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Most of us know that the brain is full of neurons; however, there is another kind cell that connects with and chemically communicates with neurons, the glial cell. Until recently, scientists believed that glial cells played a strictly supportive role, for example by maintaining homeostasis. Glial cells are now known to affect neuron firing patterns; however, their role in a network with neurons remains unknown. One hypothesis is that glial cells facilitate neuron communication in nearby neurons, while suppressing communication at more distant neurons via a reaction-diffusion process, where the reaction includes feed-forward inhibition. We consider this proposed mechanism using simple PDE and ODE models. By analyzing the ODE model, we determine parameter ranges over which this hypothesis may hold. The results of this analysis are then compared with simulations of the PDE model, and the biological implications are discussed. We will also mention other modeling questions that have arisen in developing a large scale simulation of neural-glia networks. (Received September 19, 2007)