

## Australian and New Zealand College of Veterinary Scientists

# Veterinary Dermatology Sample Multiple Choice Questions

#### Paper 1

#### Answer all multiple choice questions in this section

Each question is worth one (1) mark. There is no negative marking.

- 1. The mechanism of action of rifampicin's antimicrobial activity involves the inhibition of which of the following?
  - a. DNA gyrase
  - **b.** Folic acid synthesis
  - c. The 50S ribosomal subunit
  - d. DNA-dependent RNA polymerase
- 2. Which cytokine plays a key role in the development and release of eosinophils from the bone marrow?
  - **a.** IL-4
  - **b.** IL-5
  - **c.** IL-13
  - **d.** IL-31
- 3. Which mechanism is responsible for hearing loss that can be associated with compounded topical 1% amikacin otic medication in dogs?
  - **a.** Occlusion of the ear canal by residual medication leads to conductive hearing loss
  - **b.** Overproduction of reactive oxygen species leads to oxidative stress and apoptosis of sensory cells
  - **c.** Inhibition of prostaglandin-forming cyclooxygenase enzymes results in vasoconstriction
  - **d.** Targeting ion-transport mechanisms in the epithelia of the internal ear leads to shifts in the endocochlear potential

#### Paper 2

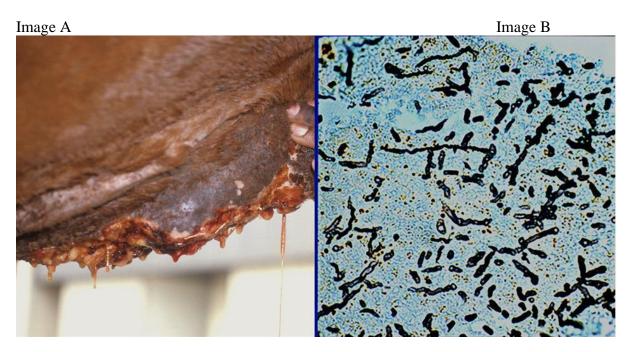
### Answer all multiple choice questions in this section

Each question is worth one (1) mark. There is no negative marking.

1. A four-month-old intact female golden retriever is presented for moderate scaling affecting the trunk and limbs. Histopathologic evaluation of a skin biopsy describes "diffuse lamellar orthokeratotic hyperkeratosis in the absence of epidermal hyperplasia and dermal inflammation."

Which gene mutation is associated with this condition?

- a. TGM1
- b. KRT10
- c. NIPAL4
- d. PNPLA1
- **2.** This lesion (Image A) was present on the ventral abdomen of a 14-year-old Quarter Horse mare. A representative histologic section of the lesion is shown (Image B).



Which special stain was used to identify the pathogen?

- a. Periodic acid-Schiff (PAS)
- b. Voerhoeff-Van Gieson
- c. Mayer's mucicarmine
- d. Gomori methenamine silver (GMS)