INCF Japan Node and Neuroinformatics Platforms

Standing at the intersection of neuroscience and information science, the field of neuroinformatics develops the tools to house, share and analyze neuroscientific data, and to create computational models of brain. As a node of the International Neuroinformatics Coordinating Facility (INCF), the Neuroinformatics Unit (NIU) was established to organize neuroinformatics research activities in Japan.

NIU supports researchers developing and maintaining neuroscience databases, provides a portal for these databases and neuroinformatics, and is designing the infrastructure for neuroinformatics. It is also developing database technologies, and facilitates cooperation and distribution of the information stored in those databases.

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INCF Japan Node
INCF as international collaboration for development of Neuroinformatics

NIU coordinates neuroinformatics activities within Japan through collaboration with universities and institutes all over Japan. Major collaboration is based on the creation of neuroinformatics platforms in individual research field/topics. Together with the Japan Node Committee and the Platform Subcommittees, we promote construction of web-databases and their infrastructure for international data-sharing.

J-Node Activities Update

AINI
A workshop to the interdisciplinary development of neuroscience through lectures and presentations information exchange among researchers.

J-Node Hackathon
An event to develop software for sharing brain neural databases and brain atlas collaborating with researchers and programmers spontaneously.

DOI assignment to J-Node Contents
NIU has been started DOI assignment to research contents in collaboration Japan Link Center.

Development of Infrastructure for Neuroinformatics Platform
Next Generation XooNips has been released and installed on J-Node Portal.

Software Center
Software Center is a portal site for promotion of neuroinformatics tools developed by J-Node platforms and NIU, providing the web applications for facilitating collaborative.

Japan’s Brain Initiative: Brain/MINDS
NIU joins Brain/MINDS for construction of integrative databases of common marmoset brains.

J-Node Neuroinformatics Platforms

Neuro-Imaging Platform (NIMG-PF)
Neuroimaging of primates

Visiome Platform (Visiome PF)
Data, tool and model on Vision

Dynamic Brain Platform (DB-PF)
Brain and society as complex systems in time domain

Cerebellar Platform (Cerebellar PF)
Digital archives for the cerebellar research

Brain Transcription Database (BrainTx PF, former CDT-DB)
Transcription data on development, function, and dysfunction

ViBrism Database
Comprehensive 3D gene expression maps of the mouse brain

Mouse Phenotype Database (MP-DB)
Behavioral tests of genetically modified mouse strains

Comparative Neuroscience Platform (CNS-PF, former IVB-PF)
Sensory-nervous systems and behavior in invertebrate and vertebrate animals

KANPHOS Platform
Phosphoproteomics in intracellular signal transduction

CBS Neuroinformatics (CBS-NI, former BSI-NI)
Data and tool by RIKEN BSI and CBS labs

Simulation Platform (Sim-PF)
On-line simulation of model and tool

Brain Science Dictionary (BSD)
General Brain Science

Open Neuro (OpenNeuro) is an open access database for every researcher’s research materials. Chaired by Taishin Nomura. (Registration started FY2018)

https://www.neuroinf.jp/