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Searching for the Keys to Activate Adhesion G Protein-Coupled Receptors

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Searching for the Keys to Activate Adhesion G Protein-Coupled Receptors

Cell receptors are specialized proteins that receive and send signals to regulate cell activity. Receptors act in a similar manner as locks since they can only be “open” (or activated) with the right “key” (or molecule). Adhesion G Protein-Coupled Receptors (aGPCRs) are a class of cell receptors that are involved in regulating many diseases such as cancer and neurological disorders, but there are currently no drugs that directly target these receptors because their activation mechanisms are still unclear. The aim of my study is to explore how aGPCRs are activated by looking at which proteins interact with aGPCRs and examining which parts of these receptors are involved in activation. Through *unlocking* the mystery of aGPCR activation and signalling, my research can guide the development of drug targets for aGPCRs in treating disease.