

名詞解釋：請陳述基本定義，並說明其功能。共 11 題，每題 5 分。

1. Nuclear pore complex
2. Phosphatidylinositol 4,5-bisphosphate (PIP₂)
3. Mitotic spindle
4. Treadmilling of actin microfilament
5. Phagosome and phagolysosome
6. Turgor pressure
7. Gap junction
8. PI 3-kinase/Akt pathway
9. Programmed cell death
10. Green fluorescence protein (GFP)
11. Confocal microscope

簡答題：共 3 題，每題 15 分

12. Describe the differences between ion channels and transporters. Give 1 ion channel and 1 transporter as examples; illustrate their physiological functions.

請說明離子通道與運輸蛋白的差異；舉 1 個離子通道及 1 個運輸蛋白為例，分別說明這 2 個蛋白的生理功能。

13. Please explain 2 methods that utilize different principles to quantitate cell death.

請解釋 2 種應用不同原理定量細胞死亡程度的方法。

14. What are pluripotent stem cells (PSC) and inducible pluripotent stem cells (iPSC)? Give 2 examples of how these cells benefit the health of humans.

何謂多功能幹細胞 (PSC) 及誘導性多功能幹細胞 (iPSC)? 請舉 2 個範例說明這些細胞如何可以增益人類健康?

試題隨卷繳回