

2:00 p.m.-3:00 p.m.  
Conference Room 14  
**Exhibitor Hosted-Session: What’s New in IHC and ISH? New Multiplexing Technologies Enable Innovative Experiments**  
**Company name:** Roche Tissue Diagnostics  
**Company Profile:** Roche offers DISCOVERY ULTRA instrument that provides the highest level of protocol flexibility for the most challenging assays and for rapid assay development. The thirty independent slide drawers allow for brightfield/immunofluorescence capabilities.

**Session description:**  
Recent advances in immunohistochemistry (IHC) and in situ hybridization (ISH) detection chemistries have enabled new experimental approaches. It is now possible to detect multiple epitopes on a single slide with IHC, ISH and FISH, gene and protein IHC/ISH, mRNA or microRNA ISH. These multiplexed approaches increase the amount of information produced in a single experiment.

2:30 p.m.-4:30 p.m.  
Conference Room 8  
**ACVP Test Writers Group**

3:45 p.m.-5:15 p.m.  
Conference Room 14  
**ASVCP Education Forum for Discussion**  
**Teaching Practical QA/QC to Clinical Pathology Residents**

**Session Chairs:** Ashleigh W. Newman, VMD, DACVP  
Cornell University College of Veterinary Medicine, Ithaca, NY

**Speaker:**  
Bente Flatland, DVM, DACVIM, DACVP  
University of Tennessee, Knoxville, TN

4:00 p.m.-5:15 p.m.  
Salon I  
**Veterinary Student and Resident Forum**

4:00 p.m.-6:00 p.m.  
Conference Room 5  
**Private Foundations Committee**

4:30 p.m.-6:30 p.m.  
Conference Room 4  
**Comparative Pathology Reception and Meeting**

5:00 p.m.-6:00 p.m.  
Conference Room 12  
**ACVP Council Meeting**

5:00 p.m.-7:00 p.m.  
Located off-site at Maria Mia Mexican Bistro  
(849 E. Commerce Street)  
**University of Tennessee Alumni and Friends Reception**

5:00 p.m.-6:30 p.m.  
Salon J  
**C.L. Davis and S.W. Thompson Foundation Reception**

5:15 p.m.-6:45 p.m.  
Salon D  
**ASVCP Reception**

6:00 p.m.-7:30 p.m.  
Salon B  
**ACVP New Diplomates Reception**  
*Sponsored by IDEXX*

6:00 p.m.-7:30 p.m.  
Conference Room 11  
**Iowa State University College of Veterinary Medicine Alumni Reception**

6:30 p.m.-8:00 p.m.  
Conference Room 15  
**University of Georgia College of Veterinary Medicine Alumni Reception**

7:00 p.m.-8:00 p.m.  
Conference Room 14  
**ASVCP Team Jeopardy: Clinical Pathologist and Resident Meet and Greet**

7:00 p.m.-9:00 p.m.  
Salon F  
**Mystery Slide Review Session: Parasitology**

**Session Chairs:** Tanya LeRoith, DVM, PhD, DACVP  
Virginia Tech, Blacksburg, VA

Gary Conboy, BSc, DVM, PhD  
Atlantic Veterinary College, Prince Edward Island, Canada

Francisco R. Carvallo, DMV, DSc, DACVP  
CAHFS, San Bernardino, CA

Review the mystery slides and win a free beverage at the session! Check the ACVP website at www.acvp.org.
Genetically engineered animal models are powerful tools utilized in biomedical research. However, a good understanding of the utility and limitations of these models is necessary in order to ensure proper interpretation, experimental rigor, and reproducibility. The veterinary pathologist plays a critical role in their proper use and interpretation, and should be included as an important member of any team utilizing these models. Although the use of genetically engineered animal models is widespread in research and have advanced the understanding of human disease, knowledge of appropriate model selection, various factors that influence interpretation, and an appreciation of the limitations of these models is important in their effectiveness and utility. In this session, we provide information on the common techniques of genetic manipulation, considerations when choosing the most appropriate model, common factors influencing interpretation of these models, and the pathologist’s role in working with the investigator to establish optimal conditions for pathology endpoints when using these models. Examples of common pitfalls where the expertise of a pathologist would have prevented misinterpretation of these models will also be provided.

**Tuesday, November 12, 2019**

6:30 a.m.-7:30 a.m.
Conference Room 11
*Yoga Flow for the Necropsy Floor*
Katherine Gibson-Corley, DVM, PhD, DACVP
All levels of experience are welcome.

7:00 a.m.
Third Floor Foyer
*Internet Station*
*Sponsored by VIN*

7:00 a.m.-6:00 p.m.
Conference Room 2
*Speaker Ready Room*

7:30 a.m.-3:30 p.m.
Third Floor Foyer
*Registration and Information Desk*
You are invited to attend the ACVP President’s Reception at the end of today at 7:00 p.m. in Salon D!

7:00 a.m.-8:00 a.m.
Conference Room 4
*ACVP Council and Certifying Exam Board*

7:00 a.m.-8:00 a.m.
Conference Room 7
*Past Presidents Breakfast*

7:00 a.m.-8:00 a.m.
Conference Room 5
*ACVP Finance Committee*

7:00 a.m.-8:00 a.m.
Conference Room 10
*Advocacy and Policy Committee*
8:30 a.m.-9:00 a.m.
**Choosing the Most Appropriate Models: Considerations When Studying Human Disease**
Amanda Beck, DVM, DACVP
Albert Einstein College of Medicine/Albert Einstein Cancer Center, Bronx, NY

9:00 a.m.-9:30 a.m.
**Common Factors (Gender, Strain, Age, Species) that Affect Interpretation**
Cory Brayton, DVM, DACLAM, DACVP
Johns Hopkins University, School of Medicine, Baltimore, MD

9:30 a.m.-10:00 a.m.
Salon K
**Refreshment Break - Visit the Focused Scientific Posters**

10:00 a.m.-10:30 a.m.
**Common Factors continued**

10:30 a.m.-11:15 a.m.
**Communication, Education, Interpretation: Putting it All Together**
Mark J. Hoenenhoff, DVM, PhD, FIATP, DACVP
University of Michigan Medical School, Ann Arbor, MI

11:15 a.m.-12:00 noon
Panel Discussion

8:00 a.m.-12:00 noon
Salon E
**Concurrent Session II**
**Emerging Technologies for Tissue-Based Analysis**

Session Chairs: Joshua Webster, DVM, PhD, DACVP
Genentech, Daly City, CA

Christiane V. Löhr, DrMedVet, DVM, PhD, DACVP
Oregon State University, Corvallis, OR

Although traditional tools of pathology including gross examination, hematoxylin and eosin-based histopathologic interpretation, and immunohistochemistry are fundamental to a pathologist’s daily work, the field of pathology is increasingly impacted by a multitude of new technologies. While digital pathology, whole-slide imaging, and image analysis have been applied across many sub-disciplines of veterinary pathology, and are becoming increasingly fundamental in many pathology workflows, additional imaging technologies that will impact pathologists in the future are emerging. While classical pathology approaches will not be replaced, it is important for pathologists to be aware of and engaged in these developing tissue imaging technologies. This session will include three speakers that will each provide unique perspectives on cutting edge technologies and/or adoption of these technologies including mass spectrometry based tissue imaging, cleared tissue histology with multiphoton microscopy, and advances in novel microscopy technologies. The fourth speaker will discuss adoption of novel technologies in research pathology.

8:00 a.m.-8:55 a.m.
**New Techniques in Tissue Imaging**
Meredith S. Sagolla, PhD
Genentech, South San Francisco, CA

8:55 a.m.-9:45 a.m.
**CHiMP - Practical, High Quality, Direct to Digital Histology**
Richard Torres, MS, MD
Yale School of Medicine, New Haven, CT

9:45 a.m.-10:15 a.m.
Salon K
**Refreshment Break - Visit the Focused Scientific Posters**

10:15 a.m.-11:10 a.m.
**Mass Spectrometry Imaging: A Review of Methodology and Potential Applications of this Emerging Technology in Pathology**
Rajanikanth Maganti, BVSc, PhD, DACVP
Moderna, Inc., Cambridge, MA

11:10 a.m.-12:00 noon
**Navigating the Promise and Perils of New Technology for Tissue-Based Analysis**
Lauri Diehl, DVM, PhD, DACVP
Gilead, Foster City, CA

8:00 a.m.-12:00 noon
Salon B
**Clinical Pathology Focused Scientific Session II**

Focused Session Chair: Amy Warren

Focused Group Members: Shawn Clark, Mike Fry, Karen Jackson, Catherine Wagg, Valerie Wong, and Kathryn Wycislo

8:00 a.m.-8:15 a.m.
**HEPATIC T CELL-RICH B CELL LYMPHOMA IN A YOUNG GREAT DANE**
Gary Lee¹, Janet Beeler-Marfisi¹, Stefan Keller¹, Mei-Hua Hwang¹, Nikos Darzentas², Haiyang Chang³, Emily Ratsep³, Rebecca Egan¹, and Dorothee Bienzle¹
¹University of Guelph, ²Mazaryk University/University Hospital Schleswig-Holstein
Keyword: Neoplasia

8:15 a.m.-8:30 a.m.
**RATES AND TYPES OF ERRORS AT A CLINICAL PATHOLOGY LABORATORY IN A VETERINARY TEACHING HOSPITAL**
Kellie Whipple*, Mary Leissinger, and Sarah Beatty
University of Florida College of Veterinary Medicine
Keyword: Clinical Pathology
8:30 a.m.-8:45 a.m.

SCORING EXERCISE-INDUCED PULMONARY HEMORRHAGE: ACCURACY OF HUMAN OBSERVER AND DEEP-LEARNING BASED ALGORITHMS

Christof A. Bertram1*, Christian Marzahl2, Marc Aubreville2, Jason Stayt3, Anne-Katherine Jasensky5, Florian Bartenschlager1, Marco Fragoso-Garcia1, Samir Jabari2, Svenja Elsemann4, Ann K. Barton1, Andreas Maier2, Jenny Hill1, and Robert Klopfleisch1

1Freie Universität Berlin, 2Friedrich-Alexander-Universität Erlangen-Nürnberg, 3VetPath Laboratory Services, 4Universitätsklinikum Erlangen, 5Laboklin GmbH und Co. KG

Keyword: Respiratory System

8:45 a.m.- 9:00 a.m.

DIFFERENTIAL GENE EXPRESSION AND IRON STORAGE IN TUMOR AND NON-TUMOR TISSUE IN CANINE HEPATOCELLULAR CARCINOMA

Klaudia Polak*, Paula Schaffer, Madison Zenk, Dillon Donaghy, and Christine Olver

Colorado State University

Keyword: Liver and Pancreas

Invited Speaker

9:00 a.m.-10:00 a.m.

INTERNATIONAL REFERENCE PREPARATIONS FOR PROTEIN BIOMARKER DEVELOPMENT FOR SPECIES-SPECIFIC ASSAYS

David Eckersall, BSc, MBA, PhD

University of Glasgow, Glasgow, United Kingdom of Great Britain and Northern Ireland

10:00 a.m. - 10:30 a.m.

Salon K

Refreshment Break - Visit the Focused Scientific Posters

10:30 a.m.-10:45 a.m.

A PANFUNGAL PCR ASSAY PERFORMED DIRECTLY ON STAINED CYTOLOGY SLIDES

Alexandra Myers*, Zachary Seyler, Unity Jeffery, Sara Lawhon, and Aline Rodrigues Hoffmann

Texas A&M University

Keyword: Infectious Disease

10:45 a.m.-11:00 a.m.

EFFICACY OF FOUNTAIN FLOW CYTOMETRY FOR RAPID DETECTION OF BACTERIAL SEPSIS IN BODY CAVITY FLUIDS

Samantha Evans1,2*, Alexandra Bonney2, Sara Wist3, Paul Johnson3, Kelly Santangelo2

1The Ohio State University, 2Colorado State University, 3Softray, Inc.,

Keyword: Infectious Disease

11:00 a.m.-11:15 a.m.

VARIATION IN BIOCHEMISTRY TEST RESULTS BETWEEN ANNUAL WELLNESS VISITS IN APPARENTLY HEALTHY GOLDEN RETRIEVERS

Unity Jeffery1, Nick Jeffery1, Kate Crevey1, Melissa Simpson2

1Texas A&M University, 2Morris Animal Foundation

Keyword: Clinical Chemistry

11:15 a.m.-11:30 a.m.

VALIDATION OF THE CELLAVISION DM96 FOR MANUAL RETICULOCYTE ENUMERATION

Amy DiDomenico1*, Jan Andrews2, and Greg Freeman2

1North Carolina State University, 2Antech Diagnostics

Keyword: Hematology

11:30 a.m.-11:45 a.m.

CHANGES IN INTRAERYTHROCYTIC AND INTRALEUKOCYTIC CELLULAR REACTIVE OXYGEN SPECIES IN LPS-INDUCED SEPTIC HORSES

Priscila Serpa*, Andrea Pires dos Santos, and Sandra Taylor Purdue University

Keyword: Hematology

11:45 a.m.-12:00 p.m.

THE ROLE OF PKCδ IN OUTSIDE-IN SIGNALING IN PLATELETS

Preeti Chaudhary and Soochong Kim

Chungbuk National University

Keyword: Hematology

*Competitor for the ASVCP Young Investigator Award
9:00 a.m.-12:00 noon
Conference Room 15
Relaxation Room
Sponsored by IDEXX

9:00 a.m.-1:00 p.m.
Third Floor Foyer
ACVP Logo Merch for Sale!

9:00 a.m.-5:00 p.m.
Conference Room 1
Career Center

9:30 a.m.-3:30 p.m.
Salon K
Focused Scientific Poster Session C

9:30 a.m.-3:30 p.m.
Salon K
Exhibits Open

10:00 a.m.-10:30 a.m.
Salon K
Focused Scientific Poster Session C (authors present for discussion and questions)

10:00 a.m.-11:00 a.m.
Conference Room 14
International Veterinary Pathology Coalition

12:00 noon-1:30 p.m.
Lunch Break (on your own)

12:15 p.m.-1:15 p.m.
Conference Room 4
ACVP Training Program Network Luncheon

1:30 p.m.-3:30 p.m.
Conference Room 7
ACVP/STP Coalition for Veterinary Pathology Fellows Board of Governors Meeting

1:30 p.m.-5:00 p.m.
Salon B
ASVCP Mystery Slide Case Session

Session Chair: Sharon M. Dial, DVM, PhD, DACVP

1:30 p.m.-5:00 p.m.
Salon D
Concurrent Session III
An Overview of Contemporary Topics on Chagas Disease in Wildlife, Domestic, and Laboratory Animals

Session Chairs: Gregory K. Wilkerson, DVM, PhD, DACVP
MD Anderson Cancer Center, Houston, TX

Carolyn L. Hodo, DVM, DACVP
Texas A&M University, College Station, TX

This half-day session will present an overview of Trypanosoma cruzi biology and will review contemporary information related to Chagas disease in domestic and laboratory animal species. The session will begin with talks on the life cycle and basic biology of T. cruzi, methods of diagnosis and strain differentiation, the epidemiology of Chagas disease in U.S. wildlife and domestic species and will discuss the zoonotic relevance of Chagas disease to their human owners. After the break, the session will include talks addressing the challenges of Chagas-related research, animal models commonly utilized in research, and Chagas pathology and epidemiology in naturally-infected and experimentally-infected nonhuman primates. The goal of this session is to provide a contemporary overview as to the importance of Chagas disease and Chagas disease research in the United States.

1:30 p.m.-2:10 p.m.
Brief Review of Trypanosoma Cruzi Biology and a Contemporary Overview of Chagas Epidemiology in Domestic Species Within the United States and the Zoonotic Relevance to Animal Owners
Sarah A. Hamer, PhD, DVM, DACVPM
Texas A&M University, College Station, TX

2:10 p.m.-3:00 p.m.
Contemporary Review of Chagas Disease Diagnoses Methods and Strain Typing and an Overview of Chagas Disease Epidemiology of Specific Wildlife Populations Within the United States
Carolyn L. Hodo, DVM, PhD, DACVP
Texas A&M University, College Station, TX

3:00 p.m.-3:30 p.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

3:30 p.m.-4:10 p.m.
Chagas Disease in Captive Nonhuman Primate Populations: Pathology, Epidemiology, and Diagnostic Challenges
Gregory K. Wilkerson, DVM, PhD, DACVP
MD Anderson Cancer Center, Bastrop, TX

4:10 p.m.-5:00 p.m.
The Current State and Challenges of Animal-Model Based Chagas Disease Research
Rick L. Tarleton, PhD
University of Georgia, Athens, GA
1:30 p.m.-5:00 p.m.  
Salon E  
**Diagnostic Pathology Focused Scientific Session II**

**Focused Session Chair:** Aline Rodrigues Hoffmann  
**Focused Group Members:** Eric Burrough (Past Chair), Rachel Derscheid, Ian Hawkins, Fabiano Oliveira (Co-Chair), Heindrich Snyman, Francisco Uzal, and Arnaud Van Wettere

---

### Platform Presentations

#### 2018 ACVP/AAVLD Award Winner

**1:30 p.m.-1:40 p.m.**  
**A UNIQUE IMMUNOPHENOTYPE OF THYMOMA-ASSOCIATED LYMPHOCYTES IN A DOG**  
Yvonne Wikander, Calli Coffee, Mary Lynn Higginbotham, and Nora Springer  
Kansas State University  
**Keyword:** Neoplasia

#### 1:40 p.m.-1:50 p.m.  
**DIFFERENTIATION OF FELINE INFLAMMATORY BOWEL DISEASE FROM SMALL CELL LYMPHOMA USING HISTOLOGY GUIDED MASS SPECTROMETRY**  
Sina Marsilio, Shelly Newman, J. Estep, Paula Giaretta, Jonathan Lidbury, Emma Warry, Andi Flory, Paul Morley, Katy Smoot, Erin Seeley, Matt Powell, Jan Suchodolski, and Jörg Steiner  
1Texas A&M University/University of California, 2Long Island University, 3Texas Veterinary Pathology, LCC, 4Texas A&M University, 5Veterinary Specialty Hospital, 6New River Labs, LLC  
**Keyword:** Alimentary

#### 1:50 p.m.-2:00 p.m.  
**HISTOPATHOLOGIC FEATURES OF A SYNDROME IN BERNESE MOUNTAIN DOGS CHARACTERIZED BY HEPATIC AND CEREBELLAR DEGENERATION**  
K. Paige Carmichael, Mauricio Seguel, and James Stanton  
University of Georgia  
**Keyword:** Nervous System

#### 2:00 p.m.-2:10 p.m.  
**OLIG2 EXPRESSION IN FELINE EPENDYMOMA**  
Andrew Miller, Eric Glass, Marc Kent, Daniel Rissi, and John Edwards  
1Cornell University College of Veterinary Medicine, 2Red Bank Veterinary Hospital, 3University of Georgia College of Veterinary Medicine, 4Texas A&M University College of Veterinary Medicine  
**Keyword:** Neoplasia

#### 2:10 p.m.-2:20 p.m.  
**EVALUATION OF BETA AMYLOID PRECURSOR PROTEIN EXPRESSION IN TRAUMATIC BRAIN INJURY OF DOGS AND CATS**  
Timothy Wu and Teresa Southard  
Cornell University College of Veterinary Medicine  
**Keyword:** Nervous System

#### 2:20 p.m.-2:30 p.m.  
**NEUTROPHILIC CHOLANGIOHEPATITIS/CHOLECYSTITIS CAUSED BY INTRABILIARY COCCIDIOSIS IN 3 DOGS**  
Eunju Choi, Manigandan Lejeune, and Amira Abu  
1University of California | Cornell University, 2Cornell University, 3Cornell University | Assiut University  
**Keyword:** Liver and Pancreas

#### 2:30 p.m.-2:40 p.m.  
**FIRST REPORT OF ADENOVIRAL HEMORRHAGIC DISEASE IN THREE MULE DEER (ODOCOILEUS HEMIONUS) IN ARIZONA**  
Sylvia Ferguson and Jung Keun Lee  
Midwestern University College of Veterinary Medicine  
**Keyword:** Infectious Disease

#### 2:40 p.m.-2:50 p.m.  
**MOLECULAR AND PATHOLOGIC INVESTIGATION INTO PROTOZOA ABORTION IN BRITISH COLUMBIA, CANADA**  
Stephen Raverty, Amy Sweeney, Elizabeth Zhang, Gloria Adedoyin, Josh Waddington, Theresa Burns, John Dick, Carl Ribble, Tomy Joseph, Devon Wilson, and Michael Grigg  
1Animal Health Center, 2National Institutes of Health, 3Greenbelt Veterinary Services, 4Center for Coastal Health, 5University of British Columbia  
**Keyword:** Infectious Disease

#### 2:50 p.m.-3:00 p.m.  
**A HISTOLOGICAL AND IMMUNOHISTOCHEMICAL ASSESSMENT OF ROUND CELL NEOPLASIA IN PSITTACINE BIRDS**  
Daniel Gibson, Nicole Nemeth, Hugues Beaufraître, Csaba Varga, Michael Garner, and Leonardo Susta  
1University of Guelph, 2University of Georgia, 3University of Guelph | Ontario Ministry of Agriculture, Food and Rural Affairs, 4Northwest ZooPath  
**Keyword:** Neoplasia

#### 3:00 p.m.-3:30 p.m.  
**NON-OCULAR MELANOCYTIC NEOPLASIA IN CATS: A RETROSPECTIVE STUDY OF 32 CASES**  
Stephanie Muller and Martina Croci  
IDEXX  
**Keyword:** Neoplasia

---

26 2019 ACVP/ASVCP Concurrent Annual Meeting
3:40 p.m.-3:50 p.m.
ICHTHYOPHONUS INFECTION IN OPALEYE (GIRELLA NIGRICANS)
Elise LaDoucer1, Judy St. Leger2, Alexandria Mena4, Ashley Mackenzie4, and Paul Hershberger4
1Joint Pathology Center, 2Cornell University, 3SeaWorld, 4U.S. Geological Survey
Keyword: Wildlife

3:50 p.m.-4:00 p.m.
OROPHARYNGEAL TRICHOMONAS GALLINAE INFECTION IN A WESTERN SCREECH OWL (MEGASCOPS KENNICOTTII)
Devinn Sinnott1, Mai Mok2, Michelle Hawkins1, Eliza Burbank1, Richard Gerhold3, and Kevin Keel1
1University of California, Davis, 2Necropsy Services Group, 3University of Tennessee, Knoxville
Keyword: Wildlife

4:00 p.m.-4:10 p.m.
GROSS AND HISTOLOGIC LESIONS IN STRANDED DOLPHINS FOLLOWING FRESH WATER INCURSION IN THE MISSISSIPPI SOUND
Timothy Morgan1, Debra Moore1, Mystera Samuelson2, and Moby Solangi3
1Mississippi State University, 2Institute for Marine Mammal Studies
Keyword: Wildlife

4:10 p.m.-4:20 p.m.
HISTOLOGIC AND ULTRASTRUCTURAL FINDINGS OF NUCLEOPOLYHDEROVIRUS (BACULOVIRIDAE) AND CYPOVIRUS (REOVIRIDAE) IN EUROPEAN GYPSY MOTH CATERPILLARS (LYMANTRIA DISPAR DISPAR)
Elise LaDoucer
Joint Pathology Center
Keyword: Wildlife

4:20 p.m.-4:30 p.m.
PARVOVIRUS INFECTION IN A RESCUED FREE-RANGING TAIWANESE PANGOLIN (MANIS PENTADACTYLA PENTADACTYLA), TAIWAN
Wen-Ta Li1, Li-Hsin Wu1, Sin-Ling Wang2, and Eric Hsien-Shao Tsoo2
1Taiwan University | Fishhead Lab LLC, 2Taipei Zoo
Keyword: Wildlife

4:30 p.m.-4:40 p.m.
MELANOPHOROMAS AND PROGRESSIVE CUTANEOUS MELANOSIS IN A GOLDFISH (CARASSIUS AURATUS)
Devinn Sinnott, June Ang, Katherine Watson, Esteban Soto, Denise Imai-Leonard, and Verena Affolter
University of California, Davis
Keyword: Wildlife

4:40 p.m.-4:50 p.m.
PYOTHORAX AND PLEURITIS ASSOCIATED WITH PORPHYROMONAS SPP IN A BENNETT’S WALLABY
Ahmad Saied and Stephan J. Locke
University of Kentucky Veterinary Diagnostic Laboratory
Keyword: Wildlife

4:50 p.m.-5:00 p.m.
CORYNEBACTERIUM FRENEYI BACTERIAL SEPTICEMIA SECONDARY TO CONTAGIOUS ECHTHYMA IN A WILD MUSKOXEN (OVIBOS MOSCHATUS)
Jamie Rothenburger1, Juliette Di Francesco1, Krista La Perle2, Lisa-Marie Leclerc3, Frank van der Meer4, Erin Zabek4, and Susan Kutz1
1University of Calgary, 2The Ohio State University, 3Government of Nunavut, 4British Columbia Ministry of Agriculture
Keyword: Wildlife

1:30 p.m.-5:00 p.m.
Salon C
Combined Experimental Disease and Industrial and Toxicologic Pathology Combined Focused Scientific Session

Experimental Disease Focused Group Chair: Oded Foreman

Focused Group Members: Vivian Chen, Sanjeev Gumber (Past Chair), Stephanie Montgomery, Chris Pinelli, Sara Santagostino (Co-Chair), Manu Sebastian, Joshua Webster, and Kevin Woolard

Industrial and Toxicologic Pathology Focused Group Chair: Katherine A.B. Knostman

Focused Group Members: Hibret Adissu, Marie Bockenstedt (Co-Chair), Shambhunath Choudhary, Sanjeev Gumber, Kyathanahalli Janardham (Past Chair), and Bruce LeRoy

1:30 p.m.-1:35 p.m.
INTRODUCTION
Oded Foreman, DVM, DACVP
Genentech Inc., South San Francisco, CA

Katherine A.B. Knostman, DVM, PhD, DACVP
StageBio, Mount Jackson, VA

Invited Speaker
1:35 p.m.-2:30 p.m.
CIRCULATING MICRORNAS AS BIOMARKERS OF CANINE CANCER
Geoffrey A. Wood, DVM, PhD, DVSc
Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada

2:30 p.m.-2:45 p.m.
FLOW CYTOMETRY PROVIDES QUANTITATIVE DATA FOR BONE MARROW SAFETY EVALUATION IN INVESTIGATIVE ONCOLOGY MOUSE MODELS
Clare Hoover, Denise Hughes, Laura Prickett, Courtney Andersen, Jay Mettetal, Mark Anderton, Sean Redmond, and Kim Maratea
AstraZeneca
Keyword: Hematopoietic System
Final Program

2:45 p.m.-3:00 p.m.
I SPY WITH MY (VIRTUAL) EYE: ASSESSMENT OF A MURINE MODEL OF CLOSTRIDIUM DIFFICILE TYPHILITIS BY TRADITIONAL MICROSCOPY AND BY A DEEP LEARNING ARTIFICIAL NEURAL NETWORK
Ingrid Bergin, Evan Czyzycki, Benjamin Li, Michael Dieterle, Kathryn Eaton, Mark Hoenerhoff, Jenna Wiens, and Vincent Young
University of Michigan
Keyword: Alimentary

3:00 p.m.-3:30 p.m.
Salon K
Refreshment Break - Visit the Focused Scientific Posters

Invited Speaker
3:30 p.m.-4:30 p.m.
HYDROGEN SULFIDE-INDUCED NEUROTOXICITY
Elizabeth McRae Whitley, DVM, PhD, DACVP
MD Anderson Cancer Center, Houston, TX

4:30 p.m.-4:45 p.m.
LONGITUDINAL PHENOTYPIC DEVELOPMENT IN A PIG MODEL OF NEUROFIBROMATOSIS
David Meyerholz¹, Johanna Uthoff¹, Jared Larson¹, Shawn Sato¹, Emily Hammond¹, Frank Rohret², Christopher Rogers³, Dawn Quelle¹, Benjamin Darbro¹, Rajesh Khanna¹, Jill Weimer¹, and Jessica Sieren¹
¹University of Iowa Carver College of Medicine, ²Exemplar Genetics, ³University of Arizona, and ⁴Sanford Research
Keyword: Neoplasia

4:45 p.m.-5:00 p.m.
3-DIMENSIONAL HISTOLOGIC MODELS OF CANINE HEPATIC FIBROSIS FOR QUANTIFICATION AND TEACHING MODEL DEVELOPMENT
T. William O’Neill and Christiane V. Loehr
Oregon State University
Keyword: Liver and Pancreas

3:00 p.m.-3:30 p.m.
Salon K
Focused Scientific Poster Session C (authors present for discussion and questions)

5:15 p.m.-6:45 p.m.
Salon I
ACVP Awards and Recognition Event

6:30 p.m.-7:30 p.m.
Third Floor Foyer
Last Chance to Purchase Your ACVP Logo Merch!

7:00 p.m.-9:30 p.m.
Salon D
ACVP President’s Reception
All attendees are welcome at the President’s Reception! Cocktail attire suggested.
Final Program

8:40 a.m.-9:20 a.m.
Translational Aspects of NAFLD/NASH Models: A Pathologist’s Perspective
Chandra Saravanan, DVM, PhD, DACVP

9:20 a.m.-10:00 a.m.
Pathology of Proliferative Liver Lesions in Rodent Models and Their Relevance to Humans
Bhanu P. Singh BVSc, MS, DABT, FIATP, DACVP
Johnson & Johnson Pharmaceutical Research & Development, Philadelphia, PA

10:00 a.m.-10:30 a.m.
Third Floor Foyer
Refreshment Break—Visit the Young Investigator Award Winning Posters

10:30 a.m.-11:10 a.m.
Most Human Liver Diseases Show a Sex Bias: Why?
Arlin B. Rogers, DVM, PhD, DACVP

11:10 a.m.-11:50 a.m.
Domestic Animal Liver Diseases With Human Correlates
John Cullen, VMD, PhD, FIATP, DACVP
North Carolina State College of Veterinary Medicine, Raleigh, NC

11:50 a.m.-12:00 noon
Questions and Discussion

8:00 a.m.-12:00 noon
Salon B
Concurrent Session V
A Timely Update on Transboundary Animal Diseases

Session Chairs: A. Sally Davis, DVM, PhD
Kansas State University, Manhattan, KS
Angela Arenas Gamboa, DVM, PhD, DACVP
Texas A&M University, College Station, TX

We will focus on emerging transboundary animal diseases, particularly in larger production animals, including pigs, small and large ruminants. Both bacterial and viral pathogens, some vector-borne diseases, will be included. Specific diseases will include foot and mouth disease, Senecavirus disease, Rift Valley fever and brucellosis. While invited talks will all focus on pathology of these diseases, the talks may also cover current understanding of the mechanisms of disease pathogenesis, epidemiology, diagnostics, control, vaccine and therapy status, as well as obstacles to disease management in endemic countries. Look-a-like diseases will be discussed.

8:00 a.m.-8:40 a.m.
Senecavirus A and FMD: The New Normal for Differential Diagnosis of Vesicular Disease In Pigs
Fabio Vannucci, DVM, PhD, DBAVP
University of Minnesota, Minneapolis, MN

8:40 a.m.-9:20 a.m.
Brucellosis: A Neglected or Emerging Disease?
Angela M. Arenas Gamboa, DVM, PhD, DACVP

9:20 a.m.-10:00 a.m.
Rift Valley Fever Virus: A Category A Enigma
A. Sally Davis, DVM, PhD

10:00 a.m.-10:30 a.m.
Third Floor Foyer
Refreshment Break--Visit the Young Investigator Award Winning Posters

10:30 a.m.-11:10 a.m.
Reproductive Infectious Diseases in Ruminants: What We Should Be Looking For
John F. Edwards, DVM, PhD, DACVP
Texas A&M University, College Station, TX

11:10 a.m.-12:00 noon
Case Presentations:

11:10 a.m.-11:45 a.m.
Foot and Mouth Disease: The Case of Ngamiland: When is a Disease Not a Disease
Mary Louise Penrith, BSc, BSc (Hon), PhD Zoology, PhD Entomology, BVSc, BVSc (Hon)
University of Pretoria, Menlo Park, South Africa

11:45 a.m.-12:00 noon
Rift Valley Fever Virus in White-tailed Deer (Odocoileus virginianus)
Vinay Shivanna, BVSc, MVSc, PhD
Kansas State University, Manhattan, KS

8:00 a.m.-12:00 noon
Salon I
Mini-Symposium III
Select Topics in Veterinary Forensic Pathology

Session Chairs: Sean P. McDonough, DVM, PhD, DACVP
Cornell University, Ithaca, NY
Beverly J. McEwen, DVM, MSc, PhD, DACVP
University of Florida College of Medicine, Gainesville, FL

8:00 a.m.-8:05 a.m.
Introduction
Sean P. McDonough, DVM, PhD, DACVP
Beverly J. McEwen, DVM, MSc, PhD, DACVP

8:05 a.m.-9:00 a.m.
Lessons Learned From the Goudge Commission on the Status of Service, Education, and Research in Forensic Pathology
Michael Pollanen, MD, PhD, FRCPATH, DMJ (PATH), FRCPC
University of Toronto, Toronto, Ontario, Canada
Final Program

9:05 a.m.-10:00 a.m.
Introduction to Crime Scene Investigation: What the Pathologist Needs to Know
Jason Byrd, PhD
William R. Maples Center for Forensic Medicine, Gainesville, FL

10:00 a.m.-10:15 a.m.
Third Floor Foyer
Refreshment Break—Visit the Young Investigator Award Winning Posters

10:15 a.m.-11:00 a.m.
Case Study of a Gunshot Wound in a Dog and Gunshot Residue Analysis
Jason W. Brooks, VMD, PhD, DACVP
William R. Maples Center for Forensic Medicine, Gainesville, FL

11:05 a.m.-12:00 noon
Standards for Forensic Pathology
Hannah C. Jarvis, MBBS, AICSM BSc(Hons), MRCS(Eng), FCAP, FASCP
Harris County Institute of Forensic Sciences

8:00 a.m.-12:00 noon
Third Floor Foyer
ACVP Young Investigator Award Recipient Poster Session

12:00 noon
Annual Meeting Concludes