HHSN268201000050C (13a) QIBA Round 1 Project Report: Interim progress (months 3-6)

Analysis of SARC 11 Trial PET Data by PERCIST with Linkage to Clinical Outcomes

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Original deliverables:

Months 0-3: Transfer of data sets to JHU and assessment of quality
Months 3-6: Visual analysis of PET data
Months 6-10: Quantitative assessment of PET data

Progress report:

Months 3-6:

We have completed the transfer of the data sets to Johns Hopkins. The analysis taking place from Months 3-10 includes both a quantitative and visual analysis. While the deliverables are separated in the original application, they are, in fact, intrinsically and closely related. Thus, both the quantitative and the qualitative analysis are ongoing simultaneously. To speed the quantitative analysis, a semi-automated program has been developed with funding separate from this sub-award.

To date:

PET/CT Imaging studies of 311 patients have been received and imported into the servers of the IRAT lab at JHU. All of these studies have gone through a preliminary analysis to determine their suitability for quantitative analysis. Of these, 242 patient studies have been deemed suitable for quantitative analysis. The 242 patient studies contain a total of 583 PET image series. Of these, 86 patient studies (totaling 204 PET image series) have been analyzed with our semi-automated PERCIST system. This analysis includes a thorough quality control assessment of study parameters, as well as identification, quantification and trend analysis of both disease and normal reference tissue for each PET series.

The "non suitable" cases for standard quantitative analysis will be assessed separately using visual analysis (qualitative) and tumor/background uptake ratios (i.e. SUV cannot be determined from available data, but counts are available as well as images).

We anticipate continuing the quantitative and qualitative analysis of the data sets in the next months.