

Resource Summary Report

Generated by SPARC SAWG on Aug 8, 2026

WU-Minn HCP 500 Subjects MR and MEG Release

RRID:SCR_003922

Type: Tool

Proper Citation

WU-Minn HCP 500 Subjects MR and MEG Release (RRID:SCR_003922)

Resource Information

URL: <http://www.humanconnectome.org/documentation/S500/>

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Description: Behavioral and 3T MR imaging data from over 500 healthy adult participants with 14 subjects also scanned in resting-state MEG (rMEG) and task MEG (tMEG).
Highlights: * Behavioral and demographic data on 550 subjects. * MR imaging data preprocessed using updated pipelines (structural pipeline v3.1, functional pipeline v3.1, diffusion pipeline v3.1, task analysis pipeline v3.3). * Updates to pipelines include a new intersubject registration method called MSMSulc. All MR data from Q1-Q3 releases have been reprocessed. HCP strongly advises against mixing data from this release with previously-released data. * Individual task fMRI grayordinate-based analysis results (available at 2mm, 4mm, 8mm, and 12mm smoothing levels) and volume-based analysis results (4mm smoothing) are available for all complete 500 Subjects tfMRI data, using an updated task analysis pipeline v3.3. * New extensively processed 100- and 400+-subject group-average functional MR data. * Updates to MEG data and access in ConnectomeDB. Structural MRI-based MEG anatomical models and MR data for the 14 MEG1 Release subjects. * Improvements to behavioral data organization and data dictionary, including the addition of previously unreleased restricted behavioral and demographic data. * All imaging data soon to be available on the cloud through Amazon S3. (More information to come!)

Abbreviations: WU-Minn S500, HCP S500

Synonyms: HCP 500 Subjects Release, HCP 500 Subjects, WU-Minn HCP 500 Subjects Release, WU-Minn HCP 500 Subjects, HCP 500 Subjects MR + MEG Release, HCP 500 Subjects MR and MEG Release, WU-Minn HCP 500 Subjects MR + MEG Release

Resource Type: data or information resource, data set

Keywords: meg, mri, early adult human, behavioral, demographic, neuroimaging, resting state, task, multimodal, behavioral measure, fmri, image

Related Condition: Healthy

Availability: Account required, Open Access Data Use Terms, Open unspecified license

Resource Name: WU-Minn HCP 500 Subjects MR and MEG Release

Resource ID: SCR_003922

Alternate IDs: nlx_158287

Record Creation Time: 20220129T080221+0000

Record Last Update: 20260808T190549+0000

Ratings and Alerts

No rating or validation information has been found for WU-Minn HCP 500 Subjects MR and MEG Release.

No alerts have been found for WU-Minn HCP 500 Subjects MR and MEG Release.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 17 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Moron-Fernandez MJ, et al. (2023) Analysis of Connectome Graphs Based on Boundary Scale. Sensors (Basel, Switzerland), 23(20).

Liu W, et al. (2022) Functional orderly topography of brain networks associated with gene expression heterogeneity. Communications biology, 5(1), 1083.

Szalkai B, et al. (2021) The Graph of Our Mind. Brain sciences, 11(3).

Fellner M, et al. (2020) Good neighbors, bad neighbors: the frequent network neighborhood mapping of the hippocampus enlightens several structural factors of the human intelligence on a 414-subject cohort. Scientific reports, 10(1), 11967.

Fellner M, et al. (2020) The frequent complete subgraphs in the human connectome. PloS one, 15(8), e0236883.

Fellner M, et al. (2020) The Frequent Network Neighborhood Mapping of the human hippocampus shows much more frequent neighbor sets in males than in females. PloS one, 15(1), e0227910.

Szalkai B, et al. (2019) High-resolution directed human connectomes and the Consensus Connectome Dynamics. *PloS one*, 14(4), e0215473.

Kerepesi C, et al. (2018) Comparative connectomics: Mapping the inter-individual variability of connections within the regions of the human brain. *Neuroscience letters*, 662, 17.

Kerepesi C, et al. (2018) The dorsal striatum and the dynamics of the consensus connectomes in the frontal lobe of the human brain. *Neuroscience letters*, 673, 51.

Caparelli EC, et al. (2017) Graph theory reveals amygdala modules consistent with its anatomical subdivisions. *Scientific reports*, 7(1), 14392.

Kuehn E, et al. (2017) Body Topography Parcellates Human Sensory and Motor Cortex. *Cerebral cortex (New York, N.Y. : 1991)*, 27(7), 3790.

Szalkai B, et al. (2017) The Robustness and the Doubly-Preferential Attachment Simulation of the Consensus Connectome Dynamics of the Human Brain. *Scientific reports*, 7(1), 16118.

Shah LM, et al. (2016) Reliability and reproducibility of individual differences in functional connectivity acquired during task and resting state. *Brain and behavior*, 6(5), e00456.

Bhushan C, et al. (2016) Temporal Non-Local Means Filtering Reveals Real-Time Whole-Brain Cortical Interactions in Resting fMRI. *PloS one*, 11(7), e0158504.

Szalkai B, et al. (2015) The Budapest Reference Connectome Server v2.0. *Neuroscience letters*, 595, 60.

Hawrylycz M, et al. (2015) Canonical genetic signatures of the adult human brain. *Nature neuroscience*, 18(12), 1832.

Szalkai B, et al. (2015) Graph Theoretical Analysis Reveals: Women's Brains Are Better Connected than Men's. *PloS one*, 10(7), e0130045.