

國立嘉義大學九十七學年度  
生物醫藥科學研究所碩士班（乙組）招生考試試題

科目：細胞生物學

一、申論題：（每題 20 分，共 80 分）

1. Explain the principle and applications of chromatin immunoprecipitation (ChIP) technique in cell biology study.
2. What is an siRNA and an miRNA? How is each of them formed in the cells? What are their proposed functions?
3. Please describe the steps in the signaling pathway by which nitric oxide mediates vessel dilation?
4. Describe excitatory postsynaptic potentials and inhibitory postsynaptic potentials. Outline how each is generated?

二、簡答題：（每題 5 分，共 20 分）

1. What is autophagy?
2. What are the major functions of anaphase promoting complex (APC) in cell cycle.
3. What are some of the major activities of peroxisomes? What is the role of catalase in these activities?
4. How are particular proteins targeted to particular subcellular compartments?