1. What is transplantation, and how does it differ from transfusion?
2. What are the four major types of grafts in transplantation?
3. Why is transplant rejection a major challenge in clinical transplantation?
4. What role do MHC molecules play in transplant rejection?
5. How do direct and indirect allorecognition pathways lead to transplant rejection?
6. What are the key differences between hyperacute, acute, and chronic rejection?
7. What are the main types of immunosuppressive therapies used in transplantation?
8. What is the major complication of bone marrow transplantation?
9. What is the immune surveillance hypothesis in cancer?
10. What are the differences between tumor-specific and tumor-associated antigens?
11. What are the key innate and adaptive immune responses to tumors?
12. How do tumors evade immune system detection?
13. What role do regulatory T cells (Tregs) play in tumor evasion?
14. What are the major strategies for active immunotherapy against tumors?