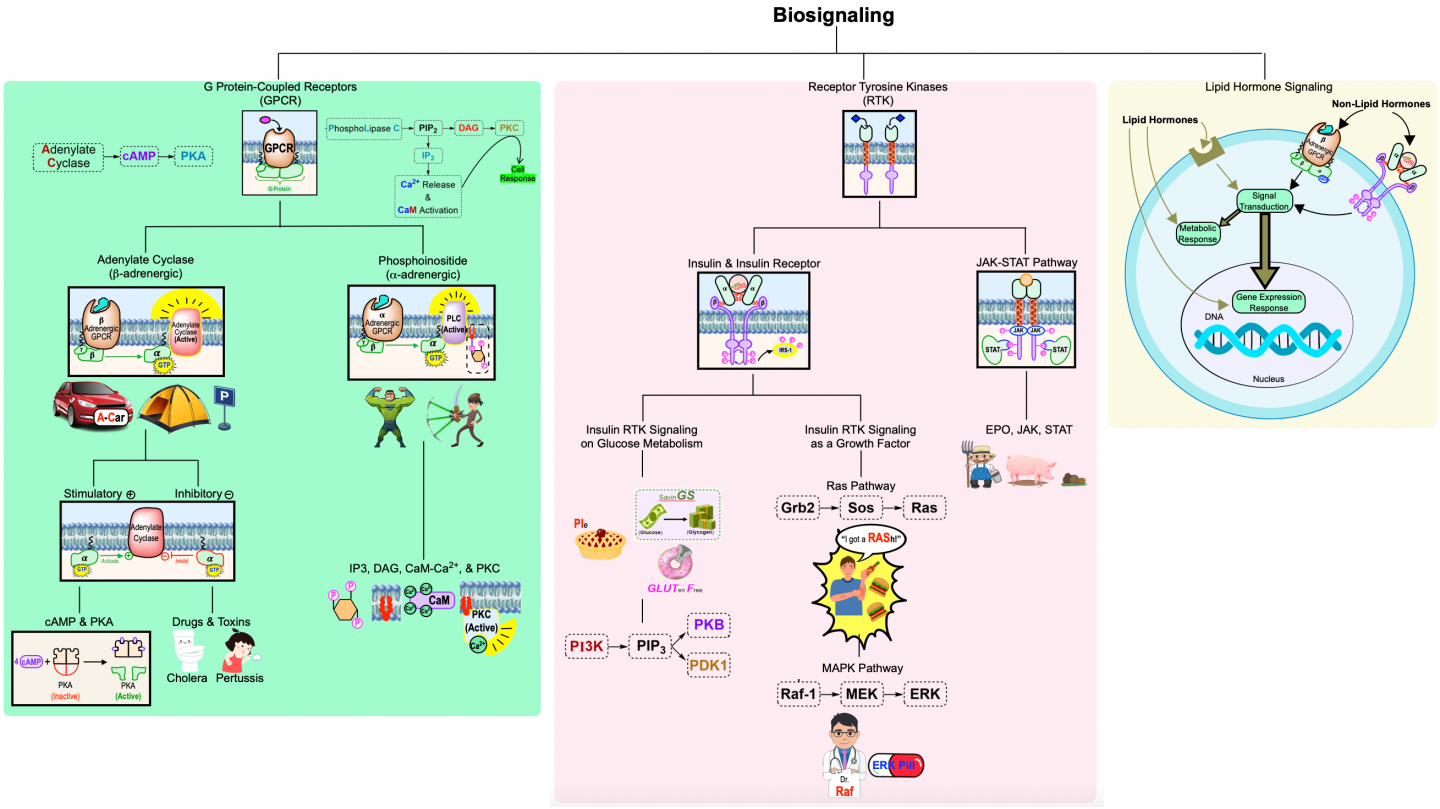
CONCEPT: SUMMARY OF BIOSIGNALING



PRACTICE: Which of the following is NOT associated with GPCR signaling?

a) Ras monomeric GTPase gets activated.

b) Replacement of GDP for GTP causes dissociation of the heterotrimeric G-protein α-subunit from $\beta\gamma$ subunits.

c) Adenylate cyclase is activated, causing an increase in the concentration of cyclic AMP (cAMP).

d) Secondary messengers are released leading to signal amplification.

e) GPCRs can become phosphorylated and desensitized via binding of an inhibitory protein.

f) All are associated with GPCR signaling.

PRACTICE: Which of the following statements is FALSE?

a) Activation of the α-adrenergic receptor leads to increased levels of Calcium in the cytoplasm.

b) Cholera toxin causes the inhibition of G_s GTPase activity, leading to an overstimulated signal.

c) Upon receptor autophosphorylation, JAK2 then binds to the receptor via its SH2 homology domains.

d) 4 cAMP molecules are required to activate protein kinase A.

e) Phosphorylated and dimerized STAT5 acts as a transcription factor in the nucleus.