

Please explain the following terms and describe the functions of them. (5 points each)

名詞解釋：請解釋以下各名詞並說明其功能。 每題 5 分，共 60 分

1. Receptor tyrosine kinase
2. Nucleosome
3. Plasmodesmata
4. Phagocytosis
5. MHC class II
6. CRISPR
7. Tumor suppressor gene
8. Polyadenylation signal
9. Western blotting
10. Paracrine
11. Dynein
12. Membrane potential

Essay questions (10 points each)

問答題，共 4 題，每題 10 分

13. What are the "second messengers" in the eukaryotic signaling pathways? Give **two** examples of second messengers and explain their functions.
14. Many types of RNA modifications are found in eukaryotic cells. Please give **two** examples of RNA modifications and describe the important functions of these RNA modifications.
15. Please describe at least **four** pieces of evidence that currently support the endosymbiotic theory of mitochondria in eukaryotic cells.
16. Student CLS is pursuing his Master's degree in the Department of Life Science. His project is to study the function of protein X. First, he plans to identify the protein interactors of X. If you were him, how would you design the experiments to achieve this specific goal? Please describe your experimental design step by step, including the validation methods and expected results to confirm the identified interactors.

試題隨卷繳回