SUPPLEMENTARY TABLES

Supplementary Table 1

Demographic Differences Between Aβ+/Aβ- Within Cohort

Variables	HABS n=290			AIBL n=272			ADNI n=246		
	High Aβ	Low Aβ	High vs. Low p-value	High Aβ	Low Aβ	High vs. Low p-value	High Aβ	Low Aβ	High vs. Low p-value
n	73	217		84	187		110	237	
Age, mean, SD	74.80 (6.09)	72.76 (6.37)	.015	75.51 (6.28)	70.95 (5.86)	<.001	76.16 (6.15)	73.88 (6.54)	.002
Female sex, %	61	59	.710	45	57	.013	64	48	.005
Education, mean, SD	16.15 (2.93)	15.76 (3.06)	.327	13.64 (2.24)	13.67 (2.31)	.919	16.05 (1.10)	16.67 (1.27)	<.001
MMSE, mean, SD	28.84 (1.08)	29.08 (1.08)	.093	28.73 (1.30)	28.94 (1.16)	.207	28.91 (1.76)	29.08 (1.34)	.369
PACC, mean, SD	-0.03 (0.67)	0.00 (0.65)	.699	-0.18 (0.68)	0.10 (0.62)	.002	-0.09 (0.60)	0.06 (0.62)	.033
Progressors to MCI at year 3+, %	20	1	<.001	26	7	<.001	32	10	<.001
Progressors to CDR>0 at year 3+, %	23	7	<.001	31	8	<.001	39	12	<.001

NOTE. Means and Standard Deviations reported unless otherwise noted. HABS: Harvard Aging Brain Study, AIBL: Australian Biomarker and Lifestyle Study, ADNI: Alzheimer's Disease Neuroimaging Initiative, MMSE: Mini-Mental State Exam, PACC: Preclinical Alzheimer's Cognitive Composite (5-component)

Supplementary Table 2

Linear mixed effect models showing change in PACC over 3 years amongst the Aβ+/- participants by cohort (PACC~time+Age+Sex+Education) using random slopes and intercepts.

Model Terms	Aβ+				Aβ-			
	HABS							
	b	**df**	**Estimate (SE)**	**p**	**b**	**df**	**Estimate (SE)**	**p**
Intercept	-0.01	204	-0.07 (0.09)	.938	0.07	613	1.54(0.05)	.124
Time	**-0.11**	**204**	**-4.04(0.03)**	**.000**	**0.03**	**613**	**3.05(0.01)**	**.002***
Age	-0.02	69	-1.26(0.01)	.212	-0.03	215	-5.11(0.01)	.000
Sex	-0.12	69	-0.79(0.16)	.429	-0.30	215	-4.03(0.08)	.001
Educ.	**0.07**	**69**	**2.59(0.03)**	**.011**	**0.09**	**215**	**7.07(0.01)**	**.000**
	AIBL							
Intercept	1.06	127	1.33(0.79)	.184	0.84	299	1.54(0.55)	.125
Time	**-0.08**	**127**	**-2.69(0.03)**	**.007**	-0.01	299	-0.44(0.01)	.657
Age	**-0.04**	**80**	**-4.46(0.01)**	**.000**	**-0.03**	**183**	**-4.09(0.01)**	**.000**
Sex	**0.34**	**80**	**2.80(0.12)**	**.006**	**0.25**	**183**	**3.09(0.08)**	**.002**
Educ.	**0.13**	**80**	**4.79(0.03)**	**.000**	**0.08**	**183**	**4.57(0.02)**	**.000**
	ADNI							
Intercept	1.15	284	1.36(0.84)	.174	0.18	632	0.36(0.49)	.716
Time	**-0.11**	**284**	**-4.02(0.03)**	**.000**	-0.02	632	-1.26(0.01)	.206
Age	**-0.02**	**106**	**-2.57(0.01)**	**.011**	**-0.02**	**233**	**-3.00(0.01)**	**.003**
Sex	0.18	106	1.44(0.13)	.153	0.13	233	1.77(0.07)	.078
Educ.	0.03	106	1.64(0.02)	.104	**0.06**	**233**	**4.50(0.01)**	**.000**

NOTE. HABS: Harvard Aging Brain Study, AIBL: Australian Biomarker and Lifestyle Study, ADNI: Alzheimer's Disease Neuroimaging Initiative, PACC: Preclinical Alzheimer's Cognitive Composite (5-component)

*indicates improvement in performance over time

Supplementary Table 3

Cox Regression Analyses Testing the limits of Risk for Progression to MCI at year 3+ in Aβ+ in HABS

Restricting PACC Slope to 2 years					
	Model Terms	Hazard Ratio	Standard Error	Estimate	p-value
	PACC Slope	0.031	4.119	-0.84	.399
	PACC Intercept	0.867	0.604	-0.22	.825
	Age	1.036	0.073	1.36	.172
	Sex*	**0.076**	**1.099**	**-2.46**	**.013**
	Education	0.917	0.154	0.25	.803
Restricting PACC Slope to 1 year					
	PACC Slope	1.232	1.781	0.12	.906
	PACC Intercept	0.749	0.649	-0.45	.656
	Age	1.133	0.072	1.75	.079
	Sex*	**0.077**	**1.081**	**-2.37**	**.017**
	Education	1.081	0.134	0.58	.563
3-year slopes for individual PACC components					
MMSE	**MMSE Slope***	**0.089**	**0.572**	**-4.22**	**.000**
	MMSE Intercept	0.750	0.265	-1.08	.279
	Age	1.095	0.050	-1.79	.072
	Sex*	0.100	0.804	-2.85	.004
	Education	2.307	0.117	2.27	.023

FCSRT	**FCSRT Slope***	**0.689**	**0.079**	**-4.67**	**.000**
	FCSRT Intercept*	**0.865**	**0.052**	**-2.77**	**.005**
	Age	1.071	0.053	1.27	.302
	Sex*	**-2.326**	**0.805**	**-2.88**	**.003**
	Education*	0.320	0.120	2.68	.007
DSST	**DSST Slope***	**0.729**	**0.112**	**-2.81**	**.004**
	DSST Intercept	0.975	0.026	-0.93	.352
	Age	1.019	0.053	0.36	.716
	Sex*	**0.087**	**0.886**	**-2.75**	**.005**
	Education	1.158	0.118	1.24	.212
LMDR	**LMDR Slope***	**0.229**	**0.320**	**-4.59**	**.000**
	LMDR Intercept	0.870	0.105	-1.32	.186
	Age	1.046	0.045	1.01	.315
	Sex*	**0.178**	**0.821**	**-2.09**	**.036**
	Education	1.068	0.096	0.69	.489
CAT	**CAT Slope***	**0.626**	**0.150**	**-3.09**	**.001**
	CAT Intercept*	**0.890**	**0.041**	**-2.81**	**.004**
	Age	1.017	0.054	0.32	.744
	Sex*	**0.105**	**0.792**	**-2.83**	**.004**
	Education	1.221	0.108	1.83	.069

NOTE. In all Cox Regression Models above, there are a total of 58 observations and 12 instances of progression to MCI at year 3+. HABS: Harvard Aging Brain Study, PACC5: Preclinical Alzheimer's Cognitive Composite (5-component), MMSE: Mini Mental Status Exam, FCSRT: Free and Cued Selective Reminding Test, DSST: Digit Symbol Substitution Test, LMDR: Logical Memory Delayed Recall, CAT: Category Fluency

Supplementary Table 4

Predictive Utility of Various PACC Slope Cutpoints to MCI Diagnosis: Receiver Operator Curve (ROC)

Study	AUC	SE	p
HABS	.695	.078	.016
AIBL	.869	.061	.000
ADNI	.783	.067	.000
	Coordinates of the Curve		
	Positive if <	Specificity	Sensitivity
HABS	-2.25	100.00	0.00
	-.40	99.95	17.60
	-.33	99.89	35.30
	-.26	99.86	41.20
	-.21	99.82	52.90
	-.16	99.80	58.80
	-.15	99.75	64.70
	-.14	99.71	64.70
	-.12	99.66	64.70
	-.10	99.62	64.70
	-.09	99.60	70.60
	-.08	99.55	70.60
	-.06	99.47	76.50
	.00	99.35	82.40
	.04	99.26	88.20
	.09	99.16	88.20
	.11	99.15	88.20
	.14	99.11	94.10
	.19	99.09	100.00
AIBL	-1.97	100.00	0.00
	-.87	100.00	8.30
	-.65	100.00	16.70
	-.44	100.00	25.00
	-.32	99.97	41.70
	-.29	99.97	50.00
	-.19	99.91	66.70
	-.17	99.88	66.70
	-.16	99.88	75.00

	-.15	99.85	75.00
	-.14	99.79	75.00
	-.13	99.76	75.00
	-.12	99.76	83.30
	-.10	99.73	83.30
	-.08	99.64	83.30
	-.05	99.55	83.30
	-.03	99.52	91.70
	.00	99.46	100.00
	.01	99.42	100.00
ADNI	-2.01	100.00	0.00
	-.50	99.95	15.80
	-.43	99.95	21.10
	-.36	99.93	26.30
	-.31	99.90	63.20
	-.26	99.83	68.40
	-.21	99.80	73.70
	-.19	99.75	73.70
	-.16	99.73	78.90
	-.14	99.70	78.90
	-.10	99.65	78.90
	-.09	99.63	78.90
	-.05	99.58	78.90
	-.04	99.58	84.20
	-.03	99.53	84.20
	.00	99.45	84.20
	.02	99.38	89.50
	.03	99.30	94.70
	.12	99.15	100.00

NOTE. AUC=area under the curve; SE=standard error; HABS: Harvard Aging Brain Study, AIBL: Australian Biomarker and Lifestyle Study, ADNI: Alzheimer's Disease Neuroimaging Initiative, PACC: Preclinical Alzheimer's Cognitive Composite (5-component)