

**2013 Miniboard Exam**  
**Lab Animal Blank**

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### Lab Animal

1. Which of the following species develops necrohemorrhagic colitis when infected with *Clostridium piliforme*?
  - a. Mongolian gerbil
  - b. Rabbit
  - c. Hamster
  - d. Ferret
  - e. Mouse
2. Which of the following *Helicobacter* species is most commonly associated with hepatocellular and cholangiocellular neoplasia in mice?
  - a. *H. mastomarinus*
  - b. *H. pylori*
  - c. *H. hepaticus*
  - d. *H. bilis*
  - e. *H. rodentium*
3. In which of the following mouse strains is there a high incidence of testicular teratoma?
  - a. B6C3F1
  - b. LT/SV
  - c. CD1
  - d. 129S4/SvJae
  - e. C3H
4. Which of the following has recently been identified as the causative agent of infectious interstitial pneumonia (IIP) in laboratory rats?
  - a. *Pneumocystis carinii*
  - b. Rat respiratory virus
  - c. *Mycoplasma pulmonis*
  - d. Sendai virus
  - e. CAR bacillus
5. In moustached tamarins with alveolar proteinosis, what constitutes the majority of the eosinophilic granular material found in the alveoli?
  - a. Surfactant A
  - b. Surfactant B
  - c. Surfactant C
  - d. Surfactant D

- e. Surfactant A and C
6. Which of the following immunohistochemical markers was localized to the renal distal convoluted tubule epithelium in the mouse?
- a. Glutathione S-transferase- $\alpha$
  - b. Aquaporin-1
  - c. Aquaporin-2
  - d. Tamm-Horsfall protein
  - e. Calbindin D-28k
7. Which of the following gross abnormalities are found in *Fam20a*<sup>-/-</sup> mice due to impaired biomineralization?
- a. Hypocalcemia
  - b. Hypophosphatemia
  - c. Enamel defects
  - d. Dentin defects
  - e. Bone defects
8. Which of the following lesions related to ciliary dyskinesia typically occurs in mice with a mutation in the *Dpcd/Poll* gene?
- a. Rhinosinusitis
  - b. Otitis media
  - c. Situs inversus
  - d. Infertility
  - e. All of the above
9. Which of the following mouse strains is reported to have the highest frequency of spontaneous osteosarcoma?
- a. 129S1/SvImJ
  - b. C57Bl.10J
  - c. DBA/1J
  - d. NOD/ShiLt
  - e. FVB/NJ
10. Which of the following is NOT increased in rhesus monkeys with clinical hepatic amyloidosis?
- a. Alkaline phosphatase
  - b. Serum amyloid A
  - c. Aspartate aminotransferase
  - d. Gamma glutamyl transferase
  - e. Lactate dehydrogenase

11. Hepatic stellate cells in Japanese medaka fish stain positively for which immunohistochemical marker?
- SMAD3
  - Cytokeratin
  - $\alpha$ -smooth muscle actin
  - Muscle specific actin
  - GFAP
12. In golden hamsters infected with the JB197 strain of *Leptospira borgpetersenii* serovar Hardjo, bacteria re first seen in which of the following organs?
- Uterus
  - Kidney
  - Liver
  - Urinary bladder
  - Pancreas
13. Histologic findings of small intestinal villar attenuation, enterocyte necrosis, and enterocyte syncytial cells are characteristic for which of the following infectious agents?
- Rat rotavirus
  - Kilham's rat virus
  - Rat reovirus
  - Parker's rat coronavirus
  - Rat parvovirus
14. Which of the following is the most common neoplasm of Siberian hamsters?
- Lymphoma
  - Mammary adenoma
  - Atypical fibroma
  - Papilloma
  - Plasmacytoma
15. In captive common marmosets (*Callithrix jacchus*) with spontaneous progressive nephropathy, which of the following is true?
- Disease begins in middle-age
  - Disease occurs sporadically
  - Has glomerular lesions that progress with age
  - Is characterized by tubular epithelial attenuation
  - Begins in tubules and secondarily affects glomeruli

16. In the rat, Quaporin-1 staining in the kidney is specific for which of the following?
- Proximal tubule epithelium
  - Collecting tubule epithelium
  - Thick loop of Henle epithelium
  - Renal cortical interstitium
  - Arcuate artery endothelium
17. Which laboratory animal species is most sensitive to Tyzzer's disease?
- nu/nu mouse
  - Mongolian gerbil
  - Siberian hamster
  - Group housed rats
  - Post-weaning guinea pigs
18. The most likely infectious cause of eosinophilic intracytoplasmic inclusion bodies in the liver, spleen and epidermis of a mouse is:
- Mouse hepatitis virus
  - Ectromelia virus
  - Sendai virus
  - Picornavirus
  - Reovirus
19. The most likely cause of a cephalohematoma in a captive squirrel monkey is:
- Hypervitaminosis A
  - Hypervitaminosis D
  - Excessive selenium
  - Vitamin E deficiency
  - Vitamin C deficiency
20. In laboratory mice, all of the following neoplasms are immunophenotypically sIgM+/B220+/CD19+ EXCEPT:
- Plasmacytoma
  - Burkitt-like lymphoma
  - Follicular B cell lymphoma
  - Diffuse large B cell lymphoma
  - Splenic marginal zone lymphoma

21. Which strain of mice has immunodeficiency from lack of  $\alpha/\beta$  T lymphocytes?
- 129
  - A/J
  - FVP
  - nu/nu
  - C3H/HE
22. Which of the following tumor types most commonly affects mice lacking Dok-1, Dok-2, and Dok-3?
- Lymphoma
  - Histiocytic sarcoma
  - Osteosarcoma
  - Mammary adenocarcinoma
  - Pulmonary adenocarcinoma
23. Which common laboratory strain of mouse is particularly susceptible to developing mouse mammary tumor virus (MMTV) induced mammary tumors?
- Balb/C
  - C3H
  - C57Bl/6
  - 129
  - AKR
24. Which of the following is a common site for secondary (AA) amyloidosis in laboratory mice?
- Spleen
  - Adrenal gland
  - Ovary
  - Lung
  - Thyroid gland
25. What is the most common pathogen isolated in juvenile rabbits with the enteritis complex?
- Clostridium perfringens* type E
  - Clostridium perfringens* type D
  - Clostridium perfringens* type C
  - Clostridium spiroforme*
  - Clostridium difficile*