Title of Proposal: Quantitative Measures of fMRI Reproducibility for Pre-Surgical Planning - Development of Reproducibility Metrics		
QIBA Committee/Subgroup: fMRI		
NIBIB Task Number(s) which this project addresses: 1,3,5,6,7,9		
Project Coordinator or Lead Investigator Information		
Last Name: Voyvodic	First Name: James	Degree(s): PhD
Institution/Company: Duke Brain Imaging and Analysis Center		

Development of Reproducibility Metrics (PI: James Voyvodic, PhD)

Project Description: This sub-project will develop metrics for quantifying reproducibility within and across fMRI scans, and it will apply those metrics to existing data sets to assess the reproducibility of fMRI results both within and across scanning sessions. The metrics to be developed will be based on using the AMPLE normalization algorithm (Voyvodic, 2006) to assess reproducibility and will include both voxel-wise and ROI-based measures of the consistency of fMRI activation maps over time. The results of this study will help address NIBIB Tasks 1, 3, 6, 7, and 9. Demonstration and quantification of reproducibility is an essential step in the development of the QIBA Profile for fMRI.