

**Table e-1.** Clusters of reduced FDG-PET glucose metabolism in women as compared to men.

<b>Cluster extent</b>	<b>T</b>	<b>Z<sup>†</sup></b>	<b>Talairach coordinates*</b>	<b>Hemisphere</b>	<b>Anatomical area</b>	<b>Brodmann Area</b>
38	3.85	3.59	-36 5 60	Left	Middle Frontal Gyrus	BA 8
69	3.77	3.53	35 30 49	Right	Superior Frontal Gyrus	BA 8
25	3.37	3.19	33 39 29	Right	Middle Frontal Gyrus	BA 9

\*Coordinates (x, y, z) from Talairach and Tournoux. †Z values at the peak of maximum significance at  $p < 0.001$ , corrected for the search volume. Only contrasts yielding significant results are reported.

**Table e-2.** Clusters of increased PiB-PET uptake in women as compared to men.

<b>Cluster extent</b>	<b>T</b>	<b>Z<sup>†</sup></b>	<b>Talairach coordinates*</b>	<b>Hemisphere</b>	<b>Anatomical area</b>	<b>Brodmann Area</b>
56	4.13	3.82	4 8 44	Right	Medial Frontal Gyrus	BA 32
	3.66	3.44	2 17 43	Right	Medial Frontal Gyrus	BA 8
31	4.05	3.76	50 -48 -18	Right	Fusiform Gyrus	BA 37
86	3.99	3.71	10 -64 11	Right	Posterior Cingulate	BA 30
37	3.82	3.57	30 -45 -10	Right	Parahippocampal Gyrus	BA 37
32	3.69	3.46	10 -36 2	Right	Parahippocampal Gyrus	BA 27
32	3.63	3.41	-21 -60 -9	Left	Fusiform Gyrus	BA 19
28	3.45	3.26	3 -19 49	Right	Medial Frontal Gyrus	BA 8

\*Coordinates (x, y, z) from Talairach and Tournoux. †Z values at the peak of maximum significance at  $p < 0.001$ , corrected for the search volume. Only contrasts yielding significant results are reported.

**Table e-3.** Clusters of reduced MRI gray matter volumes in women as compared to men.

<b>Cluster extent</b>	<b>T</b>	<b>Z<sup>†</sup></b>	<b>Talairach coordinates*</b>	<b>Hemisphere</b>	<b>Anatomical area</b>	<b>Brodmann Area</b>
362	7.13	5.93	-27 32 -7	Left	Inferior Frontal Gyrus	BA 47
	5.12	4.59	-36 29 -9	Left	Inferior Frontal Gyrus	BA 47
74	5.54	4.89	-39 -47 19	Left	Superior Temporal Gyrus	BA 13
534	5.48	4.85	34 31 -9	Right	Inferior Frontal Gyrus	BA 47
	5.13	4.59	27 32 -3	Right	Inferior Frontal Gyrus	BA 47
	5.03	4.52	16 52 -14	Right	Superior Frontal Gyrus	BA 11
190	5.11	4.58	-20 42 -11	Left	Middle Frontal Gyrus	BA 11
	5.10	4.57	-10 26 -11	Left	Medial Frontal Gyrus	BA 11
	4.77	4.33	-9 38 -17	Left	Inferior Frontal Gyrus	BA 11
45	4.96	4.46	-24 -70 20	Left	Precuneus	BA 31
	3.66	3.44	-18 -75 27	Left	Precuneus	BA 31
273	4.90	4.42	50 -4 -23	Right	Fusiform Gyrus	BA 20
	4.68	4.25	39 -5 -27	Right	Middle Temporal Gyrus	BA 21
	4.55	4.15	38 1 -30	Right	Middle Temporal Gyrus	BA 21
195	4.72	4.28	21 -51 30	Right	Precuneus	BA 31
	4.11	3.81	14 -54 34	Right	Precuneus	BA 31
105	4.64	4.22	12 26 -13	Right	Medial Frontal Gyrus	BA 25
	3.83	3.58	15 38 -19	Right	Inferior Frontal Gyrus	BA 11
86	4.56	4.17	-38 -5 -27	Left	Middle Temporal Gyrus	BA 21
66	4.56	4.16	48 -34 33	Right	Inferior Parietal Lobule	BA 40
	4.14	3.83	44 -32 26	Right	Inferior Parietal Lobule	BA 40
40	4.55	4.15	12 -24 56	Right	Medial Frontal Gyrus	BA 6

123	4.54	4.14	-10 47 21	Left	Medial Frontal Gyrus	BA 9
	4.02	3.74	-12 55 8	Left	Medial Frontal Gyrus	BA 10
48	4.53	4.14	-50 -30 4	Left	Superior Temporal Gyrus	BA 22
	3.58	3.37	-50 -37 10	Left	Superior Temporal Gyrus	BA 22
177	4.31	3.96	18 44 3	Right	Medial Frontal Gyrus	BA 10
	4.07	3.78	16 56 -8	Right	Superior Frontal Gyrus	BA 11
	3.74	3.50	26 46 -7	Right	Middle Frontal Gyrus	BA 11
45	4.23	3.90	26 -69 18	Right	Cuneus	BA 18
	4.09	3.79	20 -73 23	Right	Precuneus	BA 31
51	4.22	3.90	-16 -45 31	Left	Precuneus	BA 31
31	4.04	3.75	-10 -41 22	Left	Cingulate Gyrus	BA 31
	3.81	3.56	-4 -32 24	Left	Posterior Cingulate	BA 23
28	3.85	3.59	10 -43 22	Right	Posterior Cingulate	BA 23

\*Coordinates (x, y, z) from Talairach and Tournoux. †Z values at the peak of maximum significance at  $p < 0.001$ , corrected for the search volume. Only contrasts yielding significant results are reported. Gray matter volumes are adjusted for age and total intracranial volume.

**Table e-4.** Prediction of group membership using AD biomarkers

	<b>% Sensitivity</b>	<b>% Specificity</b>	<b>% Accuracy</b>	<b>P value</b>	<b>Relative Risk</b>	<b>95% CI</b>
<b>Women vs Men</b>						
PiB uptake <i>Cut-off=1.22 SUVR</i>	97	63	86	<0.001	2.6	1.5-4.8
FDG uptake <i>Cut-off=1.37 SUVR</i>	87	42	72	<0.001	2.1	1.2-3.6
GMV <i>Cut-off=1.02 cc</i>	55	47	52	n.s.	1.1	0.6-1.8
WMV <i>Cut-off=0.79 cc</i>	92	68	84	<0.001	2.9	1.5-5.7
Combined WMV and FDG uptake	95	79	90	<0.001	4.5	1.9-10.8
<b>Menopausal women vs Men</b>						
PiB uptake <i>Cut-off=1.41 SUVR</i>	83	89	87	<0.001	7.5	2.0-28.4
FDG uptake <i>Cut-off=1.51 SUVR</i>	92	89	90	<0.001	8.3	2.2-30.8
GMV <i>Cut-off=1.03 cc</i>	75	89	83	0.002	6.8	1.8-30.0
WMV <i>Cut-off=0.77 cc</i>	75	89	83	<0.001	6.8	1.8-30.0
Combined PiB, WMV and FDG uptake	100	100	100	<0.001	36.5	2.3-564.3
<b>Perimenopausal women vs Men</b>						
PiB uptake <i>Cut-off=1.20 SUVR</i>	85	89	87	<0.001	7.6	2.0-28.7
FDG uptake <i>Cut-off=1.44 SUVR</i>	54	83	71	0.01	3.2	1.0-10.2
GMV <i>Cut-off=1.01 cc</i>	54	67	61	n.s.	1.6	0.7-3.7
WMV <i>Cut-off=0.77 cc</i>	85	89	87	<0.001	7.6	2.0-28.7
<b>Premenopausal women vs Men</b>						
PiB uptake <i>Cut-off=1.08 SUVR</i>	71	78	75	<0.001	3.2	1.3-8.1
FDG uptake <i>Cut-off=1.38 SUVR</i>	79	78	78	<0.001	3.5	1.4-8.8

GMV <i>Cut-off=1.01 cc</i>	57	67	63	n.s.	1.7	0.8-3.8
WMV <i>Cut-off=0.81 cc</i>	93	94	94	<0.001	16.7	2.4-112.9
Combined WMV and FDG uptake	100	100	100	<0.001	26.7	2.4-567.1
<b>Menopausal vs Premenopausal women</b>						
PiB uptake <i>Cut-off=1.19 SUVR</i>	92	93	92	<0.001	12.8	1.9-85.5
FDG uptake <i>Cut-off=1.44 SUVR</i>	92	100	96	<0.001	26.5	1.7-407.9
GMV <i>Cut-off=1.01 cc</i>	50	71	62	0.09	2.0	0.8-5.3
WMV <i>Cut-off=0.77 cc</i>	83	75	77	<0.001	2.9	1.2-6.9
Combined PiB and FDG uptake	92	100	96	<0.001	26.5	1.7-407.9
<b>Perimenopausal vs Premenopausal women</b>						
PiB uptake <i>Cut-off=0.86 SUVR</i>	85	93	89	<0.001	11.9	1.8-79.4
FDG uptake <i>Cut-off=1.37 SUVR</i>	77	71	74	0.05	2.7	1.2-6.5
GMV <i>Cut-off=1.25 cc</i>	46	86	67	0.02	3.2	0.8-13.2
WMV <i>Cut-off=0.80 cc</i>	85	71	78	<0.001	3.0	1.3-7.0
<b>Menopausal vs Perimenopausal women</b>						
PiB uptake <i>Cut-off=1.56 SUVR</i>	85	75	80	<0.001	4.9	1.3-18.2
FDG uptake <i>Cut-off=1.63 SUVR</i>	92	77	84	<0.001	4.0	1.5-10.9
GMV <i>Cut-off=1.01 cc</i>	42	77	60	n.s.	1.8	0.5-6.0
WMV <i>Cut-off=0.71 cc</i>	42	69	56	n.s.	1.4	0.5-3.9