Friday, November 8, 2019
5:00 p.m.-7:00 p.m.
Registration Open

Saturday, November 9, 2019
7:00 a.m.-7:30 p.m.
Registration and Information Desk

8:00 a.m.-5:00 p.m.
ACVP Pre-Meeting Workshop
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 short (20-25 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.-8:20 a.m.
Introduction

8:20 a.m.-8:45 a.m.
NSG and Other Immunodeficient Mice in Immunotherapy

8:50 a.m.-9:10 a.m.
Humanized Mouse: Granulomatous Enteritis

9:15 a.m.-9:30 a.m.
Germ Free Mice

9:35 a.m.-10:00 a.m.
Outbreak of Enterotoxigenic E. coli in NSG Colony

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

10:30 a.m.-10:55 a.m.
Non-lymphoid Leukemias

11:00 a.m.-11:25 a.m.
Lymphoma

11:30 a.m.-11:50 a.m.
CAR-T Cell Therapies

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

1:00 p.m.-3:00 p.m.
Infections Disease Models and Immunotherapies

1:00 p.m.-1:25 p.m.
Immune Complex: Immune Complex Disease

1:30 p.m.-1:55 p.m.
Multiple Sclerosis Mouse Model and Gut Microbiome
2:00 p.m.-2:25 p.m.
GVHD

2:30 p.m.-2:45 p.m.
Mouse Models of Miscellaneous Autoimmune Diseases

2:50 p.m.-3:15 p.m.
Refreshment Break

3:15 p.m.-3:35 p.m.
TBA

3:40 p.m.-4:00 p.m.
Mouse Models of Lyme Disease

4:05 p.m.-4:25 p.m.
Helicobacter

4:30 p.m.-4:50 p.m.
Fungus

4:50 p.m.-5:00 p.m.
Questions and Discussion

8:00 a.m.-5:00 p.m.
**ACVP Pre-Meeting Workshop**
Primate Pathology Special Interest Group
**Back to Basics: A Primer on NHP Pathology**

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. Any interested parties, including clinicians, pathologists, and research scientists, are encouraged to submit cases.

- Review of baboon pathology
- Review of marmoset pathology
- Review of macaque pathology (maybe could be combined with marmoset)
- Review of ape pathology
- Back to basics review of primate clinical pathology
- Short cases with encouragement of presenting classic cases in different primate models

8:00 a.m.-5:00 p.m.
**ASVCP Pre-Meeting Workshop**
**Comparative Bone Marrow Hematopathology**

Session Chairs:
Kurt Zimmerman, DVM, PhD, DACVP
Virginia Tech, Blacksburg, VA
Laura Snyder, DVM, DACVP
Marshfield Labs, 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.

8:10 a.m.-10:30 a.m.
Bone Marrow Histopathologic Evaluation and Bone Marrow Cytologic Evaluation
Joanne Messick, VMD, PhD, DACVP
Purdue University, West Lafayette, IN
Rose E. Raskin, DVM, 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.
Guided Hematopathology Case Discussions
Anne Avery, VMD, PhD
Colorado State University, Fort Collins, CO
Dorothee Bienzle, DVM, PhD, DACVP
University of Guelph, Guelph, Ontario, Canada
Joanne Messick, VMD, PhD, DACVP
Rose E. Raskin, DVM, PhD, DACVP
Sa Wang, MD, DABP
University of Texas-MD Anderson Cancer Center, Houston, TX

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.
**C.L. Davis-Thompson Foundation Pre-Meeting Workshop**
**Skin and Mammary Tumors: Standardization and Simplification**

Session Chairs: Bruce H. Williams, DVM, DACVP
Joint Pathology Center, Silver Spring, MD
Jennifer L. Chapman, DVM, DACVP
Defense Health Agency, Falls Church, VA

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

1:00 p.m.-8:00 p.m.
Career Center

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

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

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

Sunday, November 10, 2019

6:30 a.m.-7:30 a.m.
Yoga Basics for Pathologists
Katherine Gibson-Corley, DVM, PhD, DACVP
University of Iowa, Iowa City, IA

7:00 a.m.-8:00 a.m.
Committee Meetings

7:00 a.m.-8:00 a.m.
Veterinary Student Breakfast

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

8:00 a.m.-12:00 noon
ASVCP Current Topics in Clinical Pathology
Infectious Diseases
Session Chair: Kristina Meichner, DVM, DACVP
University of Georgia, Athens, GA

This session will cover clinical pathology relevant aspects of different infectious diseases in a variety of species, with a focus on diagnostics including clinical and laboratory findings. Topics include bovine anaplasmosis and other relevant bovine hemoparasites, an update on diagnostics for Feline Infectious Peritonitis, a comparative talk on recent advances in the identification of fungal infections, and a comparison between Lyme Disease and Tick-borne Relapsing Fever in the dog.

8:00 a.m.-8:50 a.m.
Bovine Anaplasmosis and Other Relevant Bovine Hemoparasites
Jessie Monday, MS, DVM
Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL)
Amarillo, Amarillo, TX

8:50 a.m.-9:40 a.m.
Feline Infectious Peritonitis (FIP): Diagnostic Dilemmas and Future Perspectives
Kelly S. Santangelo, DVM, PhD, DACVP
Colorado State University, Fort Collins, CO

9:40 a.m.-10:10 a.m.
Refreshment Break

10:10 a.m.-11:00 a.m.
Update on the Identification of Fungal Diseases: Perspectives from a Human International Clinical Mycology Reference Laboratory
Connie F.C. Gibas, PhD
University of Texas Health Science Center, San Antonio, TX

11:00 a.m.-11:50 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

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

8:00 a.m.-12:00 noon
Career Development
Coping with Technology—Real People and Real-life Stories of Digital Pathology Applications
Session Chair:
Kelli L. Boyd, DVM, PhD, DACVP
Vanderbilt University Medical Center, Nashville, TN
Session Co-Chair: 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
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.

8:00 a.m.-8:30 a.m.
Biology of the Peripheral Nervous System in Vertebrates
Ingrid D. Pardo, MS, DVM, DACVP
Pfizer, Inc., Gales Ferry, CT

8:30 a.m.-9:10 a.m.
Sampling and Fixation Techniques for Routine and Dedicated Peripheral Nerve and Ganglion Evaluation in Rodents, Dogs, and Primates
Mark T. Butt, DVM, DACVP
TPS (a StageBio Company), Frederick, MD

9:10 a.m.-9:45 a.m.
Pathologic Assessment of the Peripheral Nervous System: Lesions of Myelinated Fibers and Selected Artifacts
Bernard S. Jortner, VMD, DACVP
Virginia-Maryland College of Veterinary Medicine, Hewitt, TX

9:45 a.m.-10:15 a.m.
Refreshment Break

10:15 a.m.-10:50 a.m.
Inflammatory Diseases of the Peripheral Nervous System
Duncan S. Russell, BVMS (Hons), DACVP
Oregon State University, Corvallis, OR

10:50 a.m.-11:25 a.m.
Neoplastic Diseases of the Peripheral Nervous System
Kevin D. Woolard, DVM, PhD, DACVP
University of California, Davis, CA

11:25 a.m.-12:00 noon
Metabolic/Paraneoplastic Diseases of the Peripheral Nervous System
Virginia L. Godfrey, DVM, PhD, DACVP
University of North Carolina School of Medicine, Chapel Hill, NC

8:00 a.m.-12:00 noon
**Industrial and Toxicologic Pathology Focused Scientific Session I**
Session Chair: Katherine A. Knostman, DVM, PhD, DACVP
Histo-Scientific Research Labs, Mount Jackson, VA

Invited Speakers
New Developments in Carcinogenicity Testing – Should We Do Away with it?
Aaron M. Sargeant, DVM, PhD, DACVP
Charles River Laboratories, Spencerville, OH

Challenges in Multiplexing and Imaging Techniques
Manu M. Sebastian, DVM, PhD, DABT, DACLAM, DACVP
The University of Texas MD Anderson Cancer Center, Smithville, TX
8:00 a.m.-12:00 noon
Natural Disease Focused Scientific Session I
Session Chair: Angela Pillatzki, MS, DVM, DACVP
South Dakota State University, Brookings, SD
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.-5:00 p.m.
Career Center

9:30 a.m.-4:30 p.m.
Focused Scientific Poster Session A (authors present for discussion at the refreshment breaks)

10:00 a.m.-10:30 a.m.
Industrial and Toxicologic Pathology and Natural Disease Focused Scientific Poster Session (author present for discussion and questions)

12:00 noon-2:00 p.m.
Veterinary Pathology Resident/Trainee Luncheon

12:15 p.m.-1:15 p.m.
Emerging Disease Focused Seminar
Session Chair: 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

1:30 p.m.-4:30 p.m.
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.
Refreshment Break

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.-5:00 p.m.
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.
Refreshment Break

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 Albo, DVM, PhD, DACVP
Novartis, East Hanover, NJ

1:30 p.m.-4:30 p.m.
Clinical Pathology Focused Scientific Session I
Session Chair: Amy L. Warren, BVSc, PhD, DACVP
University of Calgary, Calgary, Alberta, Canada

Invited Speakers
We’re Not Crazy! Integration of Clinical Pathology and Tissue Analysis for Comprehensive Kidney Evaluation
Rachel E. Cianciolo, VMD, PhD, DACVP
The Ohio State University, Columbus, OH

Mary B. Nabity, DVM, PhD, DACVP
Texas A&M University, College Station, TX

1:30 p.m.-5:00 p.m.
Diagnostic Pathology Focused Scientific Session I
Session Chair: Aline Rodrigues Hoffmann, DVM, PhD, DACVP
Texas A&M University, College Station, TX

1:30 p.m.-5:00 p.m.
Experimental Disease Focused Scientific Session I
Session Chair: Oded Foreman, DVM, DACVP
Genentech Inc., South San Francisco, CA

Invited Speakers
The Connection Between Cancer and the Microbiome with an Emphasis on the Gut
Vanessa B. Jensen, DVM, DACLAM
The University of Texas MD Anderson Cancer Center, Houston, TX

Analyzing Genetic and Microenvironmental Mediators of Carcinogenesis with the Zebrafish Model
Heather R. Shive, DVM, PhD, DACVP
North Carolina State University, Raleigh, NC

1:30 p.m.-5:00 p.m.
Natural Disease Focused Scientific Session II
Session Chair: Angela Pillatzki, MS, DVM, DACVP
Monday, November 11, 2019

6:30 a.m.-7:30 a.m.
Yoga for the Microscope (Chair Yoga)
Katherine Gibson-Corley, DVM, PhD, DACVP

7:00 a.m.-8:00 a.m.
Committee Meetings

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

8:00 a.m.-12:00 noon
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. Knich, PhD
Washington University, St. Louis, MO

The Wonderful World of Vitamin D: Bone Disease and More
Keren E. Dittmer, BVSc, Dist PhD, DACVP
Massey University, Palmerston North, New Zealand

Newly Described Diseases in Arctic Foxes, Elephant Seals and Harbor Seals
Terry Spraker, DVM, PhD, DACVP
Colorado State University, Fort Collins, CO

3:00 p.m.-3:30 p.m.
Clinical Pathology, Diagnostic Pathology, Experimental Disease, and Natural Disease Focused Poster Sessions (author present for discussion and questions)

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

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

6:00 p.m.-7:30 p.m.
ACVP Town Hall Business Meeting

7:30 p.m.-8:45 p.m.
ACVP Speed Networking Event (attendance complimentary, advance registration required)
Expand your professional network across career stages and work environments. The event allows for time to share both in randomly assigned pairs and unstructured networking. Attendance is limited and available in order of registration. The networking event is free and will provide an opportunity to build professional relationships. The number of attendees is limited to allow an intimate atmosphere. Attendees will be leveraged to represent variable career stages in industry, academia and CRO.

7:30 p.m.-9:30 p.m.
Mystery Slide Review Session: Neuropathology
Session Chair: Andrew D. Miller, DVM, DACVP
Cornell University, Ithaca, NY

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.
Refreshment Break

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

8:00 a.m.-12:00 noon
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

9:30 a.m.-10:30 a.m.
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

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

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

12:00 noon-1:30 p.m.
Community Service Activity (free event, register online)
12:15 p.m.-1:45 p.m.
Latin Comparative Pathology Group Presents
Session Chairs: Melissa Sanchez, VMD, PhD, DACVP
University of Pennsylvania, Philadelphia, PA
Ana Alcaraz, DVM, PhD, DACVP
Western University of Health Science, Pomona, CA

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, DVM, MS, PhD
Universidade Federal da Paraiba - UFPB (Brazil)

1:30 p.m.-3:30 p.m.
ASVCP Case Discussion Session
Session Chair: Sharon M. Dial, DVM, PhD, DACVP
University of Arizona, Tucson, AZ

1:30 p.m.-4:00 p.m.
70th Anniversary Pillars of Pathology
Session Chair: Krista LaPerle, DVM, PhD, DACVP
The Ohio State University, Columbus, OH

Speakers:
1:30 p.m.-2:00 p.m.
Seventy Years of ACVP
Krista LaPerle, DVM, PhD, DACVP

2:00 p.m.-2:30 p.m.
Clinical Pathology
Rose E. Raskin, DVM, PhD, MRCVS, DACVP
Purdue University, West Lafayette, IN

2:30 p.m.-3:00 p.m.
Pillars of Pathology: Diagnostic Pathology
M. Grant Maxie, DVM, PhD, DACVP
University of Guelph, Guelph, Ontario, Canada

3:00 p.m.-3:30 p.m.
Zoo & Wildlife Pathology
Linda J. Lowenstine, DVM, PhD, DACVP
University of California, Davis, Davis, CA

3:30 p.m.-4:00 p.m.
Pillars of Pathology: Lab Animal & Toxicologic Pathology
Jerrold M. Ward, DVM, PhD, DACVP
Global VetPathology, Montgomery Village, MD

3:45 p.m.-5:15 p.m.
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

Austin K. Viall, DVM, DACVP
Iowa State University, Ames, IA

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

5:15 p.m.-6:45 p.m.
ASVCP Reception

6:00 p.m.-7:30 p.m.
ACVP New Diplomates Reception

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

7:00 p.m.-9:00 p.m.
Mystery Slide Review Session
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, MV, DSc, DACVP
CAHFS, San Bernardino, CA

Tuesday, November 12, 2019

6:30 a.m.-7:30 a.m.
Yoga Flow for the Necropsy Floor
Katherine Gibson-Corley, DVM, PhD, DACVP

7:30 a.m.-5:00 p.m.
Registration and Information Desk

8:00 a.m.-12:00 noon
Mini-Symposium II: Challenges of Animal Models
Session Chairs: Mark J. Hoenerhoff, DVM, PhD, FIATP, DACVP
University of Michigan Medical School, Ann Arbor, MI
David K. Meyerholz, DVM, PhD, DACVM, DACVP
University of Iowa Carver College of Medicine, Iowa City, IA

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.

8:00 a.m.-8:30 a.m.
Opportunities and Latent Limitations of Gene Editing Techniques
David K. Meyerholz, DVM, PhD, DACVM, DACVP
University of Iowa Carver College of Medicine, Iowa City, IA

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.  
Refreshment Break

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. Hoenerhoff, 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  
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.  
Refreshment Break

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  
Clinical Pathology Focused Scientific Session II  
Session Chair: Amy L. Warren, BVSc, PhD, DACVP

Invited Speaker  
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

8:05 a.m.-9:30 a.m.  
Wellbeing in the Workplace: Identifying and Responding to Mental Health Needs  
Stephanie W. Johnson, BA, MSW, LCSW  
Louisiana State University, Baton Rouge, LA

9:30 a.m.-10:00 a.m.  
Refreshment Break

10:00 a.m.-11:30 a.m.  
Individual Wellbeing: Identifying and Responding to Your Own Needs  
Stephanie W. Johnson, BA, MSW, LCSW

11:30 a.m.-12:00 noon  
Questions and Discussion

9:00 a.m.-5:00 p.m.  
Career Center

9:30 a.m.-3:30 p.m.  
Focused Scientific Poster Session C (authors present for discussion at the refreshment breaks)

10:00 a.m.-10:30 a.m.  
Clinical Pathology and Education Focused Scientific Poster Session (authors present for discussion and questions)

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

1:30 p.m.-5:00 p.m.  
ASVCP Mystery Slide Case Session  
Session Chair: Sharon M. Dial, DVM, PhD, DACVP

1:30 p.m.-5:00 p.m.  
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 Diagnosis 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.
Refreshment Break

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.
Diagnostic Pathology Focused Scientific Session II
Session Chair: Aline Rodrigues Hoffmann, DVM, PhD, DACVP

1:30 p.m.-5:00 p.m.
Combined Experimental Disease and Industrial & Toxicologic Pathology Focused Scientific Session
Session Chairs: Oded Foreman, DVM, DACVP, Katherine A. Knostman, DVM, PhD, DACVP

Invited Speakers
Hydrogen Sulfide-induced Neurotoxicity
Elizabeth McRae Whitley, DVM, PhD, DACVP
MD Anderson Cancer Center, Houston, TX

Circulating MicroRNAs as Biomarkers of Canine Cancer
Geoffrey A. Wood, DVM, PhD, DVSc
Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada

3:00 p.m.-3:30 p.m.
Diagnostic Pathology, Experimental Disease, and Industrial and Toxicologic Pathology Focused Scientific Poster Session (authors present for discussion and questions)

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

7:00 p.m.-9:30 p.m.
ACVP President’s Reception

Wednesday, November 13, 2019

6:30 a.m.-7:15 a.m.
Yoga for Relaxation
Katherine Gibson-Corley, DVM, PhD, DACVP

8:00 a.m.-1:00 p.m.
Registration and Information Desk

8:00 a.m.-12:00 noon
Concurrent Session IV: One Liver Health: Comparative Hepatic Pathobiology
Session Chairs: Chandra Saravanan, DVM, MS, PhD, DACVP
Novartis Institutes for Biomedical Research, Cambridge, MA
Arlin B. Rogers, DVM, PhD, DACVP
Alnylam Pharmaceuticals, Cambridge, MA

This session brings a One Health approach to the liver. Topics covered include animal models of nonalcoholic steatohepatitis (NASH), scoring and translating experimental NASH data to humans, how sexual bias in human liver disease is replicated in rodents, domestic animal liver diseases with close human counterparts, and nonhuman primate model contributions to the intervention of chronic viral hepatitis.

8:00 a.m.-8:40 a.m.
Humanized Mouse Models
Karl-Dimiter Bissig, MD, PhD
Baylor College of Medicine, Houston, TX

8:40 a.m.-9:20 a.m.
Translational Aspects of NAFLD/NASH Models: A Pathologist’s Perspective
Chandra Saravanan, DVM, PhD, DACVP
Novartis Institutes for Biomedical Research, Cambridge, MA

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.
Refreshment Break

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

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
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 productions animals, including pigs, small and large ruminants. Both bacterial and viral pathogens, some vectorborne diseases, will be included. Specific diseases will include foot and mouth disease, seneca virus 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. Since we will also solicit cases for short talks, the full scope in terms of diseases to be discussed is yet to be determined.

8:00 a.m.-8:40 a.m.
Senecavirus A and FMD: The New Normal for Differential Diagnosis of Vesicular Disease In Pigs
Fabio Vennucci, 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
Texas A&M University, College Station, TX

9:20 a.m.-10:00 a.m.
Rift Valley Fever Virus: A Category A Enigma
A. Sally Davis, DVM, PhD
Kansas State University College of Veterinary Medicine, Manhattan, KS

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

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

8:00 a.m.-12:00 noon
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.-8:50 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), FRCP
University of Toronto, Toronto, Ontario, Canada

8:55 a.m.-9:15 a.m.
Case Study of a Gunshot Wound in a Dog
Jason W. Brooks, VMD, PhD, DACVP
Pennsylvania State University, University Park, PA

9:15 a.m.-10:00 a.m.
Introduction to Crime Scene Investigation: What the Pathologist Needs to Know
Jason Byrd
William R. Maples Center for Forensic Medicine, Gainesville, FL

10:00 a.m.-10:15 a.m.
Refreshment Break

10:15 a.m.-11:05 a.m.
Duabert Standard for Expert Witness Testimony
Shawn Porter
Attorney

11:10 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
ACVP Young Investigator Award Poster Session

12:00 noon
Annual Meeting Concludes

San Antonio’s Riverwalk - photo courtesy of Kids on a Plane

Spires of Downtown San Antonio - photo courtesy of Arpad Benedek