QIBA Quantitative PET/CT: Accelerating development of new therapies and improving assessment of response

PET-CT: A Proud History of Innovation

What's next? Quantitative PET to Characterize Disease Hallmarks

Drivers
- Clinical research, Clinical trials, and Drug Discovery
- New molecular diagnostic agents
- Assessing individual response to therapy
- SUVs are now routinely reported, and are asked for, by referring physicians

Response to therapy of liver met GIST CT PET/CT

Biomarkers To Quantify Hallmarks of Cancer
- New molecular diagnostic agents
- New uses for existing agents

Quantitation Improves Characterization of Disease Hallmarks
- Improve individual patient care
- Clinically proven detection and longitudinal quantitation for follow-up
- Moves imaging from diagnostics and staging to therapy assessment
- Accelerate adoption of new molecular diagnostics
- Make clinical trials of new therapies more effective
- All tied to quantitative accuracy

Technical as well as Business Obstacles Impede Realization of the Opportunity
- Efforts by individual manufacturers to qualify quantitative imaging applications:
  - Very slow, costly, and
  - Must now longer time periods...
- Lack of business model of device and software manufacturers generally support.

Assist with increasing number of oncology targeted pharmaceuticals

Quantitative Imaging Biomarkers Alliance (QIBA) is an active Sponsor in Regulatory Pathways that Leverage Collaboration

QIBA Leverages Resources and Bridges Perspectives Across Communities

QIBA GROUNDWORK for ANALYZING/CREATING DATA to INFORM PROFILES

PRODUCT CREATION PROCESS of DEVICE and SOFTWARE MANUFACTURERS

What we've done and how you can participate
- Collection of recommendations for quantitative FDG-PET
- Presentation (joint with FNIH) to FDA
- NIBIB grant application
- Year 1 research targets
- Collaboration with UPICT on Protocols
- Bi-weekly telephone conferences
- Annual QIBA meetings and updates at RSNA and SNM
- Working visits with vendors
- Profile development
- Year 2 research targets
  - Profile testing and approval
  - Implementation of Profiles by QIBA and vendors
  - Clinical use of Profiles

More information at www.rsna.org/research/qiba/