



SUPPLEMENTAL FIGURE 1 $K_{1-Water}$ ($\text{mL}\cdot\text{cm}^{-3}\cdot\text{min}^{-1}$) and K_{1-PiB} ($\text{mL}\cdot\text{cm}^{-3}\cdot\text{min}^{-1}$) values (grouped by diagnosis with means and standard deviations) are shown for primary cortical regions (typically with significant beta-amyloid load in

AD) and CER and PON (usually without significant beta-amyloid deposition). Values are adjusted for CSF dilution. The AD subject with $K_{I-Water}$ values higher than controls (CON) exhibited significant cortical atrophy, contributing to high $K_{I-Water}$ values after correcting for CSF dilution.

SUPPLEMENTAL TABLE 1 CSF Dilution Correction Factors

		ACG	FRC	LTC	PAR	PRC	CTX5	CER	PON
Controls (n=6)	MEAN	0.912	0.921	0.932	0.930	0.929	0.926	0.978	0.985
	SD	0.083	0.038	0.030	0.053	0.059	0.045	0.028	0.017
MCI (n=8)	MEAN	0.808	0.857	0.897	0.872	0.843	0.859	0.958	0.990
	SD	0.077	0.045	0.046	0.044	0.062	0.047	0.020	0.005
AD (n=5)	MEAN	0.819	0.878	0.899	0.896	0.841	0.870	0.966	0.990
	SD	0.037	0.027	0.031	0.048	0.073	0.040	0.033	0.006
Overall (n=19)	MEAN	0.844	0.882	0.909	0.897	0.870	0.883	0.966	0.988
	SD	0.083	0.046	0.039	0.052	0.073	0.052	0.026	0.010

SD=standard deviation

SUPPLEMENTAL TABLE 2 Correlation Between Delivery Parameters and ¹¹C-PiB Retention* †

ROI	Spearman's rho (p-value)									
	2T-4k-DVR		ART90-DVR		CER90-DVR		SUVR70		SRTM2-DVR	
	<i>K_{I-Water}</i>									
ACG	0.038	(0.888)	0.075	(0.759)	0.123	(0.616)	0.100	(0.684)	0.140	(0.567)
FRC	-0.353	(0.180)	-0.249	(0.303)	-0.104	(0.673)	-0.135	(0.581)	-0.101	(0.681)
LTC	-0.263	(0.324)	-0.213	(0.380)	-0.098	(0.689)	-0.113	(0.644)	-0.097	(0.694)
PAR	-0.429	(0.097)	-0.442	(0.058)	-0.253	(0.297)	-0.327	(0.171)	-0.272	(0.260)
PRC	-0.259	(0.333)	-0.319	(0.183)	-0.189	(0.437)	-0.242	(0.318)	-0.288	(0.232)
CTX5	-0.341	(0.196)	-0.281	(0.244)	-0.093	(0.705)	-0.130	(0.596)	-0.093	(0.705)
MTC	-0.368	(0.161)	-0.111	(0.652)	-0.054	(0.825)	-0.086	(0.726)	0.052	(0.833)
OCC	-0.113	(0.676)	-0.224	(0.357)	-0.414	(0.078)	-0.383	(0.106)	-0.495	(0.031)
OCP	-0.109	(0.688)	-0.238	(0.327)	-0.280	(0.246)	-0.275	(0.255)	-0.432	(0.065)
SMC	0.082	(0.762)	0.029	(0.906)	0.060	(0.808)	0.126	(0.606)	0.086	(0.726)
AVS	-0.422	(0.103)	-0.254	(0.295)	-0.158	(0.518)	-0.183	(0.454)	-0.118	(0.629)
SWM	-0.013	(0.961)	-0.098	(0.689)	0.421	(0.072)	0.459	(0.048)	0.067	(0.786)
PON	-0.521	(0.039)	-0.533	(0.019)	-0.374	(0.115)	-0.335	(0.161)	-0.077	(0.753)
THL	-0.393	(0.132)	-0.288	(0.232)	-0.146	(0.551)	-0.221	(0.364)	-0.107	(0.662)
CER	0.071	(0.795)	0.147	(0.547)	N/A	N/A	0.156	(0.523)	N/A	N/A
	<i>Rel-K_{I-Water}</i>									
ACG	0.485	(0.057)	0.404	(0.087)	0.386	(0.103)	0.379	(0.110)	0.354	(0.137)
FRC	0.324	(0.222)	0.230	(0.344)	0.239	(0.325)	0.196	(0.420)	0.167	(0.495)
LTC	0.241	(0.368)	0.204	(0.403)	0.175	(0.473)	0.154	(0.528)	0.096	(0.694)
PAR	0.259	(0.333)	0.060	(0.808)	0.068	(0.781)	0.063	(0.797)	-0.011	(0.966)
PRC	0.379	(0.147)	0.154	(0.528)	0.144	(0.557)	0.139	(0.571)	0.058	(0.814)
CTX5	0.326	(0.217)	0.160	(0.514)	0.202	(0.408)	0.189	(0.437)	0.132	(0.591)
MTC	0.082	(0.762)	0.449	(0.054)	0.409	(0.082)	0.416	(0.076)	0.335	(0.161)

OCC	0.426	(0.099)	-0.018	(0.943)	-0.028	(0.909)	-0.074	(0.764)	-0.200	(0.412)
OCP	0.650	(0.006)	0.195	(0.424)	0.084	(0.732)	0.100	(0.684)	-0.061	(0.803)
SMC	*0.706	(0.002)	0.544	(0.016)	0.593	(0.007)	0.549	(0.015)	0.468	(0.043)
AVS	0.374	(0.154)	0.176	(0.470)	0.276	(0.254)	0.268	(0.268)	0.243	(0.316)
SWM	0.256	(0.338)	0.111	(0.652)	0.427	(0.069)	0.462	(0.046)	0.324	(0.176)
PON	-0.128	(0.637)	0.025	(0.918)	0.043	(0.861)	-0.055	(0.822)	0.239	(0.325)
THL	0.389	(0.137)	0.287	(0.233)	0.221	(0.363)	0.217	(0.373)	0.235	(0.332)
Rel-K _{1-PiB}										
ACG	0.856	(<0.001)	0.791	(<0.001)	0.811	(<0.001)	0.825	(<0.001)	0.819	(<0.001)
FRC	0.450	(0.080)	0.458	(0.049)	0.539	(0.017)	0.504	(0.028)	0.500	(0.029)
LTC	0.253	(0.344)	0.361	(0.129)	0.484	(0.036)	0.467	(0.044)	0.458	(0.049)
PAR	0.116	(0.668)	0.124	(0.614)	0.301	(0.210)	0.240	(0.322)	0.279	(0.247)
PRC	0.415	(0.110)	0.391	(0.098)	0.460	(0.048)	0.442	(0.058)	0.389	(0.099)
CTX5	0.447	(0.083)	0.426	(0.069)	0.528	(0.020)	0.516	(0.024)	0.533	(0.019)
MTC	0.162	(0.549)	0.627	(0.004)	0.829	(<0.001)	0.845	(<0.001)	0.824	(<0.001)
OCC	0.109	(0.688)	0.128	(0.601)	0.212	(0.383)	0.140	(0.567)	0.012	(0.960)
OCP	0.424	(0.102)	0.487	(0.034)	0.551	(0.015)	0.547	(0.015)	0.354	(0.137)
SMC	0.571	(0.021)	0.656	(0.002)	0.812	(<0.001)	0.733	(<0.001)	0.756	(<0.001)
AVS	0.688	(0.003)	0.551	(0.015)	0.656	(0.002)	0.667	(0.002)	0.621	(0.005)
SWM	0.053	(0.846)	0.040	(0.870)	0.623	(0.004)	0.533	(0.019)	0.196	(0.420)
PON	-0.049	(0.858)	0.306	(0.202)	0.387	(0.102)	0.289	(0.231)	0.419	(0.074)
THL	0.228	(0.395)	0.421	(0.073)	0.529	(0.020)	0.498	(0.030)	0.547	(0.015)
SRTM2-R _l										
ACG	0.868	(<0.001)	0.805	(<0.001)	0.819	(<0.001)	0.830	(<0.001)	0.818	(<0.001)
FRC	0.588	(0.017)	0.502	(0.029)	0.568	(0.011)	0.535	(0.018)	0.530	(0.020)
LTC	0.235	(0.380)	0.384	(0.104)	0.482	(0.036)	0.467	(0.044)	0.475	(0.040)
PAR	0.153	(0.572)	0.091	(0.710)	0.256	(0.290)	0.213	(0.380)	0.237	(0.329)
PRC	0.488	(0.055)	0.335	(0.161)	0.411	(0.081)	0.386	(0.103)	0.335	(0.161)
CTX5	0.434	(0.093)	0.385	(0.103)	0.481	(0.037)	0.469	(0.043)	0.489	(0.034)

MTC	-0.076	(0.778)	0.453	(0.052)	0.702	(0.001)	0.650	(0.003)	0.704	(0.001)
OCC	0.015	(0.957)	-0.072	(0.770)	0.082	(0.737)	0.032	(0.898)	-0.065	(0.792)
OCP	0.535	(0.033)	0.343	(0.150)	0.423	(0.071)	0.425	(0.070)	0.249	(0.304)
SMC	0.556	(0.025)	0.585	(0.008)	0.786	(<0.001)	0.688	(0.001)	0.711	(0.001)
AVS	0.588	(0.017)	0.321	(0.180)	0.446	(0.056)	0.419	(0.074)	0.414	(0.078)
SWM	-0.003	(0.991)	0.098	(0.689)	0.626	(0.004)	0.490	(0.033)	0.461	(0.047)
PON	-0.265	(0.322)	0.139	(0.571)	0.312	(0.193)	0.147	(0.547)	0.409	(0.082)
THL	0.138	(0.610)	0.330	(0.168)	0.470	(0.042)	0.416	(0.077)	0.511	(0.026)

*Statistically significant correlations in bold, threshold of $p < 0.0036$ after Bonferroni correction

†Measures adjusted for CSF dilution