

NEUROZEN

A simple path from data to decision-making

Advances in non-invasive brain imaging technologies allow us to study the brain more extensively than ever. Neuro I Brain Image Quantitative Analysis System gives you the ability to make objective measurements of morphological changes with amazing accuracy. Neuro I uses deep learning technologies to automate labeling, quantification, and visualization of significant structures in the brain from magnetic resonance (MR) images. With longitudinal tracking features, Neuro I allows for the simple, objective, and accurate assessment of even a subtle amount of brain atrophy. Save time, reduce bias, and increase accuracy with Neuro I.



High-performance processing for high-quality data

Efficient, accurate, and robust segmentation of cortical surfaces and subcortical structures are powered by 3D Convolutional Neural Network (CNN) based deep learning algorithms. The sophisticated, easy-to-use software to help clinicians make confident, data-driven decisions.

Clinically relevant data

Neuro I compares a patient's data to a large-scale normative database to provide clinically relevant information.

- Longitudinal, multi-domain data of cognitively normal (CN) Koreans (n \approx 2,000+)
- · Segmentation data verified manually to ensure accuracy
- Data quality control confirmed by radiology experts

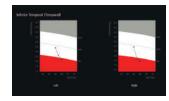
Easy-to-use, intuitive software

Neuro I is cloud-based and runs in a standard browser. Simply upload your images and Neuro I will automatically process, analyze, and organize your data into a streamlined report.

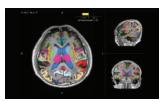
- Measurements of cortical surface thickness, subcortical structure volumes, and statistical comparisons with a normative database
- Longitudinal tracking of morphological changes

Security safeguarded

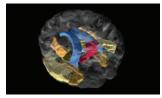
- User access control
- Encrypted data transfer and storage



Longitudinal tracking



MRI viewer



3D viewer

Automatically generated reports with MRI quantification data

Upload DICOM MRI data to Neuro I for automatic analysis. The results are displayed in an intuitive, easy-to-use interface and reports are automatically generated in PDF format for both physicians and patients. Data can also be exported as CSV files for further evaluation.

Neuro I | Brain Analysis Report

Subject information

Basic patient identifying information and general follow-up data

Overview

Morphometry results for the whole brain, gray matter, white matter, and lateral ventricles

- Volume: The volume of the structure in cm³
- % of ICV: The space the structure occupies within the patient's head; the intracranial volume (ICV) is used to normalize individual brain structure volumes
- Normative percentile: How the structure relates to healthy individuals of the same age and sex



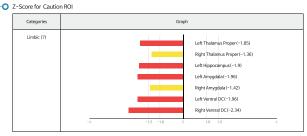
Analysis details

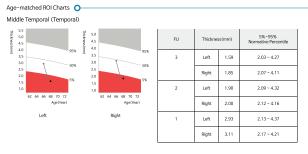
Schematic visualization of the brain segmented into 80 regions of interest (ROI) with at-risk regions highlighted

(red: caution, yellow: attention)

Z-scores for 80 ROI

Z-scores shown for ROI calculated compared to a large-scale normative population





Age-matched ROI Charts

Data for ROI in relation to normative reference charts matched to age and sex

- Cortical ROI: Cortical thickness measurements and comparisons
- Subcortical at-risk ROI: Subcortical volume measurements and comparisons

COMING SOON







Clinical Decision Support System

NeuroAl is a clinical decision support system to help standardize the interpretation of neuroimaging data to predict, diagnose, and monitor Alzheimer's disease (AD). NeuroAl increases diagnostic accuracy and disease characterization by measuring cortical thickness as well as subcortical volumes. A patient's data is age-matched and compared to a longitudinal, multi-domain normative database of CN, MCI, and AD Korean adults to support physicians in making meaningful clinical diagnoses for better disease treatment and management.