
**Extensive cortical connectivity of the human hippocampal memory system:
beyond the ‘what’ and ‘where’ dual stream model**

Supplementary Material

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Modified version of the HCP-MMP1 atlas

The atlas used to define brain regions was the HCP-MMP1 atlas (Glasser et al. 2016), modified as follows. First, the hippocampus and subiculum were defined as separate regions, using the template provided by Winterburn et al (2013). In our list of areas, shown in Table S1, the new hippocampal region was allocated into the hippocampal slot in the HCP list. The subiculum appears later in the list as a new area. Others new areas include the Thalamus, Putamen, Globus pallidus external segment, Globus pallidus internal segment, Amygdala, and Nucleus accumbens, all defined using the template from the CIT168 reinforcement learning atlases (Pauli et al. 2018).

In the JHCP-MMP1 atlas, each region has its RegionID, which we show in Table S1. Detailed information about the regions is available in the Supplementary Material File NIHMS68870-supplement-Neuroanatomical_Supplementary_Results.pdf provided by Glasser et al (2016). In that Supplementary Material file, a grouping of the regions is suggested based on geographic proximity and functional similarities, and this grouping is shown in the column labelled CortexID in Table S1. That has led to a different ordering of the regions, which we show in Table S1, with the original regionIDs from the HCOP atlas shown in the column headed 'regionID'. This reordered version of the HCP-MMP1 atlas is described by Dr Dianne Patterson of the University of Arizona at <https://neuroimaging-core-docs.readthedocs.io/en/latest/pages/atlasses.html>, where the following supporting files used to help generate Table S1 are available: HCP-MMP1_UniqueRegionList.csv and Glasser_2016_Table.xlsx. We made file HCPMMP_CortexID_Ordering.xlsx from this, and this is available from the present authors. The connectivity matrices shown in the present paper (e.g. Figs. 3 and 4) used the ordering shown in Table S1. More details are provided elsewhere (Huang et al. 2021).

Table S1. Regions defined in the modified Human Connectome Project atlas (Glasser *et al.* 2016). L=left hemisphere, R=right. The column ‘Reordered region ID’ is that used in Figs 3 and 4, and is a reordering of that based on suggestions in the Supplementary Information of Glasser et al (2016). In that Supplementary Information, the 360 regions are grouped based on geographic proximity and functional similarities, which was reorganized and provided by Dr Dianne Patterson of the University of Arizona at <https://neuroimaging-core-docs.readthedocs.io/en/latest/pages/atlases.html> with the [HCP-MMP1_UniqueRegionList.csv](#) and is shown in the column labelled CortexID in Table S1. The numbers shown are for the left hemisphere, and 200 should be added for the corresponding region in the right hemisphere. The volumes are in mm³. This modified atlas has in addition to the reordering, the addition of subcortical areas numbered 181-188 as described in the Methods.

region	regionLongName	cortex	cortex ID	Reordered region ID (L)	Original region ID (L)	vol (L,R)
V1	Primary_Visual_Cortex	Primary_Visual	1	1	1	6717, 7089
V2	Second_Visual_Area	Early_Visual	2	2	4	6220, 6211
V3	Third_Visual_Area	Early_Visual	2	3	5	4994, 4875
V4	Fourth_Visual_Area	Early_Visual	2	4	6	3183, 2817
IPS1	IntraParietal_Sulcus_Area_1	Dorsal_Stream_Visual	3	5	17	1152, 1083
V3A	Area_V3A	Dorsal_Stream_Visual	3	6	13	1298, 1545
V3B	Area_V3B	Dorsal_Stream_Visual	3	7	19	442, 521
V6	Sixth_Visual_Area	Dorsal_Stream_Visual	3	8	3	1009, 1124
V6A	Area_V6A	Dorsal_Stream_Visual	3	9	152	696, 760
V7	Seventh_Visual_Area	Dorsal_Stream_Visual	3	10	16	604, 749
FFC	Fusiform_Face_Complex	Ventral_Stream_Visual	4	11	18	3224, 3020
PIT	Posterior_InferoTemporal_complex	Ventral_Stream_Visual	4	12	22	959, 1264
V8	Eighth_Visual_Area	Ventral_Stream_Visual	4	13	7	1137, 749
VMV1	VentroMedial_Visual_Area_1	Ventral_Stream_Visual	4	14	153	721, 1136
VMV2	VentroMedial_Visual_Area_2	Ventral_Stream_Visual	4	15	160	319, 500
VMV3	VentroMedial_Visual_Area_3	Ventral_Stream_Visual	4	16	154	501, 648
VVC	Ventral_Visual_Complex	Ventral_Stream_Visual	4	17	163	2161, 2011
FST	Area_FST	MT+_Complex	5	18	157	931, 1257
LO1	Area_Lateral_Occipital_1	MT+_Complex	5	19	20	724, 688
LO2	Area_Lateral_Occipital_2	MT+_Complex	5	20	21	948, 600
LO3	Area_Lateral_Occipital_3	MT+_Complex	5	21	159	679, 1017
MST	Medial_Superior_Temporal_Area	MT+_Complex	5	22	2	336, 611
MT	Middle_Temporal_Area	MT+_Complex	5	23	23	345, 702
PH	Area_PH	MT+_Complex	5	24	138	2257, 2287
V3CD	Area_V3CD	MT+_Complex	5	25	158	649, 914
V4t	Area_V4t	MT+_Complex	5	26	156	549, 815
1	Area_1	SomaSens_Motor	6	27	51	3858, 3792
2	Area_2	SomaSens_Motor	6	28	52	2572, 2618
3a	Area_3a	SomaSens_Motor	6	29	53	1190, 1176
3b	Primary_Sensory_Cortex	SomaSens_Motor	6	30	9	2301, 2024
4	Primary_Motor_Cortex	SomaSens_Motor	6	31	8	6301, 5694
23c	Area_23c	ParaCentral_MidCing	7	32	38	1065, 1695
24dd	Dorsal_Area_24d	ParaCentral_MidCing	7	33	40	2287, 2279
24dv	Ventral_Area_24d	ParaCentral_MidCing	7	34	41	732, 1117
5L	Area_5L	ParaCentral_MidCing	7	35	39	1313, 1361

5m	Area_5m	ParaCentral_MidCing	7	36	36	934, 1202
5mv	Area_5m_ventral	ParaCentral_MidCing	7	37	37	955, 1501
6ma	Area_6m_anterior	ParaCentral_MidCing	7	38	44	3228, 3421
6mp	Area_6mp	ParaCentral_MidCing	7	39	55	2082, 1860
SCEF	Supplementary_and_Cingulate_Eye_Field	ParaCentral_MidCing	7	40	43	3021, 2223
55b	Area_55b	Premotor	8	41	12	1676, 1173
6a	Area_6_anterior	Premotor	8	42	96	2742, 2725
6d	Dorsal_area_6	Premotor	8	43	54	2223, 1931
6r	Rostral_Area_6	Premotor	8	44	78	2248, 2559
6v	Ventral_Area_6	Premotor	8	45	56	1408, 2095
FEF	Frontal_Eye_Fields	Premotor	8	46	10	813, 1030
PEF	Premotor_Eye_Field	Premotor	8	47	11	717, 810
43	Area_43	Posterior_Opercular	9	48	99	946, 1628
FOP1	Frontal_Opercular_Area_1	Posterior_Opercular	9	49	113	543, 805
OP1	Area_OP1-SII	Posterior_Opercular	9	50	101	1429, 980
OP2-3	Area_OP2-3-VS	Posterior_Opercular	9	51	102	714, 411
OP4	Area_OP4-PV	Posterior_Opercular	9	52	100	1680, 1637
52	Area_52	Early_Auditory	10	53	103	451, 282
A1	Primary_Auditory_Cortex	Early_Auditory	10	54	24	906, 618
LBelt	Lateral_Belt_Complex	Early_Auditory	10	55	174	575, 794
MBelt	Medial_Belt_Complex	Early_Auditory	10	56	173	955, 704
PBelt	ParaBelt_Complex	Early_Auditory	10	57	124	1306, 1232
PFcm	Area_PFcm	Early_Auditory	10	58	105	1388, 1097
RI	RetroInsular_Cortex	Early_Auditory	10	59	104	755, 771
A4	Auditory_4_Complex	Auditory_Association	11	60	175	2943, 2449
A5	Auditory_5_Complex	Auditory_Association	11	61	125	2439, 2977
STGa	Area_STGa	Auditory_Association	11	62	123	1897, 1643
STSda	Area_STSd_anterior	Auditory_Association	11	63	128	1424, 1719
STSdp	Area_STSd_posterior	Auditory_Association	11	64	129	1130, 1498
STSva	Area_STSv_anterior	Auditory_Association	11	65	176	1004, 1720
STSvp	Area_STSv_posterior	Auditory_Association	11	66	130	1644, 1985
TA2	Area_TA2	Auditory_Association	11	67	107	1139, 1399
AAIC	Anterior_Agranular_Insula_Complex	Insula_FrontalOperc	12	68	112	1388, 1450
AVI	Anterior_Ventral_Insular_Area	Insula_FrontalOperc	12	69	111	749, 930
FOP2	Frontal_Opercular_Area_2	Insula_FrontalOperc	12	70	115	477, 416
FOP3	Frontal_Opercular_Area_3	Insula_FrontalOperc	12	71	114	364, 267
FOP4	Frontal_Opercular_Area_4	Insula_FrontalOperc	12	72	108	1827, 1307
FOP5	Area_Frontal_Opercular_5	Insula_FrontalOperc	12	73	169	807, 867
Ig	Insular_Granular_Complex	Insula_FrontalOperc	12	74	168	616, 441
MI	Middle_Insular_Area	Insula_FrontalOperc	12	75	109	1704, 1350
PI	Para-Insular_Area	Insula_FrontalOperc	12	76	178	910, 898
Pir	Piriform_Cortex	Insula_FrontalOperc	12	77	110	881, 1171
PoI1	Area_Posterior_Insular_1	Insula_FrontalOperc	12	78	167	1158, 1067
PoI2	Posterior_Insular_Area_2	Insula_FrontalOperc	12	79	106	2096, 2315
Hipp	Hippocampus	Medial_Temporal	13	80	120	691, 658
EC	Entorhinal_Cortex	Medial_Temporal	13	81	118	1691, 1312
PeEc	Perirhinal_Ectorhinal_Cortex	Medial_Temporal	13	82	122	3359, 3007

PHA1	ParaHippocampal_Area_1	Medial_Temporal	13	83	126	1200, 1188
PHA2	ParaHippocampal_Area_2	Medial_Temporal	13	84	155	236, 339
PHA3	ParaHippocampal_Area_3	Medial_Temporal	13	85	127	1194, 479
TF	Area_TF	Medial_Temporal	13	86	135	2604, 2751
PreS	PreSubiculum	Medial_Temporal	13	87	119	1076, 708
PHT	Area_PHT	Lateral_Temporal	14	88	137	2843, 3265
TE1a	Area_TE1_anterior	Lateral_Temporal	14	89	132	4040, 3409
TE1m	Area_TE1_Middle	Lateral_Temporal	14	90	177	2631, 2592
TE1p	Area_TE1_posterior	Lateral_Temporal	14	91	133	5111, 4107
TE2a	Area_TE2_anterior	Lateral_Temporal	14	92	134	3882, 4444
TE2p	Area_TE2_posterior	Lateral_Temporal	14	93	136	2701, 1959
TGd	Area_TG_dorsal	Lateral_Temporal	14	94	131	6701, 7103
TGv	Area_TG_Ventral	Lateral_Temporal	14	95	172	3335, 3431
PSL	PeriSylvian_Language_Area	TPO	15	96	25	2037, 2241
STV	Superior_Temporal_Visual_Area	TPO	15	97	28	1789, 1811
TPOJ1	Area_TemporoParietoOccipital_Junction_1	TPO	15	98	139	1417, 2475
TPOJ2	Area_TemporoParietoOccipital_Junction_2	TPO	15	99	140	1275, 1851
TPOJ3	Area_TemporoParietoOccipital_Junction_3	TPO	15	100	141	509, 919
7AL	Lateral_Area_7A	Superior_Parietal	16	101	42	1505, 1240
7Am	Medial_Area_7A	Superior_Parietal	16	102	45	2167, 1466
7PC	Area_7PC	Superior_Parietal	16	103	47	2391, 2262
7Pl	Lateral_Area_7P	Superior_Parietal	16	104	46	827, 787
7Pm	Medial_Area_7P	Superior_Parietal	16	105	29	846, 649
AIP	Anterior_IntraParietal_Area	Superior_Parietal	16	106	117	1173, 1550
LIPd	Area_Lateral_IntraParietal_dorsal	Superior_Parietal	16	107	95	572, 447
LIPv	Area_Lateral_IntraParietal_ventral	Superior_Parietal	16	108	48	1109, 867
MIP	Medial_IntraParietal_Area	Superior_Parietal	16	109	50	1124, 1770
VIP	Ventral_IntraParietal_Complex	Superior_Parietal	16	110	49	1529, 623
IP0	Area_IntraParietal_0	Inferior_Parietal	17	111	146	872, 984
IP1	Area_IntraParietal_1	Inferior_Parietal	17	112	145	1154, 1194
IP2	Area_IntraParietal_2	Inferior_Parietal	17	113	144	1338, 1165
PF	Area_PF_Complex	Inferior_Parietal	17	114	148	4068, 3282
PFm	Area_PFm_Complex	Inferior_Parietal	17	115	149	5056, 5152
PFop	Area_PF_Opercular	Inferior_Parietal	17	116	147	1284, 1424
PFt	Area_PFt	Inferior_Parietal	17	117	116	958, 1347
PGi	Area_PGi	Inferior_Parietal	17	118	150	3469, 2985
PGp	Area_PGp	Inferior_Parietal	17	119	143	1808, 2911
PGs	Area_PGs	Inferior_Parietal	17	120	151	3143, 1902
23d	Area_23d	Posterior_Cingulate	18	121	32	1038, 1114
31a	Area_31a	Posterior_Cingulate	18	122	162	1089, 770
31pd	Area_31pd	Posterior_Cingulate	18	123	161	586, 307
31pv	Area_31p_ventral	Posterior_Cingulate	18	124	35	538, 541
7m	Area_7m	Posterior_Cingulate	18	125	30	1741, 1260
d23ab	Area_dorsal_23_a+b	Posterior_Cingulate	18	126	34	1207, 911
DVT	Dorsal_Transitional_Visual_Area	Posterior_Cingulate	18	127	142	1205, 1515
PCV	PreCuneus_Visual_Area	Posterior_Cingulate	18	128	27	1528, 1587
POS1	Parieto-Occipital_Sulcus_Area_1	Posterior_Cingulate	18	129	31	1965, 2251

POS2	Parieto-Occipital_Sulcus_Area_2	Posterior_Cingulate	18	130	15	2384, 2207
ProS	ProStriate_Area	Posterior_Cingulate	18	131	121	501, 562
RSC	RetroSplenial_Complex	Posterior_Cingulate	18	132	14	843, 1079
v23ab	Area_ventral_23_a+b	Posterior_Cingulate	18	133	33	690, 702
10r	Area_10r	AntCing_MedPFC	19	134	65	1044, 923
10v	Area_10v	AntCing_MedPFC	19	135	88	2161, 2017
25	Area_25	AntCing_MedPFC	19	136	164	901, 729
33pr	Area_33_prime	AntCing_MedPFC	19	137	58	287, 581
8BM	Area_8BM	AntCing_MedPFC	19	138	63	2103, 2524
9m	Area_9_Middle	AntCing_MedPFC	19	139	69	4190, 4676
a24	Area_a24	AntCing_MedPFC	19	140	61	1443, 1533
a24pr	Anterior_24_prime	AntCing_MedPFC	19	141	59	854, 938
a32pr	Area_anterior_32_prime	AntCing_MedPFC	19	142	179	1617, 827
d32	Area_dorsal_32	AntCing_MedPFC	19	143	62	1611, 1775
p24	Area_posterior_24	AntCing_MedPFC	19	144	180	1427, 1403
p24pr	Area_Posterior_24_prime	AntCing_MedPFC	19	145	57	1039, 1336
p32	Area_p32	AntCing_MedPFC	19	146	64	530, 857
p32pr	Area_p32_prime	AntCing_MedPFC	19	147	60	924, 1182
pOFC	Posterior_OFC_Complex	AntCing_MedPFC	19	148	166	1514, 1480
s32	Area_s32	AntCing_MedPFC	19	149	165	310, 561
10d	Area_10d	OrbPolaFrontal	20	150	72	2696, 2224
10pp	Polar_10p	OrbPolaFrontal	20	151	90	1329, 1735
11l	Area_11l	OrbPolaFrontal	20	152	91	2495, 3138
13l	Area_13l	OrbPolaFrontal	20	153	92	1796, 1150
47m	Area_47m	OrbPolaFrontal	20	154	66	741, 969
47s	Area_47s	OrbPolaFrontal	20	155	94	1664, 1683
a10p	Area_anterior_10p	OrbPolaFrontal	20	156	89	1158, 1385
OFC	Orbital_Frontal_Complex	OrbPolaFrontal	20	157	93	1834, 2105
p10p	Area_posterior_10p	OrbPolaFrontal	20	158	170	1590, 1684
44	Area_44	Inferior_Frontal	21	159	74	1947, 2681
45	Area_45	Inferior_Frontal	21	160	75	2727, 2066
47l	Area_47l_(47_lateral)	Inferior_Frontal	21	161	76	1936, 1725
a47r	Area_anterior_47r	Inferior_Frontal	21	162	77	3348, 2692
IFJa	Area_IFJa	Inferior_Frontal	21	163	79	1012, 523
IFJp	Area_IFJp	Inferior_Frontal	21	164	80	672, 397
IFSa	Area_IFSa	Inferior_Frontal	21	165	82	1558, 1954
IFSp	Area_IFSp	Inferior_Frontal	21	166	81	1073, 1389
p47r	Area_posterior_47r	Inferior_Frontal	21	167	171	1330, 1577
46	Area_46	Dorsolateral_Prefrontal	22	168	84	3433, 3042
8Ad	Area_8Ad	Dorsolateral_Prefrontal	22	169	68	2508, 2036
8Av	Area_8Av	Dorsolateral_Prefrontal	22	170	67	3701, 3976
8BL	Area_8B_Lateral	Dorsolateral_Prefrontal	22	171	70	1982, 3487
8C	Area_8C	Dorsolateral_Prefrontal	22	172	73	2982, 2734
9-46d	Area_9-46d	Dorsolateral_Prefrontal	22	173	86	3184, 3421
9a	Area_9_anterior	Dorsolateral_Prefrontal	22	174	87	3511, 2521
9p	Area_9_Posterior	Dorsolateral_Prefrontal	22	175	71	1693, 1419
a9-46v	Area_anterior_9-46v	Dorsolateral_Prefrontal	22	176	85	2738, 1890

i6-8	Inferior_6-8_Transitional_Area	Dorsolateral_Prefrontal	22	177	97	1357, 1798
p9-46v	Area_posterior_9-46v	Dorsolateral_Prefrontal	22	178	83	2655, 3311
s6-8	Superior_6-8_Transitional_Area	Dorsolateral_Prefrontal	22	179	98	1243, 1622
SFL	Superior_Frontal_Language_Area	Dorsolateral_Prefrontal	22	180	26	3145, 1992
Amyg	Amygdala	Subcortical Regions	23	181	181	249, 259
Subic	Subiculum	Medial_Temporal	13	182	182	125, 120
Caud	Caudate	Subcortical Regions	23	183	183	857, 880
Putam	Putamen	Subcortical Regions	23	184	184	989, 979
NAcc	Accumbens nucleus	Subcortical Regions	23	185	185	70, 73
GPe	Globus pallidus externus	Subcortical Regions	23	186	186	152, 145
GPi	Globus pallidus internus	Subcortical Regions	23	187	187	78, 83
Thal	thalamus	Subcortical Regions	23	188	188	1284, 1298

Abbreviations: MT+ Complex, MT+ Complex and Neighboring Visual Areas; SomaSens_Motor, Somatosensory and Motor; ParaCentral_MidCing, Paracentral Lobular and Mid Cingulate; Insula_FrontalOperc, Insular and Frontal Opercular; TPO, Temporo-Parieto-Occipital Junction; AntCing_MedPFC, Anterior Cingulate and Medial Prefrontal; OrbPolaFrontal, Orbital and Polar Frontal

Fig. S1-1. Example coronal slices showing regions defined in the HCP atlas and added subcortical regions. The abbreviations are as in Table S1. The y values for the coronal slices are in MNI coordinates.

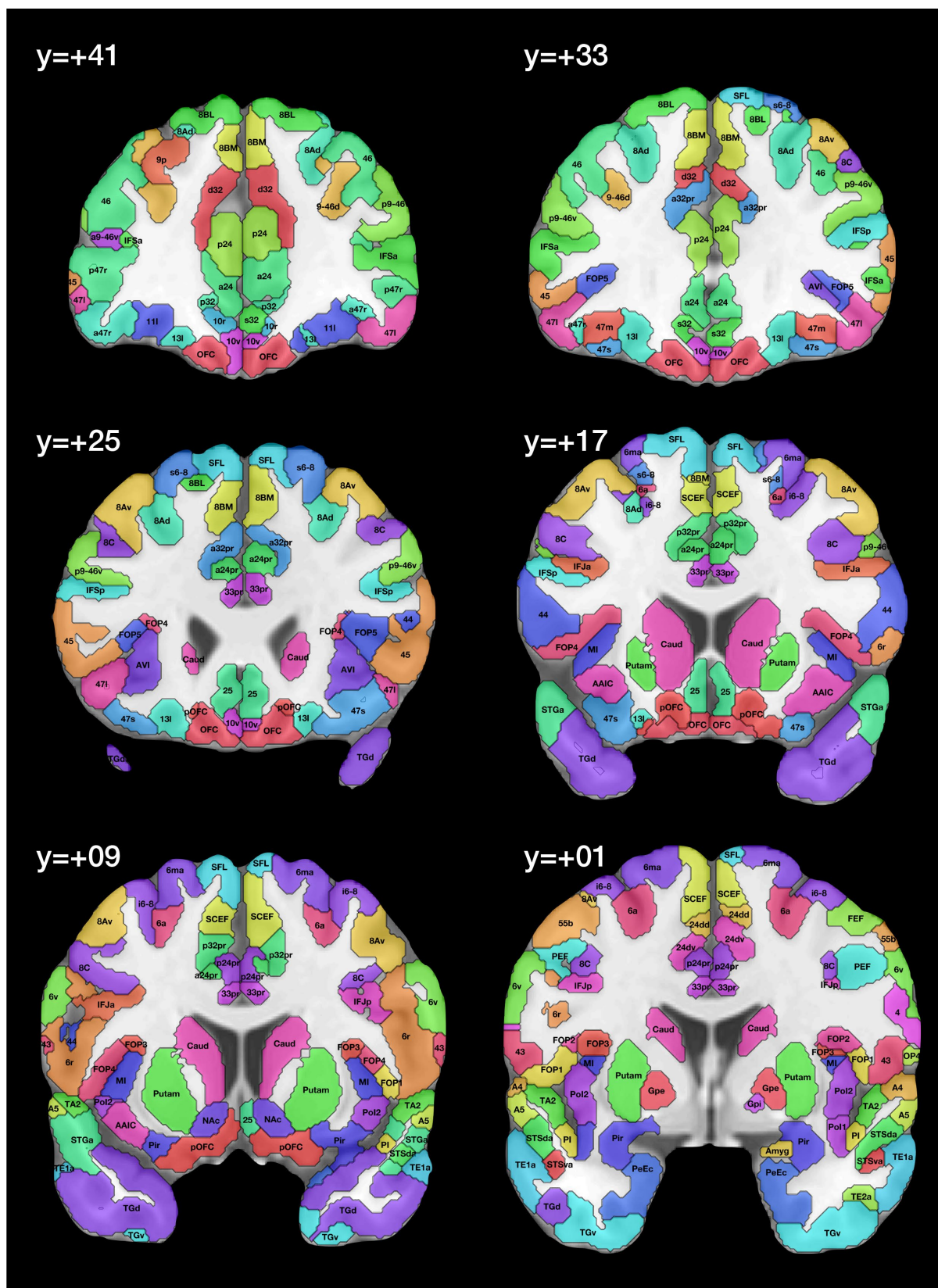


Fig. S1-2. Example coronal slices showing regions defined in the HCP atlas and added subcortical regions. The abbreviations are as in Table S1. The y values for the coronal slices are in MNI coordinates.

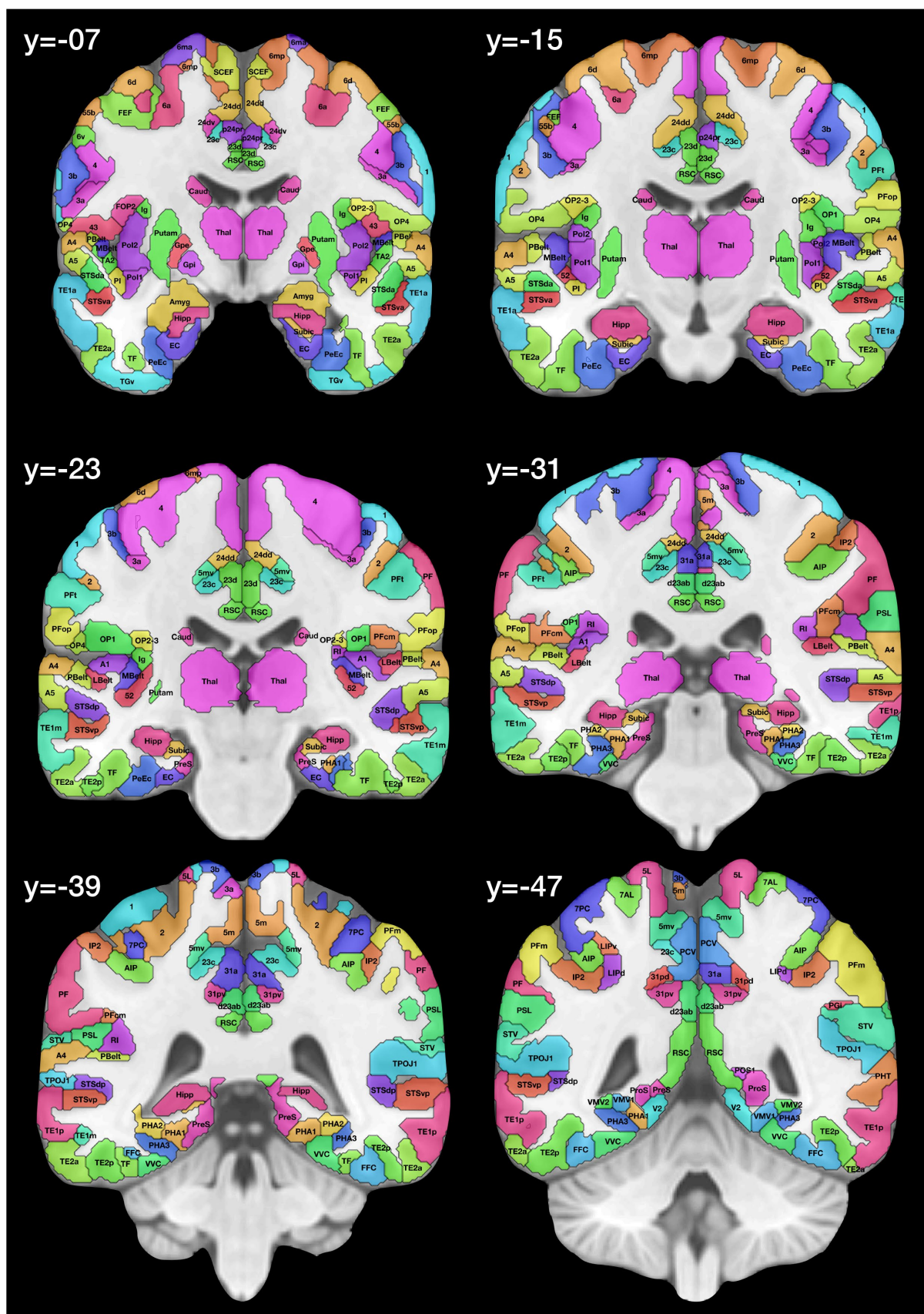


Fig. S2. Streamline terminations with the seed Region of Interest (ROI) the left subiculum (Sub). The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm^3 voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

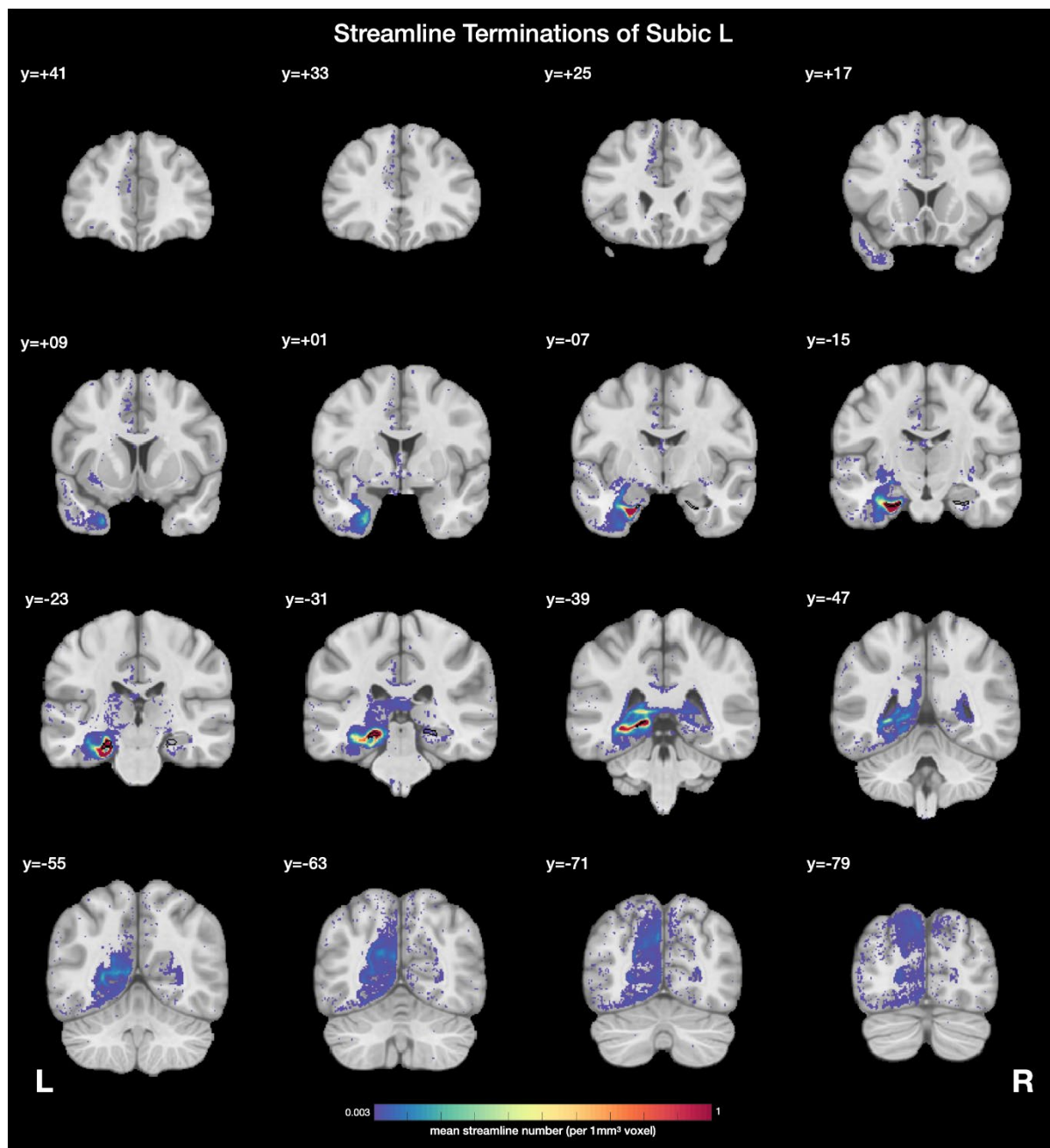


Fig. S3. Streamline terminations with the seed Region of Interest (ROI) **the left presubiculum**, RegionID PreS. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm^3 voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

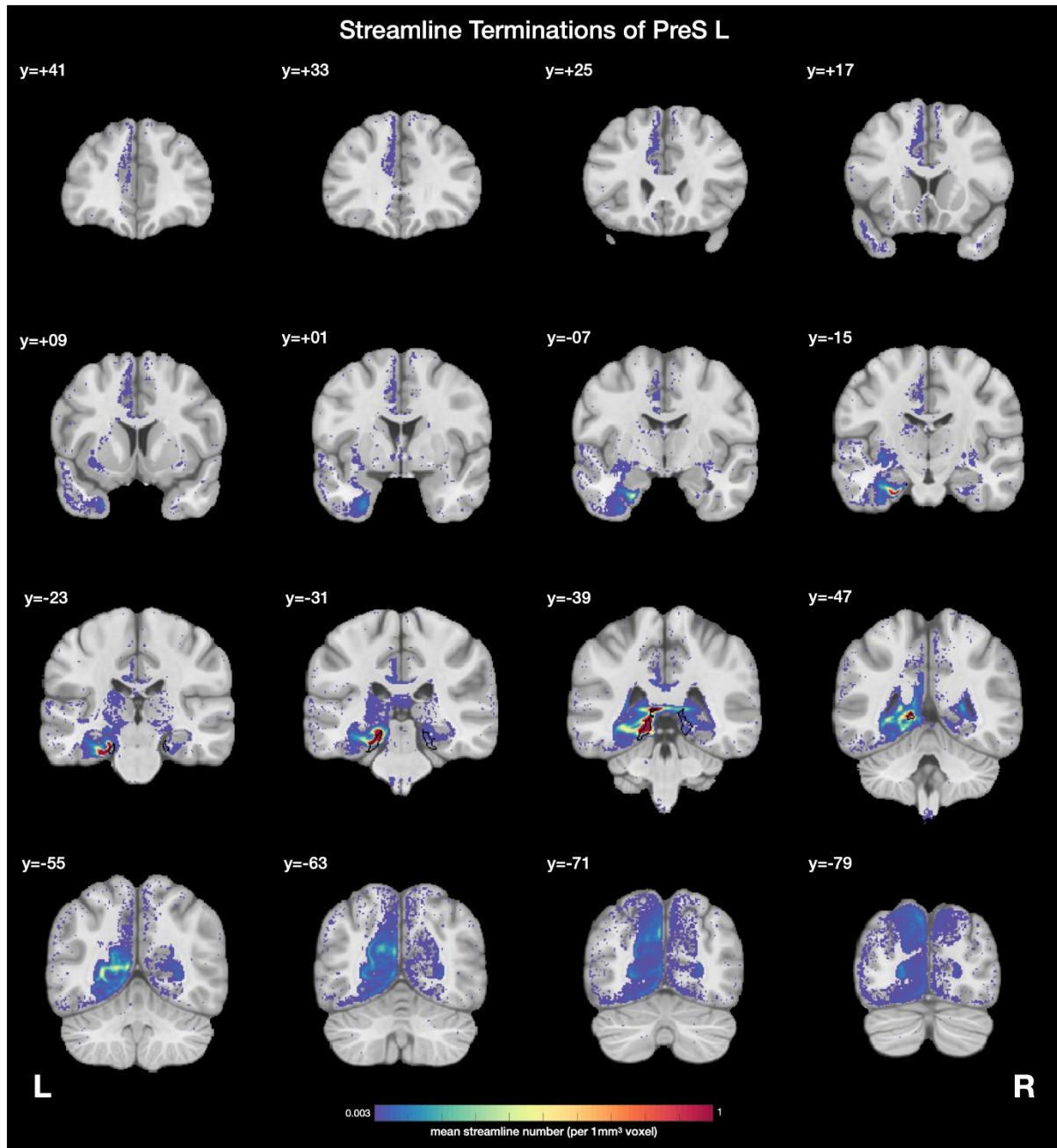


Fig. S4. Streamline terminations with the seed Region of Interest (ROI) the **left entorhinal cortex**, RegionID EC. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm^3 voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

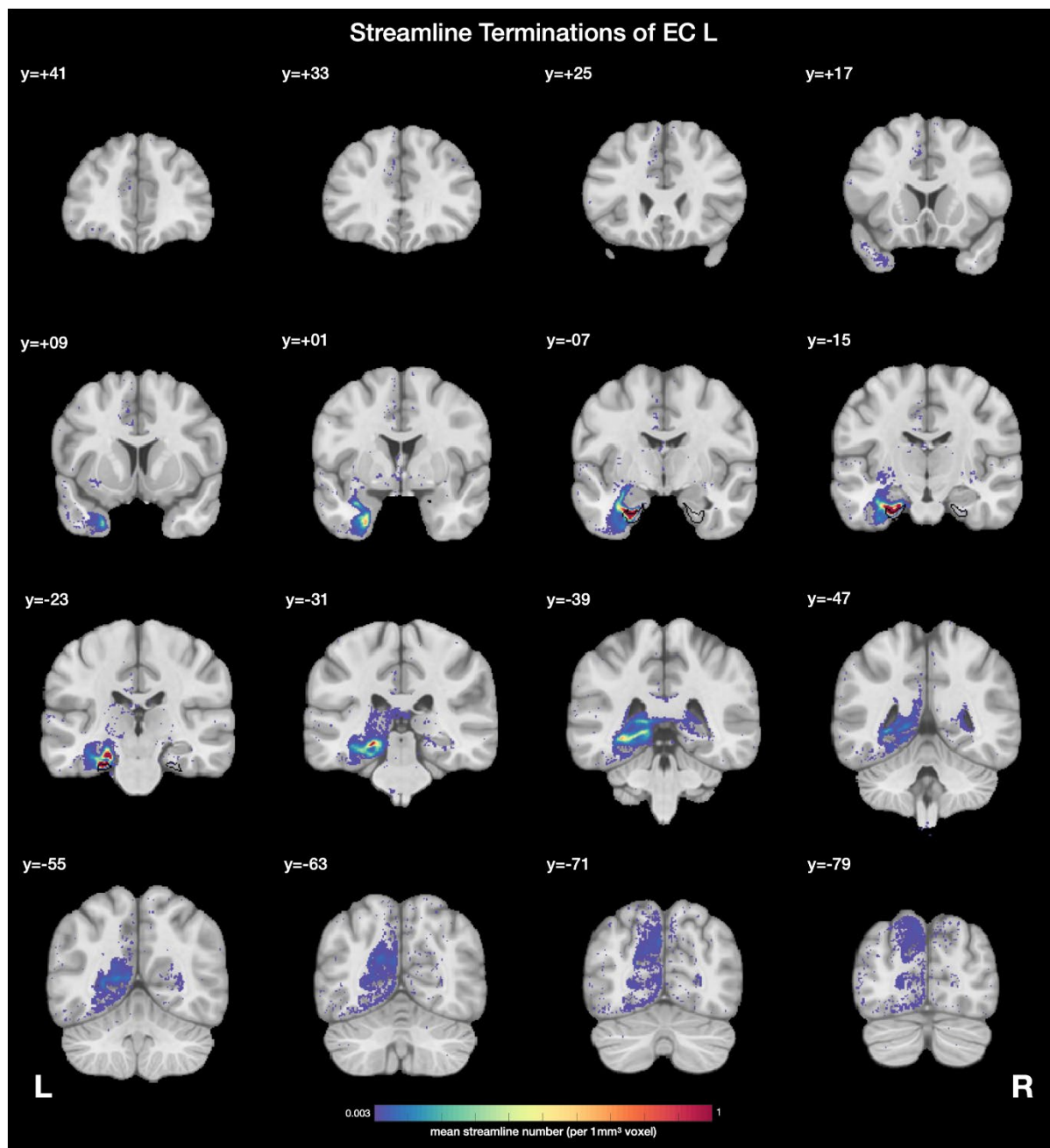


Fig. S5. Streamline terminations with the seed Region of Interest (ROI) the **left perirhinal cortex**, RegionID PeEc. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm^3 voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

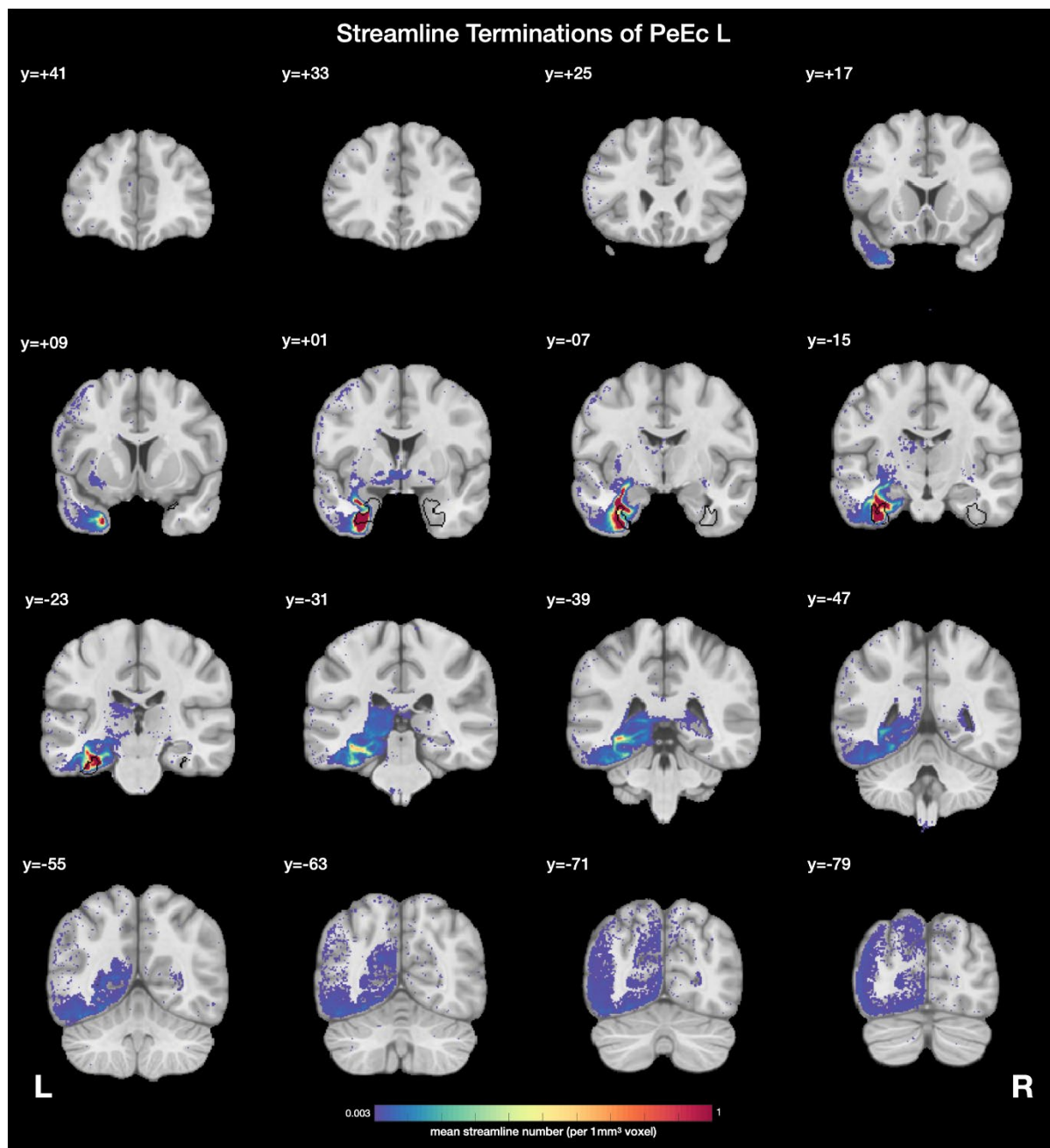


Fig. S6. Streamline terminations with the seed Region of Interest (ROI) the left TF, RegionID TF. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm^3 voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

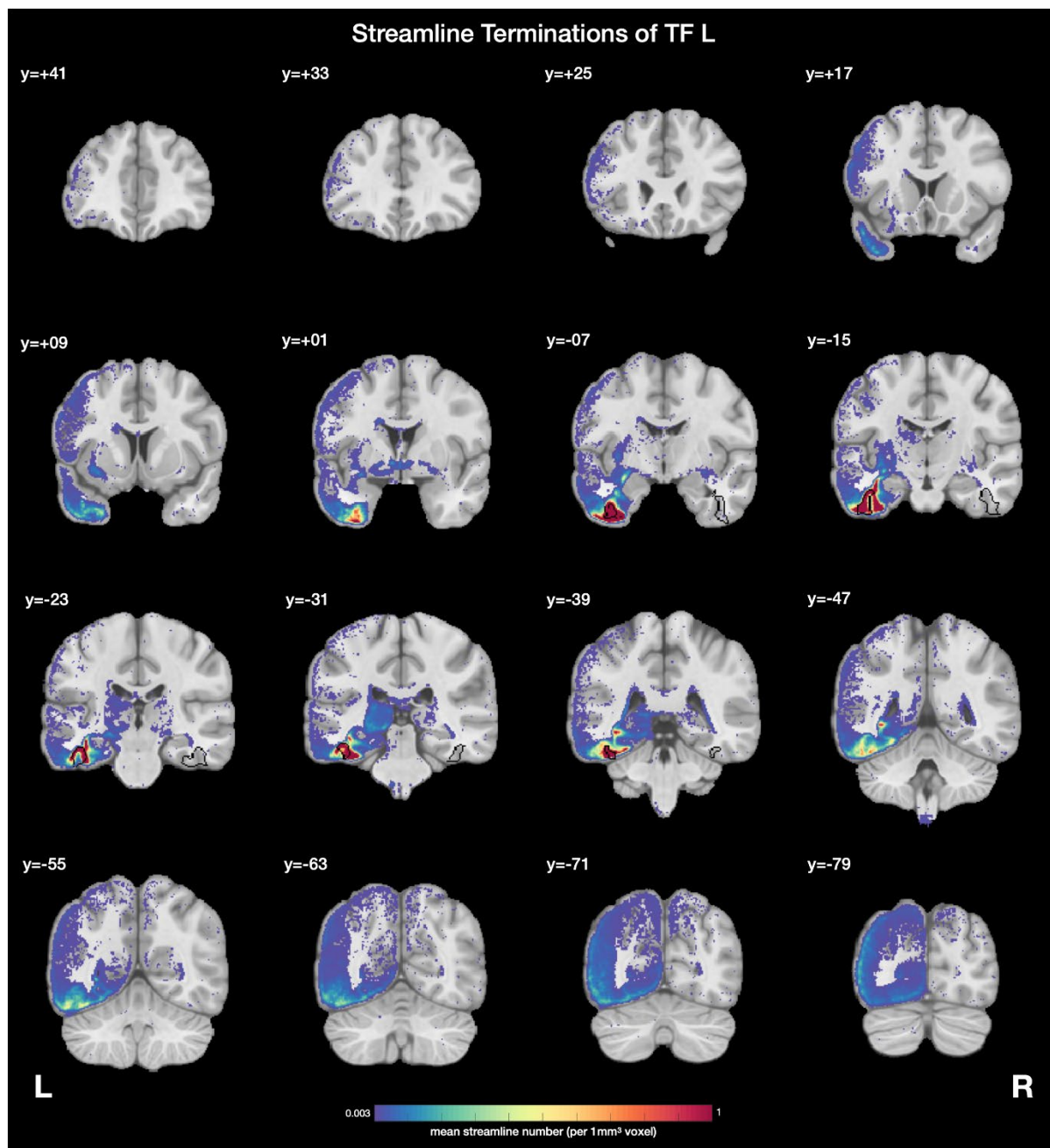


Fig. S7. Streamline terminations with the seed Region of Interest (ROI) the **left parahippocampal gyrus, RegionID PHA1**. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm^3 voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

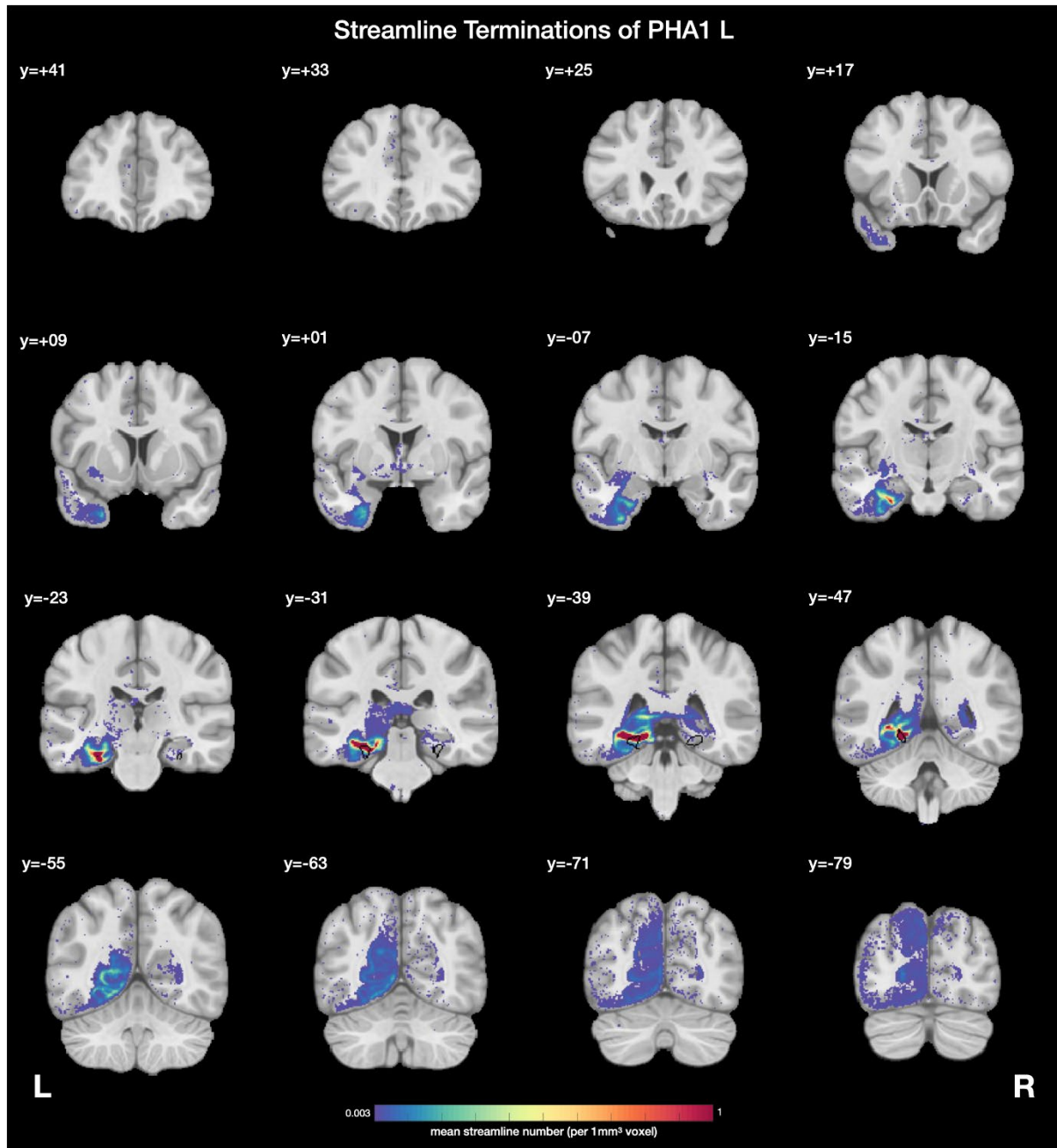


Fig. S8. Streamline terminations with the seed Region of Interest (ROI) the **left parahippocampal gyrus, RegionID PHA2**. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

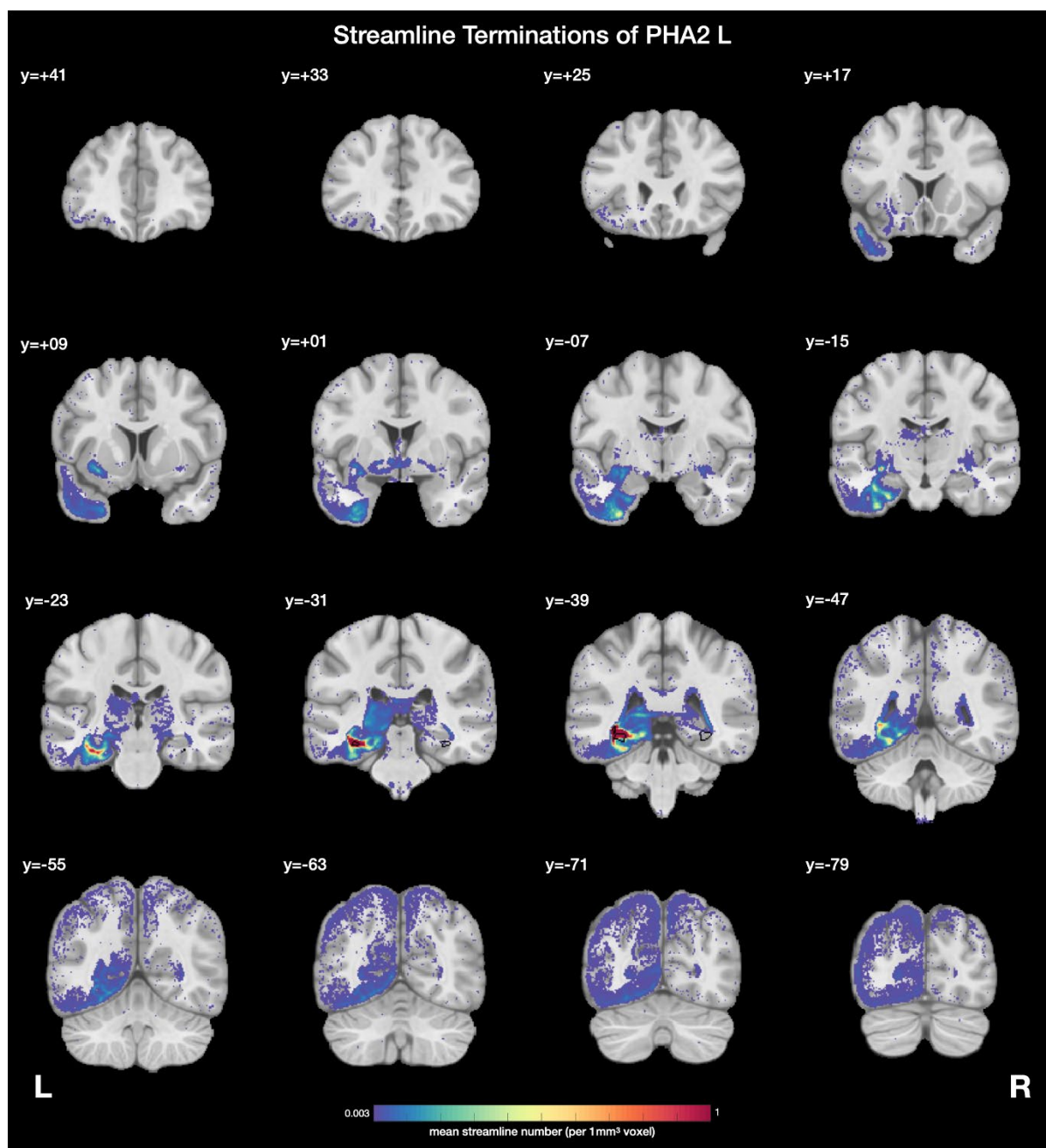


Fig. S9. Streamline terminations with the seed Region of Interest (ROI) the **left parahippocampal gyrus, RegionID PHA3**. The ROI is indicated with black. The mean number of streamlines averaged across the 178 participants between the seed ROI, and each 1 mm³ voxel in all other brain areas, is shown. The boundary of terminations is outlined with yellow. The thin dark-coloured lines delineate regionIDs defined in the HCP atlas, and listed in Table S1.

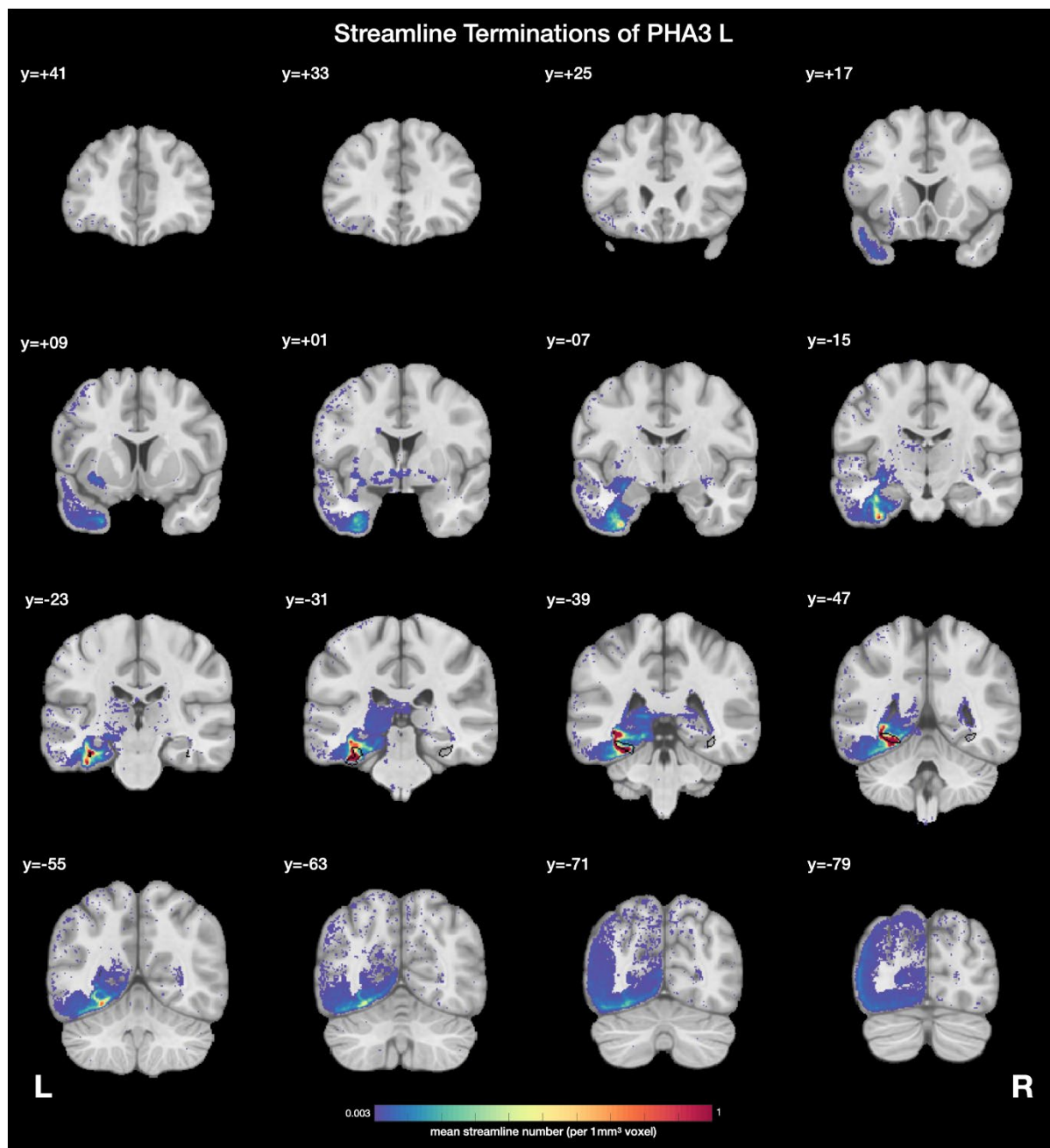


Fig. S10. Demonstration that streamlines seeded in V1 and in the parietal cortex reach the hippocampus. This is a useful confirmation that the streamlines shown in Figs. 3 and 4 with V1 and parietal areas when the hippocampus was the seed were followed correctly to V1 and parietal cortex. The streamlines can be seen as coloured dots terminating where they enter the hippocampus, forming a partial shell around the hippocampus. The red arrows point to these terminations in the posterior to mid-hippocampus. These are data from a single participant. For the parietal cortex, the seed region consisted of 7AL, 7Am, 7PC, 7PL, IPV, MIP, VIP, PF, PFm, PGi, PGp, and PGs (which are shown in Fig. S1). Abbreviations for the arrows that indicate the plane of travel of the streamlines: A,P – Anterior-Posterior; R,L – Right-left; S,I – Superior-Inferior.

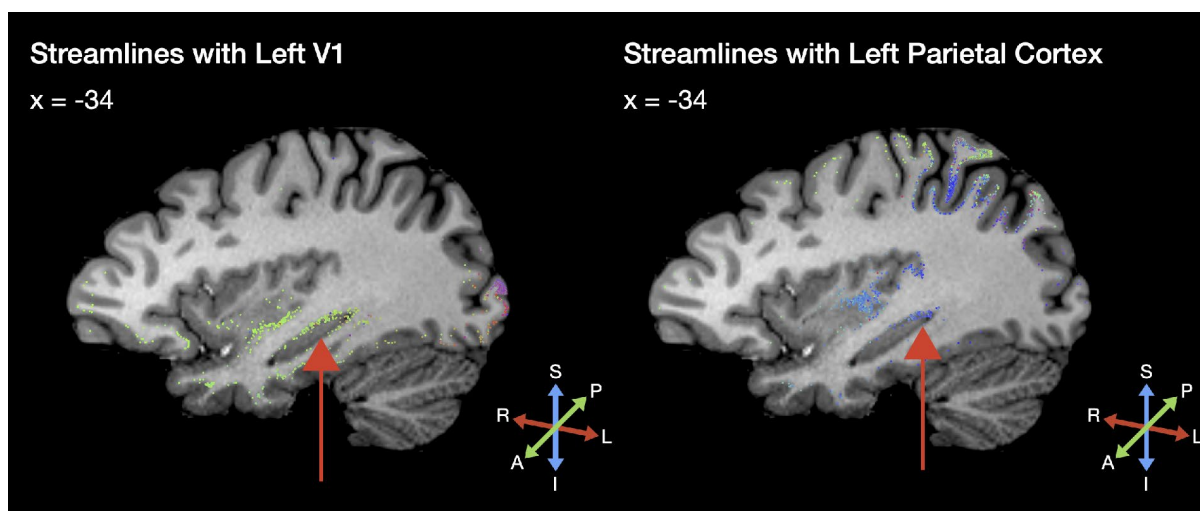
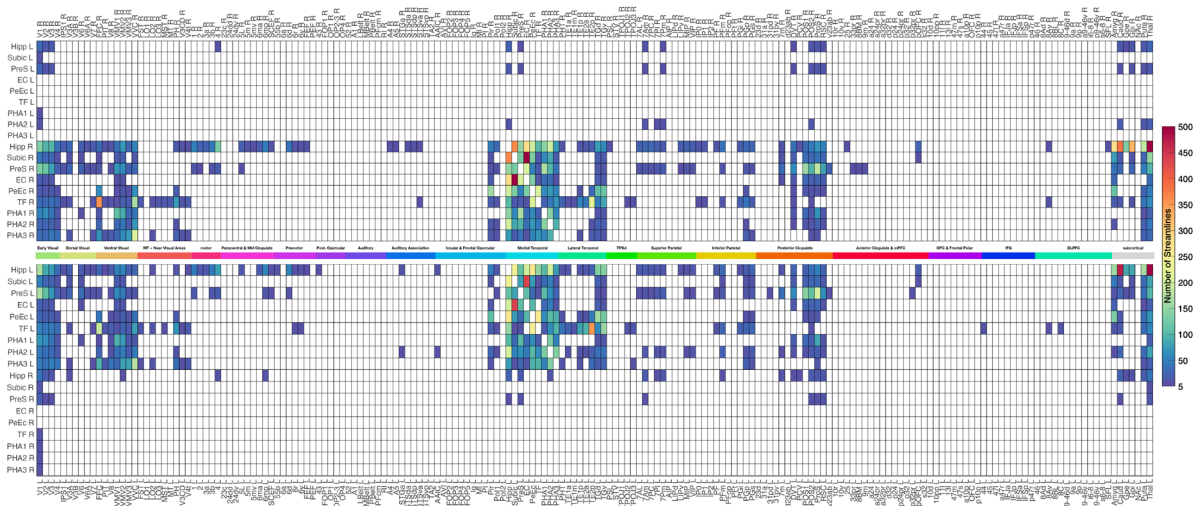


Fig. S11. The full anatomical connectivity matrix for each of the Left and Right Regions of Interest (the rows) with extended HCP atlas areas, including a set of subcortical areas. The Top matrix shows the connections of the ROIs with the right hemisphere, and the bottom matrix the connections of the ROIs with the left hemisphere. The numbers of streamlines between the HCP regions are shown without normalization in this Figure, in order to allow assessment of the absolute magnitude of the connectivity between each pair of HCP regions. Hipp - hippocampus; Subic – subiculum; EC - entorhinal cortex; PeEc - perirhinal cortex; PHA1-3 - parahippocampal gyrus regions 1-3; TF – parahippocampal gyrus region TF; PreS - Presubiculum.



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