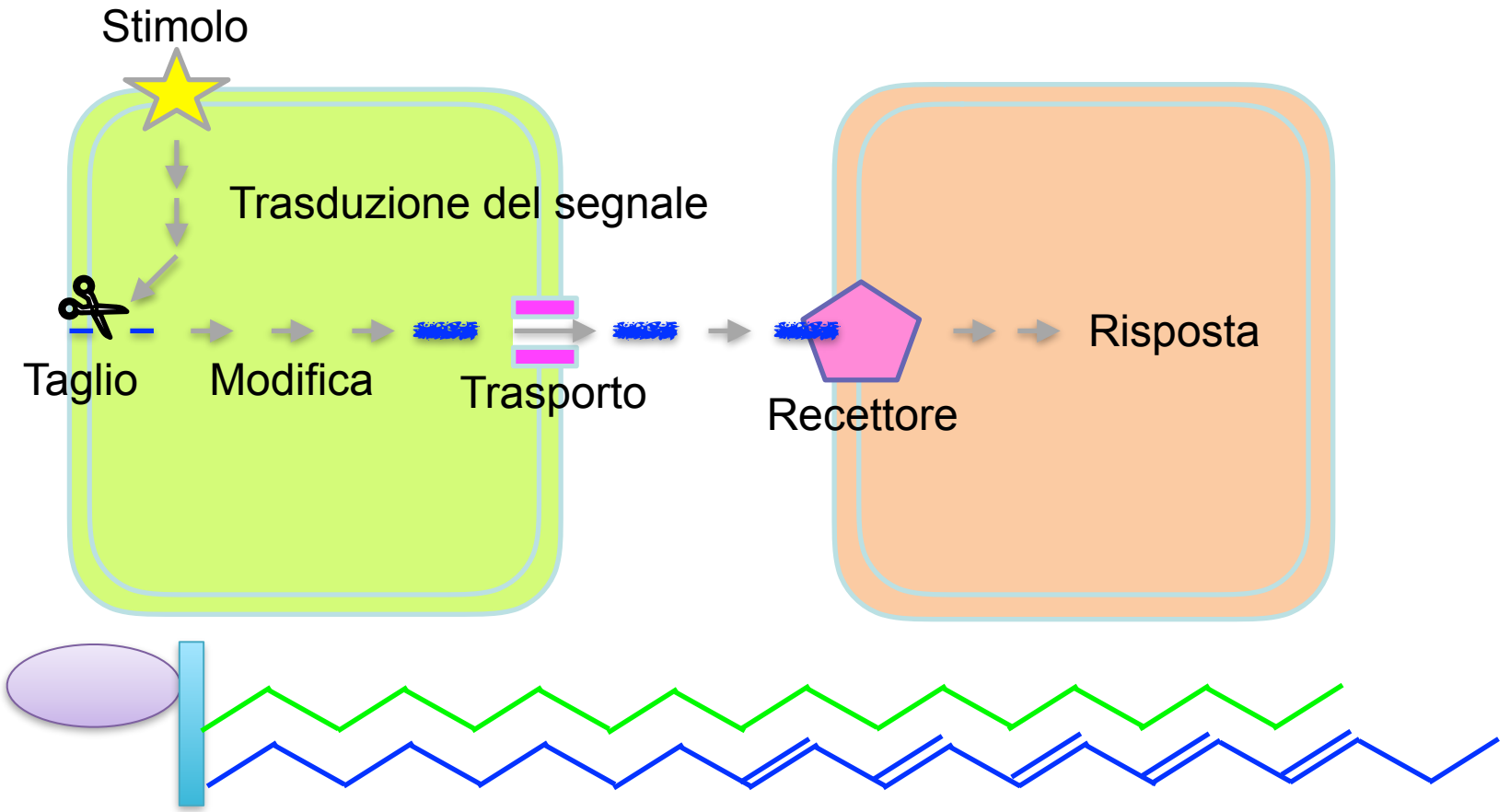
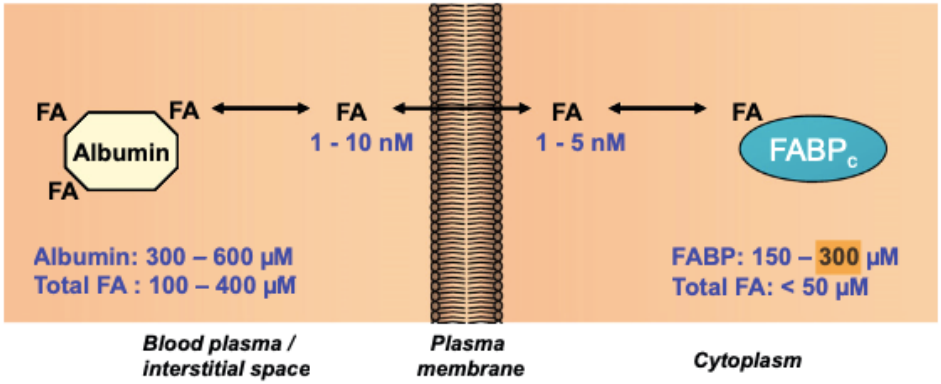
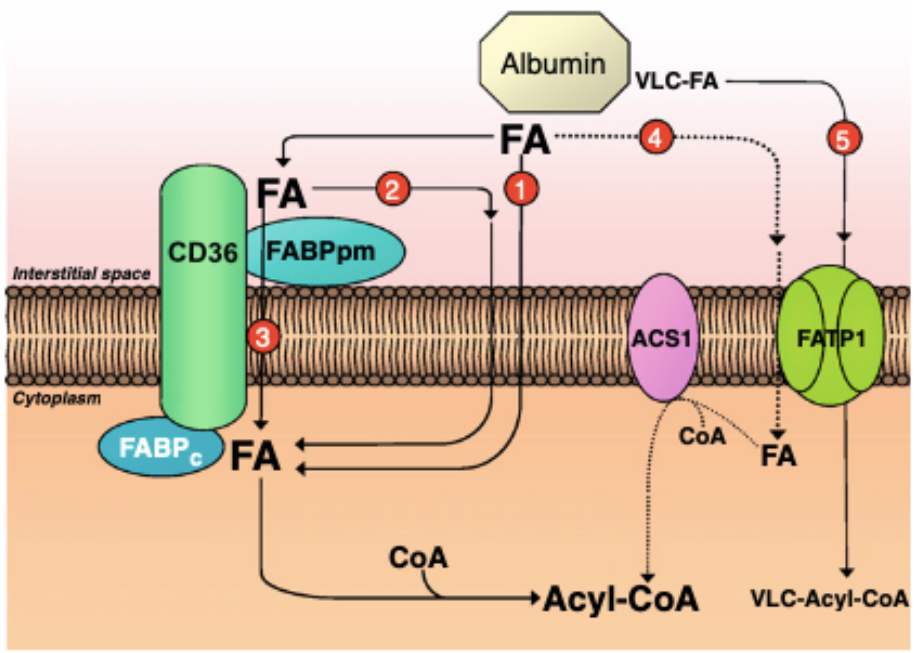
Prostanoids, that is, prostaglandins (PGs) PGE(2), PGF(2α), PGI(2), PGD(2) and thromboxane A(2)(TXA(2)), are the oldest members of the eicosanoid family. The PGs are a family of lipid mediators formed in response to various stimuli. They are transported into the extracellular microenvironment by specific multidrug resistance-associated proteins (MRPs) after synthesis. Once exported to the microenvironment, prostanoids bind to G-protein coupled receptors that contain seven transmembrane spanning domains. There are eight types of the prostanoid receptors conserved in mammals from mouse to human. They are the PGD receptor (DP), four subtypes of the PGE receptor (EP(1), EP(2), EP(3) and EP(4)), the PGF receptor (FP), PGI receptor (IP) and TXA receptor (TP). Recently, several studies have revealed the roles of PG receptor signaling in various pathological conditions, and suggest that selective manipulation of the prostanoid receptors may be beneficial in treatment of the pathological conditions. Here we review these recent findings of roles of prostanoid receptor signaling and their therapeutic implications.



Acidi grassi: internalizzazione e solubilità intracitoplasmatica

Concetto: se liberi aggregano!





1: Diffusion

2: Diffusion facilitated by the binding of CD36/FABPpm => higher concentration

3: CD36-mediated transport

4 and 5: Fatty acid (FA and Very Long chain FA) transport protein 1-mediated transport