Blue Brain Portal

EPFL's Blue Brain Project recognizes that knowledge sharing is an important driving force to consolidate and promote simulation neuroscience, which in turn, is fundamental to understanding the brain as a complex multiscale system. Therefore, the Blue Brain Portal brings together in one place open-source software, tools, models, and data, both from us and our collaborators. The aim is for this knowledge to be utilized by both the neuroscience and the wider scientific community to develop the field of simulation neuroscience.

Models
- Blue Brain Mouse whole nervous system connectivity model
- Ion Channels
- Neurons
- Microcircuits
- Brain Regions
- Blue Brain Cell Atlas
- Brain Molecular Atlas
- Neuron-Glia-Vasculature
- Topological Neuron Synthetics

Software
- Data Management
- Text Mining and Knowledge Engineering
- Building
- In silico Experiment
- Analysis
- Visualization
- Exploration

Online Tools
- Blue Brain Nexus
- Data Studies
- ChannelAtlas
- Blue Brain Cell Atlas
- BBBlits Cell Level Simulation Platform

A knowledge space for simulation neuroscience
The Blue Brain Portal is a knowledge space for neuroscientists. EPFL’s Blue Brain Project recognizes that knowledge sharing is an important driving force to consolidate and promote simulation neuroscience, which in turn, is fundamental to understanding the brain as a complex multi-scale system. Therefore, the Blue Brain Portal brings together in one place open-sourced software, tools, models and data, both from us and our collaborators.

Blue Brain has published over 220 papers and pre-prints in international journals.

Blue Brain maintains the Portal as an easy access knowledge space to pioneer simulation neuroscience and encourage participation in the field. It is part of EPFL’s open science initiative, which seeks to maximize the reach and impact of the research done at the school.

The Portal is a public website and everything is available to simulation neuroscientists, scientists in other fields and non-scientists.

Join Blue Brain’s journey to simulate the brain.
The aim of the EPFL Blue Brain Project, a Swiss brain research initiative founded and directed by Professor Henry Markram, is to establish simulation neuroscience as a complementary approach alongside experimental, theoretical and clinical neuroscience to understanding the brain, by building the world's first biologically detailed digital reconstructions and simulations of the mouse brain.

The Blue Brain Portal is publicly available at: portal.bluebrain.epfl.ch

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