

Dynamic Modeling of Behavior of Central Olfactory System: Simulation Analysis and Information

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We discuss the first few stages of olfactory processing in the framework of a layered structure. Our model consists of inhibitory and excitatory formal neurons with dendrodendritic interactions. We show that in a noisy background the network functions as an associative memory, in spite of the fact that the network operates in an oscillatory mode. When receiving a complex input that is composed of several odors, the network segments it into its components.