

From Neuron to Diagnosis:

NeuroPath Basics for Veterinary Pathologists

Speakers: Martí Pumarola, Jéssica Molín, Leonor Orge

Tuesday 16th, June

SESSION I: Fundamental Principles in Neuropathology

14:00h – 16:00h

1. **How do we work in neuropathology?** Basic neuroanatomy; sampling and processing; histochemical and ancillary techniques.
2. **Understanding the structural organization of the nervous tissue.** Neuronal and glial compartments; grey and white matter architecture; barriers.

16:00h – 16:30h Coffee break

16:30h – 18:30h

3. **Essential terminology in neuropathology.** Chromatolysis. Satellitosis. Cell death. Malacia (liquefactive necrosis); acute neuronal death; neuronophagia; tissue pallor. **Neurodegeneration.** Neuronal and glial inclusions.
4. **Vacuoles in nervous tissue.** Artefacts; spongiosis (*status spongiosus*); spongiform encephalopathies. **Myelin changes.** demyelination; Wallerian degeneration. **Glial changes.**

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SESSION II: Diagnostic Neuropathology: a pattern-based approach

9:00h – 11:00h

5. **Focal lesions.** Vascular disorders; spinal trauma and IVDD; fibrocartilaginous embolism.
6. **Bilateral symmetrical lesions.** Metabolic, toxic or nutritional disorders; selective vulnerability; neurodegeneration.

11:00h – 11:30h Coffee break

11:30h – 13:30h

7. **Inflammatory lesions.** Infectious and immune-mediated conditions.
8. **Neuro-Oncology.** Basic concepts for the study of nervous system tumours.

All sessions will be interactive, with discussion of macroscopic and microscopic lesions from neurological cases involving both central and peripheral nervous system.