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/

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.

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Resource Type: Resource, production service resource, image collection, material service
resource, data set, instrument manufacture, service resource, 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

**Resource ID:** SCR_003490

**Parent Organization:** Harvard Medical School; Massachusetts; USA, Laboratory of Neuro Imaging, NIH Human Connectome Project

**Related Condition:** Normal

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

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

**Website Status:** Last checked up

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

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

**Abbreviations:** MGH/UCLA HCP

**Mentions Count:** 72

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**Ratings and Alerts**


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

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**Data and Source Information**

**Source:** SciCrunch Registry

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**Usage and Citation Metrics**

We found 72 mentions in open access literature.

**Listed below are recent publications.** The full list is available at scicrunch.


