

Resource Summary Report

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ChannelDB

RRID:SCR_007089

Type: Tool

Proper Citation

ChannelDB (RRID:SCR_007089)

Resource Information

URL: <http://www.genesis-sim.org/hbp/channeldb/>

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Description: Implementation of a database of ionic conductance models stored in simulator-independent NeuroML format, with a parser to convert the representation into GENESIS simulation scripts. It was developed as a means of sharing channel models between different neural simulators. It is also one of the first core components of the Modelers Workspace (MWS). At present, ChannelDB is implemented as a stand-alone module, with its own graphical user interface to the database, which is implemented with MySQL. After further development, the ChannelDB GUI will be merged into the MWS. The NeuroML development kit parser (from <http://www.neuroml.org/ndk.html>) is used to create Java objects from the NeuroML format XML files stored in the database. These are then accessed with Java software to create simulation scripts for the particular simulator. The first implementation of a parser to create simulation scripts is for GENESIS. The files in this package will let you * Search a small remote database of ion channel models to retrieve and view their descriptions and NeuroML representations, and generate simulator scripts from the model representation. * Set up your own database of ion channel models * Extend ChannelDB with the addition of parsers for other simulators, and with Java classes to cover other types of channels.

Abbreviations: ChannelDB

Synonyms: Modeler's Workspace Channel Database, Modelers Workspace Channel Database, Channel Database

Resource Type: data or information resource, database, software resource, source code

Keywords: ion channel, conductance model, neural model, xml, simulation, data sharing, ion channel model, java, simulator script, model

Resource Name: ChannelDB

Resource ID: SCR_007089

Alternate IDs: nif-0000-00104

Old URLs: <http://www.modelersworkspace.org/channeldb/ChannelDB.html>

Record Creation Time: 20220129T080239+0000

Record Last Update: 20260905T133042+0000

Ratings and Alerts

No rating or validation information has been found for ChannelDB.

No alerts have been found for ChannelDB.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.