

Resource Summary Report

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Dendritica: Software Tools for Studying Dendritic Signaling

RRID:SCR_001865

Type: Tool

Proper Citation

Dendritica: Software Tools for Studying Dendritic Signaling (RRID:SCR_001865)

Resource Information

URL: <http://www.dendrites.org/software>

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Description: Dendritica is a program package for relating dendritic geometry and signal propagation. The programs are based on those used for the simulations described in the following paper: Vetter, P., Roth, A. & Husser, M. (2001). Action potential propagation in dendrites depends on dendritic morphology. *Journal of Neurophysiology*, 85: 926-937. Dendritica can functionally be divided into three main parts: - Interactive morphological analysis and electrophysiological simulation of single cells - Automated batch simulations across a set of morphologies using the same simulation parameters - Automated analysis of batch simulation runs Dendritica requires NEURON 4.1.1 with some modifications described in Appendix 1. It was tested for NEURON 4.1.1 on Linux and SGI IRIX. Some modifications to the Dendritica code may be necessary in order to run it on older or newer versions of NEURON. Sponsors: This work was supported by the Wellcome Trust, the European Community, the Max-Planck-Gesellschaft, the Wellcome Trust 4-year PhD Programme in Neuroscience.

Synonyms: Dendritica

Resource Type: software application, simulation software, software resource

Keywords: electrophysiological simulation, dendritic geometry, interactive, morphological, morphology, neuron, single cell, signal propagation

Availability: Free

Resource Name: Dendritica: Software Tools for Studying Dendritic Signaling

Resource ID: SCR_001865

Old URLs: <http://www.dendrite.org/software.html>

Record Creation Time: 20220129T080210+0000

Record Last Update: 20260812T044028+0000

Ratings and Alerts

No rating or validation information has been found for Dendritica: Software Tools for Studying Dendritic Signaling.

No alerts have been found for Dendritica: Software Tools for Studying Dendritic Signaling.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Kim H, et al. (2015) Foundational dendritic processing that is independent of the cell type-specific structure in model primary neurons. Neuroscience letters, 609, 203.