Motor based microtubule sliding forces in axon growth cones

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Introduction

Living cells house a complex internal symphony of functions mediated by proteins. The structure of the cell is provided by the cytoskeleton, a dynamic weave of filaments guided by force generating proteins. The neuron is a class of living cell adapted to function as a signal transceiver. Extending from the cell body are two classes of branches: (1) dendrites are the most numerous branches carrying bidirectional signals; (2) axons carry only outbound signals and there exists only one axon on each neuron.

Model

References