

Pioneering Milestones in Veterinary Science

Veterinary Science · Answer Key · 17 Questions

1. Who is widely credited with performing the first successful surgical separation of conjoined twins in veterinary history, specifically two calves in 1876?

- A) Sir John McFadyean**
- B) Rudolph Virchow
- C) Daniel Salmon
- D) Hermann von Helmholtz

2. What groundbreaking diagnostic technique, applied to veterinary medicine, was first developed by Sir Frederick Banting and his colleagues in the early 1920s, leading to the discovery of insulin?

- A) X-ray radiography
- B) Electrocardiography (ECG)
- C) Endoscopy
- D) Blood glucose monitoring**

3. Which veterinarian is recognized for developing the first commercially available vaccine against rabies in the late 19th century, a significant advancement in zoonotic disease control?

- A) Louis Pasteur**
- B) Robert Koch
- C) Emile Roux
- D) Pasteur and Chamberland

4. The development of the first effective antibiotic, penicillin, by Alexander Fleming in 1928 had a profound impact on human and veterinary medicine. What was a critical early application in veterinary practice?

- A) Treatment of avian influenza
- B) Control of mastitis in dairy cattle**
- C) Eradication of hookworm in dogs
- D) Prevention of foot-and-mouth disease

5. Who is considered the 'father of American veterinary surgery' for his pioneering work in developing and teaching advanced surgical techniques in the late 19th and early 20th centuries, including pioneering antiseptic surgery?

- A) James Herriot
- B) William Bateson
- C) Simon Fraser**
- D) Charles Nocard

6. The discovery of the causative agent of glanders, **Malleomyces mallei (now **Burkholderia mallei**), by which bacteriologist in the late 19th century was a crucial step in understanding and combating this highly infectious equine disease?**

- A) Rudolph Virchow
- B) Daniel Salmon**
- C) Oskar Medin
- D) Friedrich Loeffler

7. What revolutionary anesthetic agent, first synthesized in the 1840s, quickly found application in veterinary surgery, significantly improving animal welfare during procedures?

- A) Ether**
- B) Chloroform
- C) Nitrous Oxide
- D) Morphine

8. The development of the complement fixation test, a serological diagnostic method, by August von Wassermann (though his name is primarily associated with syphilis testing) had early applications in veterinary diagnostics for diseases like which of the following?

- A) Tuberculosis in cattle
- B) Equine infectious anemia
- C) Brucellosis**
- D) Avian encephalomyelitis

9. Which veterinarian is credited with developing the first practical method for the standardization and production of tuberculin, a key diagnostic agent for tuberculosis, in the late 19th century?

- A) Robert Koch
- B) Sir John McFadyean**
- C) Daniel Salmon
- D) Oskar Hertwig

10. The invention of the hypodermic syringe and needle by Charles Pravaz and Alexander Wood in the mid-19th century revolutionized drug administration. What was one of the earliest significant veterinary applications?

- A) Administering vaccines**
- B) Treating parasitic infections
- C) Performing blood transfusions
- D) Injecting anesthetics

11. The pioneering research into avian coccidiosis by E.E. Tyzzer in the early 20th century led to the identification of different species and their life cycles. What was a major consequence of this discovery for poultry farming?

A) Development of effective anticoccidial drugs

- B) Introduction of mass vaccination programs
- C) Improved sanitation protocols
- D) Genetic selection for resistant breeds

12. Who is recognized for developing the first successful experimental chemotherapy for cancer in animals, specifically in rodents, in the mid-20th century, paving the way for veterinary oncology?

- A) Sidney Farber
- B) Gertrude Elion
- C) George Hitchings

D) Charles Huggins

13. The identification of a specific virus responsible for a major disease in dogs, such as canine distemper, by scientists like Richard Shope in the 1930s was a crucial first step towards:

- A) Developing an effective vaccine
- B) Understanding its transmission pathways
- C) Proving it was a viral etiology

D) All of the above

14. The development of the first blood typing system for dogs, a significant advancement in comparative immunology and transfusion medicine, is attributed to research conducted in which decade?

- A) 1930s
- B) 1950s**
- C) 1970s
- D) 1990s

15. Which diagnostic imaging modality, initially developed for human medicine, saw its early applications in veterinary practice in the mid-20th century, revolutionizing the diagnosis of internal diseases?

A) Computed Tomography (CT)

- B) Magnetic Resonance Imaging (MRI)
- C) Ultrasound
- D) Positron Emission Tomography (PET)

16. The discovery of the principle of antibody production and immunological memory by scientists like Behring and KITASATO in the late 19th century laid the foundation for:

- A) The development of serotherapy
- B) The understanding of allergy
- C) The creation of diagnostic tests

D) All of the above

17. The development of the first successful artificial insemination technique in cattle, pioneered by Ivan Popov in the Soviet Union in the 1930s, was a landmark achievement in:

A) Animal breeding and genetics

- B) Reproductive endocrinology
- C) Disease control in livestock
- D) Nutritional management