

# NICARA™. Connectome Comparator

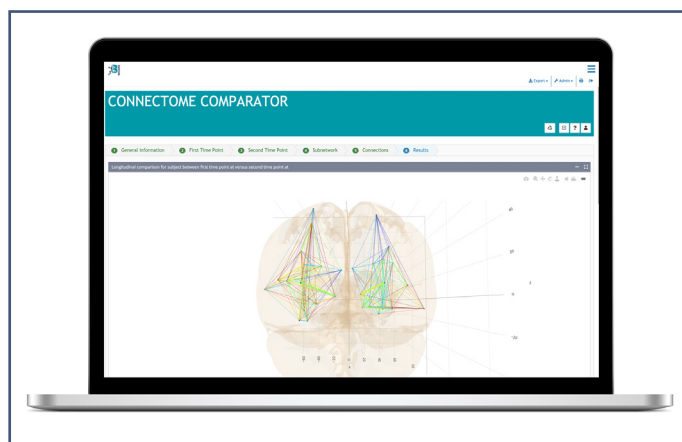
## Compare Different Connectomes

By using the Connectome Comparator of NICARA™ you are able to compare full- and partial brain connectomes from two subjects, or from an individual subject with a group average, or the average connectomes of two cohorts. Longitudinal comparisons of the connectome of an individual subject are possible, too.



*NICARA™ Subnetwork Comparison of Connection Strengths Patient vs Matched Controls*

The NICARA™ Connectome Comparator is applicable for any morphometric or diffusion-weighted MRI imaging modality.



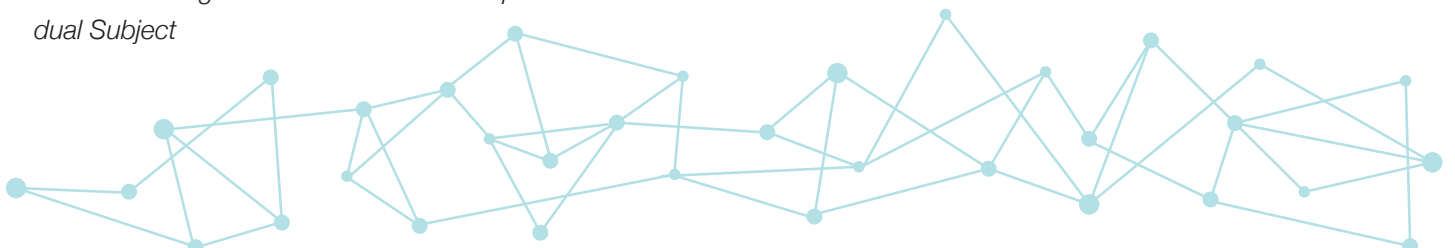
*NICARA™ Longitudinal Subnetwork Comparison of Individual Subject*

## Integrated Components

- > Viewers for differences in connectivity of each connection; visualization of anatomical landmarks from structural MRI
- > Catalogue of available public and proprietary datasets
- > Statistical comparisons to matched controls
- > Use your own datasets stored in the Connectome Browser and compare them to public datasets from the Human Connectome Project; further reference data sets from UK Biobank or ADNI upon request
- > Use templates of subnetworks created in the Connectome Editor to compare connection strengths from individual subjects with matched controls
- > Manifold search and filter functionality
- > Export functionality to .xlsx and .csv files
- > Storing figures as .png files

## Required Input

- > Connectomes stored in the Connectome Browser
- > Subnetwork templates stored in the Connectome Editor



## 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.

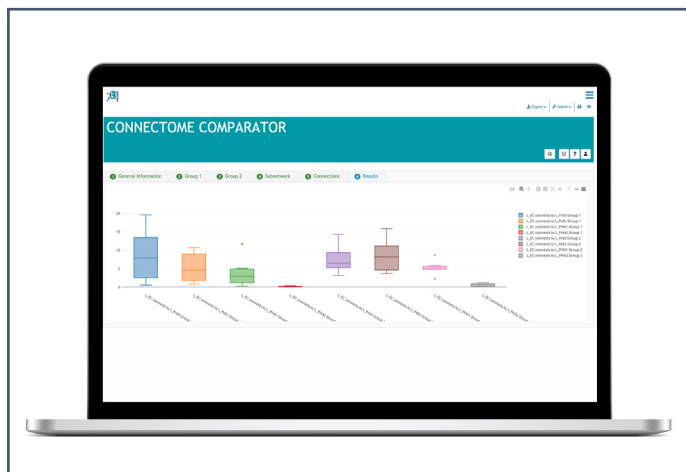
NICARA™ provides our customers with various modules for building up, browsing, comparing, analyzing and editing large imaging data volumes.

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 NICARA™ environment.

Get in touch with our experts for a live demo of NICARA™ 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 NICARA™ account with adjustable access and user rights management for separate projects.



NICARA™. **Neuro**Imaging-based **C**onnectome **A**ssessment in **R**esearch & **A**pplication



NICARA™ Group Comparison of Subnetwork Connection Strengths

## Generated Output

- > Tabular reports of differential connectivity analysis, absolute differences, relative differences, loss- and gain of individual connections ("patient reports", longitudinal changes, connectivity variability)
- > Interactive 3D lattice plots of brain connectivity and differential connectivity
- > Histograms of fiber density distributions
- > Statistical analysis of morphometric measures (VBM, DBM, RBM, SBM) will be available in future releases of NICARA



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