

**Appendix Table 1.** Adjusted P-values from nonparametric Friedman test correcting for multiple comparisons using Dunn's statistical hypothesis testing. Family wise significance at 0.05. All reconstructions are compared to OSEM 3i/16s 5 mm filter with the same reference region.

Reconstruction	<sup>18</sup> F]Flutemetamol								<sup>18</sup> F]FDG							
	Patients				Controls				Patients				Controls			
	SUVR		Z-score		SUVR		Z-score		SUVR		Z-score		SUVR		Z-score	
	GC	Pons	GC	Pons	GC	Pons	GC	Pons	WC	WB	WC	WB	WC	WB	WC	WB
OSEM 3i16s3mm	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	0.2196	0.8838	0.0016	0.4664	0.0003
OSEM 3i34s3mm	>0.9999	0.0953	>0.9999	0.0256	>0.9999	0.0356	>0.9999	0.0127	>0.9999	<0.0001	>0.9999	<0.0001	0.0052	<0.0001	0.0031	<0.0001
OSEM 3i34s5mm	>0.9999	>0.9999	>0.9999	>0.9999	0.375	>0.9999	0.6166	>0.9999	>0.9999	0.0747	>0.9999	0.0148	>0.9999	0.0052	>0.9999	0.0013
TOFOSEM 3i16s3mm	0.5146	0.0143	>0.9999	0.0017	0.592	0.0013	0.7509	0.0002	>0.9999	<0.0001	>0.9999	<0.0001	0.7047	<0.0001	0.2957	<0.0001
TOFOSEM 3i16s5mm	0.0328	>0.9999	0.0534	>0.9999	0.344	>0.9999	0.9795	0.909	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	>0.9999	0.9238	>0.9999
TOFOSEM 3i34s3mm	>0.9999	0.0008	>0.9999	<0.0001	0.875	0.0006	>0.9999	0.0002	0.8319	<0.0001	0.3115	<0.0001	0.0587	<0.0001	0.0317	<0.0001
TOFOSEM 3i34s5mm	0.336	0.2494	0.4914	0.029	0.102	0.8754	0.3911	0.7223	>0.9999	0.4245	>0.9999	0.0423	>0.9999	0.0345	0.9375	0.0227
TOFOSEMPSF 3i16s3mm	>0.9999	<0.0001	>0.9999	<0.0001	0.005	<0.0001	0.0143	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
TOFOSEMPSF 3i16s5mm	>0.9999	0.0637	>0.9999	0.0125	0.026	0.0004	0.0791	<0.0001	0.0008	0.1282	0.0004	0.0347	0.026	0.1228	0.0069	0.1181
TOFOSEMPSF 3i34s3mm	>0.9999	<0.0001	>0.9999	<0.0001	0.118	<0.0001	0.1183	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
TOFOSEMPSF 3i34s5mm	>0.9999	0.0068	>0.9999	0.0008	0.011	<0.0001	0.0255	<0.0001	0.0005	<0.0001	<0.0001	<0.0001	0.0034	<0.0001	0.0032	<0.0001
BSREM β75	0.3884	<0.0001	0.1646	<0.0001	0.008	<0.0001	0.0494	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
BSREM β150	>0.9999	<0.0001	0.5146	<0.0001	0.004	<0.0001	0.0047	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
BSREM β225	0.2494	<0.0001	0.1402	<0.0001	0.029	<0.0001	0.0083	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
BSREM β300	0.5146	<0.0001	0.2899	<0.0001	0.2	<0.0001	0.1824	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

GC: gray cerebellum; WC: whole cerebellum; WB: whole brain