

Milestones in Neuroscience

Neuroscience · Answer Key · 20 Questions

1. Who is considered the father of modern neuroscience for his work on the neuron doctrine?

- A) Santiago Ramón y Cajal**
- B) Sigmund Freud
- C) Charles Darwin
- D) Ivan Pavlov

2. Which invention allows scientists to record electrical activity in the brain through electrodes on the scalp?

- A) MRI
- B) EEG**
- C) CT Scan
- D) PET Scan

3. What was the first neurotransmitter to be chemically identified in 1921?

- A) Dopamine
- B) Serotonin
- C) Acetylcholine**
- D) Adrenaline

4. Who famously studied the patient 'H.M.' to discover the role of the hippocampus in memory?

- A) Brenda Milner**
- B) Oliver Sacks
- C) Phineas Gage
- D) Wilder Penfield

5. Which medical imaging technique uses powerful magnets to produce detailed images of the brain?

- A) X-ray
- B) Ultrasound
- C) MRI**
- D) ECG

6. What is the name of the 19th-century railroad worker who survived a metal rod passing through his brain, providing insight into personality and the frontal lobe?

A) Henry Molaison

B) Phineas Gage

C) Louis Pasteur

D) Paul Broca

7. Which area of the brain, discovered in the 1860s, is associated with speech production?

A) Broca's area

B) Occipital lobe

C) Cerebellum

D) Brainstem

8. In which century was the first successful human brain surgery recorded?

A) 15th century

B) 19th century

C) 10th century

D) 20th century

9. What did Alois Alzheimer describe for the first time in 1906?

A) Parkinson's disease

B) Epilepsy

C) Dementia

D) Multiple Sclerosis

10. What discovery did Camillo Golgi and Santiago Ramón y Cajal share the Nobel Prize for in 1906?

A) Brain mapping

B) The structure of the nervous system

C) Synaptic transmission

D) The discovery of the spinal cord

11. Who is known for developing the lobotomy procedure in the 1930s?

A) Egas Moniz

B) Hans Berger

C) Francis Crick

D) James Watson

12. Which technique, first used in the 1950s, allows researchers to observe brain activity by tracking glucose metabolism?

A) PET scan

B) MRI

C) EEG

D) Reflexology

13. What did the 'Golgi stain' method allow scientists to see for the first time?

A) Individual neurons

B) Blood cells

C) DNA strands

D) Skin layers

14. Which Nobel-winning scientist discovered the chemical transmission of nerve impulses?

A) Otto Loewi

B) Isaac Newton

C) Albert Einstein

D) Marie Curie

15. What does the term 'synapse' refer to, a term coined by Charles Sherrington in 1897?

A) A brain tumor

B) The connection between neurons

C) A type of brain cell

D) The skull lining

16. In 1929, who published the first human EEG recordings?

A) Hans Berger

B) Sigmund Freud

C) Wilder Penfield

D) Jean Piaget

17. Which brain structure was identified as the 'seat of emotion' in the 1930s as part of the Papez circuit?

A) Limbic system

B) Frontal lobe

C) Parietal lobe

D) Medulla

18. What major discovery did Wilder Penfield make regarding the human brain in the 1940s?

A) The cortical homunculus

B) The DNA sequence

C) The circulatory system

D) The function of the lung

19. Who coined the term 'neuron' in 1891 to describe the basic unit of the nervous system?

A) Heinrich Wilhelm Waldeyer

B) Gregor Mendel

C) Robert Hooke

D) Louis Braille

20. Which decade saw the first use of functional MRI (fMRI) to map brain activity?

A) 1950s

B) 1970s

C) 1990s

D) 1920s