

Toxicologic Pathology & Laboratory Animal Medicine Externship Program
Pathology Core, Unit for Laboratory Animal Medicine (ULAM)
University of Michigan | Ann Arbor, Michigan
<https://animalcare.umich.edu/business-services/ulam-pathology-core/>

Program

The ULAM Pathology Core Toxicologic Pathology Externship is designed for veterinary pathology trainees seeking immersive exposure to comparative and toxicologic pathology in a major biomedical research setting. Our externship is distinctive in its breadth of species and research models, its close integration with laboratory animal medicine (LAM), and its access to specialized University of Michigan animal and research core facilities.

Unlike many programs centered primarily on routine diagnostic surgical pathology or a single research species, ULAM provides the opportunity to learn how pathology is applied across diverse, study-driven contexts from colony health and spontaneous disease to experimental endpoints and translational research questions. The experience is intentionally hands-on, mentorship-rich, and tailored to each extern's training level and career goals (toxicologic pathology, comparative pathology, exploratory pathology, industry/CRO interests, or lab animal-focused roles).

What Makes ULAM Pathology Core a Unique Externship Site

- Blended pathology and lab animal medicine experience: Externs gain perspective on how veterinary pathologists work alongside LAM teams, investigators, and research operations, giving an advantage for trainees considering toxicologic pathology, translational research, or lab animal pathology careers.
- Breadth of laboratory animal species and models: Cases range across a variety of commonly used laboratory animal species and specialized models from rodents to fish to large animals. Active submissions vary but archival and teaching materials are also available in a variety of formats.
- Access to specialized facilities and expertise: Opportunities may include tours/discussions with units such as the Transgenic Core, Germfree Mouse Core, and Aquatics facilities, highlighting how model development, husbandry, and environment intersect with pathology outcomes.
- Academic medical center research environment: Learn pathology within the context of study design, endpoint selection, data interpretation, and communication with multidisciplinary research teams.

Duration and Activities

We recommend a minimum of two (2) weeks to maximize educational benefit. Shorter visits may be possible, and up to four (4) weeks can be accommodated depending on scheduling and goals. A specific schedule will be developed based on your interests, experience level, and case availability. Potential activities include:

1. Pathology-focused activities

- Slide review with ULAM veterinary pathologists
- Digital and quantitative pathology image analysis using QuPath
- Diagnostic and research necropsy
- Pathology rounds and seminars
- Participation in discussions/meetings involving research-based pathology cases
- Boards-focused self-study using species-based training materials and quizzes

2. Laboratory animal medicine-focused activities relevant for lab animal pathologists

- Selected ACLAM resident seminars and/or clinical rounds
- Shadowing clinical laboratory animal medicine residents

- Facility tours and discussions, which may include:
 - Transgenic Core
 - Germ-Free Mouse Core
 - Aquatics facilities
 - Animal surgical facilities
 - Animal housing operations
- Review of animal welfare regulations and their implications for pathology reporting
- ULAM training core: instruction in lab animal techniques

3. Presentation (for 2+ week externships)

- Externs staying two weeks or longer are typically asked to give a brief (~30-minute) presentation on a case encountered during the externship or another lab animal/toxicologic pathology–relevant topic.

Applications

Ideal applicants include veterinary anatomic pathology residents (or equivalent trainees) with interest in comparative/experimental/toxicologic pathology. Vet students with an interest in laboratory animal pathology may also apply.

To apply for an externship slot, please email the externship coordinator the following:

1. **Cover letter** describing your interest, background, goals, and preferred duration/date range(s)
2. **Curriculum vitae (CV)**
3. **Confirmation letter** of current enrollment/good standing from your program
4. **One reference letter** from current or previous employer, or academic advisor

Applications may be subject to information validation and reference check.

Housing & Funding

ULAM does not routinely provide housing. Externs typically arrange local lodging (hotels/short-term rentals with transit access). Externs are strongly encouraged to explore the Society of Toxicologic Pathology (STP) Student Extern Scholarship to help offset travel and lodging costs (check STP for current terms and deadlines, <https://www.toxpath.org/student-JEBC.asp>).

Applications are accepted on a rolling basis; applying 2-3 months in advance is recommended.

Externship Coordinator

Dr. Yao Lee, DVM, MS, PhD, DACVP
Clinical Assistant Professor & Veterinary Pathologist
Pathology Core, Unit for Laboratory Animal Medicine
University of Michigan
2800 Plymouth Road, B36-G0178
Ann Arbor, MI 48109
yaolee@med.umich.edu