

G-Protein -Coupled Path way (peptide hormone Pathway)

The peptide hormones such as glucagon vasopressin etc bind the extra cellular domains of the membrane. bound G Protein coupled receptor. This induces Conformational change in the receptor that allows the cytosolic domains of the receptor to bind a G-Protein. The G- Protein, consisting of 3 sub units, can bind GTP to get itself activated. The activated G-Protein then undergoes dissociation, so that the subunit is separated, which carries a adenylyl Cyclase. The activated effector undergoes a conformational change That lead to the production of a 2nd messenger. It activate one or more cellular response.

- (i) Induction or repression of genetically controlled Enzyme Synthesis.
- (ii) Change in the permeability of the plasmamembrane
- (iii) cAMP as second messenger
- (iv) Prostaglandins acting as modulators of hormonal actions