The diagram illustrates the process of NMDA receptor activation and the flow of calcium ions through the receptor channel. Before stimulation, Neuron A has glutamate molecules on its surface, and the NMDA receptor is blocked by Mg\(^{2+}\). During stimulation, glutamate molecules lock into the receptor, causing a change of polarity and Mg\(^{2+}\) blockade to be relieved. As a result, Ca\(^{2+}\) flows through the NMDA channel into Neuron B.