

Application for QIBA Project Funding

Title of Proposal: FDG-PET/CT Profile Multi-Center Field Test		
QIBA Committee/Subgroup: NM/FDG-PET/CT		
NIBIB SOW Objective which this project addresses: 2.3.2 (Objective 2)		
<b>Project Coordinator or Lead Investigator Information:</b>		
Last Name: Turkington	First Name: Tim	Degree(s): PhD
e-mail:	Tel #:	
Institution/Company: Duke University		
Amount Requested:		

**Project Description**

This project is an extension of the current field test of the FDG-PET/CT Profile. The checklists being generated by the current field test project will be evaluated at 6 sites, with Duke University being the coordinating site. This project will use real and digital phantoms to provide data that can be analyzed to determine Profile feasibility. Patient scan data will be used within the validation workflow as much as feasible. Measurement of SUV max in tumor is the primary metric in the FDG PET Profile version 1.0. While this parameter is highly informative, other parameters such as SUV peak, MTV, and TLG may provide complementary and in some cases, unique data on tumor biology. We propose, in a limited set of DRO, physical phantom, and patient data to compare the preceding parameters across the performance sites.

**Primary goals and objectives**

The primary goal is to determine the feasibility of the step-by-step list of compliance tests that are being generated by the current field test of the FDG-PET/CT Profile. In addition, the results will be used to define performance targets for compliance testing for PET/CT scanners from each of the major manufacturers. Areas in which compliance cannot be achieved will be identified and documented.

Where possible, compliance tests performed by manufacturers will be identified and evaluated