Supplementary Table 1. GEMS Pittsburgh Cohort Baseline Data by Groups at 2000-2002 With and Without PiB Data at 2009

	With PiB Data at 2009	Without PiB Data (Alive and CN at 2009)	
Number of subjects	**182**	**525**	
	Mean+SD/N (%)	Mean+SD/N (%)	p-value
Age	77.7 ± 2.7	**78.2 ± 3.0**	0.065
Race - Whites	176 (96.7)	518 (96.5)	0.878
Gender - Men	107 (58.8)	267 (49.7)	0.034*
Education level, years	14.7 ± 2.6	14.5 ± 2.8	0.488
3MSE score	94.4 ± 4.8	93.8 ± 4.4	0.132
CES-D	2.9 ± 3.5	3.5 ± 3.5	0.051
APOE4 allele	31.0 (20.7)	87 (19.9)	0.842
Amyloid-β measures			
Amyloid-β1-42, pg/mL	15.5 ± 33.9	15.0 ± 25.9	0.515
Amyloid-β1-40, pg/mL	163.6 ± 66.3	172.6 ± 105.8	0.582
Amyloid-β1-42/1-40 ratio	0.1 ± 0.2	0.1 ± 0.1	0.864
Clinical measures			
BMI, kg/m^2	26.9 ± 3.8	27.4 ± 4.5	0.159
SBP, mmHg	131.7 ± 18.8	132.6 ± 18.1	0.549
DBP, mmHg	71.4 ± 9.1	70.8 ± 9.5	0.475
History of stroke	2 (1.1)	14 (2.6)	0.382
History of heart attack	7 (3.9)	53 (9.9)	0.012*
History of hypertension	63 (35.6)	226 (43.4)	0.069
History of diabetes mellitus	10 (5.6)	49 (9.3)	0.130
History of cancer	30 (16.5)	88 (16.4)	0.976
Number of blocks walked/week	47.5 ± 58.5	40.1 ± 56.7	0.134
Laboratory measures			
Creatinine, mg%	1.0 ± 0.2	1.0 ± 0.2	0.982
WBC, K/uL	6.1 ± 1.3	6.4 ± 1.5	0.019*
Hematocrit, %	41.1 ± 3.4	40.5 ± 3.4	0.030*
ALT, U/L	24.9 ± 8.6	24.5 ± 8.7	0.788
AST, U/L	23.2 ± 5.3	22.4 ± 6.4	0.040*
GGT, U/L	29.6 ± 19.7	29.8 ± 16.5	0.698
Vitamin B12, pg/mL	506.0 ± 246.4	518.0 ± 262.5	0.784
TSH, mIU/L	2.0 ± 1.3	2.1 ± 1.7	0.747

*significant p<0.05
Creatinine, ALT, AST, GGT, Vitamin B12, TSH, Aβ were log-transformed for the comparisons.
Abbreviations: 3MSE, Modified Mini-Mental State Examination; AL, alanine aminotransferase; AST, aspartate aminotransferase; BMI, body mass index; BP, blood pressure; CES-D, Center for Epidemiologic Studies Depression Scale; DBP, diastolic BP; GGT, gamma-glutamyl transpeptidase; PiB, Pittsburgh compound-B; TSH, thyroid-stimulating hormone; WBC, white blood cell count
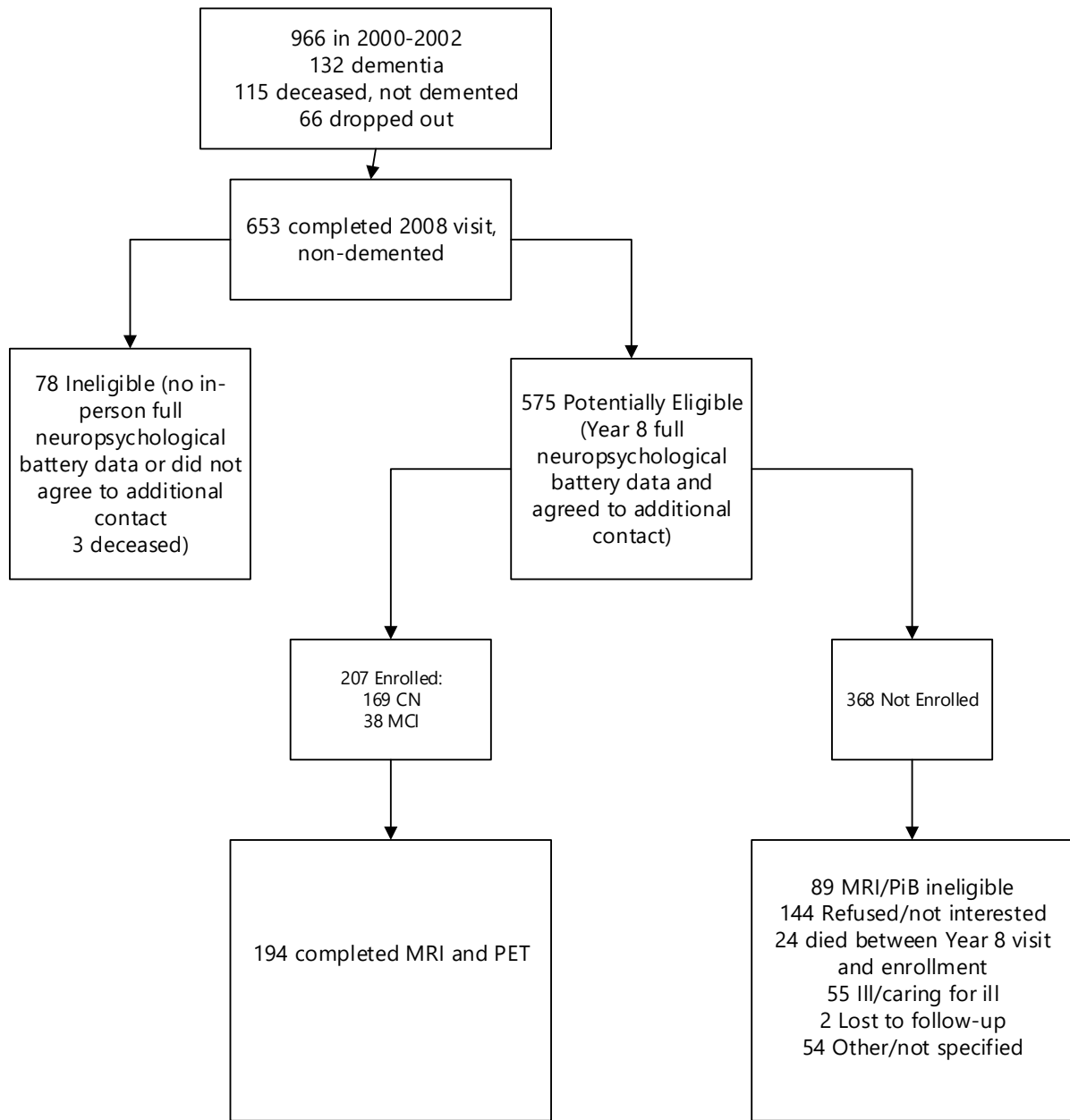
Supplementary Table 2. Associations of Amyloid-β1-42 as Measured at 2000-2002 and 2009 in the Pittsburgh GEMS Cohort

	Regression Coefficient for log Amyloid-β1-42 Measured at 2000-2002 (n=160)			Regression Coefficient for log Amyloid-β1-42 Measured at 2009 (n=133)		
Baseline 2000-2002	**Estimate**	**SE**	**p-value**	**Estimate**	**SE**	**p-value**
Age	0.012	0.011	0.287	0.017	0.017	0.323
Race – white	0.267	0.219	0.224	0.092	0.315	0.772
Gender – female	0.084	0.075	0.266	0.003	0.114	0.982
Years of education	-0.009	0.012	0.463	-0.004	0.019	0.848
BMI ≥30 kg/m^2	0.031	0.079	0.700	0.156	0.136	0.251
Log creatinine	0.430	0.164	0.009	-0.168	0.247	0.498
Hypertension	0.127	0.068	0.063	0.153	0.105	0.146
Diabetes mellitus	0.233	0.117	0.046	0.391	0.225	0.084
History of heart attack	0.013	0.108	0.906	-0.034	0.190	0.858
APOE4	-0.008	0.080	0.918	0.096	0.119	0.421

Abbreviations: APOE4, apolipoprotein-E4; BMI, body mass index; GEMS, Ginkgo Evaluation of Memory Study

Supplementary Table 3. Percent PiB+ by Quartiles of Amyloid-β1-42/Amyloid-β1-40 Ratio in the Pittsburgh GEMS Cohort

CN Participants at 2009	N	# PiB+	% PiB-	Age-adjusted p-value	Trend p-value
Amyloid-β1-42/1-40 Ratio at 2000 **Quartiles**					
1	24	14	58.3		
2	30	14	46.7		
3	34	18	52.9		
4	35	17	48.6	0.824	0.622
Amyloid-β1-42/1-40 Ratio at 2009 **Quartiles**					
1	25	15	60.0		
2	22	13	59.1		
3	30	13	43.3		
4	26	9	34.6	0.209	0.039
Abbreviations: GEMS, Ginkgo Evaluation of Memory Study; PiB, Pittsburgh compound-B					

	CN at Baseline 2000-2002					CN at Follow up 2009				
	n	# PiB+ at 2009	% PiB+ at 2009	p-value	trend p-value	n	# PiB+ at 2009	% PiB+ at 2009	p-value	trend p-value
Amyloid-β1-42 Quartiles of Change										
1	30	13	43.33			25	10	40.00		
2	30	15	50.00			27	15	55.56		
3	29	20	68.97			26	15	57.69		
4	29	16	55.17	0.241	0.181	22	9	40.91	0.451	0.862

Supplementary Table 4. Relationship of Change in Plasma Amyloid-β1-42 From Baseline 2000-2002 to Follow up 2009 and Percent PiB SUVR ≥1.57

note: Amyloid-β1-42 change quartile: 1Q: ≤-4.39, 2Q: -4.38 to -0.70, 3Q: -0.69 to 3.03, 4Q: >3.03

Abbreviations: CN, cognitively normal; GEMS, Ginkgo Evaluation of Memory Study; PiB, Pittsburgh compound-B; SUVR, standardized uptake value ratio

966 in 2000-2002
132 dementia
115 deceased, not demented
66 dropped out

653 completed 2008 visit, non-demented

78 Ineligible (no in-person full neuropsychological battery data or did not agree to additional contact 3 deceased)

575 Potentially Eligible (Year 8 full neuropsychological battery data and agreed to additional contact)

207 Enrolled:
169 CN
38 MCI

368 Not Enrolled

194 completed MRI and PET

89 MRI/PiB ineligible
144 Refused/not interested
24 died between Year 8 visit and enrollment
55 Ill/caring for ill
2 Lost to follow-up
54 Other/not specified

Supplementary Figure.

Supplementary Figure Legend

Description of GEMS Imaging Study Recruitment