

History of Microbiology Milestones

Microbiology · Practice Test · 29 Questions

1. Who is considered the "first true microbiologist" and "Father of Microbiology"?

- A) Lucretius
- B) Girolamo Fracastoro
- C) Antonie van Leeuwenhoek
- D) Francesco Redi

2. What did Girolamo Fracastoro propose regarding disease?

- A) Disease is caused by air currents.
- B) Disease is caused by "invisible creatures".
- C) Disease is caused by imbalances in humors.
- D) Disease is caused by divine punishment.

3. Which scientist demonstrated that maggots do not arise spontaneously from decaying meat?

- A) John Needham
- B) Lazzaro Spallanzani
- C) Francesco Redi
- D) Rudolf Virchow

4. Who conducted experiments that appeared to support spontaneous generation in 1745?

- A) Antonie van Leeuwenhoek
- B) Francesco Redi
- C) John Needham
- D) Lazzaro Spallanzani

5. What method did Lazzaro Spallanzani use to disprove spontaneous generation?

- A) Heating sealed broth
- B) Exposing broth to air
- C) Using sterile conditions
- D) Observing microorganisms under a microscope

6. What groundbreaking concept was introduced by Edward Jenner in 1796?

- A) Antiseptic surgery
- B) Vaccination
- C) Antibiotics
- D) Handwashing

7. What preventive measure against disease was demonstrated by Ignaz Semmelweis in the 1840s?

- A) Sterilization of instruments
- B) Routine handwashing
- C) Boiling water
- D) Wearing masks

8. What concept did Rudolf Virchow introduce in 1858 that challenged spontaneous generation?

- A) Biogenesis
- B) Germ Theory
- C) Aseptic technique
- D) Pasteurization

9. Louis Pasteur resolved the spontaneous generation debate with what type of experiments?

- A) Petri dish experiments
- B) Swan-neck flask experiments
- C) Microscope observations
- D) Animal testing

10. Which of these was NOT developed by Louis Pasteur?

- A) Aseptic techniques
- B) Pasteurization process
- C) Vaccines for anthrax and rabies
- D) Koch's Postulates

11. Who introduced the system of antiseptic surgery in Britain in 1867?

- A) Louis Pasteur
- B) Robert Koch
- C) Joseph Lister
- D) Paul Ehrlich

12. Which scientist provided irrefutable proof of the Germ Theory of Disease?

- A) Louis Pasteur
- B) Robert Koch
- C) Joseph Lister
- D) Ignaz Semmelweis

13. Who discovered salvarsan, the first "magic bullet"?

- A) Robert Koch
- B) Paul Ehrlich
- C) Alexander Fleming
- D) Selman Waksman

14. What significant discovery did Alexander Fleming make in 1928?

- A) Streptomycin
- B) Penicillin
- C) Tuberculosis vaccine
- D) Salvarsan

15. Which antibiotics were discovered by Selman Waksman?

- A) Penicillin and Salvarsan
- B) Streptomycin and Neomycin
- C) Anthrax vaccine and Rabies vaccine
- D) Typhoid vaccine and Cholera vaccine

16. What was the main transition in the history of microbiology as described in the summary?

- A) From Germ Theory to spontaneous generation
- B) From spontaneous generation to Germ Theory
- C) From ancient medicine to modern surgery
- D) From observation to experimentation

17. Who suggested that disease was caused by "invisible creatures" around 98-55 B.C.?

- A) Girolamo Fracastoro
- B) Lucretius
- C) Antonie van Leeuwenhoek
- D) Francesco Redi

18. Antonie van Leeuwenhoek was the first to observe and describe living microorganisms, which he called:

- A) Bacteria
- B) Viruses
- C) Animalcules
- D) Fungi

19. The theory of Spontaneous Generation was opposed by which scientist's demonstration with maggots?

- A) John Needham
- B) Lazzaro Spallanzani
- C) Francesco Redi
- D) Rudolf Virchow

20. What was the primary goal of Lazzaro Spallanzani's improved experiments on infusions?

- A) To prove spontaneous generation
- B) To support the Germ Theory
- C) To disprove spontaneous generation
- D) To discover new microorganisms

21. The development of vaccination is credited to which historical figure?

- A) Ignaz Semmelweis
- B) Edward Jenner
- C) Louis Pasteur
- D) Robert Koch

22. Ignaz Semmelweis's work in the 1840s highlighted the importance of:

- A) Sterile surgical instruments
- B) Patient isolation
- C) Handwashing
- D) Air purification

23. Rudolf Virchow's concept of Biogenesis stated that:

- A) Disease is caused by germs.
- B) Living cells arise only from pre-existing cells.
- C) Spontaneous generation is possible under certain conditions.
- D) Microorganisms can be seen with the naked eye.

24. What technique, developed by Louis Pasteur, is used to kill harmful microorganisms in liquids like milk?

- A) Fermentation
- B) Distillation
- C) Pasteurization
- D) Sterilization

25. Robert Koch established a set of criteria to prove that a specific microorganism causes a specific disease, known as:

- A) Leeuwenhoek's Rules
- B) Pasteur's Principles
- C) Koch's Postulates
- D) Semmelweis's Guidelines

26. Paul Ehrlich's discovery of salvarsan in 1910 was significant because it was:

- A) The first antibiotic
- B) The first vaccine
- C) The first "magic bullet" for syphilis treatment
- D) The first method to observe bacteria

27. Penicillin, the first antibiotic, was discovered accidentally by:

- A) Selman Waksman
- B) Robert Koch
- C) Louis Pasteur
- D) Alexander Fleming

28. Selman Waksman is known for discovering which antibiotics?

- A) Penicillin and Salvarsan
- B) Streptomycin and Neomycin
- C) Amoxicillin and Azithromycin
- D) Ceftriaxone and Vancomycin

29. The history of microbiology is characterized by a shift from spontaneous generation to the:

- A) Theory of Evolution
- B) Germ Theory of Disease
- C) Theory of Relativity
- D) Plate Tectonics Theory