MGH-USC Human Connectome Project

RRID:SCR_003490
Type: Tool

Proper Citation

MGH-USC Human Connectome Project (RRID:SCR_003490)

Resource Information

URL: http://www.humanconnectomeproject.org/

Proper Citation: MGH-USC Human Connectome Project (RRID:SCR_003490)

Description: A multi-center project comprising two distinct consortia (Mass. Gen. Hosp. and USC; and Wash. U. and the U. of Minn.) seeking to map white matter fiber pathways in the human brain using leading edge neuroimaging methods, genomics, architectonics, mathematical approaches, informatics, and interactive visualization. The mapping of the complete structural and functional neural connections in vivo within and across individuals provides unparalleled compilation of neural data, an interface to graphically navigate this data and the opportunity to achieve conclusions about the living human brain. The HCP is being developed to employ advanced neuroimaging methods, and to construct an extensive informatics infrastructure to link these data and connectivity models to detailed phenomic and genomic data, building upon existing multidisciplinary and collaborative efforts currently underway. Working with other HCP partners based at Washington University in St. Louis they will provide rich data, essential imaging protocols, and sophisticated connectivity analysis tools for the neuroscience community. This project is working to achieve the following: 1) develop sophisticated tools to process high-angular diffusion (HARDI) and diffusion spectrum imaging (DSI) from normal individuals to provide the foundation for the detailed mapping of the human connectome; 2) optimize advanced high-field imaging technologies and neurocognitive tests to map the human connectome; 3) collect connectomic, behavioral, and genotype data using optimized methods in a representative sample of normal subjects; 4) design and deploy a robust, web-based informatics infrastructure, 5) develop and disseminate data acquisition and analysis, educational, and training outreach materials.

Abbreviations: MGH/UCLA HCP

Synonyms: Harvard/MGH-UCLA Human Connectome Project, Harvard/MGH-UCLA
Consortium: Human Connectome Project, HCP Harvard/MGH-UCLA, MGH/UCLA

**Resource Type:** material service resource, service resource, portal, production service resource, instrument manufacture, data or information resource

**Keywords:** human, structural, functional, neural, white matter, fiber, brain, in vivo, genomic, neuroimaging, visualization, neuroanatomy, genotype, connectivity, connectivity model, neural pathway, phenomic, connectomics, quantification, scanner, eeg, meg, shape analysis, spatial transformation, diffusion spectrum, q-ball, tensor metric, fiber tracking, connectome, behavior, scanner, web resource, diffusion spectrum, q-ball, tensor metric, quantification, shape analysis, spatial transformation, fiber tracking, FASEB list

**Related Condition:** Normal

**Funding Agency:** NIH, NIH Blueprint for Neuroscience Research

**Availability:** Open unspecified license, (BSD/MIT-Style), LONI Software License, Public Domain

**Resource Name:** MGH-USC Human Connectome Project

**Resource ID:** SCR_003490

**Alternate IDs:** nif-0000-35789

**Alternate URLs:** http://www.nitrc.org/projects/hcp_mgh-ucla

---

**Ratings and Alerts**


No alerts have been found for MGH-USC Human Connectome Project.

---

**Data and Source Information**

**Source:** [SciCrunch Registry](http://www.nitrc.org/projects/hcp_mgh-ucla)

---

**Usage and Citation Metrics**

We found 145 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [FDI Lab - SciCrunch.org](http://www.nitrc.org/projects/hcp_mgh-ucla).


Kumar VJ, et al. (2023) The structural connectivity mapping of the intralaminar thalamic nuclei. Scientific reports, 13(1), 11938.


Huang NX, et al. (2023) Corticospinal fibers with different origins impair in amyotrophic lateral sclerosis: A neurite orientation dispersion and density imaging study. CNS neuroscience & therapeutics, 29(11), 3406.


Chang YN, et al. (2023) Distance-dependent distribution thresholding in probabilistic tractography. Human brain mapping, 44(10), 4064.


Willbrand EH, et al. (2023) Sulcal morphology of posteromedial cortex substantially differs between humans and chimpanzees. Communications biology, 6(1), 586.


Jwa AS, et al. (2022) The spectrum of data sharing policies in neuroimaging data
repositories. Human brain mapping, 43(8), 2707.

