Abstract:

In hippocampus, a transient burst of input activity leads to a long-term potentiation (LTP) of subsequent synaptic transmission. This phenomenon has been considered as a cellular counterpart and attracted interest of many neuroscientists. In an attempt to elucidate the molecular mechanism, I have been using a combined approach of molecular biology, imaging and electrophysiology, which allows us to specifically “look”, “mimic” and “block” the process underlying LTP.

In this talk, I will summarize my results how synapse reaches the potentiated level and what is the question now.