MESA MIND Protocol Appendix - Detailed CT/PET Imaging Protocol

<u>Amyloid PET Brain Imaging</u>. Participants who enroll will complete a amyloid imaging protocol with [11C]PiB, which is similar to that used by the Alzheimer's Disease Neuroimaging Initiative – Study (ADNI). Participants will not receive the results from this scan unless so indicated by a clinically significant medical finding.

- Participants will report to the imaging facilities.
- Vital signs (blood pressure, heart rate, temperature) and body weight will be measured on the same day of tracer injection.
- [11C] PiB Participants will be injected with an intravenous bolus of 5-15mCi (370 MBq) (+/- 10%) of [11C]PiB (over 5-10 seconds). This is the standard dose used in the many published clinical reports using [11C]PiB. <u>After injection, participant will wait for an uptake</u> period of 40 minutes before the tomographic image acquisition begins.
- Participants will be positioned in the PET/CT scanner by trained staff. Participants will be
 monitored via audio micorphone and video. During PET imaging, participants must remain
 as still as possible and thus every effort will be made to provide for their comfort including
 blankets, pillows and diligent assessment. The PET brain imaging procedure is similar to
 that used by large multicenter imaging clinical trials. Scanning will begin with a standard low
 dose CT transmission scan of the head that will be used to correctly position the participant
 and for attenuation correction. Brain emission images will be acquired continuously for a 30
 minute period as six 5-minute frames. The images will be immediately assessed for
 technical validity by the PET technologist and if considered inadequate due to motion or
 other artifact, the participant will have an additional 20 minutes of continuous imaging,
 collected as four 5-minute frames.
- From the time of tracer injection until after the imaging session is complete, participants will be observed continuously for signs of adverse events or serious adverse events. The injection site will be observed for excessive inflammation or damage to the surrounding tissue.
- A physician or a person designated by the physician with appropriate training and experience will be present during the tracer injection and to approve discharge of the participant from the PET suite.
- Study participants will be contacted 24-72 hours after they are injected with [11C]PiB to inquire if any adverse events occurred within 24 hours of injection.

Exam 7 Participant ID #: Brain PET Technician ID: Acquisition Technician ID:	Acrostic:* Do not enter into PET software Date: Month Day Year
1. PET tech ID: O AM 2. Time of today's scanner QC: Image: Constraint of today	Participant Information 3. Sex: O Male O Female 4. Age:
Pre-scan Vitals 5. Blood pressure: /	 15. Was appropriate time allowed for tracer uptake? No Yes, 40 minutes for (11C) PiB Yes, 90 minutes for (18F) Florbetaben 16. Scan start time: O AM PM 17. Any variations from protocol during tracer uptake? Yes If yes, note below (Q29) No 18. Was the scan completed? Yes No If no, note below (Q29) Post-scan Vitals 19. Blood pressure:/ 20. Pulse: bpm

Exam 7 Brain PET Acquisition	
Additional measurements, if necessary: 21. Blood pressure: /	
 26. Participant encouraged to void and drink plenty of fluids the rest of the day? Yes No 27. PET technician signature: 28. Notes: 	
CALL STUDY STAFF PRIOR TO RELEASING PARTICIPANT. [Insert site contact name and phone]	