A Mouse Case from HK

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**Sample Submission Form**

**Veterinarian:** Peter EGWA  
**Clinic Name & Address:** Animal & Plant Care  
**Ph:** 2352-2383  
**Fax:** 2352-3338  
**Email:** youtube@pavel.com  
**VDL Account #:** 23583978

**Owner Name:**  
**Animal Name:** 2017-5001  
**Microchip:**  
**Species:** Mouse  
**Gender:** M  
**DOB:** 29 Oct 16  
**Client ref at submitting clinic:**  
**Collection Time:** 16:50  
**DATE:** 13/16/2017

**HISTORY, SIGNS, LESIONS:**  
- emaciated  
- BW: 16.06 g  
- unauthorized

**DIFFERENTIAL DIAGNOSIS:**  
1. 2. 3.

**Additional documentation submitted:**  
- Clinical medical history  
- In-house blood work  
- Diagnostic image

**SAMPLES SUBMITTED:**  
- Blood, clotted  
- Blood, EDTA  
- Blood, Lith hep  
- Fluid  
- Tissue, unfixed  
- Tissue, fixed  
- Other:

**Results interpretation from a pathologist:**  
- Yes  
- No

**Panel:**  
- Canine liver  
- Feline liver  
- Equine liver  
- Electrolytes panel  
- Thyroid panel  
- Coagulation panel  
- DIC panel  
- FELV/FIV panel  
- Canine diarrhea  
- Feline diarrhea  
- Canine respiratory  
- Feline respiratory  
- Canine tick fever  
- FISH (Feline, Canine & PCR)

**Histopathology & Necropsy:**  
- Biopsy  
- Necropsy, routine  
- Necropsy, cosmetic  

**Urine:**  
- Urinalysis  
- Air-dried stained cytology  
- Milk culture & sensitivity  
- Urine protein/creatinine

**Microbiology:**  
- Aerobic culture and sensitivity  
- Anaerobic culture and sensitivity  
- Blood culture and sensitivity  
- Fungal culture  
- Paracoccidioides  
- Paracoccidioides (specify bacteria):

**Endocrinology:**  
- Canine ACTH  
- Canine insulin  
- FSH  
- Cortisol  
- Urine cortisol:creatinine  
- ACTH stim. LDOOT  
- LDOOT  
- TSH T4  
- T4  
- Progesterone  
- Testosterone  
- Canine TSH  
- Parathyroid hormone

**PCR:**  
- Site:

**Serology:**  
- Specify test: (refer to back of form)

**Other tests/requests:**  
- Washed:
  - BAL  
  - TTW
Mouse 1: brain
Diagnosis: Brain

• Mouse 1: moderate diffuse lymphoplasmacytic meningoencephalitis with multifocal gliosis (and amyloid deposits)
  - changes not totally consistent with APP
  - suggests an infectious, possibly viral cause

• Mouse 2, 3: multifocal amyloid deposits, grey matter
  - consistent with APP model
General Notes on Lab Animal Histology testing

• **Tissues and organs are usually forwarded for histology under the following 2 general headings:**

  • Planned testing: here lab animals are part of a study or series of studies, and animals are euthanased and necropsied at planned times throughout the study.
  
  • Some studies are preliminary, and require full post mortem sampling and examination of all organ systems by histology to assess unknown effects of treatment on the animal
  
  • Some studies may be more targeted, where specific organ/s are harvested and examined
  
  • Unexplained deaths during study, or in Lab Animal facility: most studies will require that any animals that die unexpectedly be subjected to a full post mortem examination to try and detect the cause of death

• The post mortem should be done as soon as the animal is discovered to try and lessen the effect that post mortem decomposition will have on the quality and diagnostic utility of the sampled organs.
Sampling for Histological examination:

- Histology is a useful way to look for morphological changes that may have occurred due to unexpected disease/mortality, or the effect of study treatment. Other test modalities may also be used in lab animal work eg. Serology, hematology, biochemistry, microbial culture, PCR etc.

- Typically the post mortem is done at the animal house by the facilities personnel.

- All tissues should be placed in 10% buffered formalin for fixation as soon as possible after death. The ratio of formalin:tissue by volume is 10:1 ie. you need 10x as much formalin as there is tissue for adequate fixation.

- Single containers of formalin should contain only organs from 1 animal, and should be accurately labelled with the study animal’s number.

- If an animal dies unexpectedly, the post mortem should be complete, and done as soon as possible to limit post mortem decomposition.
Samples required for histopathology

- Central nervous system: complete brain, section of spinal cord (or 1 cm section of spinal canal with cord)
- Normal and affected skin (if any)
- Tongue, oesophagus, stomach, small and large intestine: sometimes it is easiest to take the whole small and large intestine as a whole, and fill with formalin via injection through the wall with formalin (use 23 gauge needle and syringe)
- Whole heart, entire lungs, entire spleen/liver, pancreas, one entire kidney, bladder
- 2 x lymph nodes – mesenteric and one other
- 2 x Skeletal muscle – forelimb, hindlimb
- 1x diaphragm
- 1 x entire femur
- Adrenal, thyroid, pituitary (if did not come out with brain-sometimes very small and hard to get)
- Any affected/abnormal tissue not sampled above eg. Eye, bone, footpad etc
Other tests

• Samples for microbiology: such as tissue or swabs if you think there has been a bacterial infection
• Dry swabs of tissue if you wish PCR (for viruses)
• Stomach contents/feed
• Faeces
• Specific testing/requests