## **Description of Additional Supplementary Files**

File name: Supplementary data 1

Description: Individual participant data for Figure 1. ROI average amplitude during active

Walking-in-place versus Standing-at-rest periods.

File name: Supplementary data 2

Description: Individual participant data for Figure 2. Data are mean normalized data for each

ROI (n=8) for the walking-in-place task.

File name: Supplementary data 3

Description: Individual Data for Figure 3. Table contains individual mean normalized activity for the Amputee Participant, as well as the other 7 participants for the left and right a priori

leg ROIs.

File name: Supplementary data 4

Description: Individual participant data for Figure 4. Mean relative activity in deep brain regions for the four participants that had mid-brain coverage in the seated walking task. (n=4).

File name: Supplementary data 5

Description: Individual participant data for repositioning data with M1 coverage. Mean relative activity in M1 vs Frontal Lobe reference region in the seated walking task. (n=5) The final three listed participants' frontal lobe ROI coverage was not fully complete.

File name: Supplementary data 6

Description: Uptake curves. Raw activity measures taken every 30 seconds for an example participant of F18-FDG uptake during the walking and standing in place period.

File name: Supplementary data 7

Description: Clinical PET ROI data. Relative activity measures from the clinical PET scan with

the predefined bilateral ROIs used for the AMPET data analysis.