

Supporting Information

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Table S1. Sphere coordinates

Coordinate name	Axis		
	x	y	z
Amygdala L	-31	-1	-30
Amygdala R	31	-3	-30
Anterior cingulate L	-9	-41	8
Anterior cingulate R	7	-41	8
Caudate L	-19	-11	12
Caudate R	13	-11	12
Cerebellum L	-27	61	-22
Cerebellum R	23	61	-22
Corona radiata L	-21	-15	36
Corona radiata R	19	-15	36
Dorsomedial prefrontal L	-9	-49	34
Dorsomedial prefrontal R	3	-49	34
Sup longitudinal fascicle L	-33	31	32
Sup longitudinal fascicle R	29	29	32
Gyrus rectus L	-11	-29	-16
Gyrus rectus R	7	-29	-16
Hippocampus L	-27	23	-18
Hippocampus R	25	23	-18
Inferior frontal gyrus L	-51	-29	8
Inferior frontal gyrus R	45	-29	10
Insula L	-39	13	4
Insula R	33	13	8
Lateral temporal L	-61	19	-12
Lateral temporal R	57	19	-18
Medial frontal gyrus L	-11	5	66
Medial frontal gyrus R	7	9	66
Middle frontal gyrus L	-41	-29	36
Middle frontal gyrus R	37	-29	38
Occipital L	-9	85	-2
Occipital R	7	85	-2
Orbitofrontal L	-27	-33	-8
Orbitofrontal R	29	-33	-8
Lateral parietal L	-49	63	32
Lateral parietal R	43	63	32
Postcentral gyrus L	-35	21	62
Postcentral gyrus R	25	21	62
Posterior cingulate L	-9	49	34
Posterior cingulate R	7	49	34
Precentral gyrus L	-43	5	48
Precentral gyrus R	41	3	48
Precuneus L	-9	61	42
Precuneus R	7	61	42
Prefrontal L	-29	-53	12
Prefrontal R	23	-53	12
Putamen L	-27	-5	4
Putamen R	21	-5	4
Red nucleus L	-7	29	-8
Red nucleus R	3	29	-8
Subcallosal gyrus L	-9	-13	-8
Subcallosal gyrus R	5	-13	-10
Substantia nigra L	11	19	-12
Substantia nigra R	-11	19	-12
Supramarginal gyrus L	-41	41	42
Supramarginal gyrus R	39	39	42
Temporal medial L	-55	1	-20

Table S1. Cont.

Coordinate name	Axis		
	x	y	z
Temporal medial R	49	-1	-20
Thalamus L	-11	21	10
Thalamus R	9	25	10
Ventromedial prefrontal L	-9	-47	-8
Ventromedial prefrontal R	3	-47	-8

Table S2. Sphere PIB binding

Coordinate name	¹¹ C-PIB-positive, cognitively normal elderly individuals	DAT	¹¹ C-PIB-positive, cognitively normal elderly individuals/ cerebellum	DAT/cerebellum
Amygdala L	0.65	0.66	0.09	0.064
Amygdala R	0.67	0.66	0.11	0.053
Anterior cingulate L	1.01	0.94	0.68	0.500
Anterior cingulate R	1.05	1.02	0.75	0.631
Caudate L	0.92	0.97	0.53	0.548
Caudate R	0.87	1.00	0.44	0.605
Cerebellum L	0.88	0.94	0.46	0.508
Cerebellum R	0.78	0.89	0.30	0.419
Corona radiata L	0.90	1.02	0.49	0.628
Corona radiata R	0.82	0.80	0.37	0.285
Dorsomedial prefrontal L	0.84	0.90	0.40	0.448
Dorsomedial prefrontal R	1.00	1.06	0.67	0.698
Superior longitudinal fascicle L	0.93	0.91	0.55	0.457
Superior longitudinal fascicle R	0.76	0.80	0.26	0.280
Gyrus rectus L	0.90	0.95	0.50	0.523
Gyrus rectus R	0.93	1.08	0.55	0.734
Hippocampus L	1.11	1.03	0.84	0.655
Hippocampus R	0.94	1.03	0.56	0.645
Inferior frontal gyrus L	1.04	1.08	0.73	0.723
Inferior frontal gyrus R	1.12	1.15	0.87	0.842
Insula L	0.85	0.95	0.42	0.515
Insula R	1.01	1.15	0.68	0.843
Lateral temporal L	1.12	1.16	0.86	0.858
Lateral temporal R	1.06	1.24	0.76	0.991
Medial frontal gyrus L	0.92	1.12	0.53	0.786
Medial frontal gyrus R	0.80	0.84	0.34	0.346
Middle frontal gyrus L	0.88	0.93	0.46	0.494
Middle frontal gyrus R	1.02	1.18	0.70	0.882
Occipital L	1.03	1.24	0.72	0.978
Occipital R	0.88	1.07	0.46	0.719
Orbitofrontal L	0.99	1.14	0.65	0.822
Orbitofrontal R	1.13	1.41	0.88	1.259
Lateral parietal L	0.97	1.20	0.61	0.924
Lateral parietal R	1.19	1.36	0.97	1.184
Postcentral gyrus L	0.89	1.02	0.48	0.631
Postcentral gyrus R	0.99	1.21	0.65	0.944
Posterior cingulate L	0.83	1.01	0.38	0.614
Posterior cingulate R	0.80	0.96	0.33	0.529
Precentral gyrus L	1.13	1.20	0.89	0.928
Precentral gyrus R	0.93	1.08	0.54	0.721
Precuneus L	1.20	1.44	1.00	1.304
Precuneus R	1.14	1.43	0.90	1.281
Prefrontal L	0.93	1.21	0.54	0.929
Prefrontal R	1.31	1.47	1.17	1.351
Putamen L	1.13	1.39	0.88	1.227
Putamen R	0.98	1.00	0.62	0.597
Red nucleus L	0.92	1.05	0.53	0.685
Red nucleus R	1.27	1.46	1.11	1.341
Subcallosal gyrus L	0.93	1.16	0.55	0.856
Subcallosal gyrus R	1.14	1.28	0.90	1.047
Substantia nigra L	0.99	1.16	0.65	0.855
Substantia nigra R	1.08	1.29	0.80	1.072
Supramarginal gyrus L	1.06	1.21	0.76	0.929
Supramarginal gyrus R	1.00	1.16	0.67	0.860
Temporal medial L	1.08	1.28	0.80	1.044
Temporal medial R	1.02	1.20	0.70	0.928
Thalamus L	1.11	1.53	0.84	1.454
Thalamus R	1.00	1.14	0.66	0.824
Ventromedial prefrontal L	1.25	1.45	1.08	1.318
Ventromedial prefrontal R	1.06	1.52	0.76	1.433

¹¹C-PIB, Pittsburgh compound B; DAT, dementia of the Alzheimer type.

Table S3. Sphere metabolic data

Coordinate name	GI	FDG	CMRO ₂
Amygdala L	-156	1.14	1.33
Amygdala R	-152	1.12	1.30
Anterior cingulate L	-112	0.78	0.88
Anterior cingulate R	-109	0.82	0.91
Caudate L	-63	0.96	1.02
Caudate R	-60	1.29	1.39
Cerebellum L	-56	0.97	1.02
Cerebellum R	-49	1.16	1.23
Corona radiata L	-46	1.03	1.08
Corona radiata R	-45	0.90	0.93
Dorsomedial prefrontal L	-44	0.91	0.94
Dorsomedial prefrontal R	-43	0.84	0.87
Superior longitudinal fascicle L	-41	0.82	0.85
Superior longitudinal fascicle R	-33	1.09	1.13
Gyrus rectus L	-24	1.29	1.34
Gyrus rectus R	-24	1.07	1.11
Hippocampus L	-17	0.65	0.63
Hippocampus R	-6	1.22	1.24
Inferior frontal gyrus L	-3	0.65	0.62
Inferior frontal gyrus R	8	0.74	0.70
Insula L	9	1.21	1.22
Insula R	9	1.04	1.03
Lateral temporal L	10	0.76	0.72
Lateral temporal R	18	1.34	1.34
Medial frontal gyrus L	20	1.03	1.00
Medial frontal gyrus R	42	1.03	0.99
Middle frontal gyrus L	44	1.18	1.15
Middle frontal gyrus R	46	1.11	1.05
Occipital L	49	1.09	1.03
Occipital R	49	1.14	1.09
Orbitofrontal L	56	1.17	1.11
Orbitofrontal R	58	1.17	1.12
Lateral parietal L	58	1.37	1.34
Lateral parietal R	59	1.12	1.06
Postcentral gyrus L	61	1.15	1.09
Postcentral gyrus R	62	1.22	1.17
Posterior cingulate L	64	1.15	1.08
Posterior cingulate R	67	1.16	1.09
Precentral gyrus L	69	1.23	1.16
Precentral gyrus R	70	1.11	1.03
Precuneus L	85	1.36	1.30
Precuneus R	87	1.25	1.18
Prefrontal L	91	1.23	1.15
Prefrontal R	93	1.31	1.22
Putamen L	96	1.28	1.19
Putamen R	100	1.30	1.21
Red nucleus L	101	1.28	1.19
Red nucleus R	103	1.34	1.25
Subcallosal gyrus L	105	1.23	1.13
Subcallosal gyrus R	106	1.29	1.19
Substantia nigra L	108	1.27	1.16
Substantia nigra R	111	1.12	0.99
Supramarginal gyrus L	122	1.24	1.11
Supramarginal gyrus R	122	1.22	1.10
Temporal medial L	123	1.29	1.17
Temporal medial R	132	1.27	1.14
Thalamus L	132	1.28	1.15
Thalamus R	134	1.29	1.15
Ventromedial prefrontal L	134	1.43	1.31
Ventromedial prefrontal R	155	1.31	1.15

CMRO₂, cerebral metabolic rate for oxygen; FDG, ¹⁸F-fluorodeoxy-D-glucose; GI, glycolytic index.