Landmarks in Immunological History

Immunology · Practice Test · 12 Questions

1. Which scientist conducted the 1796 experiment that provided the first scientific basis for vaccination by using cowpox matter to induce immunity against smallpox?

A) Louis Pasteur
B) Edward Jenner
C) Robert Koch
D) Joseph Lister

2. In 1901, who received the first-ever Nobel Prize in Physiology or Medicine for his work on serum therapy, specifically its application against diphtheria?

A) Paul Ehrlich
B) Emil von Behring
C) Ilya Mechnikov
D) Charles Richet

3. The discovery of the phagocytic theory, which posits that certain cells engulf foreign particles and bacteria, was announced in 1883 by which scientist?

A) Ilya Mechnikov
B) Paul Ehrlich
C) Jules Bordet
D) Karl Landsteiner

4. In 1957, Alick Isaacs and Jean Lindenmann discovered a protein that interferes with viral replication, which they named:

A) Cytokine
B) Interferon
C) Interleukin
D) Complement

5. The structure of the immunoglobulin G (IgG) molecule, specifically the heavy and light chain model, was elucidated in 1959 by which Nobel laureate?

A) Gerald Edelman
B) Rodney Porter
C) Susumu Tonegawa
D) Peter Medawar

6. Who was awarded the 1960 Nobel Prize for the discovery of acquired immunological tolerance, a finding that transformed the field of organ transplantation?

A) Frank Macfarlane Burnet
B) Peter Medawar
C) George Snell
D) Jean Dausset

7. The 'Clonal Selection Theory', which explains how lymphocytes respond to specific antigens, was proposed in 1957 by which Australian immunologist?

A) Frank Macfarlane Burnet
B) David Talmage
C) Niels Jerne
D) Joshua Lederberg

8. In 1975, Georges Köhler and César Milstein developed a technique to produce monoclonal antibodies using which hybrid cell type?

A) Hybridoma
B) B-lymphocyte
C) Plasma cell
D) Myeloma

9. The first clinical trial of a human vaccine developed using recombinant DNA technology--the Hepatitis B vaccine--was licensed for use in which year?

A) 1981
B) 1986
C) 1990
D) 1995

10. Susumu Tonegawa was awarded the Nobel Prize in 1987 for his discovery of the genetic principle for the generation of antibody diversity, which occurs through:

A) Somatic hypermutation
B) V(D)J recombination
C) Class switching
D) Allelic exclusion

11. In 1900, Karl Landsteiner published his discovery of the ABO blood group system, which provided the first evidence of biochemical individuality in humans based on which immunological phenomenon?

A) Agglutination
B) Precipitation
C) Complement fixation
D) Opsonization

12. In 1983, the Nobel Prize in Physiology or Medicine was awarded to Barbara McClintock for her discovery of 'jumping genes' (transposons), which later proved fundamental to understanding what immunological process?

A) T-cell receptor rearrangement
B) Antibody diversity generation
C) MHC polymorphism
D) Cytokine gene regulation