

Lab Animal Miniboard Exam 2010

1. The most common site of AA amyloid in the common marmoset is:

- A. Small intestine
- B. Spleen
- C. Renal Interstitium
- D. Stomach
- E. Colon

2. By EM, the eosinophilic material (collagen and complex carbohydrate) in the nasal septum of the mouse is often found within which organelle:

- A. Golgi apparatus
- B. Rough endoplasmic reticulum
- C. Smooth endoplasmic reticulum
- D. Secretory granules
- E. Lysosomes

3. In eosinophilic crystalline pneumonia in mice, YM1 granules are secreted by activated macrophages and neutrophils in response to:

- 1. IL-1
- 2. IL-4
- 3. IL-2
- 4. IL-13
- 5. IL-12

- A. 3 and 5
- B. 1 and 5
- C. 2 and 4
- D. 2 and 5
- E. 2 and 3

4. Which of the following is true of hereditary hydrocephalus in laboratory reared Golden Hamsters:

- A. Affects lateral and third ventricles
- B. Affects lateral ventricles only
- C. Associated with marked subependymal gliosis
- D. Associated with moderate subependymal necrosis
- E. Associated with moderate necrosis

5. All of the following pituitary adenomas are diagnosed in cynomolgus macaques except:

- 1. Prolactin adenoma
- 2. Corticotroph adenoma
- 3. Thyrotroph adenoma
- 4. Gonadotroph adenoma
- 5. Somatotroph adenoma

- A. 1 and 4
- B. 1 and 2
- C. 3 and 4
- D. 2 and 4
- E. 2 and 5

6. The following are seen in Tyzzer's disease in gerbils EXCEPT:

- A. Megaloileitis

- B. Lymphoid necrosis
- C. Myocardial necrosis
- D. Necrotizing enteritis
- E. Suppurative encephalitis

7. The most common site(s) of lymphoma in the rabbit is (are):

- A. Spleen
- B. Kidney
- C. Thymus
- D. Stomach
- E. B & D

8. Parvovirus in hamsters causes all of the following EXCEPT:

- A. Domed calvaria
- B. Testicular necrosis
- C. Enamel hypoplasia
- D. Cerebellar hypoplasia
- E. Cerebral mineralization

9. All of the following are true regarding large granular lymphocytic leukemia in rats EXCEPT:

- A. Arises in the spleen
- B. Retrovirus associated
- C. Most common in F344 rats
- D. Concurrent thrombocytopenia
- E. Concurrent immune mediated hemolytic anemia

10. The primary pathologic finding associated with pheochromocytoma in new world primates is:

- A. Cerebral laminar cortical necrosis
- B. Pulmonary infarction
- C. Pancreatic islet cell tumor
- D. Parathyroid adenoma
- E. Myocardial degeneration and fibrosis

11. Spontaneous aortitis is a common incidental histologic finding in which of the following strains of laboratory mice:

- A. B6C3F1
- B. Balb/c
- C. C57BL/6
- D. 129
- E. C3H/He

12. Which of the following lesions is common to both the Dpdc/Poll and Nme7 mouse models of Situs Inversus:

- A. Hydrocephalus
- B. Right to left transposition of the thoracic and visceral organs
- C. Sinusitis
- D. Nasal exudation
- E. Seminiferous tubule atrophy

13. In *Gnptab*^{-/-} and *Gnptg*^{-/-} mice, murine models for Mucopolysaccharidosis Types II and IIIc, histologic lesions are present in all of the following, EXCEPT:

- A. Exocrine pancreas

- B. Skeletal muscle
- C. Lacrimal gland
- D. Parotid salivary gland
- E. Bulbourethral gland

14. In the C57BL/6 mouse model of chronic oral arsenic toxicosis, the primary lesion occurs in:

- A. The bone marrow
- B. The blood vessel walls
- C. The vascular endothelium
- D. The articular cartilage
- E. The retina

15. The histopathologic finding that best characterizes the pulmonary lesion of Rat Respiratory Virus is:

- A. Suppurative bronchopneumonia
- B. Lymphohistiocytic bronchointerstitial pneumonia
- C. Histiocytic bronchopneumonia
- D. Lymphohistiocytic interstitial pneumonia
- E. Granulomatous pneumonia

16. The granulated metrial gland (GMG) cells in the metrial glands of pregnant mice and rats are derived from:

- A. Placental trophoblastic epithelium
- B. Bone marrow origin macrophages
- C. Endometrial stroma
- D. Bone marrow origin natural killer cells
- E. Endometrial glandular epithelium

17. In the male Lewis Rat which of the following best describes the primary histologic lesion of short-term low-dose administration of rotenone:

- A. Articular cartilage degeneration and necrosis
- B. Degeneration, necrosis, and mineralization of ameloblasts
- C. Submassive hepatic necrosis
- D. Fibrinoid vascular necrosis in the brain
- E. Necrosis of the proximal renal tubules

18. Which of the following is true concerning spontaneous hepatocellular carcinomas in captive lemurs and lorises:

- A. Metastatic lesions are most common in the lungs and mediastinum.
- B. Tumors are associated with hepadnavirus infection.
- C. Tumors are associated with excessive hepatic iron.
- D. Tumors are associated with excessive hepatic copper.
- E. Tumors are associated with hepatitis C infection.

19. The lesions of *Citrobacter rodentium* infection in mice immunodeficient due to murine acquired immunodeficiency syndrome are primarily restricted to the:

- A. Pancreas
- B. Small intestine
- C. Cecum
- D. Colon
- E. Stomach

20. Which of the following is characteristic of Simian Parvovirus?

- i. Anemia

- ii. Infection associated with immunosuppression
- iii. Usually clinically silent infection
- iv. Virus uses globoside (erythrocyte P antigen) as a receptor

- A. i
- B. i, ii
- C. i, ii, iii
- D. ii, iii, iv
- E. i, ii, iii, iv

21. Which of the following is NOT characteristic of *Baccharis pteronioides* in hamsters?

- A. Multiple hemorrhagic infarcts in liver and kidney
- B. Cardiac necrosis
- C. Severe hemorrhagic enteritis
- D. Lymphoid necrosis
- E. Necrotizing vasculitis and vascular thrombosis spleen and mesenteric lymph nodes

22. Which of the following organs is least affected with Nipah viral infection in Guinea pigs?

- A. Kidney
- B. Uterus
- C. Brain
- D. Urinary bladder
- E. Spleen

23. Which of the following are upregulated in mice that develop auricular chondritis following ear tagging:

- A. Metallothionein (MT) – 1
- B. IL – 4
- C. IL – 5
- D. IL- 10
- E. IL - 12

24. In *Slc24a5*^{-/-} mice which ocular structure shows the most severe hypopigmentation:

- A. Anterior layer of the iris pigment epithelium (IPE)
- B. Anterior iridial stroma
- C. Choroidal melanocytes
- D. Posterior iridial pigmented epithelium
- E. None of the above

25. What is the most common pathogen isolated in juvenile rabbits with the enteritis complex:

- A. *Clostridium perfringens* Type E
- B. *Clostridium perfringens* Type D
- C. *Clostridium perfringens* Type C
- D. *Clostridium difficile*
- E. *Clostridium spiroforme*