Resource Summary Report

Generated by Kravitz on Sep 17, 2026

Simulator for Neural Networks and Action Potentials

RRID:SCR_006031
Type: Tool

Proper Citation

Simulator for Neural Networks and Action Potentials (RRID:SCR_006031)

Resource Information

URL: http://snnap.uth.tmc.edu/

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Description: SNNAP (Simulator for Neural Networks and Action Potentials) is a tool for rapid development and simulation of realistic models of single neurons and neural networks. It includes mathematical descriptions of ion currents and intracellular second messengers and ions. In addition, you can simulate current flow in multicompartment models of neurons by using the equations describing electric coupling. SNNAP also includes mathematical descriptions of intracellular second messengers and ions, and simulate the modulation of membrane currents and synaptic transmission, , either enhancement or inhibition. Other advantages of SNNAP include: * Written in JAVA and can run on virtually any type of computer system. * Graphical user interface * Ability to simulate common experimental manipulations. * Modular organizations of input files. Agencies: NCRR, FOSR grant F49620-93-1-0272, as well as NIH grants R01-RR11626 and P01-NS38310

Synonyms: SNNAP

Resource Type: data or information resource, narrative resource, simulation software, software application, software resource, training material

Resource Name: Simulator for Neural Networks and Action Potentials

Resource ID: SCR_006031

Alternate IDs: nif-0000-00086

Record Creation Time: 20220129T080233+0000

Record Last Update: 20260912T195634+0000

Ratings and Alerts

No rating or validation information has been found for Simulator for Neural Networks and Action Potentials.

No alerts have been found for Simulator for Neural Networks and Action Potentials.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 5 mentions in open access literature.

Listed below are recent publications. The full list is available at Kravitz .

Li Y, et al. (2024) A computational neural model that incorporates both intrinsic dynamics and sensory feedback in the Aplysia feeding network. Biological cybernetics, 118(3-4), 187.

Costa RM, et al. (2020) Computational model of the distributed representation of operant reward memory: combinatoric engagement of intrinsic and synaptic plasticity mechanisms. Learning & memory (Cold Spring Harbor, N.Y.), 27(6), 236.

Chard K, et al. (2016) Globus Nexus: A Platform-as-a-Service Provider of Research Identity, Profile, and Group Management. Future generations computer systems : FGCS, 56, 571.

Chiel HJ, et al. (2010) From biology to mathematical models and back: teaching modeling to biology students, and biology to math and engineering students. CBE life sciences education, 9(3), 248.

Steffen MA, et al. (2003) Spontaneous activity of dopaminergic retinal neurons. Biophysical journal, 85(4), 2158.