

# Overview of Fundamentals for Neuropathology Assessments in Toxicology Studies

## Neuropathology 101: Core Concepts in Getting Oriented to Microscopic Evaluation of the Nervous System

**Organised as part of the Hannover Vet School Toxicologic Pathology Training Series**

**Location:** Labcorp, Harrogate, UK

**Date:** Starting Monday 16 November Midday, continuing to Afternoon Tuesday 17 November, 2026

**Format:** In-person, small-group, interactive

### Course overview

Neuropathology is one of the most challenging areas in toxicologic pathology, partly because the nervous system is structurally and functionally complex. Typically, trainees have little opportunity to develop a systematic approach to its evaluation. This introductory course is designed to provide a basic and practical framework for navigating neural tissues, with an emphasis including, but not limited to, toxicology studies.

The course will focus on a limited number of fundamental core concepts taught clearly and in context of neurotoxicity evaluation. An overview of the basic principles of neuroanatomy, comparative histology, physiology, pharmacology and toxicology will be introduced to support a structured integrated approach to microscopic assessment, interpretation and reporting. The aim is to help participants get oriented, recognise what matters, and begin to approach neuropathology in a logical and integrated way.

### Topics to be covered

The course will include introductory teaching and discussion on:

- why neuropathology matters in toxicologic pathology
- where neuropathology fits in neurotoxicity assessment
- basic gross anatomy and tissue orientation
- trimming and processing considerations
- brain orientation at the subgross level in rodents and non-rodents
- comparative neurohistology and unusual normal structures
- use of atlases in neuropathological assessment

- the relevance of neurophysiology, neurochemistry and pharmacology to interpretation
- artefact versus real change
- background versus treatment-related change
- terminology, recording and data interpretation
- pattern-based approaches to neuropathological assessment
- report writing and integrated interpretation
- case-based discussion in neurotoxicology
- ECVF exam session

## **Intended audience**

This course is aimed at:

- veterinary pathology residents
- early-career pathologists
- trainees preparing for college or board examinations
- pathologists seeking a practical introduction to neuropathological assessment in toxicologic studies

Places will be limited to maintain an interactive learning environment.

## **Faculty**

**Course lead:** Dr Deepa Bandi Rao, BVSc, MS, PhD, DABT, DACVP, FIATP and Dr Heike Marxfeld, DiplECVP, FIATP

**Local organisation and support:** Labcorp, Harrogate  
Additional contributors to be confirmed.

## **Registration**

Scan QR code to register:



[Toxicologic Pathology Training Program](#)