

高雄醫學大學 114 學年度學士後醫學系招生考試試題參考答案疑義釋疑公告

科目	題號	釋疑答覆	釋疑結果
普通生物學	1	Vascular system 主要與植物的大小有關，然胚胎的保護機制才是重中之重	答案維持 (B)
	11	In animal, hermaphroditism 該單字的創設就是強調”同時”可以存在，跟可 reverse 性別是不同	答案維持 (C)
	15	選項 (A) epigenetic changes 是對的，因為 DNA 低甲基化或組蛋白修飾等變化可以增加基因的表達。(資料根據:Campbell, Biology, 12ed, P439) 選項 (E) transduction(轉導)並非原癌基因過度活化的主要機制，病毒轉導(病毒引入外來 DNA)可以引入致癌基因，但大多數情況下它並<u>不是</u>過度活化現有原癌基因的<u>直接</u>機制。它與<u>引入致癌基因</u>更相關，而不是修改原癌基因。 →排除其它直接的選項後，只有(E)選項較不合適，因此答案維持(E)選項。	答案維持 (E)
	32	吸水及礦物元素，共生菌菌圈是讓根的功能更強大	答案維持 (E)
	34	只有壓力勢才是後面讓水分運移的”動力”	答案維持 (A)
	35	不親合蛋白質的降解才是避免自花授粉最重要的關鍵	答案維持 (B)
	37	ATP 是 Thylakoid 外形成，不是內部。該題主要是探討 stroma 的暗反應	答案維持 (C)
	39	該題意相當清楚指出基因型(先天遺傳)與外表型(可由後天環境影響)	答案維持 (B)
	41	The chapter describes the Ediacaran biota as soft-bodied organ over 1 m long than lived from 635 to 541 million years ago. Representing an enormous change from the previous microbial world and setting the stage for the Cambrian explosion.	答案維持 (C)

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	42	在胚胎發育過程中，body axes 的決定，是最重要的初始定型	答案維持 (E)																														
	44	An extinction vortex is characterized by a small population size that leads to “inbreeding”and loss of genetic variation, which further reduces the population’s to adapt and survive.	答案維持 (D)																														
	45	在 Decent with modification: A Darwinian view of life 中明確提到 migration of resistant individuals leads to the “spread” of resistance gene.	答案維持 (C)																														
	57	1. 選項 (D) Acetaminophen bind cox to relieve pain. (資料根據:Brooker, Biology, 3rd ed, p99)。 2. Acetaminophen 雖可能並非 bind 在 active, 但有 binding。 <table><caption>Table 2. Interaction of COX-2 with acetaminophen</caption><tr><th>Name</th><th>Distance</th><th>Category</th><th>Types</th><th>From Chemistry</th><th>To Chemistry</th></tr><tr><td>: LIG1: H – A:SER530:OG</td><td>2.72612</td><td>Hydrogen Bond</td><td>Conventional hydrogen bond</td><td>H-Donor</td><td>H-acceptor</td></tr><tr><td>A: GLY526: C, O:ALA527: N -: LIG1</td><td>4.47155</td><td>Hydrophobic</td><td>Amide-Pi Stacked</td><td>Amide</td><td>Pi-Acceptor</td></tr><tr><td>: LIG1 – A:VAL349</td><td>5.16312</td><td>Hydrophobic</td><td>Pi-Alkyl</td><td>Pi-Orbitals</td><td>Alkyl</td></tr><tr><td>: LIG1 – A:LEU352</td><td>5.35157</td><td>Hydrophobic</td><td>Pi-Alkyl</td><td>Pi-Orbitals</td><td>Alkyl</td></tr></table> (資料根據 :Interaction of acetaminophen and caffeine towards cyclooxygenase-2 (COX-2) in inhibition of prostaglandin (PGH2) synthesis. G C Krishnamurti and F Fatchiyah 2019 J. Phys.: Conf. Ser. 1146 012004) 3. Opiates decrease the sensitivity of chemoreceptors to CO2 but not O2. (資料根據: Brooker, Biology, 3rd ed, p1003)。 →因此答案維持 (E)選項。	Name	Distance	Category	Types	From Chemistry	To Chemistry	: LIG1: H – A:SER530:OG	2.72612	Hydrogen Bond	Conventional hydrogen bond	H-Donor	H-acceptor	A: GLY526: C, O:ALA527: N -: LIG1	4.47155	Hydrophobic	Amide-Pi Stacked	Amide	Pi-Acceptor	: LIG1 – A:VAL349	5.16312	Hydrophobic	Pi-Alkyl	Pi-Orbitals	Alkyl	: LIG1 – A:LEU352	5.35157	Hydrophobic	Pi-Alkyl	Pi-Orbitals	Alkyl	答案維持 (E)
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	59	1. Vibrio cholerae 也會在大腸 (資料根據: Brooker, Biology, 3rd ed, p 940)。 2. The presence of Vibrio cholerae in the blood, bile (in 60 and 70% cases, respectively), small and large intestine (in 100% cases). (資料來源: Ultrastructural evidence of invasive activity of Vibrio cholerae. Kharlanova NG, Lomov YM, Bardykh ID, Monakhova EV, Bardakhch'yan EA. Bull Exp Biol Med. 2004 Apr;137(4):403-6. doi: 10.1023/b:bebm.0000035143.55617.04. PMID: 15452615) →因此答案維持 (D)選項。	答案維持 (D)																														