**Template MC Question**

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| **Title** | **Avidity-mediated Mechanisms** |
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| **Introduction/**  **Description** | **Avidity is the combinatory effect of multiple affinities between a substrate and its ligands.** |
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| **Question** | **Which of the following situations cannot be explained by avidity mediated mechanisms?** |

Choice sheet - As the material will serve as a study aid, please put the correct answer randomly as one of the 4 choices.

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| **Choice 1** | **Reduction of viral infection after progesterone treatment** |
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| **Choice 2** | **The change in predominant phosphatidylinositides from PI(3)P to PI(3,5)P2** |
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| **Choice 3** | **The process of fasciculation during rostral development of olfactory neurons** |
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| **Choice 4** | **Antibody retention at the periphery of the tumor** |

Feedback sheet – Please **label** the feedback to the choices as “CORRECT” or “INCORRECT”. Provide detailed feedback to explain why the choice was correct or incorrect.

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| **Feedback Choice 1** | **Incorrect: Progesterone depletes cholesterol from lipid rafts, disrupting the physical properties of the raft. This leads to the inhibition of well-formed clusters of receptors in the lipid raft, thus affecting avidity.** |
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| **Feedback Choice 2** | **Correct: The change in predominant phosphatidylinositides are mediated by kinases which is not avidity-mediated.** |
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| **Feedback Choice 3** | **Incorrect: Precursor cells of the olfactory bulb migrate tangentially from the subventricular zone via the rostral migration stream to the olfactory bulb. The contact attractants are subject to an avidity-based mechanism.** |
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| **Feedback Choice 4** | **Incorrect: “Binding site barrier;” the antibodies are trapped in the periphery because density of the antigen leads to the retention of the antibody at the site** |