

## **Neurology/Neurosurgery Activities:**

The UC Davis Neurology/Neurosurgery Service offers specialized veterinary care for animals with neurological diseases 24 hours a day, run by a team of 6 board-certified neurologists/neurosurgeons and 5 resident veterinarians specializing in the neurological dysfunction of animals. This includes disorders of the brain, inner ear, spinal cord and vertebrae, as well as diseases affecting muscles, nerves and the neuromuscular junction (neuromuscular disease).

Our clinicians provide specialized diagnostic procedures, such as magnetic resonance imaging, computed tomography, cerebrospinal fluid collection, intervertebral disc aspiration, aural endoscopy and myringotomy, as well as access to a full electrodiagnostic laboratory.

In the Electrodiagnostic Laboratory and the Neuromuscular Disease Laboratory, our clinicians conduct highly specialized testing for animals with neuromuscular problems. Muscle and nerve biopsies are processed in the Neuromuscular Disease Laboratory. Electrophysiological evaluation of the ear and brain are also routinely done in the Electrodiagnostic Laboratory. Brainstem auditory evoked response (BAER) tests are performed to diagnose deafness and other diseases affecting the ear and brainstem. Electroencephalography (EEG), is also available.

A complete range of routine neurosurgeries are performed by the Neurology/Neurosurgery Service. These include dorsal, hemi and hemi dorsal laminectomy, atlanto-axial and fracture stabilization procedures, ventral slot procedure of the cervical spine, intervertebral disc fenestration, and peripheral nerve and nerve root exploration. State-of-the-art neurosurgical procedures offered by the service include stereotactic CT-guided brain biopsy, craniotomy and cranioplasty, ventriculoperitoneal shunt placement, intracranial pressure monitoring device placement.

## **Learning Objectives**

- 1. Complete a neurological examination on a dog or cat and make a neuroanatomical localization.**
- 2. In a patient with a neurological problem, outline the most likely possible causes, outline the appropriate diagnostic investigation, and discuss the timing of such investigation.**
- 3. Prescribe the appropriate treatments (including nursing care required) in a timely manner and form a prognosis for the most likely neurological problem in the patient.**
- 4. Understand the basis of and interpretation of vertebral column radiographs, and advanced imaging modalities such as MRI and CT.**