

題號： 343
 科目：免疫學(B)
 節次： 1

國立臺灣大學 104 學年度碩士班招生考試試題

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1. 請設計適當的免疫學試驗來篩檢禽類感染” 流感病毒” (10%)。
2. 請敘述四種型態的過敏反應(Hypersensitivity)的機制 (10%)。
3. 請設計一種對抗流感病毒的疫苗 (15%)。
4. 試比較 B-cell epitope 與 T-cell epitope (10%)。
5. Please describe at least two mechanisms of the generation of antibody diversity. (10%)
6. Please compare the antigen presentation pathways of MHC class I and MHC class II. (10%)
7. Please indicate the primary and secondary lymphoid organs in chickens. (5%)
8. Please describe the ideal vaccine defined by World Health Organization (WHO). (10%)
9. Please compare the immunological synapse of Th1 and CD8+ cytotoxic T cells. (10%)
10. 配合題 (10%) (每格 2 分。請選出各細胞激素之功能，填寫阿拉伯數字即可)

Ans.	Cytokine	Functions
(A)	IFN- α	1. Th2 differentiation & activation
(B)	TGF- β	2. Th1 activation & B cell proliferation
(C)	IL-23	3. class switching to IgA
(D)	IL-2	4. neutrophil chemotactic factor
(E)	IL-10	5. Th1 inhibition
/	/	6. induction of fever
		7. enhance phagocytosis and IL-1, IL-6, IL-8 production of macrophage
		8. promote Th17 survival and activation
		9. suppress Th17 development
		10. MHC I up-regulation

試題隨卷繳回