

# **DTI to Detect and Quantify Injured Brain Regions and Affected Pathways in Traumatic Brain Injury**

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- **Use DTI to detect and quantify diffusion changes (e.g., FA changes) in brain regions likely to have suffered axonal damage.**

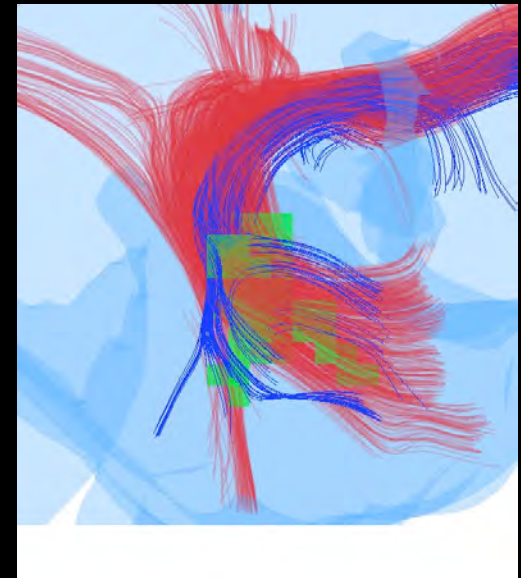
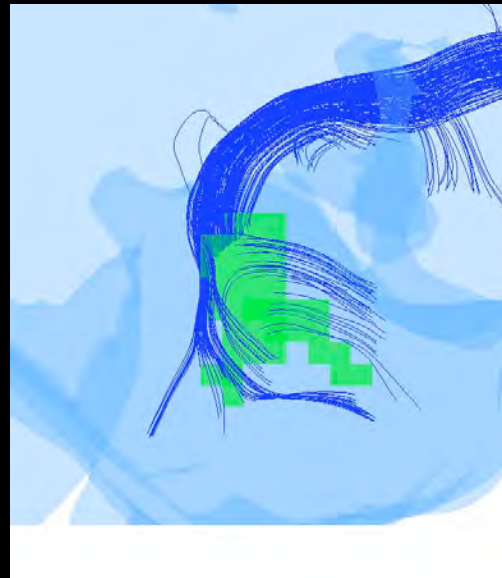
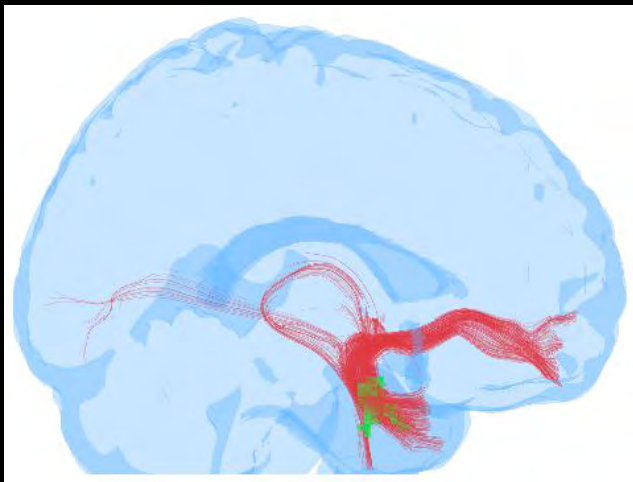
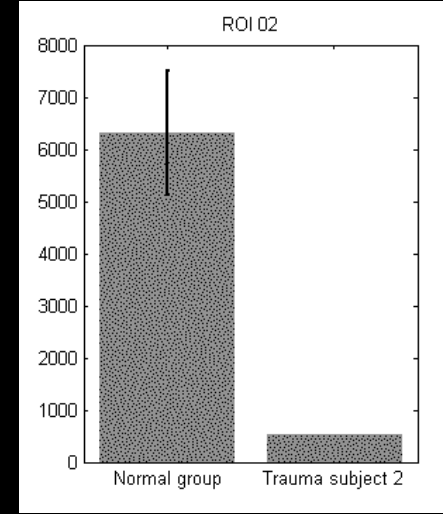
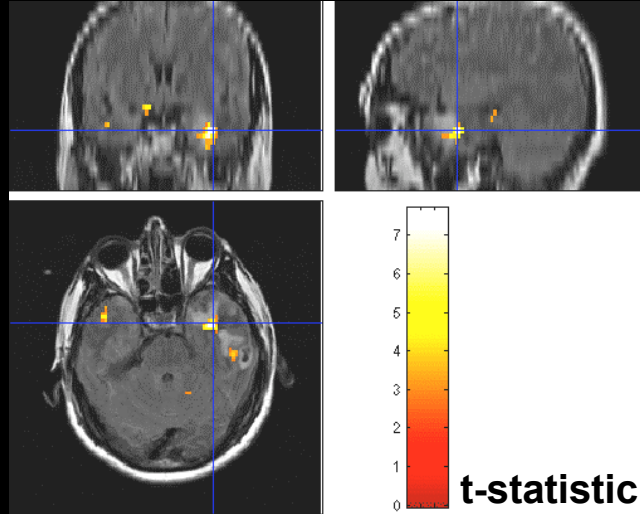
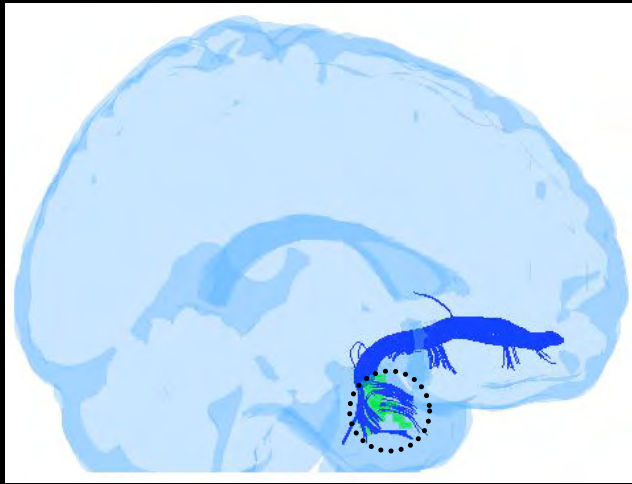
**Construct FA map for each TBI patient and 10 age-matched Normal control subjects**

**Normalize all FA maps to a standard space**

**Construct voxel based T-map of FA differences between TBI patient and control group**

- **Use Normalized DTI-Tractography to identify and quantify white-matter pathways affected by FA identified injured regions.**

# Subject 2



Green: ROI

Trauma (blue) vs. Normal (red)