



## How In-Silico Experiments Can Help Drug-Discovery: The Glutamatergic Synapse as an Example of Application

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Résumé en anglais	<p>This work aims to show on a very concrete example that simulations (In-Silico experiments) can help drug discovery process and therapeutic strategies search. Such an approach must be based, to reflect the complexity of physiological systems, on a modeling methodology taking into account several organization levels and time scales, and focused on physiological functions and their interactions. First, we present shortly a modeling framework built on top of a physiological systems theory. Then, we apply this approach to model the memory induction at synaptic level where the described system includes some cellular and molecular mechanisms. Finally we propose an application of 'in silico' experiments in order to exhibit some synergistic effects of biochemical mechanisms and to suggest new combinatorial therapeutics.</p>
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