



Application for QIBA Project Funding

Title of Proposal: Inter-scanner/inter-clinic comparison of reader nodule sizing in CT imaging of a phantom		
QIBA Committee/Subgroup: QIBA Volume CT/Group 1C		
NIBIB Task Number(s) which this project addresses:		
Project Coordinator or Lead Investigator Information:		
Last Name: McNitt-Gray	First Name: Michael	Degree(s): PhD
e-mail:	Tel #:	
Institution/Company: David Geffen School of Medicine at UCLA, Department of Radiology		
Amount Requested:		

Project Description-

Inter-scanner/inter-clinic comparison of reader nodule sizing in CT imaging of a phantom.

Primary goals and objectives-

In support of QIBA profile development, this reader study will characterize uncertainty in volume and other reader-based sizing of phantom nodules in CT imagery collected on scanners from several vendors. We will:

1. develop an imaging protocol that includes:
 - a standard multi-scanner branch (based on ACRIN 6678)
 - an image quality-based, device-independent branch
2. analyze the accuracy and precision of sizing measures for all design factors including: site/device, imaging protocol factors, nodule characteristics & reader, and
3. determine the minimum detectable level of change that can be achieved when measuring nodules in phantom datasets.