

NICARA™. Connectome Browser

Explore the World of Connectomes

The Connectome Browser from Biomax Informatics is the basis software module of NICARA™, which allows you to explore MRI-based structural and functional connectomes.

With the NICARA™ Connectome Browser you are able to display brain connectivity of individual subjects as either lattice graphs or anatomical volumes in a high resolved 3D viewer. Whole brain white matter fiber tracts are displayed together with gray matter volumes based on validated atlases in MNI152 standard space. The 3D viewer contains manifold filter functions enabling you to discover imaging data from different viewing angles.



NICARA™ 3D Viewer

Study and Project data sets can be organized with the help of the NICARA $^{\text{TM}}$ Connectome Browser and can be shared with further collaboration partners.

Integrated Components

- Separate high-resolution viewers for quantitative brain connectivity as 3D lattice graphs with anatomical landmarks from structural MRI as well as ROI-to-ROI streamline visualization within a high-resolution T1-weighted MNI152 structural MRI volume with different atlases
- Automatic handling of different brain atlases (e.g., HCP MMP 1.0, DKT, JHU), parcellations, orientation, and representation in MNI152; other atlases and brain spaces upon request
- Manifold search- and filter functionality, e.g., separate exploration of functional and structural subnetworks, seed-networks, WM-tracts, ROI volumes
- Study and project management of proprietary or public datasets
- > Export filters for .xlsx and .csv files
- > Store figures as .png files for publications



NICARA™ 3D Lattice Graph – Individual Subnetwork



Available Datasets

- Large source of already processed DTI full brain tractographies, including the entire Young Adult Study of the Human Connectome Project with 1200 healthy subjects
- Constantly growing resources of datasets from HCP and OpenNEURO
- > Proprietary datasets processed by the NICARATM Connectome Builder



NICARA™ 3D Viewer – Subject's Individual Streamlines

Generated Output

- > Tabular reports on brain connectivity, absolute and normalized values, comparisons with matching controls
- > Exportable 3D lattice graphs of brain connectivity of various MRI-modalities
- > Qualitative rendering of streamlines for major fiber tracts

About NICARA™

NICARA™ is a novel and unique software solution for everyone working with brain data. With it, dealing with multimodal brain data becomes easy and straightforward; it reveals new insights into the brain as never before.

NICARA™ provides our customers with various modules for building up, browsing, comparing, analyzing and editing large imaging data volumes.

Building on the Connectome Browser as a starting point, further modules can be licensed alone or in combination with any other software module of the NICARATM environment.

Get in touch with our experts for a live demo of NICARATM and receive your individual offer for an attractive bundle of software modules matching your needs. Organize imaging data on one platform with help of an institution-wide NICARATM account with adjustable access and user rights management for separate projects.



NICARA™. Neurolmaging-based Connectome Assessment in Research & Application