**Parkinson's Disease**

**Clinical Use Cases for Ioflupane**

- **Objective:** Using two popular contemporary gamma cameras (Scanner A & Scanner B), 99mTc-Ioflupane was performed to determine the best acquisition and reconstruction parameters for measuring Specific Binding Ratio (SBR) in 99mTc-Ioflupane SPECT.

- **Groundwork:** Acquisition & Recon
  - **Overview:** Various QIBA projects and activities have been funded in whole or in part with HHSN268201000050C, HHSN268201300071C and HHSN268201500021C.

- **Histopathology**
  - Further investigations are needed to better understand the relationship between iPLA2 gene expression and deposition in the putamen in the context of PD.

- **Imaging Biomarkers**
  - Imaging of Parkinson's Disease has been directed at changes in brain anatomy (global and regional), glucose metabolism, cerebral perfusion and neurochemistry (neurotransmitters, imaging of Parkinson's Disease has been directed at changes in brain anatomy (global and regional), glucose metabolism, cerebral perfusion and neurochemistry (neurotransmitters).

- **Groundwork: Digital Reference Objects**
  - **Goal:** Design and construct a brain Digital Reference Object (DRO) phantom with properties appropriate for testing software used to characterize SPECT DaT uptake patterns in a quantitative fashion.

- **Planned Activities 2018 Ioflupane**
  - **Profile:** Version 1.5 was released for public comment. Each suggested revision was addressed in collaboration with QIBA-Japan.
  - **Checklist:** Each of the performance requirements in the Profile has been compiled as a set of checklists. These checklists have been developed as tools to help actors and imaging investigators to ensure their work is in agreement with the Profile.

- **Planned Activities 2018 Technetium-99m**
  - **Use cases:** (1) quantitation of large object uptake; (2) quantitation of small object/tumor uptake. Cases can be applicable to transarterial radiation by interventional radiology (IR) as shown below; planar scanning, pulmonary surgery; radiation therapy planning for lung cancer; pharmacokinetics of large molecules; theranostics, etc.

- **QIBA SPECT Biomarker Committee:**
  - The Committee would also like to thank the many contributions from QIBA-Japan.

- **QIBA SPECT Biomarker Committee in collaboration with QIBA-Japan**
  - The SPECT Biomarker Committee is a group of subject matter experts who have provided input on this poster.

- **QIBA SPECT Biomarker Committee: Overview and Status Update**
  - **Profile:** Version 1.5 was released for public comment. Each suggested revision was addressed in collaboration with QIBA-Japan.

- **QIBA SPECT Biomarker Committee: Overview and Status Update**
  - **Overview:** Various QIBA projects and activities have been funded in whole or in part with HHSN268201000050C, HHSN268201300071C and HHSN268201500021C.

- **RSNA 2017:** Various QIBA projects and activities have been funded in whole or in part with Federal grants from the National Institutes of Biomedical Imaging and Bioengineering, National Institute of Health, Department of Health and Human Services, Bethesda, MD USA.