Simulating Growth Dynamics of Neurons on Substrates SAWYER
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present computer simulations of neuron growth in which growth cones both create
and are guided by growth promoter molecules which move diffusively. Our model
predicts several features of the trajectories that are experimentally measurable, in-
cluding arclength and curvature as functions of time. By comparing these predictions
to time-lapse microscopy experiments of axon growth in a controlled environment,
we gain new insights into neuronal growth and connectivity.

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