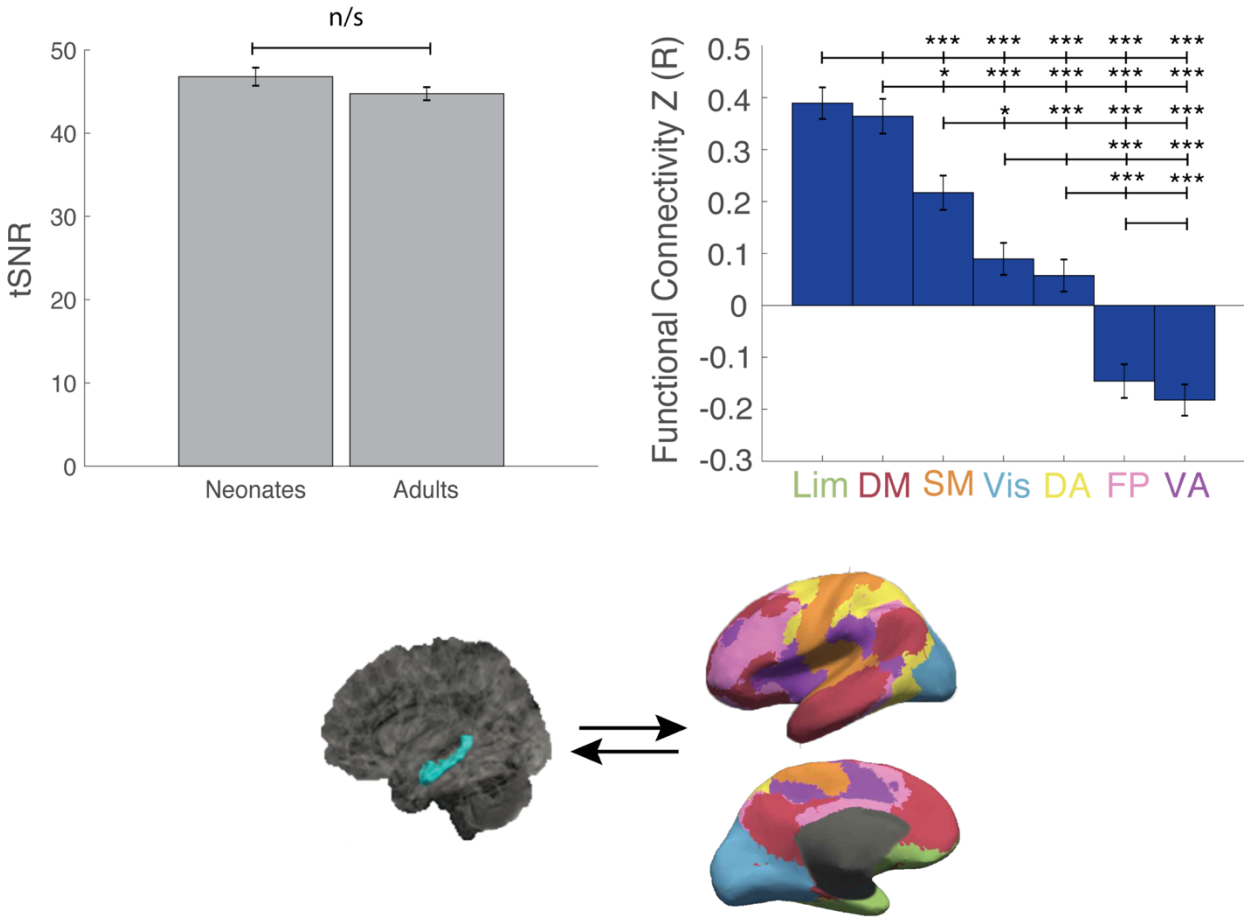
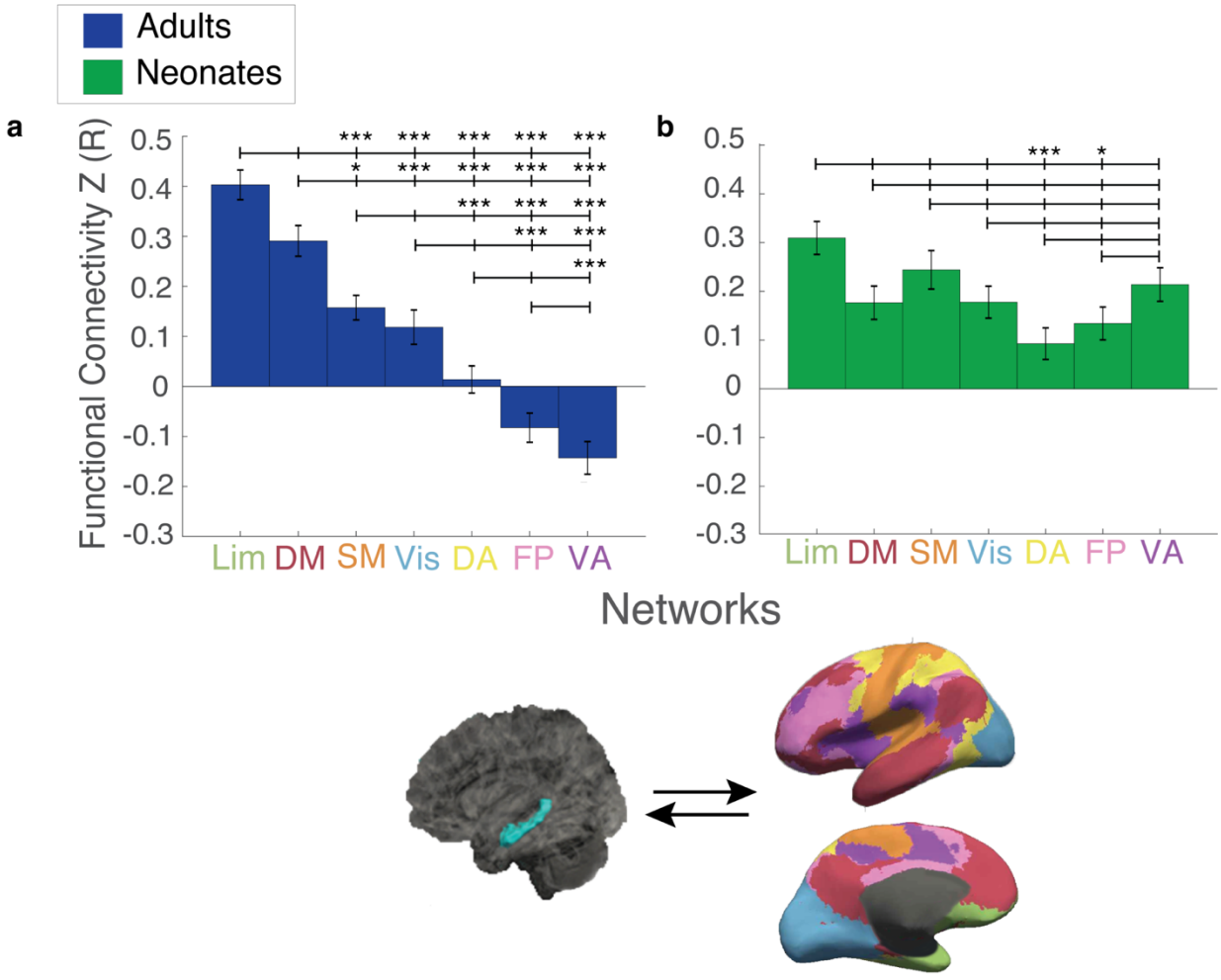
Supplementary Figure 1-1



Supplementary Figure 1-1: tSNR-Matched Adult Hippocampus to Networks. Hippocampal-network connectivity assessed by ANOVA and t-tests of tSNR-matched HCP adults again shows very similar results to the motion-matched and binarized-hippocampal analyses. Hippocampal connectivity in adults shows a clear hierarchy, with strong positive connectivity to Lim and DMN and negative connectivity to FP and VA (*) indicates significance at pHB<0.05; (***) indicates significance at pHB<0.005. n=40, 22 Female

Supplementary Figure 2-1



Supplementary Figure 2-1: Binarized Whole Hippocampus to Networks. Hippocampal connectivity to the networks using a binarized HCP/dHCP hippocampal ROI yields very similar results to the ANTs registered hippocampal ROI (see figure 2). As with the initial analysis, hippocampal connectivity (from ANOVA and t-tests) in adults shows a clear hierarchy whereas neonates display very few differences in hippocampal connectivity strength to the networks. (*) indicates significance at pHB<0.05; (***) indicates significance at pHB<0.005. Adults n=40, 15 Female; Neonates n=40, 15 Female.

Supplementary Tables 2-I and 2-II

	Lim	*DM*	*SM*	*Vis*	*DA*	*FP*	*VA*
Lim		t(78)=2.64, p_{HB}=0.051	**t(78)=5.97, p_{HB}=7.91x10^{-7}**	**t(78)=7.20, p_{HB}=4.52x10^{-9}**	**t(78)=10.09, p_{HB}=1.50x10^{-14}**	**t(78)=11.76, p_{HB}=1.20x10^{-17}**	**t(78)=12.95, p_{HB}=8.42x10^{-20}**
DM			**t(78)=3.16, p_{HB}=0.014**	***t(78)=4.63, p_{HB}=1.45x10^{-4}***	***t(78)=7.24, p_{HB}=4.04x10^{-9}***	***t(78)=9.07, p_{HB}=1.33x10^{-12}***	***t(78)=10.32, p_{HB}=5.80x10^{-15}***
SM				t(78)=1.84, p_{HB}=0.140	**t(78)=4.35, p_{HB}=3.61x10^{-4}**	**t(78)=6.46, p_{HB}=1.09x10^{-7}**	**t(78)=7.83, p_{HB}=3.19x10^{-10}**
Vis					t(78)=2.09, p_{HB}=0.120	**t(78)=4.16, p_{HB}=6.38x10^{-4}**	**t(78)=5.49, p_{HB}=5.31x10^{-6}**
DA						t(78)=2.40, p_{HB}=0.074	**t(78)=3.89, p_{HB}=1.47x10^{-3}**
FP							t(78)=1.46, p_{HB}=0.148
VA							

(Supplementary Table for Figure 2; Table 2-I)

Supplementary Table 2-I: Hippocampus-Network Comparisons in Adults. Comparison (i.e. t-test results) of hippocampal connectivity to the seven networks (i.e. Lim-DM is the statistical comparison between Hippocampal-Limbic connectivity and Hippocampal-Default Mode connectivity) in adults. Bolded values indicate significance at p_{HB}<0.05. n=40; 15 Female.

	Lim	*DM*	*SM*	*Vis*	*DA*	*FP*	*VA*
Lim		t(78)=2.95, p_{HB}=0.076	t(78)=1.20, p_{HB}=1.86	t(78)=2.64, p_{HB}=0.158	**t(78)=5.31, p_{HB}=2.15x10^{-5}**	**t(78)=4.22, p_{HB}=1.32x10^{-3}**	t(78)=2.18, p_{HB}=0.423
DM			t(78)=-1.45, p_{HB}=1.35	t(78)=-0.335, p_{HB}=0.738	t(78)=1.94, p_{HB}=0.616	t(78)=1.13, p_{HB}=1.56	t(78)=-0.79, p_{HB}=2.16
SM				t(78)=1.16, p_{HB}=1.74	**t(78)=3.35, p_{HB}=0.023**	t(78)=2.54, p_{HB}=0.198	t(78)=0.744, p_{HB}=1.38
Vis					t(78)=2.14, p_{HB}=0.304	t(78)=1.50, p_{HB}=1.39	t(78)=-0.461, p_{HB}=1.29
DA						t(78)=-0.752, p_{HB}=1.82	t(78)=-2.85, p_{HB}=0.096
FP							t(78)=-1.97, p_{HB}=0.635
VA							

(Supplementary Table for Figure 2; Table 2-II)

Supplementary Table 2-II: Hippocampus-Network Comparisons in Neonates. Comparison (i.e. t-test results) of hippocampal connectivity to the seven networks (i.e. Lim-DM is the statistical comparison between Hippocampal-Limbic connectivity and Hippocampal-Default Mode connectivity) in neonates. Bolded values indicate significance at $p_{HB}<0.05$. n=40; 15 Female.

Supplementary Tables 3-I and 3-II

Cluster	*Regions*	*Voxels*	*MAX*	*MAX (X)*	*MAX (Y)*	*MAX (Z)*	*COG (X)*	*COG (Y)*	*COG (Z)*
1	(L) Posterior Cingulate; Isthmus Cingulate, Precuneus	2370	8.08	-10	-57	17	-6.23	-55.2	20.8
2	(R) Isthmus Cingulate; Precuneus	1255	8.27	15	-54	19	9.3	-56.1	19.1
3	(L) Inferior Parietal	574	6.85	-42	-77	43	-44.3	-74.8	39.2
4	(L) Middle Temporal Cortex	403	5.72	-62	-1	-20	-63.2	-7.54	-18.2
5	(L) Medial Orbital Frontal	303	7.45	-10	39	-11	-7.75	41.9	-11.7
6	(L) Middle Temporal Cortex; Superior Temporal Cortex	235	6.88	-52	-13	-14	-53.1	-11.6	-13.7

(Supplementary Data for Figure 3; Table 3-I)

Supplementary Table 3-I: Hippocampal Connectivity to Cortex, Adult>Neo Clusters are listed from largest to smallest. Peak coordinates (MAX) are listed in MNI space as well as center of gravity (COG) for each cluster

Cluster	*Regions*	*Voxels*	*MAX*	*MAX (X)*	*MAX (Y)*	*MAX (Z)*	*COG (X)*	*COG (Y)*	*COG (Z)*
1	(R) Rostral Middle Frontal; Pars Triangularis; Pars Orbitalis; Lateral Orbitofrontal; Pars Opercularis; Insula; Caudal Middle Frontal; Precentral; Postcentral	16290	8.72	57	14	4	44.9	26.2	21.8
2	(R) Superior Frontal; Paracentral	4702	6.88	4	26	61	9.85	12.7	59.4
3	(L) Supramarginal	3278	8.54	-65	-42	34	-59.6	-38.9	30.7
4	(R) Supramarginal; Inferior Parietal	3226	7.93	62	-36	48	61.8	-35.9	37.1
5	(R) Lingual; Pericalcarine (L) Lingual; Pericalcarine	2794	6.22	-19	-66	2	1.81	-77.1	5.9
6	(L) Rostral Middle Frontal	796	6.85	-34	51	29	-36.3	46.6	28.9
7	(R) Lateral Orbitofrontal; Pars Orbitalis	458	5.59	46	22	-7	39.4	24.6	-7.38
8	(L) Superior Frontal	350	5.74	-17	7	66	-13.6	8.52	69.4
9	(R) Insula	238	5.25	42	3	-6	40.4	6.44	-3.65

(Supplementary Data for Figure 3; Table 3-II)

Supplementary Table 3-II: Hippocampal Connectivity to Cortex, Neo>Adult Clusters are listed from largest to smallest. Peak coordinates (MAX) are listed in MNI space as well as center of gravity (COG) for each cluster