Template MC Question

Title	**Avidity-mediated Mechanisms**
Introduction/ Description	**Avidity is the combinatory effect of multiple affinities between a substrate and its ligands.**
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.

Choice 1	**Reduction of viral infection after progesterone treatment**
Choice 2	**The change in predominant phosphatidylinositides from PI(3)P to PI(3,5)P2**
Choice 3	**The process of fasciculation during rostral development of olfactory neurons**
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.

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.**
Feedback Choice 2	**Correct: The change in predominant phosphatidylinositides are mediated by kinases which is not avidity-mediated.**
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.**
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**