Cortex	Age *vs* 60	Male	Female
		P = 0.2611	P = 0.0929
		R^2 = 0.050	R^2 = 0.091
Cortex	Age *vs* 47	Male	Female
		P = 0.1856	P = 0.8998
		R^2 = 0.069	R^2 = 0.001
Cortex	Age *vs* 37	Male	Female
		P = 0.6683	P = 0.5200
		R^2 = 0.008	R^2 = 0.014
Hippocampus	Age *vs* 60	Male	Female
		P = 0.6778	P = 0.5761
		R^2 = 0.010	R^2 = 0.011
Hippocampus	Age *vs* 47	Male	Female
		P = 0.4113	P = 0.4450
		R^2 = 0.038	R^2 = 0.021
Hippocampus	Age *vs* 37	Male	Female
		P = 0.1910	P = 0.2300
		R^2 = 0.093	R^2 = 0.051

SUPPL Table 1: Linear regression – Age (at autopsy, in years) *vs* CB1R species within either cortex or hippocampus. Significant ($P \leq 0.05$) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	Age *vs* FAAH	Male	Female
		P = 0.4402 R^2 = 0.024	P = 0.4148 R^2 = 0.022
Cortex	Age *vs* MAGL	Male	Female
		P = 0.4447 R^2 = 0.024	P = 0.5026 R^2 = 0.015
Hippocampus	Age *vs* FAAH	Male	Female
		P = 0.1755 R^2 = 0.100	P = 0.2292 R^2 = 0.051
Hippocampus	Age *vs* MAGL	Male	Female
		P = 0.4158 R^2 = 0.039	P = 0.7248 R^2 = 0.005

SUPPL Table 2: Linear regression – Age (at autopsy, in years) *vs* either FAAH or MAGL in either cortex or hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	AAO *vs* 60	CTL		EOAD		LOAD	
		N/A		P = 0.4903		P = 0.5339	
				R^2 = 0.035		R^2 = 0.028	
	AAO *vs* 60	Male	Female	Male	Female	Male	Female
				P = 0.0948	P = 0.8960	P = 0.2576	P = 0.9708
				R^2 = 0.458	R^2 = 0.003	R^2 = 0.246	R^2 = 0.000
Cortex	AAO *vs* 47	CTL		EOAD		LOAD	
		N/A		P = 0.8917		P = 0.6117	
				R^2 = 0.001		R^2 = 0.019	
	AAO *vs* 47	Male	Female	Male	Female	Male	Female
				P = 0.0421↓	P = 0.2631	P = 0.4398	P = 0.9622
				R^2 = 0.596	R^2 = 0.175	R^2 = 0.123	R^2 = 0.000
Cortex	AAO *vs* 37	CTL		EOAD		LOAD	
		N/A		P = 0.5089		P = 0.2077	
				R^2 = 0.032		R^2 = 0.111	
	AAO *vs* 37	Male	Female	Male	Female	Male	Female
				P = 0.0797	P = 0.2410	P = 0.2040	P = 0.4311
				R^2 = 0.490	R^2 = 0.190	R^2 = 0.299	R^2 = 0.091

SUPPL Table 3: Linear regression – Age At Onset (AAO, in years) *vs* CB1R species within cortex. Significant ($P \leq 0.05$) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'. N/A: not applicable.

Hippocampus	AAO *vs* 60	CTL		EOAD		LOAD	
		N/A		P = 0.6132		P = 0.6927	
				R^2 = 0.020		R^2 = 0.012	
	AAO *vs* 60	Male	Female	Male	Female	Male	Female
				P = 0.2847	P = 0.9009	P = 0.1203	P = 0.2771
				R^2 = 0.223	R^2 = 0.003	R^2 = 0.492	R^2 = 0.166
Hippocampus	AAO *vs* 47	CTL		EOAD		LOAD	
		N/A		**P = 0.0090↓**		P = 0.5014	
				R^2 = 0.420		R^2 = 0.036	
	AAO *vs* 47	Male	Female	Male	Female	Male	Female
				P = 0.6115	P = 0.0741	P = 0.4900	P = 0.6784
				R^2 = 0.055	R^2 = 0.437	R^2 = 0.126	R^2 = 0.026
Hippocampus	AAO *vs* 37	CTL		EOAD		LOAD	
		N/A		P = 0.8590		P = 0.3398	
				R^2 = 0.003		R^2 = 0.070	
	AAO *vs* 37	Male	Female	Male	Female	Male	Female
				P = 0.3430	P = 0.4438	P = 0.2413	P = 0.4907
				R^2 = 0.180	R^2 = 0.101	R^2 = 0.321	R^2 = 0.070

SUPPL Table 4: Linear regression – Age At Onset (AAO, in years) *vs* CB1R species within hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'. N/A: not applicable.

Cortex	AAO *vs* FAAH	CTL		EOAD		LOAD	
		N/A		P = 0.1048 R^2 = 0.177		P = 0.7560 R^2 = 0.007	
	AAO *vs* FAAH	Male	Female	Male	Female	Male	Female
				P = 0.1969 R^2 = 0.307	P = 0.0707 R^2 = 0.393	P = 0.8164 R^2 = 0.012	P = 0.5986 R^2 = 0.042
Cortex	AAO *vs* MAGL	CTL		EOAD		LOAD	
		N/A		**P = 0.0337**↑ R^2 = 0.284		P = 0.3553 R^2 = 0.062	
	AAO *vs* MAGL	Male	Female	Male	Female	Male	Female
				P = 0.8786 R^2 = 0.005	P = 0.2483 R^2 = 0.185	P = 0.3838 R^2 = 0.154	P = 0.4963 R^2 = 0.069
Hippocampus	AAO *vs* FAAH	CTL		EOAD		LOAD	
		N/A		**P = 0.0145**↑ R^2 = 0.380		P = 0.1320 R^2 = 0.166	
	AAO *vs* FAAH	Male	Female	Male	Female	Male	Female
				P = 0.2305 R^2 = 0.271	P = 0.1198 R^2 = 0.354	P = 0.8134 R^2 = 0.016	P = 0.0891 R^2 = 0.357
Hippocampus	AAO *vs* MAGL	CTL		EOAD		LOAD	
		N/A		**P = 0.0462**↑ R^2 = 0.272		P = 0.1469 R^2 = 0.167	
	AAO *vs* MAGL	Male	Female	Male	Female	Male	Female
				P = 0.2915 R^2 = 0.218	P = 0.1293 R^2 = 0.340	P = 0.2064 R^2 = 0.463	P = 0.2830 R^2 = 0.162

SUPPL Table 5: Linear regression – Age At Onset (AAO, in years) *vs* either FAAH or MAGL within cortex and hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'. N/A: not applicable.

Cortex	Duration *vs* 60	CTL		EOAD		LOAD	
		N/A		P = 0.0790		P = 0.9434	
				R^2 = 0.218		R^2 = 0.000	
	Duration *vs* 60	Male	Female	Male	Female	Male	Female
				P = 0.0434↑	P = 0.4667	P = 0.3810	P = 0.5439
				R^2 = 0.680	R^2 = 0.078	R^2 = 0.156	R^2 = 0.055
Cortex	Duration *vs* 47	CTL		EOAD		LOAD	
		N/A		P = 0.1134		P = 0.1669	
				R^2 = 0.181		R^2 = 0.132	
	Duration *vs* 47	Male	Female	Male	Female	Male	Female
				P = 0.0379↑	P = 0.5380	P = 0.9137	P = 0.1293
				R^2 = 0.700	R^2 = 0.057	R^2 = 0.003	R^2 = 0.270
Cortex	Duration *vs* 37	CTL		EOAD		LOAD	
		N/A		P = 0.8362		P = 0.2727	
				R^2 = 0.003		R^2 = 0.085	
	Duration *vs* 37	Male	Female	Male	Female	Male	Female
				P = 0.4230	P = 0.4350	P = 0.8839	P = 0.3622
				R^2 = 0.166	R^2 = 0.089	R^2 = 0.005	R^2 = 0.120

SUPPL Table 6: Linear regression – Duration (in years) *vs* CB1R species within cortex. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'. N/A: not applicable.

Hippocampus	Duration *vs* 60	CTL		EOAD		LOAD	
		N/A		**P = 0.0205↑**		P = 0.6984	
				R^2 = 0.372		R^2 = 0.012	
	Duration *vs* 60	Male	Female	Male	Female	Male	Female
				P = 0.0339↑	P = 0.1705	P = 0.6840	P = 0.5093
				R^2 = 0.704	R^2 = 0.288	R^2 = 0.046	R^2 = 0.065
Hippocampus	Duration *vs* 47	CTL		EOAD		LOAD	
		N/A		P = 0.9962		P = 0.8371	
				R^2 = 0.000		R^2 = 0.003	
	Duration *vs* 47	Male	Female	Male	Female	Male	Female
				P = 0.7966	P = 0.7617	P = 0.2001	P = 0.9810
				R^2 = 0.019	R^2 = 0.017	R^2 = 0.370	R^2 = 0.000
Hippocampus	Duration *vs* 37	CTL		EOAD		LOAD	
		N/A		P = 0.9713		P = 0.7172	
				R^2 = 0.001		R^2 = 0.010	
	Duration *vs* 37	Male	Female	Male	Female	Male	Female
				P = 0.5650	P = 0.7069	P = 0.3513	P = 0.7694
				R^2 = 0.089	R^2 = 0.025	R^2 = 0.217	R^2 = 0.013

SUPPL Table 7: Linear regression – Duration (in years) *vs* CB1R species within hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'. N/A: not applicable.

Cortex	Duration *vs* FAAH	CTL		EOAD		LOAD	
		N/A		P = 0.3287		P = 0.5472	
				R^2 = 0.073		R^2 = 0.027	
	Duration *vs* FAAH	Male	Female	Male	Female	Male	Female
				P = 0.3293	P = 0.2999	P = 0.3602	P = 0.3426
				R^2 = 0.236	R^2 = 0.152	R^2 = 0.169	R^2 = 0.129
Cortex	Duration *vs* MAGL	CTL		EOAD		LOAD	
		N/A		P = 0.6936		P = 0.4149	
				R^2 = 0.012		R^2 = 0.048	
	Duration *vs* MAGL	Male	Female	Male	Female	Male	Female
				P = 0.3657	P = 0.4258	P = 0.6969	P = 0.2879
				R^2 = 0.206	R^2 = 0.093	R^2 = 0.033	R^2 = 0.160
Hippocampus	Duration *vs* FAAH	CTL		EOAD		LOAD	
		N/A		P = 0.3993		P = 0.7393	
				R^2 = 0.060		R^2 = 0.009	
	Duration *vs* FAAH	Male	Female	Male	Female	Male	Female
		CTL		P = 0.6188	P = 0.3740	P = 0.9016	P = 0.7708
		N/A		R^2 = 0.068	R^2 = 0.133	R^2 = 0.004	R^2 = 0.013
Hippocampus	Duration *vs* MAGL	CTL		EOAD		LOAD	
		N/A		P = 0.4184		P = 0.4212	
				R^2 = 0.055		R^2 = 0.055	
	Duration *vs* MAGL	Male	Female	Male	Female	Male	Female
				P = 0.4022	P = 0.8845	P = 0.2980	P = 0.2561
				R^2 = 0.180	R^2 = 0.004	R^2 = 0.345	R^2 = 0.179

SUPPL Table 8: Linear regression – Duration (in years) *vs* either FAAH or MAGL within cortex and hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'. N/A: not applicable.

	Cortex	Cortex	Hippocampus	Hippocampus
60 *vs* 47	Male	Female	Male	Female
	P = 0.0003↑	**P = 0.0001**↑	P = 0.0179	P = 0.3051
	R^2 = 0.408	R^2 = 0.391	R^2 = 0.274	R^2 = 0.038
60 *vs* 37	Male	Female	Male	Female
	P = 0.2057	**P < 0.0001**↑	P = 0.6640	P = 0.3416
	R^2 = 0.063	R^2 = 0.471	R^2 = 0.011	R^2 = 0.032
47 *vs* 37	Male	Female	Male	Female
	P = 0.1169	**P < 0.0001**↑	P = 0.0553	P = 0.3363
	R^2 = 0.095	R^2 = 0.742	R^2 = 0.189	R^2 = 0.033

SUPPL Table 9: Linear regression – CB1R species *vs* CB1R species by sex alone in either cortex or hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	FAAH *vs* MAGL	Male	Female
		P = 0.0043↑	**P < 0.0001↑**
		R^2 = 0.283	R^2 = 0.788
Hippocampus	FAAH *vs* MAGL	Male	Female
		P = 0.1957	**P = 0.0002↑**
		R^2 = 0.096	R^2 = 0.394
Cortex *vs* Hippocampus	FAAH *vs* FAAH	Male	Female
		P = 0.5074	P = 0.2373
		R^2 = 0.025	R^2 = 0.051
Cortex *vs* Hippocampus	MAGL *vs* MAGLH	Male	Female
		P = 0.3241	P = 0.7407
		R^2 = 0.057	R^2 = 0.004

SUPPL Table 10: Linear regression – FAAH or MAGL by sex alone within (or between) either cortex or hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

	FAAH vs 60		FAAH vs 47		FAAH vs 37	
Cortex	Male	Female	Male	Female	Male	Female
	P = 0.0059↑	**P = 0.0175**↑	**P = 0.0024**↑	**P < 0.0001**↑	P = 0.9177	**P = 0.0038**↑
	R^2 = 0.266	R^2 = 0.174	R^2 = 0.314	R^2 = 0.423	R^2 = 0.000	R^2 = 0.255
Hippocampus	Male	Female	Male	Female	Male	Female
	P = 0.5252	P = 0.8677	P = 0.7855	P = 0.7756	P = 0.4606	P = 0.0508
	R^2 = 0.023	R^2 = 0.001	R^2 = 0.004	R^2 = 0.003	R^2 = 0.030	R^2 = 0.130

	MAGL vs 60		MAGL vs 47		MAGL vs 37	
Cortex	Male	Female	Male	Female	Male	Female
	P = 0.6511	**P = 0.0124**↑	**P = 0.0005**↑	**P < 0.0001**↑	P = 0.3443	**P < 0.0001**↑
	R^2 = 0.008	R^2 = 0.191	R^2 = 0.392	R^2 = 0.482	R^2 = 0.189	R^2 = 0.488
Hippocampus	Male	Female	Male	Female	Male	Female
	P = 0.2647	P = 0.7945	**P = 0.0005**↑	P = 0.6565	P = 0.6629	P = 0.3005
	R^2 = 0.073	R^2 = 0.003	R^2 = 0.524	R^2 = 0.007	R^2 = 0.012	R^2 = 0.038

SUPPL Table 11: Linear regression – FAAH or MAGL *vs* CB1R species by sex alone in either cortex or hippocampus. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	60 *vs* 47	CTL		EOAD		LOAD	
		P = 0.3280		P = 0.4668		P = 0.4125	
		R^2 = 0.063		R^2 = 0.041		R^2 = 0.045	
	60 *vs* 47	Male	Female	Male	Female	Male	Female
		P = 0.4312	P = 0.5567	P = 0.9421	P = 0.5541	**P = 0.0275↑**	P = 0.5982
		R^2 = 0.161	R^2 = 0.040	R^2 = 0.001	R^2 = 0.061	R^2 = 0.655	R^2 = 0.036
Hippocampus	60 *vs* 37	CTL		EOAD		LOAD	
		P = 0.0722		P = 0.6380		P = 0.8056	
		R^2 = 0.200		R^2 = 0.018		R^2 = 0.004	
	60 *vs* 37	Male	Female	Male	Female	Male	Female
		P = 0.8904	**P = 0.0468↑**	P = 0.7882	P = 0.5908	P = 0.9103	P = 0.2370
		R^2 = 0.005	R^2 = 0.371	R^2 = 0.016	R^2 = 0.051	R^2 = 0.003	R^2 = 0.170
Hippocampus	47 *vs* 37	CTL		EOAD		LOAD	
		P = 0.0576		P = 0.5497		P = 0.6729	
		R^2 = 0.207		R^2 = 0.028		R^2 = 0.012	
	47 *vs* 37	Male	Female	Male	Female	Male	Female
		P = 0.0402↑	P = 0.4349	P = 0.1089	P = 0.5509	P = 0.7930	P = 0.3757
		R^2 = 0.691	R^2 = 0.062	R^2 = 0.432	R^2 = 0.062	R^2 = 0.015	R^2 = 0.099

SUPPL Table 12: Linear regression by diagnosis – CB1R species *vs* CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex vs Hippocampus	60 *vs* 60	CTL		EOAD		LOAD	
		P = 0.2258		**P = 0.0001**↑		P = 0.8484	
		R^2 = 0.096		R^2 = 0.698		R^2 = 0.003	
	60 *vs* 60	Male	Female	Male	Female	Male	Female
		P = 0.8359	P = 0.2120	**P = 0.0219**↑	**P = 0.0083**↑	P = 0.6797	P = 0.2681
		R^2 = 0.012	R^2 = 0.167	R^2 = 0.683	R^2 = 0.713	R^2 = 0.037	R^2 = 0.151
Cortex vs Hippocampus	47 *vs* 47	CTL		EOAD		LOAD	
		P = 0.8350		P = 0.0908		P = 0.9943	
		R^2 = 0.003		R^2 = 0.204		R^2 = 0.000	
	47 *vs* 47	Male	Female	Male	Female	Male	Female
		P = 0.9464	P = 0.6524	P = 0.8259	P = 0.0774	P = 0.4147	P = 0.6819
		R^2 = 0.001	R^2 = 0.024	R^2 = 0.011	R^2 = 0.430	R^2 = 0.137	R^2 = 0.022
Cortex vs Hippocampus	37 *vs* 37	CTL		EOAD		LOAD	
		P = 0.5275		**P = 0.0017**↑		P = 0.6628	
		R^2 = 0.027		R^2 = 0.543		R^2 = 0.013	
	37 *vs* 37	Male	Female	Male	Female	Male	Female
		P = 0.1465	P = 0.7841	P = 0.5116	**P = 0.0002**↑	P = 0.9377	P = 0.9307
		R^2 = 0.447	R^2 = 0.009	R^2 = 0.091	R^2 = 0.913	R^2 = 0.001	R^2 = 0.001

SUPPL Table 13: Linear regression by diagnosis – CB1R species *vs* CB1R species between cortex and hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	FAAH vs 60	CTL		EOAD		LOAD	
		P = 0.0593		**P = 0.0277**↑		P = 0.1268↑	
		R^2 = 0.146		R^2 = 0.301		R^2 = 0.140	
	FAAH vs 60	Male	Female	Male	Female	Male	Female
		P = 0.0303↑	P = 0.3094	P = 0.1501	P = 0.0525	P = 0.7286	P = 0.1993
		R^2 = 0.385	R^2 = 0.094	R^2 = 0.366	R^2 = 0.437	R^2 = 0.022	R^2 = 0.197
Cortex	FAAH vs 47	CTL		EOAD		LOAD	
		P = 0.0051↑		**P = 0.0129**↑		P = 0.0547	
		R^2 = 0.294		R^2 = 0.367		R^2 = 0.212	
	FAAH vs 47	Male	Female	Male	Female	Male	Female
		P = 0.0085↑	P = 0.0756	P = 0.2299	**P = 0.0310**↑	P = 0.4744	**P = 0.0015**↑
		R^2 = 0.516	R^2 = 0.2591	R^2 = 0.272	R^2 = 0.509	R^2 = 0.088	R^2 = 0.738
Cortex	FAAH vs 37	CTL		EOAD		LOAD	
		P = 0.1495		P = 0.2241		P = 0.1700	
		R^2 = 0.088		R^2 = 0.104		R^2 = 0.114	
	FAAH vs 37	Male	Female	Male	Female	Male	Female
		P = 0.5279	P = 0.0707	P = 0.4082	P = 0.6313	P = 0.1773	P = 0.6893
		R^2 = 0.041	R^2 = 0.267	R^2 = 0.140	R^2 = 0.034	R^2 = 0.280	R^2 = 0.021

SUPPL Table 14: Linear regression by diagnosis – FAAH vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	FAAH vs 60	CTL		EOAD		LOAD	
		P = 0.3610		P = 0.9836		P = 0.4333	
		R^2 = 0.056		R^2 = 0.000		R^2 = 0.041	
	FAAH vs 60	Male	Female	Male	Female	Male	Female
		P = 0.8918	P = 0.2947	P = 0.9420	P = 0.6007	P = 0.6679	P = 0.5207
		R^2 = 0.005	R^2 = 0.121	R^2 = 0.001	R^2 = 0.048	R^2 = 0.040	R^2 = 0.053
Hippocampus	FAAH vs 47	CTL		EOAD		LOAD	
		P = 0.0029↑		P = 0.2375		P = 0.5413	
		R^2 = 0.434		R^2 = 0.106		R^2 = 0.025	
	FAAH vs 47	Male	Female	Male	Female	Male	Female
		P = 0.0595	**P = 0.0348↑**	P = 0.4327	P = 0.2162	P = 0.7877	P = 0.4681
		R^2 = 0.630	R^2 = 0.375	R^2 = 0.127	R^2 = 0.242	R^2 = 0.016	R^2 = 0.068
Hippocampus	FAAH vs 37	CTL		EOAD		LOAD	
		P = 0.0614		P = 0.9320		P = 0.7291	
		R^2 = 0.202		R^2 = 0.001		R^2 = 0.008	
	FAAH vs 37	Male	Female	Male	Female	Male	Female
		P = 0.1469	P = 0.2674	P = 0.4953	P = 0.8054	P = 0.9756	P = 0.8048
		R^2 = 0.447	R^2 = 0.121	R^2 = 0.098	R^2 = 0.011	R^2 = 0.000	R^2 = 0.008

SUPPL Table 15: Linear regression by diagnosis – FAAH vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	MAGL vs 60	CTL		EOAD		LOAD	
		P = 0.0613		P = 0.4831		P = 0.3966	
		R^2 = 0.144		R^2 = 0.036		R^2 = 0.045	
	MAGL vs 60	Male	Female	Male	Female	Male	Female
		P = 0.6297	P = 0.1346	P = 0.6629	P = 0.1513	P = 0.5543	P = 0.9897
		R^2 = 0.024	R^2 = 0.192	R^2 = 0.041	R^2 = 0.270	R^2 = 0.061	R^2 = 0.000
Cortex	MAGL vs 47	CTL		EOAD		LOAD	
		P < 0.0001↑		P = 0.0726		**P = 0.0331**↑	
		R^2 = 0.505		R^2 = 0.212		R^2 = 0.254	
	MAGL vs 47	Male	Female	Male	Female	Male	Female
		P < 0.0001↑	**P = 0.0149**↑	P = 0.7031	**P = 0.0022**↑	P = 0.0771	P = 0.2294
		R^2 = 0.798	R^2 = 0.430	R^2 = 0.032	R^2 = 0.760	R^2 = 0.431	R^2 = 0.175
Cortex	MAGL vs 37	CTL		EOAD		LOAD	
		P = 0.0290↑		**P = 0.0339**↑		**P = 0.0031**↑	
		R^2 = 0.191		R^2 = 0.2955		R^2 = 0.431	
	MAGL vs 37	Male	Female	Male	Female	Male	Female
		P = 0.7559	**P = 0.0241**↑	P = 0.2948	P = 0.1413	**P = 0.0374**↑	**P = 0.0325**↑
		R^2 = 0.010	R^2 = 0.383	R^2 = 0.215	R^2 = 0.282	R^2 = 0.542	R^2 = 0.455

SUPPL Table 16: Linear regression by diagnosis – MAGL vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	MAGL vs 60	CTL		EOAD		LOAD	
		P = 0.2596		P = 0.8579		P = 0.3424	
		R^2 = 0.084		R^2 = 0.003		R^2 = 0.065	
	MAGL vs 60	Male	Female	Male	Female	Male	Female
		P = 0.5702	P = 0.2750	P = 0.9023	P = 0.67861	P = 0.4798	P = 0.7797
		R^2 = 0.087	R^2 = 0.131	R^2 = 0.003	R^2 = 0.031	R^2 = 0.132	R^2 = 0.010
Hippocampus	MAGL vs 47	CTL		EOAD		LOAD	
		P < 0.0001↑		**P = 0.0274↓**		P = 0.4683	
		R^2 = 0.741		R^2 = 0.322		R^2 = 0.038	
	MAGL vs 47	Male	Female	Male	Female	Male	Female
		P = 0.0044↑	**P = 0.0010↑**	P = 0.6816	**P = 0.0149↑**	**P = 0.0388↑**	P = 0.9270
		R^2 = 0.894	R^2 = 0.677	R^2 = 0.037	R^2 = 0.656	R^2 = 0.697	R^2 = 0.001
Hippocampus	MAGL vs 37	CTL		EOAD		LOAD	
		P = 0.1654		P = 0.6070		P = 0.7316	
		R^2 = 0.117		R^2 = 0.021		R^2 = 0.009	
	MAGL vs 37	Male	Female	Male	Female	Male	Female
		P = 0.1027	P = 0.7072	P = 0.7502	P = 0.9241	P = 0.4921	P = 0.9252
		R^2 = 0.526	R^2 = 0.015	R^2 = 0.022	R^2 = 0.002	R^2 = 0.125	R^2 = 0.001

SUPPL Table 17: Linear regression by diagnosis – MAGL vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	60 *vs* 47	(-)ε4		(+)ε4	
		P < 0.0001↑		**P < 0.0001**↑	
		R^2 = 0.482		R^2 = 0.430	
	60 vs 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0655	**P < 0.0001**↑	**P = 0.0012**↑	**P = 0.0076**↑
		R^2 = 0.300	R^2 = 0.750	R^2 = 0.564	R^2 = 0.410
Cortex	60 *vs* 37	(-)ε4		(+)ε4	
		P = 0.0011↑		**P = 0.0019**↑	
		R^2 = 0.342		R^2 = 0.286	
	60 *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.4263	**P = 0.0002**↑	P = 0.4653	**P = 0.0034**↑
		R^2 = 0.064	R^2 = 0.635	R^2 = 0.042	R^2 = 0.469
Cortex	47 *vs* 37	(-)ε4		(+)ε4	
		P < 0.0001↑		**P < 0.0001**↑	
		R^2 = 0.481		R^2 = 0.437	
	47 *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.7143	**P < 0.0001**↑	**P = 0.0396**↑	**P = 0.0014**↑
		R^2 = 0.014	R^2 = 0.897	R^2 = 0.287	R^2 = 0.530

SUPPL Table 18: Linear regression by diagnosis by *APOE* ε4 status – CB1R species vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	60 *vs* 47	(-)ε4		(+)ε4	
		P = 0.4374		**P = 0.0381↑**	
		R^2 = 0.032		R^2 = 0.150	
	60 vs 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.8759	P = 0.5772	P = 0.0834	P = 0.2205
		R^2 = 0.005	R^2 = 0.027	R^2 = 0.248	R^2 = 0.105
Hippocampus	60 *vs* 37	(-)ε4		(+)ε4	
		P = 0.1257		P = 0.5481	
		R^2 = 0.119		R^2 = 0.014	
	60 *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0162↑	P = 0.6431	P = 0.3868	P = 0.7777
		R^2 = 0.717	R^2 = 0.019	R^2 = 0.069	R^2 = 0.006
Hippocampus	47 *vs* 37	(-)ε4		(+)ε4	
		P = 0.2842		P = 0.1792	
		R^2 = 0.060		R^2 = 0.066	
	47 *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.5124	P = 0.1061	P = 0.0825	P = 0.7358
		R^2 = 0.090	R^2 = 0.203	R^2 = 0.249	R^2 = 0.008

SUPPL Table 19: Linear regression by diagnosis by *APOE* ε4 status – CB1R species vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	FAAH *vs* MAGL	(-)ε4		(+)ε4	
		P < 0.0001↑ R^2 = 0.711		**P = 0.0005**↑ R^2 = 0.364	
	FAAH *vs* MAGL	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0117↑ R^2 = 0.487	**P < 0.001**↑ R^2 = 0.819	P = 0.2391 R^2 = 0.105	**P = 0.0021**↑ R^2 = 0.504
Hippocampus	FAAH *vs* MAGL	(-)ε4		(+)ε4	
		P = 0.0210↑ R^2 = 0.250		P = 0.1018 R^2 = 0.100	
	FAAH *vs* MAGL	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0343↑ R^2 = 0.625	P = 0.0518 R^2 = 0.280	P = 0.6059 R^2 = 0.028	**P = 0.0018**↑ R^2 = 0.514
Cortex *vs* Hippocampus	FAAH *vs* FAAH	(-)ε4		(+)ε4	
		P = 0.0634 R^2 = 0.179		P = 0.1177 R^2 = 0.088	
	FAAH *vs* FAAH	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.2008 R^2 = 0.303	P = 0.1696 R^2 = 0.164	P = 0.4888 R^2 = 0.045	P = 0.6777 R^2 = 0.013
Cortex *vs* Hippocampus	MAGL *vs* MAGL	(-)ε4		(+)ε4	
		P = 0.6198 R^2 = 0.014		P = 0.4632 R^2 = 0.021	
	MAGL *vs* MAGL	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.8485 R^2 = 0.008	P = 0.9573 R^2 = 0.000	P = 0.4523 R^2 = 0.058	P = 0.9691 R^2 = 0.000

SUPPL Table 20: Linear regression by diagnosis by *APOE* ε4 status – FAAH and MAGL within and between regions. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	FAAH *vs* 60	(-)ε4		(+)ε4	
		P = 0.0064↑ R^2 = 0.253		**P = 0.0138**↑ R^2 = 0.192	
	FAAH *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0226↑ R^2 = 0.420	P = 0.0672 R^2 = 0.219	P = 0.1947 R^2 = 0.126	**P = 0.0010**↑ R^2 = 0.553
Cortex	FAAH *vs* 47	(-)ε4		(+)ε4	
		P = 0.0013↑ R^2 = 0.335		**P = 0.0088**↑ R^2 = 0.214	
	FAAH *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0004↑ R^2 = 0.727	**P = 0.0284**↑ R^2 = 0.299	P = 0.4549 R^2 = 0.044	**P = 0.0003**↑ R^2 = 0.627
Cortex	FAAH *vs* 37	(-)ε4		(+)ε4	
		P = 0.0476↑ R^2 = 0.143		P = 0.0779 R^2 = 0.103	
	FAAH *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.8786 R^2 = 0.003	**P = 0.0275**↑ R^2 = 0.302	P = 0.9796 R^2 = 0.000	**P = 0.0199**↑ R^2 = 0.330

SUPPL Table 21: Linear regression by diagnosis by *APOE* ε4 status – FAAH vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	FAAH *vs* 60	(-)ε4		(+)ε4	
		P = 0.7248 R^2 = 0.007		P = 0.7738 R^2 = 0.003	
	FAAH *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.6290 R^2 = 0.050	P = 0.6302 R^2 = 0.090	P = 0.9495 R^2 = 0.000	P = 0.7079 R^2 = 0.010
Hippocampus	FAAH *vs* 47	(-)ε4		(+)ε4	
		P = 0.4288 R^2 = 0.033		P = 0.2968 R^2 = 0.040	
	FAAH *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.3049 R^2 = 0.207	P = 0.5543 R^2 = 0.029	P = 0.4863 R^2 = 0.045	P = 0.5684 R^2 = 0.024
Hippocampus	FAAH *vs* 37	(-)ε4		(+)ε4	
		P = 0.2467 R^2 = 0.070		P = 0.9805 R^2 = 0.000	
	FAAH *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.4641 R^2 = 0.112	P = 0.3378 R^2 = 0.077	P = 0.3891 R^2 = 0.068	P = 0.1406 R^2 = 0.148

SUPPL Table 22: Linear regression by diagnosis by *APOE* ε4 status – FAAH vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	MAGL *vs* 60	(-)ε4		(+)ε4	
		P = 0.0484↑ R^2 = 0.142		**P = 0.0189**↑ R^2 = 0.176	
	MAGL *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.4818 R^2 = 0.050	**P = 0.0390**↑ R^2 = 0.270	P = 0.8947 R^2 = 0.001	**P = 0.0018**↑ R^2 = 0.512
Cortex	MAGL *vs* 47	(-)ε4		(+)ε4	
		P < 0.0001↑ R^2 = 0.491		**P = 0.0010**↑ R^2 = 0.316	
	MAGL *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.0001↑ R^2 = 0.789	**P = 0.0057**↑ R^2 = 0.431	P = 0.3322 R^2 = 0.072	**P = 0.0003**↑ R^2 = 0.614
Cortex	MAGL *vs* 37	(-)ε4		(+)ε4	
		P = 0.0287↑ R^2 = 0.171		**P < 0.0001**↑ R^2 = 0.623	
	MAGL *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.7908 R^2 = 0.007	**P = 0.0060**↑ R^2 = 0.427	**P = 0.0060**↑ R^2 = 0.452	**P < 0.0001**↑ R^2 = 0.784

SUPPL Table 23: Linear regression by diagnosis by *APOE* ε4 status – MAGL vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	MAGL *vs* 60	(-)ε4		(+)ε4	
		P = 0.0229↑		P = 0.9489	
		R^2 = 0.244		R^2 = 0.000	
	MAGL *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.4479	**P = 0.0247**↑	P = 0.8382	P = 0.7155
		R^2 = 0.119	R^2 = 0.355	R^2 = 0.004	R^2 = 0.010
Hippocampus	MAGL *vs* 47	(-)ε4		(+)ε4	
		P = 0.2138		P = 0.2489	
		R^2 = 0.080		R^2 = 0.051	
	MAGL *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.7362	P = 0.4823	**P = 0.0046**↑	P = 0.6917
		R^2 = 0.025	R^2 = 0.042	R^2 = 0.570	R^2 = 0.012
Hippocampus	MAGL *vs* 37	(-)ε4		(+)ε4	
		P = 0.9646		P = 0.2538	
		R^2 = 0.000		R^2 = 0.050	
	MAGL *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.5415	P = 0.8144	P = 0.8692	P = 0.1896
		R^2 = 0.080	R^2 = 0.005	R^2 = 0.003	R^2 = 0.120

SUPPL Table 24: Linear regression by diagnosis by *APOE* ε4 status – MAGL vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	AAO *vs* 60	(-)ε4		(+)ε4	
		P = 0.8986		**P = 0.0295↓**	
		R^2 = 0.003		R^2 = 0.206	
	AAO *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.4143	P = 0.7798	**P = 0.0188↓**	P = 0.1974
		R^2 = 0.343	R^2 = 0.030	R^2 = 0.519	R^2 = 0.146
Cortex	AAO *vs* 47	(-)ε4		(+)ε4	
		P = 0.6984		P = 0.1201	
		R^2 = 0.023		R^2 = 0.111	
	AAO *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.2664	P = 0.8942	**P = 0.0106↓**	P = 0.5528
		R^2 = 0.538	R^2 = 0.007	R^2 = 0.579	R^2 = 0.032
Cortex	AAO *vs* 37	(-)ε4		(+)ε4	
		P = 0.8158		P = 0.9087	
		R^2 = 0.008		R^2 = 0.001	
	AAO *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.5819	P = 0.3040	P = 0.5218	P = 0.9633
		R^2 = 0.0175	R^2 = 0.338	R^2 = 0.053	R^2 = 0.000

SUPPL Table 25: Linear regression by diagnosis by *APOE* ε4 status – Age-at-Onset (AAO; in yrs) vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Cortex	Duration *vs* 60	(-)ε4		(+)ε4	
		P = 0.6797 R^2 = 0.030		**P = 0.0244↑** R^2 = 0.219	
	Duration *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.3229 R^2 = 0.764	P = 0.6399 R^2 = 0.082	P = 0.0636 R^2 = 0.367	P = 0.1660 R^2 = 0.167
Cortex	Duration *vs* 47	(-)ε4		(+)ε4	
		P = 0.9271 R^2 = 0.002		**P = 0.0083↑** R^2 = 0.288	
	Duration *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.7280 R^2 = 0.172	P = 0.8509 R^2 = 0.014	**P = 0.0169↑** R^2 = 0.531	P = 0.1259 R^2 = 0.200
Cortex	Duration *vs* 37	(-)ε4		(+)ε4	
		P = 0.2747 R^2 = 0.194		P = 0.6398 R^2 = 0.011	
	Duration *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.9421 R^2 = 0.008	P = 0.0707 R^2 = 0.716	P = 0.3185 R^2 = 0.124	P = 0.4161 R^2 = 0.061

SUPPL Table 26: Linear regression by diagnosis by *APOE* ε4 status – Duration (in years) vs CB1R species within cortex. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	AAO *vs* 60	(-)ε4		(+)ε4	
		P = 0.6285 R^2 = 0.042		P = 0.2865 R^2 = 0.057	
	AAO *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.3090 R^2 = 0.478	P = 0.9285 R^2 = 0.005	P = 0.3710↓ R^2 = 0.116	P = 0.3804 R^2 = 0.071
Hippocampus	AAO *vs* 47	(-)ε4		(+)ε4	
		P = 0.7767 R^2 = 0.015		P = 0.5172 R^2 = 0.021	
	AAO *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.9302 R^2 = 0.005	P = 0.7598 R^2 = 0.058	P = 0.2576 R^2 = 0.178	P = 0.2193 R^2 = 0.134
Hippocampus	AAO *vs* 37	(-)ε4		(+)ε4	
		P = 0.1538 R^2 = 0.308		P = 0.5343 R^2 = 0.020	
	AAO *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.1409 R^2 = 0.738	P = 0.7593 R^2 = 0.058	P = 0.6972 R^2 = 0.023	P = 0.8419 R^2 = 0.004

SUPPL Table 27: Linear regression by diagnosis by *APOE* ε4 status – Age-at-Onset (AAO; in years) vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.

Hippocampus	Duration *vs* 60	(-)ε4		(+)ε4	
		P = 0.4959 R^2 = 0.097		P = 0.0291↑ R^2 = 0.216	
	Duration *vs* 60	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.9425 R^2 = 0.008	P = 0.6108 R^2 = 0.152	P = 0.0968 R^2 = 0.344	P = 0.1478 R^2 = 0.180
Hippocampus	Duration *vs* 47	(-)ε4		(+)ε4	
		P = 0.4806 R^2 = 0.104		P = 0.4485 R^2 = 0.029	
	Duration *vs* 47	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.4771 R^2 = 0.536	P = 0.7754 R^2 = 0.051	P = 0.6623 R^2 = 0.029	P = 0.2857 R^2 = 0.103
Hippocampus	Duration *vs* 37	(-)ε4		(+)ε4	
		P = 0.9636 R^2 = 0.001		P = 0.6550 R^2 = 0.010	
	Duration *vs* 37	Male (-)ε4	Female (-)ε4	Male (+)ε4	Female (+)ε4
		P = 0.8120 R^2 = 0.085	P = 0.9327 R^2 = 0.005	P = 0.4585 R^2 = 0.081	P = 0.7800 R^2 = 0.007

SUPPL Table 28: Linear regression by diagnosis by *APOE* ε4 status – Duration (in years) vs CB1R species within hippocampus. CTL: control; EOAD: Early-Onset AD; LOAD: Late-Onset AD. Significant (P ≤ 0.05) observations, if any, are identified in bold text. (+)ε4: positive for the APOE e4 risk allele; (-)ε4: negative for the *APOE* e4 risk A positive association is identified by '↑', while a negative association is identified by '↓'.