Resource Summary Report

Generated by kravitz2 on Jul 31, 2026

Diffusion MRI of Traumatic Brain Injury

RRID:SCR_001637
Type: Tool

Proper Citation

Diffusion MRI of Traumatic Brain Injury (RRID:SCR_001637)

Resource Information

URL: http://tbi.ci.uchicago.edu/

Proper Citation: Diffusion MRI of Traumatic Brain Injury (RRID:SCR_001637)

Description: Project to define a roadmap for diffusion MR imaging of traumatic brain imaging and design an infrastructure to implement the recommendations and tested to ensure feasibility, disseminate results, and facilitate deployment and adoption. The research roadmap and infrastructure development will concentrate on three areas: 1) standardization of diffusion imaging methodology, 2) trial design and patient selection for acute or chronic therapy, and 3) development of multi-center collaborations and repositories for evaluating whether advanced diffusion imaging does improve decision making and TBI patients' outcomes. # DTI MRI reproducability: One of the major areas of investigation in this project is to study the reproducibility of data acquisition and image analysis algorithms. Understanding reproducibility defines a base level of deviation from which scans can be analyzed with statistical significance. As part of this work they are also developing site qualification criteria with the intention of setting limits on the MR system minimal performance for acceptable use in TBI evaluation. # Infrastructure for image storage, analysis and visualization: There is a continuing need to refine and extend software methods for diffusion MRI data analysis and visualization. Not only to translate tools into clinical practice, but also to encourage continuation of the innovation and development of new tools and techniques. To deliver upon these goals they are designing and implementing a storage and computational infrastructure to provide access to shared datasets and intuitive interfaces for analysis and visualization through a variety of tools. A strong emphasis has been placed on providing secure data sharing and the ability to add community defined common data elements. The infrastructure is built upon a Software-as-a-Service model, in which tools are hosted and managed remotely allowing users access through well-defined interfaces. The final service will also facilitate composition or orchestration of workflows composed of different analysis and processing tasks (for example using LONI or XNAT pipelines) with the ultimate goal of providing automated no-click evaluations of diffusion MRI data. # Tool development: The final aspect of this project aims to facilitate and encourage tool development and contribution. By providing access to open datasets, they will create a platform on which tool developers can compare and

improve and their tools. When tools are sufficiently mature they can be exposed in the infrastructure mentioned above and used by researchers and other developers.

Abbreviations: Diffusion MRI of TBI

Resource Type: topical portal, data or information resource, portal

Keywords: diffusion tensor imaging, diffusion mri, standard specification, image repository, analysis, visualization, data sharing, common data element, service resource, data set

Related Condition: Traumatic brain injury

Funding: NINDS

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: Diffusion MRI of Traumatic Brain Injury

Resource ID: SCR_001637

Alternate IDs: nlx_153906

Record Creation Time: 20220129T080208+0000

Record Last Update: 20260731T042616+0000

Ratings and Alerts

No rating or validation information has been found for Diffusion MRI of Traumatic Brain Injury.

No alerts have been found for Diffusion MRI of Traumatic Brain Injury.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.