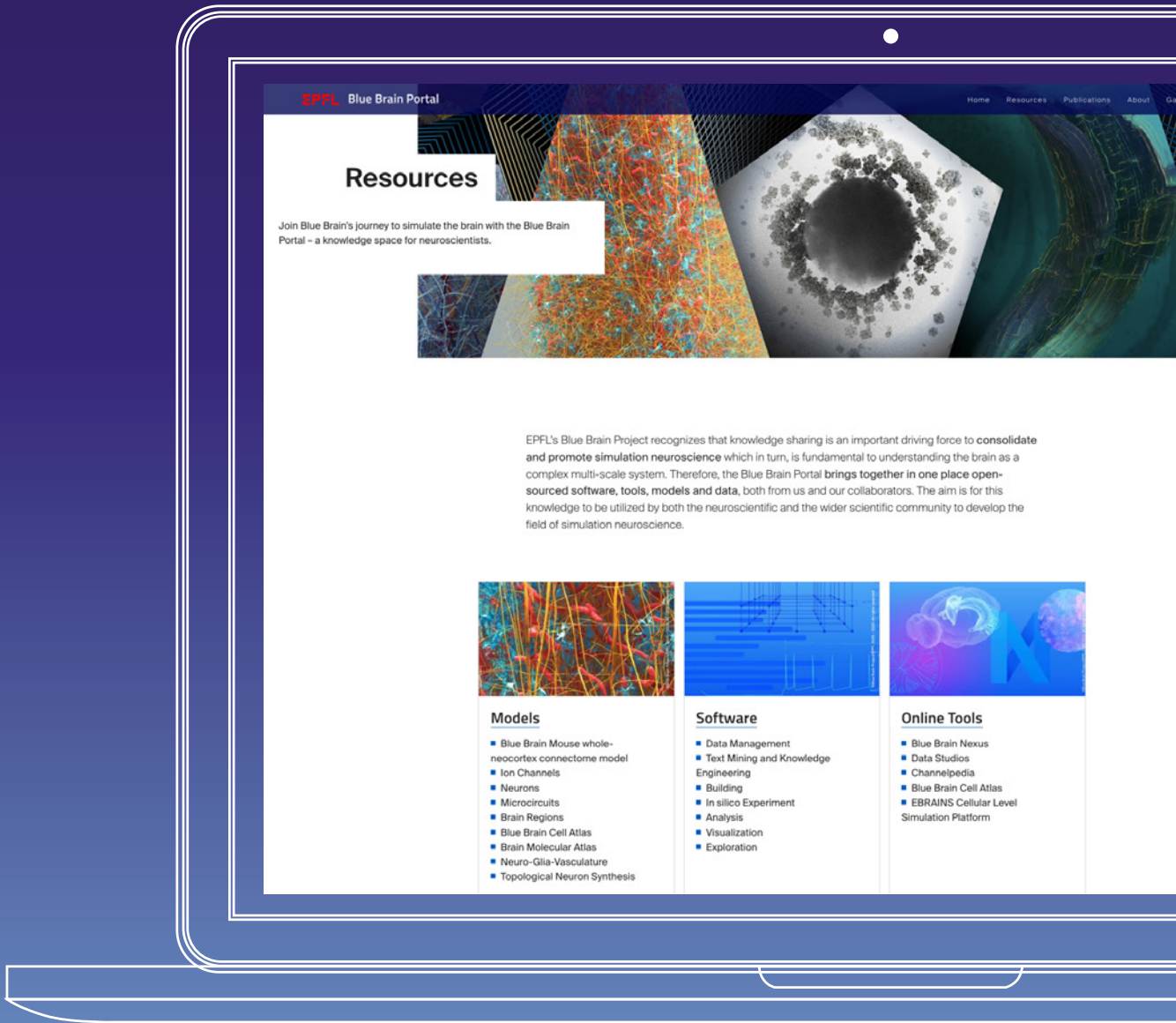


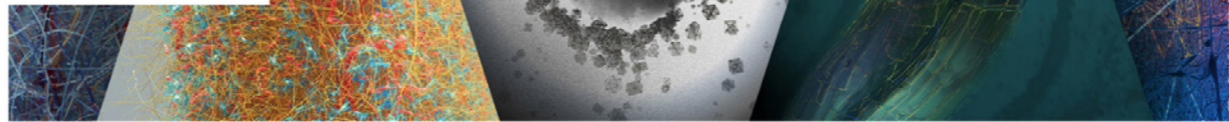
Blue Brain Portal



A knowledge space for simulation neuroscience

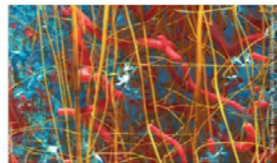
Resources

Join Blue Brain's journey to simulate the brain with the Blue Brain Portal – a knowledge space for neuroscientists.



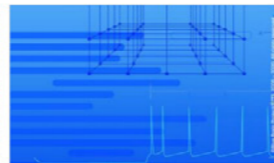
Resources

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. The aim is for this knowledge to be utilized by both the neuroscientific and the wider scientific community to develop the field of simulation neuroscience.



Models

- Blue Brain Mouse whole-neocortex connectome model
- Ion Channels
- Neurons
- Microcircuits
- Brain Regions
- Blue Brain Cell Atlas
- Brain Molecular Atlas
- Neuro-Glia-Vasculature
- Topological Neuron Synthesis



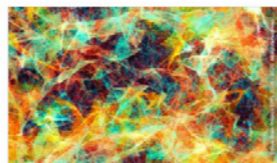
Software

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



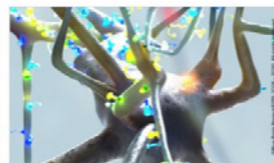
Online Tools

- Blue Brain Nexus
- Data Studios
- Channelpedia
- Blue Brain Cell Atlas
- EBRAINS Cellular Level Simulation Platform



Data

- Ion Channels
- Morphological Reconstructions
- Neuronal Electrical Recordings
- Molecular Properties



Online Learning

- Simulating a Hippocampus Microcircuit
- Neuroscience reconstructed: towards an integrative approach
- The Multi-scale brain
- Simulation Neuroscience – reconstruction of a single neuron

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.

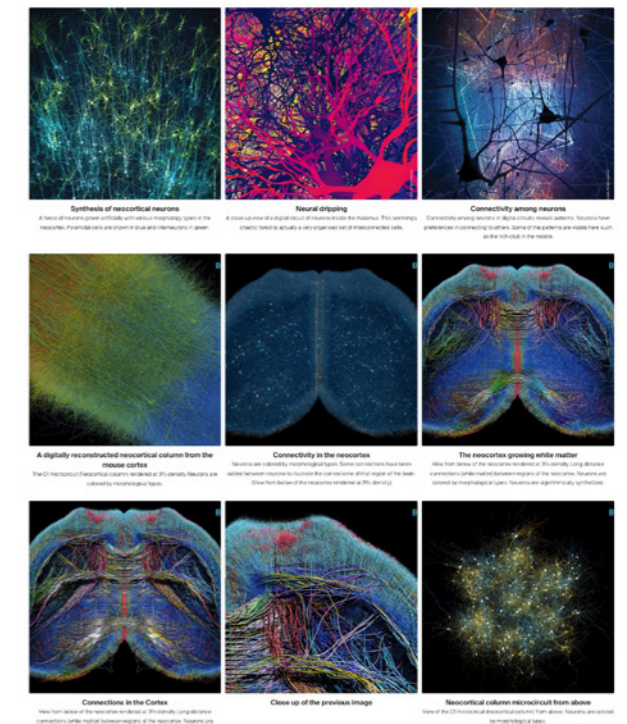


Blue Brain has published over 220 papers and pre-prints in international journals.

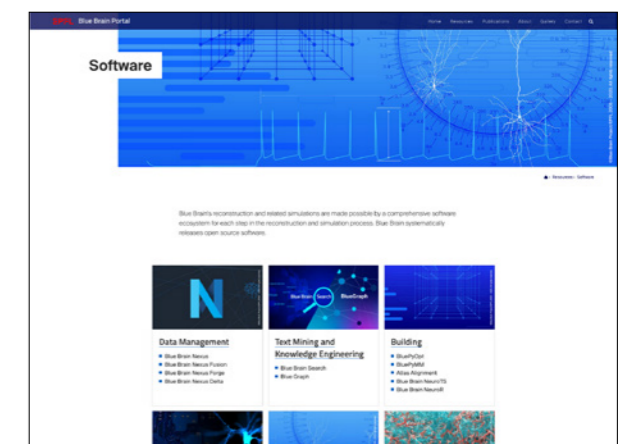
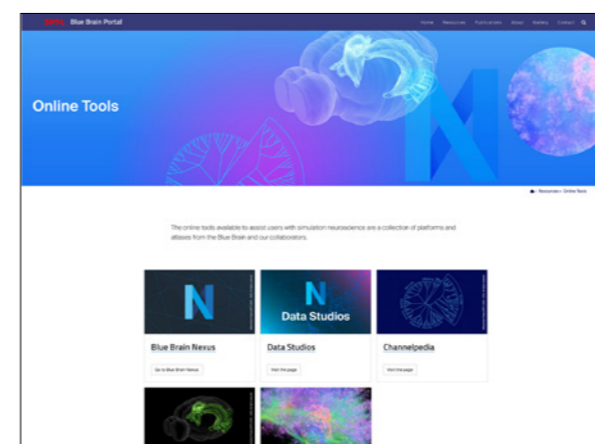
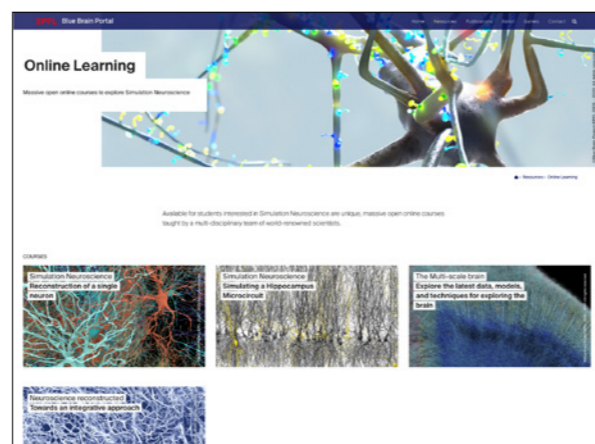
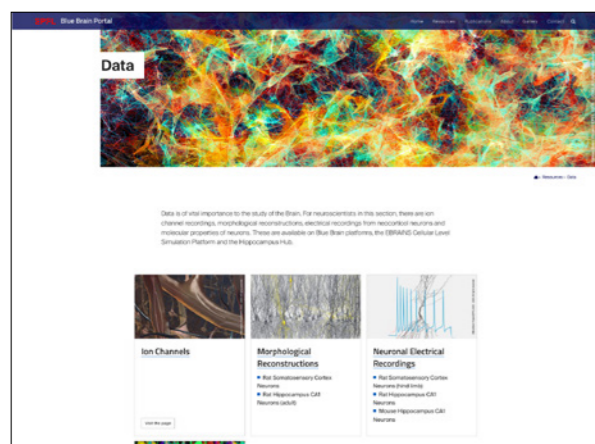
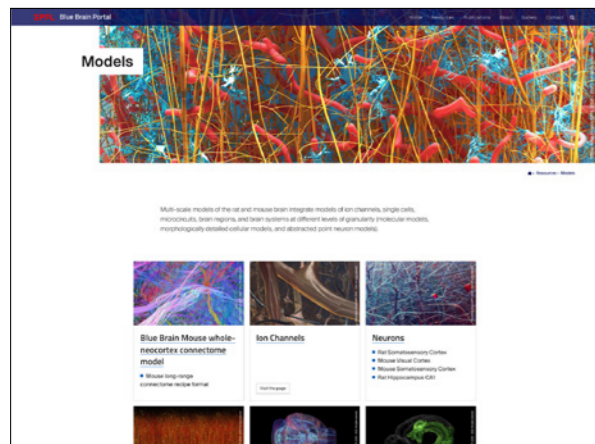
Blue Brain maintains the Portal as an easy access knowledge space to pioneer simulation neuroscience and encourage participation in the field. It is part of EPFL's open science initiative, which seeks to maximize the reach and impact of the research done at the school.

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 image gallery shares a number of Blue Brain's highly visual images, which are downloadable.



About EPFL's Blue Brain Project

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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