Supplementary Material

Plasma high density lipoprotein cargo is altered in Alzheimer's disease and is associated with regional brain volume

Steve Pedrini[a,b], James D. Doecke[c], Eugene Hone[a,b], Penghao Wang[d], Rohith Thota[e], Ashley I. Bush[b,f], Christopher C. Rowe[g], Vincent Dore[g], Victor L. Villemagne[h], David Ames[i,j], Stephanie Rainey-Smith[a,k], Giuseppe Verdile[l,m], Hamid R. Sohrabi[k], Manfred R. Raida[n], Kevin Taddei[a,b], Sam Gandy[o], Colin L. Masters[f], Pratishtha Chatterjee[e], and Ralph N. Martins[a,b,e,p*] and the AIBL Research Group[7].

Supplementary Table 1

Comparison of HDL-associated cargo (ApoA-I, ApoA-II, ApoC-I, ApoC-III, ApoD, ApoE, ApoH, ApoJ, CRP and SAA) per ml of plasma in stable HC, HC-Converters and AD.

	HC	HC-Conv	AD	p
μgHDL-assApoA-I/ml PL	493 ± 144	460 ± 114	431 ± 94	**0.0091**
μgHDL-assApoA-II/ml PL	138 ± 54	123 ± 49	106 ± 32	**0.0014**
μgHDL-assApoC-I/ml PL	138 ± 46	130 ± 40	116 ± 37	**0.0356**
μgHDL-assApoC-III/ml PL	28.8 ± 13.0	26.5 ± 12.0	24.4 ± 9.7	0.2180
μgHDL-assApoD/ml PL	21.1 ± 4.5	20.0 ± 5.2	21.1 ± 5.0	0.9650
μgHDL-assApoE/ml PL	6.75 ± 3.34	5.78 ± 2.39	4.49 ± 2.23	**0.0072**
μgHDL-assApoH/ml PL	248 ± 69	231 ± 57	208 ± 67	**0.0046**
μgHDL-assApoJ/ml PL	22.3 ± 6.1	19.7 ± 4.3	19.1 ± 4.6	**0.0008**
μgHDL-assCRP/ml PL	2.47 ± 1.03	2.12 ± .51	1.95 ± .99	**0.0009**
μgHDL-assSAA/ml PL	5.92 ± 5.91	4.15 ± 4.27	8.22 ± 8.88	0.7730

Supplementary Table 1. Values are presented as mean ± S.D. Generalized Linear Model analyses were performed unadjusted. Data are presented as raw values, but statistical analysis was performed on log-transformed data to better approximate normal distribution. Analysis was considered significant with $p < 0.05$ (bold).
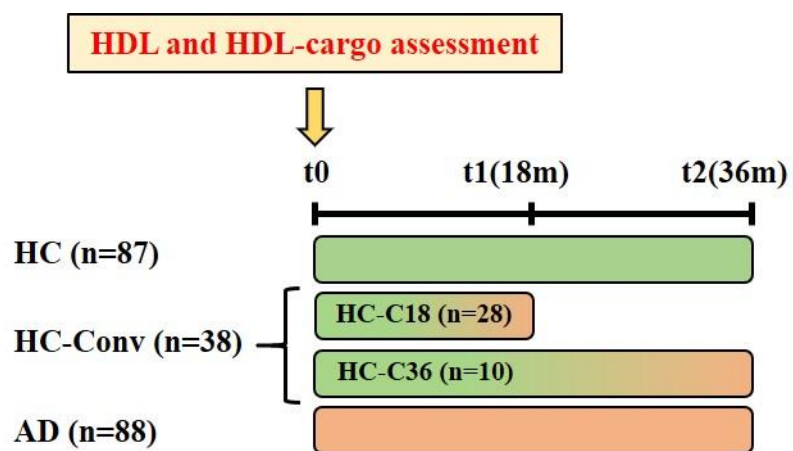
Supplementary Table 2

Partial correlation of HDL-cholesterol and HDL-cargo (ApoA-II, ApoC-I, ApoC-III, ApoD, ApoE, ApoH, ApoJ, CRP and SAA) expressed as ratio to ApoA-I with MMSE (at t0) in individuals with AD.

	MMSE t0	
	r^a	p^a
μgCholesterol/μgApoA-I	.023	.838
ngApoA-II/μgApoA-I	-.102	.376
ngApoC-I/μgApoA-I	-.104	.364
ngApoC-III/μgApoA-I	.078	.498
ngApoD/μgApoA-I	-.022	.852
ngApoE/μgApoA-I	.001	.995
ngApoH/μgApoA-I	.134	.244
ngApoJ/μgApoA-I	.018	.876
ngCRP/μgApoA-I	-.010	.933
ngSAA/μgApoA-I	-.050	.665

Supplementary Table 2. Pearson's correlation adjusted for age, gender, and ApoE ε4-carrier status was performed between HDL-cargo and MMSE. Analysis was considered significant with $p < 0.05$. [a] Data were adjusted for age, gender, and ApoE ε4-carrier status.

Supplementary Figure 1

Supplementary Figure 1. Graphical representation of individual distribution across clinical classification groups.