



**University of Pennsylvania School of Veterinary Medicine  
Department of Pathobiology**

**Anatomic Pathology Residency**

The veterinary anatomic pathology residency program in the Department of Pathobiology at the University of Pennsylvania School of Veterinary Medicine is a 3-year position intended for the training of individuals for ACVP board certification. Under the direct supervision of full-time faculty members, trainees receive advanced instruction with an emphasis on gross and microscopic pathology of case material, including autopsies on animals submitted from the veterinary hospitals (Philadelphia and New Bolton Center), laboratory animals from University research facilities, and surgical pathology specimens of canine and feline patients from our hospital and referring veterinary practitioners (average of 45 biopsies per day). Primary training will take place at the small animal hospital located in Philadelphia. Ten months will be spent at our large animal facility, the New Bolton Center, in rural Chester County. A longer rotation at NBC is provided for those with a strong interest in large animal pathology.

The responsibilities and opportunities entailed by the residency program include weekly microscopic and gross rounds, monthly specialty rounds including ocular pathology, neuropathology, dermatopathology, laboratory animal pathology, cytology, and journal club, and departmental and university seminars. The Department of Pathobiology utilizes a digital slide scanner (Aperio Versa) and offers training in digital pathology and image analysis, an essential part of our field that has been rapidly growing in prevalence and importance. With guidance from the faculty, all residents are required to attend and present research at the ACVP annual meeting and are expected to submit a first-authored manuscript. Residents are expected to participate in the instruction of interns and veterinary students, including oversight of the 4<sup>th</sup> year pathology rotation, lectures, and laboratory exercises. Residents can also complete externships outside of the University for a period of up to 6 weeks, as approved by the residency directors.

Please visit our website:

<http://www.vet.upenn.edu/research/academic-departments/pathobiology>

For applicants interested in a combined residency-PhD program, Penn Vet is a University Partner with the **NIH Comparative Biomedical Scientist Training Program**. For more information, please contact us and see: <https://nih-cbstp.nci.nih.gov/>

**Goals**

1. To provide training in diagnostic pathology of large and small domestic animals, laboratory species, and wildlife to enable trainees to recognize specific diseases and know their pathogenesis.
2. To enable the successful trainee to be eligible for board certification by the American College of Veterinary Pathologists.
3. To provide additional training in research areas of interest to the trainee, including but not limited to:
  - Cancer pathology
  - Dermatopathology
  - Ocular pathology
  - [Comparative Pathology Core](#) / Toxicologic pathology
  - Laboratory animal pathology
  - Immunohistochemistry
  - Digital Pathology and Image Analysis
  - Epidemiological surveys

## **I. General**

The start day is 1 July 2025. Appointments will be on a yearly basis, and if mutually acceptable, renewed at the end of the first and second year. All trainees will be reviewed by the faculty twice per year, and their progress through the program will be evaluated.

### **Affiliations**

University of Pennsylvania Schools of Medicine, Dentistry and Nursing

Abramson Cancer Center

Wistar Institute

Children's Hospital of Philadelphia (CHOP)

Pennsylvania Animal Diagnostic Laboratory System: Animal Diagnostic Laboratory, Pennsylvania State University, University Park, PA and Pennsylvania Veterinary Laboratory, Harrisburg, PA.

### **Community**

The University of Pennsylvania, one of the oldest universities in America, was founded by Benjamin Franklin in 1749. It is located within the city of Philadelphia on the west bank of the Schuylkill River on a campus covering 250 acres. Its central location allows easy access to the entire metropolitan area with its associated cultural amenities. The University of Pennsylvania is a private Ivy League institution that comprises four undergraduate, twelve graduate and professional schools, eleven biomedical graduate groups, and various academic and research divisions.

### **Salary**

Effective 1 March 2023, the starting salary for first year residents is \$40,000 per annum with a \$1000 increase each year as well as benefits and \$1300 per year for study materials, coursework, and conference attendance.

The University of Pennsylvania is an equal opportunity/affirmative action employer.

## **II. Service: Residents will be on a rotating week-long service schedule**

**Autopsy service:** Residents will be on a rotating week-long service schedule. Residents are expected to teach and evaluate the senior veterinary students and generate gross and histologic reports.

**Autopsy/Biopsy service:** Residents will read the outside autopsy submissions sent through the biopsy service and review the cases with the pathologist.

**Biopsy service:** A portion of the daily biopsy cases will be assigned to the resident as a diagnostic exercise for review with the pathologist. Residents will receive the remaining biopsy slides to review independently after the pathologist has read the cases, with the final biopsy reports available for review by the resident and discussion with the pathologist. Residents will be trained on proper trimming technique of biopsy samples.

**Dermatopathology service:** Residents will receive and review the daily cases with the dermatopathologist in a manner similar to the Biopsy service.

**Comparative Pathology Core:** Residents assist the CPC pathologists in ongoing studies, including comprehensive mouse phenotyping, slide evaluation, digital pathology/image analysis and immunohistochemistry.

### **III. Laboratory Rounds and Seminars**

#### **Tuesdays:**

- Week 1-4 (8:30am): Resident-led JPC Rounds

#### **Wednesdays:**

- Week 1 (8:30am): Dermatopathology Rounds
- Week 2 (8:30am): General Pathology Rounds
- Week 3 (8:30am): Dermatopathology Rounds
- Week 4 (9am): NBC Day/Large Animal Systems Rounds

#### **Thursdays:**

- Week 1 (8:30am): Biopsy/Speed Rounds
- Week 2 (9am): Small Animal Systems Rounds
- Week 3 (9am): CPC/Wildlife/ULAR Rounds
- Week 4 (8:30am): Resident-led JVDI Journal Club (every other month)

#### **Fridays:**

- Week 1 (8am): Keystone Seminar
- Week 2 (8am): Medical Oncology Cytology Rounds
- Week 2 (9am): Vet Path Journal Club
- Week 3 (8am): Keystone Seminar
- Week 3 (9am): Neuropathology Rounds
- Week 4 (8:30): Ocular Pathology Rounds

#### **Additional Rounds (schedule during off-hours):**

- HUP/VHUP Path Quarterly (alternate hosting at VHUP and HUP)  
In collaboration with AP/CP Path residents at HUP  
Residents/Pathologists present case(s) "Morbidity & Mortality"
- Departmental Seminars

### **IV. Research**

Each resident is expected to participate in at least one research project for publication. These projects are tailored to the individual interests of the resident and their future career goals. Each resident will present their research findings as a presentation or poster for the ACVP meeting in their second or third year of training. Residents may also be asked to prepare and present seminars on current and relevant research topics in the field of veterinary pathology.

#### **Faculty, Philadelphia Campus**

##### **Anatomic Pathology**

Elizabeth Mauldin, DVM, DACVP and ACVD  
Professor, Pathology and Dermatology

Amy Durham, MS, VMD, DACVP  
Professor of Pathology

Enrico Radaelli, DVM, PhD, DECVP  
Professor of Pathology, Comparative Pathology  
Core

Charles Bradley, VMD, DACVP  
Associate Professor of Pathology

Molly Church, VMD, PhD, DACVP  
Associate Professor of Pathology

Charles Assenmacher, DVM, MSc, DACVP  
Assistant Professor of Pathology, Comparative  
Pathology Core

Katie Mulka, DVM, DACVP  
Assistant Professor of Pathology

Hayley Amerman, DVM, DACVP  
Postdoctoral Researcher in Pathology

### **Clinical Pathology**

Koranda Walsh, VMD, DACVIM, DACVP  
Associate Professor of Clinical Pathology

Martina Piviani, DVM, MSc, MRCVS, DACVP  
Associate Professor of Clinical Pathology

Elizabeth Held, DVM, DACVP  
Assistant Professor of Clinical Pathology

### **Faculty, New Bolton Center Campus**

Julie Engiles, VMD, DACVP  
Professor of Pathology

Susan Bender, VMD, PhD, DACVP  
Associate Professor of Pathology

Jolie Demchur, VMD, DACVP  
Assistant Professor of Pathology

Kevin Niedringhaus, BVetMed, PhD, DACVP  
Assistant Professor of Wildlife Pathology

Nathan Helgert, VMD, DACVP  
Assistant Professor of Pathology

### **Current Residents in Anatomic Pathology**

Nathan Fanzone, VMD  
Devin Fussell, DVM  
Victoria Leopardi, VMD  
Lillian Miller, DVM  
Brianna Stoye, DVM

Nicole Hamlin, DVM  
Hannah Reichert, DVM

**Interested applicants are encouraged to contact our program if interested in in-person visits.  
All materials must be received by **Friday, 27 September 2024**.**