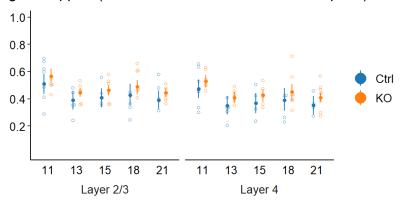
Figure supp5A-E

Figure supp5A (Pearson correlation coefficient-all pairs)



```
Table: ANOVA table before bootstrapping
                 F| Df| Df.res| Pr(>F)|
          |:----:|---:|
|(Intercept) | 268.670 | 1 | 18.243 | 0.000 |
|f.age | 9.105| 4| 98.009| 0.000|
            | 2.179| 1| 10.647| 0.169|
group
f.layer
          | 6.535| 1| 95.290| 0.012|
Table: Main effect after bootstrapping
|Parameter | Median | Mean | CI | CI_low | CI_high | pd | pval |
|:----:|----:|----:|----:|----:|----:|----:|
|Ctrl - KO | -0.057| -0.056| 0.95| -0.122| 0.01| 0.952| 0.096|
                | Median| Mean| CI| CI_low| CI_high|
Parameter
|f.age11 - f.age13 | 0.120| 0.121| 0.95| 0.058|
                                                 0.184 | 1.000 | 0.000 |
|f.age11 - f.age15 | 0.102 | 0.103 | 0.95 | 0.038 |
                                                 0.177 | 0.999 | 0.002 |
|f.age11 - f.age18 | 0.079| 0.080| 0.95| 0.000|
                                                 0.163 | 0.974 | 0.052 |
|f.age11 - f.age21 | 0.119 | 0.120 | 0.95 | 0.074 |
                                                 0.173 | 1.000 | 0.000 |
|f.age13 - f.age15 | -0.018 | -0.017 | 0.95 | -0.046 |
                                                 0.013 | 0.874 | 0.252 |
|f.age13 - f.age18 | -0.041 | -0.041 | 0.95 | -0.103 |
                                                 0.020 | 0.906 | 0.188 |
|f.age13 - f.age21 | -0.001 | 0.000 | 0.95 | -0.036 |
                                                0.038 | 0.518 | 0.965 |
|f.age15 - f.age18 | -0.023 | -0.024 | 0.95 | -0.079 |
                                                 0.030 | 0.800 | 0.400 |
|f.age15 - f.age21 | 0.017 | 0.017 | 0.95 | -0.016 |
                                                 0.049 | 0.842 | 0.315 |
|f.age18 - f.age21 | 0.042 | 0.040 | 0.95 | -0.021 |
                                                 0.095 | 0.910 | 0.181 |
|Parameter | Median | Mean | CI | CI_low | CI_high | pd | pval |
|:----:|---:|---:|----:|----:|----:|----:|----:|----:|---:|----:|---:|---:|
|f.layer2 - f.layer4 | 0.039 | 0.038 | 0.95 | 0.019 | 0.054 | 1 | 0 |
```

Table: Post-hoc comparison with bootstrapping output

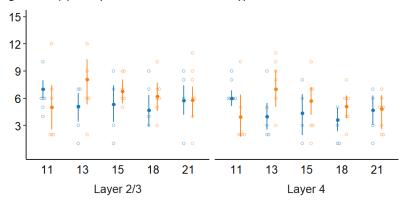
Parameter	Median Mean	Mean.1 CI	CI_low	CI_high	pd	pval
:	: :	: :	:	:	:	:
KO - Ctrl, 2, 11	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 4, 11	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 2, 13	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 4, 13	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 2, 15	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 4, 15	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 2, 18	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 4, 18	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 2, 21	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096
KO - Ctrl, 4, 21	0.057 0.056	0.056 0.95	-0.01	0.122	0.952	0.096

Parameter	Median		Mean.1		. – .	CI_high		
:								
f.age11 - f.age13, Ctrl, 2					: :			0.000
f.age11 - f.age15, Ctrl, 2								0.002
f.age11 - f.age18, Ctrl, 2								0.052
f.age11 - f.age21, Ctrl, 2	9.119	0.120	0.120	0.95	0.074	0.173	1.000	0.000
f.age13 - f.age15, Ctrl, 2	-0.018	-0.017	-0.017	0.95	-0.046	0.013	0.874	0.252
f.age13 - f.age18, Ctrl, 2					: :			0.188
f.age13 - f.age21, Ctrl, 2	-0.001	0.000	0.000	0.95	-0.036	0.038	0.518	0.965
f.age15 - f.age18, Ctrl, 2		-0.024	-0.024	0.95	-0.079	0.030	0.800	0.400
f.age15 - f.age21, Ctrl, 2	! 0.017	0.017	0.017	0.95	-0.016	0.049	0.842	0.315
f.age18 - f.age21, Ctrl, 2	0.042	0.040	0.040	0.95	-0.021	0.095	0.910	0.181
f.age11 - f.age13, KO, 2	0.120	0.121	0.121	0.95	0.058	0.184	1.000	0.000
f.age11 - f.age15, KO, 2	0.102	0.103	0.103	0.95	0.038	0.177	0.999	0.002
f.age11 - f.age18, KO, 2	0.079	0.080	0.080	0.95	0.000	0.163	0.974	0.052
f.age11 - f.age21, KO, 2	0.119	0.120	0.120	0.95	0.074	0.173	1.000	0.000
f.age13 - f.age15, KO, 2	-0.018	-0.017	-0.017	0.95	-0.046	0.013	0.874	0.252
f.age13 - f.age18, KO, 2	-0.041	-0.041	-0.041	0.95	-0.103	0.020	0.906	0.188
f.age13 - f.age21, KO, 2	-0.001	0.000	0.000	0.95	-0.036	0.038	0.518	0.965
f.age15 - f.age18, KO, 2	-0.023	-0.024	-0.024	0.95	-0.079	0.030	0.800	0.400
f.age15 - f.age21, KO, 2	0.017	0.017	0.017	0.95	-0.016	0.049	0.842	0.315
f.age18 - f.age21, KO, 2	0.042	0.040	0.040	0.95	-0.021	0.095	0.910	0.181
f.age11 - f.age13, Ctrl, 4	0.120	0.121	0.121	0.95	0.058	0.184	1.000	0.000
f.age11 - f.age15, Ctrl, 4	0.102	0.103	0.103	0.95	0.038	0.177	0.999	0.002
f.age11 - f.age18, Ctrl, 4	0.079	0.080	0.080	0.95	0.000	0.163	0.974	0.052
f.age11 - f.age21, Ctrl, 4	0.119	0.120	0.120	0.95	0.074	0.173	1.000	0.000
f.age13 - f.age15, Ctrl, 4	-0.018	-0.017	-0.017	0.95	-0.046	0.013	0.874	0.252
f.age13 - f.age18, Ctrl, 4	-0.041	-0.041	-0.041	0.95	-0.103	0.020	0.906	0.188
f.age13 - f.age21, Ctrl, 4	-0.001	0.000	0.000	0.95	-0.036	0.038	0.518	0.965
f.age15 - f.age18, Ctrl, 4	-0.023	-0.024	-0.024	0.95	-0.079	0.030	0.800	0.400
f.age15 - f.age21, Ctrl, 4	0.017	0.017	0.017	0.95	-0.016	0.049	0.842	0.315
f.age18 - f.age21, Ctrl, 4	0.042	0.040	0.040	0.95	-0.021	0.095	0.910	0.181
f.age11 - f.age13, KO, 4	0.120	0.121	0.121	0.95	0.058	0.184	1.000	0.000
f.age11 - f.age15, KO, 4	0.102	0.103	0.103	0.95	0.038	0.177	0.999	0.002
f.age11 - f.age18, KO, 4	0.079	0.080	0.080	0.95	0.000	0.163	0.974	0.052
f.age11 - f.age21, KO, 4	0.119	0.120	0.120	0.95	0.074	0.173	1.000	0.000
f.age13 - f.age15, KO, 4	-0.018	-0.017	-0.017	0.95	-0.046	0.013	0.874	0.252
f.age13 - f.age18, KO, 4	-0.041	-0.041	-0.041	0.95	-0.103	0.020	0.906	0.188
f.age13 - f.age21, KO, 4	-0.001	0.000	0.000	0.95	-0.036	0.038	0.518	0.965
f.age15 - f.age18, KO, 4	-0.023	-0.024	-0.024	0.95	-0.079	0.030	0.800	0.400
f.age15 - f.age21, KO, 4	0.017	0.017	0.017	0.95	-0.016	0.049	0.842	0.315
f.age18 - f.age21, KO, 4	0.042	0.040	0.040	0.95	-0.021	0.095	0.910	0.181

Parameter	Median	Mean Mean.1	CI	CI_low	CI_high	pd	pval
:	:	: :	:	:	:	: -	:
f.layer4 - f.layer2, Ctrl, 11	-0.039	-0.038 -0.038	0.95	-0.054	-0.019	1	0
f.layer4 - f.layer2, KO, 11	-0.039	-0.038 -0.038	0.95	-0.054	-0.019	1	0
f.layer4 - f.layer2, Ctrl, 13	-0.039	-0.038 -0.038	0.95	-0.054	-0.019	1	0

```
|f.layer4 - f.layer2, KO, 13 | -0.039| -0.038| -0.038| 0.95| -0.054|
                                                                        -0.019
                                                                                1|
                                                                                       0|
|f.layer4 - f.layer2, Ctrl, 15 | -0.039| -0.038| -0.038| 0.95| -0.054|
                                                                       -0.019
                                                                                       0
|f.layer4 - f.layer2, KO, 15 | -0.039 | -0.038 | -0.038 | 0.95 | -0.054 |
|f.layer4 - f.layer2, Ctrl, 18 | -0.039 | -0.038 | -0.038 | 0.95 | -0.054 | -0.019 |
                                                                                       0|
                                                                                 1
|f.layer4 - f.layer2, KO, 18 | -0.039| -0.038| -0.038| 0.95| -0.054| -0.019|
                                                                                1|
                                                                                      0|
|f.layer4 - f.layer2, Ctrl, 21 | -0.039 | -0.038 | -0.038 | 0.95 | -0.054 |
                                                                       -0.019 1
                                                                                      01
|f.layer4 - f.layer2, KO, 21 | -0.039| -0.038| -0.038| 0.95| -0.054| -0.019| 1|
                                                                                       0|
```

Figure supp5B (Subnetwork number))



```
Table: ANOVA table before bootstrapping
```

```
| F| Df| Df.res| Pr(>F)| |
|---|---|---|---|---|
|(Intercept) | 81.420| 1| 75.297| 0.000|
|f.age | 1.392| 4| 97.916| 0.242|
|group | 3.384| 1| 68.664| 0.070|
|f.layer | 4.552| 1| 92.855| 0.036|
|f.age:group | 3.033| 4| 97.357| 0.021|
```

Table: Main effect after bootstrapping

Parameter	Median	Mean	CI CI_low	CI_high	pd	pval
:		:	: :	:	:	:
f.age11 - f.age13	-0.584	-0.539	0.95 -2.346	1.517	0.713	0.574
f.age11 - f.age15	-0.098	-0.048	0.95 -1.691	1.872	0.542	0.916
f.age11 - f.age18	0.594	0.606	0.95 -0.597	1.932	0.823	0.353
f.age11 - f.age21	0.244	0.273	0.95 -1.412	2.202	0.599	0.802
f.age13 - f.age15	0.483	0.490	0.95 -1.323	2.327	0.703	0.593
f.age13 - f.age18	1.173	1.145	0.95 -0.465	2.621	0.925	0.149
f.age13 - f.age21	0.792	0.811	0.95 -0.702	2.428	0.847	0.305
f.age15 - f.age18	0.636	0.655	0.95 -0.943	2.275	0.785	0.429
f.age15 - f.age21	0.349	0.321	0.95 -0.968	1.453	0.705	0.591
f.age18 - f.age21	-0.351	-0.334	0.95 -1.535	0.974	0.701	0.598

Parameter	Median	Mean	CI CI_low C	I_high	pd pval
:	- : -	:	: :	:	-: :
f.layer2 - f.layer4	1.055	1.053 0	.95 -0.188	2.266 0.	95 0.1

Table: Post-hoc comparison with bootstrapping output

Parameter	Median Mean	Mean.1	CI	CI_low	CI_high	pd	pval
: -	: :	:	:	:	:	:	:
KO - Ctrl, 2, 11	-2.000 -1.987	-1.987	0.95	-4.410	0.375	0.950	0.100
KO - Ctrl, 4, 11	-2.000 -1.987	-1.987	0.95	-4.410	0.375	0.950	0.100
KO - Ctrl, 2, 13	2.991 2.957	2.957	0.95	0.267	5.492	0.984	0.031
KO - Ctrl, 4, 13	2.991 2.957	2.957	0.95	0.267	5.492	0.984	0.031
KO - Ctrl, 2, 15	1.348 1.405	1.405	0.95	-0.827	4.495	0.844	0.312
KO - Ctrl, 4, 15	1.348 1.405	1.405	0.95	-0.827	4.495	0.844	0.312
KO - Ctrl, 2, 18	1.495 1.447	1.447	0.95	-0.557	3.207	0.927	0.147
KO - Ctrl, 4, 18	1.495 1.447	1.447	0.95	-0.557	3.207	0.927	0.147
KO - Ctrl, 2, 21	0.032 -0.007	-0.007	0.95	-2.294	2.091	0.513	0.974
KO - Ctrl, 4, 21	0.032 -0.007	-0.007	0.95	-2.294	2.091	0.513	0.974

'	Median	'	Mean.1			CI_high		
:						•		
f.age11 - f.age13, Ctrl, 2					0.446		:	0.014
f.age11 - f.age15, Ctrl, 2	: :		:		-0.040		:	0.061
f.age11 - f.age18, Ctrl, 2	: :		:				:	0.002
f.age11 - f.age21, Ctrl, 2	: :				-0.155			0.082
f.age13 - f.age15, Ctrl, 2					-2.500			0.809
f.age13 - f.age18, Ctrl, 2	: :	0.390			-1.767		:	0.654
f.age13 - f.age21, Ctrl, 2		-0.671	-0.671	0.95	-1.546			0.191
f.age15 - f.age18, Ctrl, 2					-2.046		:	0.611
f.age15 - f.age21, Ctrl, 2	: :		:		-2.100			0.628
f.age18 - f.age21, Ctrl, 2	: :				-3.000		:	0.240
f.age11 - f.age13, KO, 2	-3.083	-3.011	-3.011	0.95	-6.250	0.900	0.942	0.115
f.age11 - f.age15, KO, 2	-1.779	-1.744	-1.744	0.95	-4.250	0.933	0.906	0.189
f.age11 - f.age18, KO, 2	-1.145	-1.111	-1.111	0.95	-3.089	1.100	0.866	0.268
f.age11 - f.age21, KO, 2	-0.830	-0.718	-0.718	0.95	-3.722	2.863	0.690	0.620
f.age13 - f.age15, KO, 2	1.313	1.266	1.266	0.95	-1.621	3.772	0.841	0.318
f.age13 - f.age18, KO, 2	1.914	1.900	1.900	0.95	-0.523	4.180	0.941	0.117
f.age13 - f.age21, KO, 2	2.219	2.293	2.293	0.95	-0.567	5.400	0.937	0.127
f.age15 - f.age18, KO, 2	0.624	0.634	0.634	0.95	-1.375	2.545	0.757	0.486
f.age15 - f.age21, KO, 2	1.048	1.027	1.027	0.95	-1.107	2.750	0.857	0.285
f.age18 - f.age21, KO, 2	0.300	0.393	0.393	0.95	-0.943	2.440	0.636	0.728
f.age11 - f.age13, Ctrl, 4	1.931	1.934	1.934	0.95	0.446	3.520	0.993	0.014
f.age11 - f.age15, Ctrl, 4	1.471	1.648	1.648	0.95	-0.040	4.531	0.969	0.061
f.age11 - f.age18, Ctrl, 4	2.297	2.323	2.323	0.95	0.922	3.797	0.999	0.002
f.age11 - f.age21, Ctrl, 4	1.209	1.263	1.263	0.95	-0.155	3.079	0.959	0.082
f.age13 - f.age15, Ctrl, 4	-0.375	-0.286	-0.286	0.95	-2.500	2.480	0.595	0.809
f.age13 - f.age18, Ctrl, 4	0.437	0.390	0.390	0.95	-1.767	2.305	0.673	0.654
f.age13 - f.age21, Ctrl, 4	-0.706	-0.671	-0.671	0.95	-1.546	0.398	0.904	0.191
f.age15 - f.age18, Ctrl, 4	0.625	0.676	0.676	0.95	-2.046	3.276	0.694	0.611
f.age15 - f.age21, Ctrl, 4	-0.375	-0.385	-0.385	0.95	-2.100	1.000	0.686	0.628
f.age18 - f.age21, Ctrl, 4	-1.000	-1.060	-1.060	0.95	-3.000	0.500	0.880	0.240
f.age11 - f.age13, KO, 4	-3.083	-3.011	-3.011	0.95	-6.250	0.900	0.942	0.115
f.age11 - f.age15, KO, 4	-1.779	-1.744	-1.744	0.95	-4.250	0.933	0.906	0.189
f.age11 - f.age18, KO, 4	-1.145	-1.111	-1.111	0.95	-3.089	1.100	0.866	0.268
f.age11 - f.age21, KO, 4	-0.830	-0.718	-0.718	0.95	-3.722	2.863	0.690	0.620
f.age13 - f.age15, KO, 4	1.313	1.266	1.266	0.95	-1.621	3.772	0.841	0.318
f.age13 - f.age18, KO, 4	1.914	1.900	1.900	0.95	-0.523	4.180	0.941	0.117
f.age13 - f.age21, KO, 4	2.219	2.293	2.293	0.95	-0.567	5.400	0.937	0.127
f.age15 - f.age18, KO, 4	0.624	0.634	0.634	0.95	-1.375	2.545	0.757	0.486
f.age15 - f.age21, KO, 4	1.048	1.027	1.027	0.95	-1.107	2.750	0.857	0.285
f.age18 - f.age21, KO, 4	0.300	0.393	0.393	0.95	-0.943	2.440	0.636	0.728

Parameter	Median	Mean	Mean.1	CI CI_low	CI_high pd pva	1
:	:	:	: -	: :	: :	:
f.layer4 - f.layer2, Ctrl, 11	-1.055	-1.053	-1.053	0.95 -2.266	0.188 0.95 0.	1
f.layer4 - f.layer2, KO, 11	-1.055	-1.053	-1.053	0.95 -2.266	0.188 0.95 0.	1
f.layer4 - f.layer2, Ctrl, 13	-1.055	-1.053	-1.053	0.95 -2.266	0.188 0.95 0.	1

```
|f.layer4 - f.layer2, KO, 13
                               | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                                          0.1
                                                                           0.188 | 0.95 |
|f.layer4 - f.layer2, Ctrl, 15 | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                           0.188 | 0.95 |
                                                                                          0.1
|f.layer4 - f.layer2, KO, 15
                               | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                           0.188 | 0.95 |
                                                                                          0.1
|f.layer4 - f.layer2, Ctrl, 18 | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                           0.188 | 0.95 |
                                                                                          0.1
|f.layer4 - f.layer2, KO, 18
                               | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                                          0.1
                                                                           0.188 | 0.95 |
|f.layer4 - f.layer2, Ctrl, 21 | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                           0.188 | 0.95 |
                                                                                          0.1
|f.layer4 - f.layer2, KO, 21
                               | -1.055| -1.053| -1.053| 0.95| -2.266|
                                                                           0.188 | 0.95 |
                                                                                          0.1
```

Figure supp5C (view in-out)

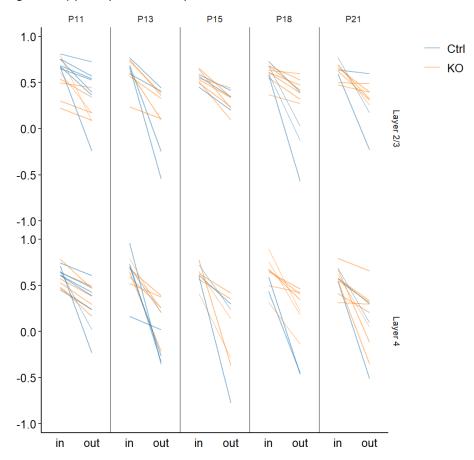


Figure supp5D (tCC- in the same subnetwork)

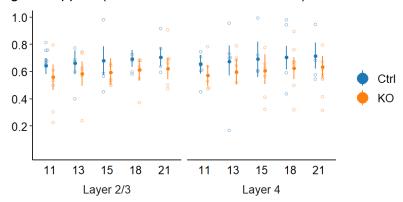


Table: ANOVA table before bootstrapping

```
| F| Df| Df.res| Pr(>F)| |
|---|---|---|---|---|
|(Intercept)| 211.209| 1| 25.091| 0.000|
|f.age| 0.599| 4| 99.266| 0.665|
|group| 2.631| 1| 10.342| 0.135|
|f.layer| 0.196| 1| 95.638| 0.659|
```

Table: Main effect after bootstrapping

Para	meter	Median	Mean	CI	CI_low	CI_high	pd	pval
:		: -	: -	: -	:	:	:	:
Ctrl	KO	0.081	0.082	0.95	-0.008	0.173	0.963	0.073

Parameter	Median	Mean CI	CI_low	CI_high	pd pval
:	: -	: :	:	: -	: :
f.age11 - f.age13	-0.022	-0.022 0.95	-0.128	0.086	0.658 0.683
f.age11 - f.age15	-0.036	-0.037 0.95	-0.152	0.074	0.732 0.536
f.age11 - f.age18	-0.052	-0.051 0.95	-0.131	0.026	0.895 0.209
f.age11 - f.age21	-0.063	-0.062 0.95	-0.129	0.010	0.954 0.092
f.age13 - f.age15	-0.015	-0.015 0.95	-0.120	0.092	0.605 0.789
f.age13 - f.age18	-0.028	-0.029 0.95	-0.094	0.033	0.819 0.362
f.age13 - f.age21	-0.039	-0.040 0.95	-0.115	0.032	0.858 0.284
f.age15 - f.age18	-0.014	-0.015 0.95	-0.105	0.075	0.618 0.765
f.age15 - f.age21	-0.023	-0.025 0.95	-0.139	0.076	0.661 0.677
f.age18 - f.age21	-0.009	-0.011 0.95	-0.068	0.037	0.637 0.726

Parameter	Median	Mean CI	CI_low	CI_high	pd pval
:	:	: :	:	: -	: :
f.layer2 - f.layer4	-0.011 -	0.011 0.95	-0.054	0.03	0.703 0.594

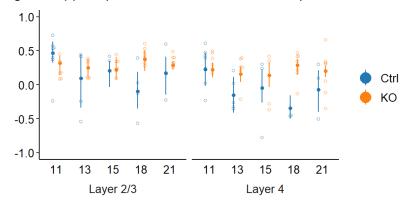
Parameter	Median Mean	Mean.1 CI	CI_low	CI_high	pd	pval
:	:	:	:	:	: -	:
KO - Ctrl, 2, 11	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 4, 11	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 2, 13	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 4, 13	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 2, 15	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 4, 15	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 2, 18	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 4, 18	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 2, 21	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073
KO - Ctrl, 4, 21	-0.081 -0.082	-0.082 0.95	-0.173	0.008	0.963	0.073

•					. –	CI_high		
:								
f.age11 - f.age13, Ctrl, 2								0.683
f.age11 - f.age15, Ctrl, 2								0.536
f.age11 - f.age18, Ctrl, 2								0.209
f.age11 - f.age21, Ctrl, 2	: :							0.092
f.age13 - f.age15, Ctrl, 2								0.789
f.age13 - f.age18, Ctrl, 2								0.362
f.age13 - f.age21, Ctrl, 2								0.284
f.age15 - f.age18, Ctrl, 2								0.765
f.age15 - f.age21, Ctrl, 2	: :							0.677
f.age18 - f.age21, Ctrl, 2	: :							0.726
f.age11 - f.age13, KO, 2	-0.022	-0.022	-0.022	0.95	-0.128	0.086	0.658	0.683
f.age11 - f.age15, KO, 2	-0.036	-0.037	-0.037	0.95	-0.152	0.074	0.732	0.536
f.age11 - f.age18, KO, 2	-0.052	-0.051	-0.051	0.95	-0.131	0.026	0.895	0.209
f.age11 - f.age21, KO, 2	-0.063	-0.062	-0.062	0.95	-0.129	0.010	0.954	0.092
f.age13 - f.age15, KO, 2	-0.015	-0.015	-0.015	0.95	-0.120	0.092	0.605	0.789
f.age13 - f.age18, KO, 2	-0.028	-0.029	-0.029	0.95	-0.094	0.033	0.819	0.362
f.age13 - f.age21, KO, 2	-0.039	-0.040	-0.040	0.95	-0.115	0.032	0.858	0.284
f.age15 - f.age18, KO, 2	-0.014	-0.015	-0.015	0.95	-0.105	0.075	0.618	0.765
f.age15 - f.age21, KO, 2	-0.023	-0.025	-0.025	0.95	-0.139	0.076	0.661	0.677
f.age18 - f.age21, KO, 2	-0.009	-0.011	-0.011	0.95	-0.068	0.037	0.637	0.726
f.age11 - f.age13, Ctrl, 4	-0.022	-0.022	-0.022	0.95	-0.128	0.086	0.658	0.683
f.age11 - f.age15, Ctrl, 4	-0.036	-0.037	-0.037	0.95	-0.152	0.074	0.732	0.536
f.age11 - f.age18, Ctrl, 4	-0.052	-0.051	-0.051	0.95	-0.131	0.026	0.895	0.209
f.age11 - f.age21, Ctrl, 4	-0.063	-0.062	-0.062	0.95	-0.129	0.010	0.954	0.092
f.age13 - f.age15, Ctrl, 4	-0.015	-0.015	-0.015	0.95	-0.120	0.092	0.605	0.789
f.age13 - f.age18, Ctrl, 4	-0.028	-0.029	-0.029	0.95	-0.094	0.033	0.819	0.362
f.age13 - f.age21, Ctrl, 4	-0.039	-0.040	-0.040	0.95	-0.115	0.032	0.858	0.284
f.age15 - f.age18, Ctrl, 4	-0.014	-0.015	-0.015	0.95	-0.105	0.075	0.618	0.765
f.age15 - f.age21, Ctrl, 4	-0.023	-0.025	-0.025	0.95	-0.139	0.076	0.661	0.677
f.age18 - f.age21, Ctrl, 4	-0.009	-0.011	-0.011	0.95	-0.068	0.037	0.637	0.726
f.age11 - f.age13, KO, 4	-0.022	-0.022	-0.022	0.95	-0.128	0.086	0.658	0.683
f.age11 - f.age15, KO, 4	-0.036	-0.037	-0.037	0.95	-0.152	0.074	0.732	0.536
f.age11 - f.age18, KO, 4	-0.052	-0.051	-0.051	0.95	-0.131	0.026	0.895	0.209
f.age11 - f.age21, KO, 4	-0.063	-0.062	-0.062	0.95	-0.129	0.010	0.954	0.092
f.age13 - f.age15, KO, 4	-0.015	-0.015	-0.015	0.95	-0.120	0.092	0.605	0.789
f.age13 - f.age18, KO, 4	-0.028	-0.029	-0.029	0.95	-0.094	0.033	0.819	0.362
f.age13 - f.age21, KO, 4	-0.039	-0.040	-0.040	0.95	-0.115	0.032	0.858	0.284
f.age15 - f.age18, KO, 4	-0.014	-0.015	-0.015	0.95	-0.105	0.075	0.618	0.765
f.age15 - f.age21, KO, 4	-0.023	-0.025	-0.025	0.95	-0.139	0.076	0.661	0.677
f.age18 - f.age21, KO, 4	-0.009	-0.011	-0.011	0.95	-0.068	0.037	0.637	0.726

Parameter	Median	Mean	Mean.1	CI	CI_low	CI_high	pd	pval
:	:	:	:	:	:	: -	: -	:
f.layer4 - f.layer2, Ctrl, 11	0.011	0.011	0.011	0.95	-0.03	0.054	0.703	0.594
f.layer4 - f.layer2, KO, 11	0.011	0.011	0.011	0.95	-0.03	0.054	0.703	0.594
f.layer4 - f.layer2, Ctrl, 13	0.011	0.011	0.011	0.95	-0.03	0.054	0.703	0.594

```
|f.layer4 - f.layer2, KO, 13 | 0.011| 0.011| 0.011| 0.95|
                                                                -0.03
                                                                         0.054 | 0.703 | 0.594 |
|f.layer4 - f.layer2, Ctrl, 15 | 0.011| 0.011|
                                                 0.011 | 0.95 |
                                                                         0.054 | 0.703 | 0.594 |
                                                                -0.03
|f.layer4 - f.layer2, KO, 15 | 0.011| 0.011|
                                                 0.011 | 0.95|
                                                                -0.03
                                                                         0.054 | 0.703 | 0.594 |
|f.layer4 - f.layer2, Ctrl, 18 | 0.011 | 0.011 | 0.011 | 0.95 |
                                                                -0.03
                                                                         0.054 | 0.703 | 0.594 |
|f.layer4 - f.layer2, KO, 18 | 0.011 | 0.011 | 0.011 | 0.95 |
                                                                         0.054 | 0.703 | 0.594 |
                                                                -0.03
|f.layer4 - f.layer2, Ctrl, 21 | 0.011 | 0.011 | 0.011 | 0.95 |
                                                                -0.03|
                                                                         0.054 | 0.703 | 0.594 |
|f.layer4 - f.layer2, KO, 21 | 0.011| 0.011| 0.011| 0.95|
                                                               -0.03|
                                                                         0.054 | 0.703 | 0.594 |
```

Figure supp5E (tCC- outside the subnetwork)



```
Table: ANOVA table before bootstrapping
```

```
| F| Df| Df.res| Pr(>F)| |
|---|---|---|---|---|
|(Intercept) | 28.257| 1| 46.802| 0.000|
|f.age | 6.714| 4| 84.997| 0.000|
|group | 1.457| 1| 44.685| 0.234|
|f.layer | 10.369| 1| 79.971| 0.002|
|group:f.layer | 2.418| 1| 79.671| 0.124|
|f.age:group | 4.509| 4| 84.881| 0.002|
```

Table: Main effect after bootstrapping

Parameter	Median	Mean	CI	CI_low	CI_high	pd	pval
:	: -	·: ·	: -	:	:	:	:
f.age11 - f.age13	0.218	0.213	0.95	-0.044	0.442	0.951	0.098
f.age11 - f.age15	0.174	0.173	0.95	0.055	0.291	0.998	0.004
f.age11 - f.age18	0.254	0.249	0.95	0.056	0.427	0.994	0.012
f.age11 - f.age21	0.159	0.159	0.95	0.035	0.288	0.995	0.010
f.age13 - f.age15	-0.033	-0.040	0.95	-0.300	0.150	0.641	0.719
f.age13 - f.age18	0.038	0.037	0.95	-0.090	0.156	0.736	0.528
f.age13 - f.age21	-0.049	-0.053	0.95	-0.243	0.171	0.683	0.635
f.age15 - f.age18	0.069	0.076	0.95	-0.072	0.276	0.810	0.379
f.age15 - f.age21	-0.014	-0.014	0.95	-0.146	0.114	0.578	0.844
f.age18 - f.age21	-0.090	-0.090	0.95	-0.259	0.092	0.820	0.359

Parameter	Median	Mean CI	CI_low C	I_high	pd pv	al
:	: -	: : -	:	: -	-:	-:
f.layer2 - f.layer4	0.168	0.164 0.95	0.062	0.242	1	0

Table: Post-hoc comparison with bootstrapping output

Parameter	Median Mean	Mean.1 CI	CI_low	CI_high	pd	pval
: -	:	: :	:	:	:	:
KO - Ctrl, 2, 11	-0.157 -0.162	-0.162 0.95	-0.392	0.037	0.943 6	0.114
KO - Ctrl, 4, 11	-0.008 -0.010	-0.010 0.95	-0.282	0.262	0.521 6	0.958
KO - Ctrl, 2, 13	0.153 0.147	0.147 0.95	-0.301	0.574	0.770 0	0.460
KO - Ctrl, 4, 13	0.309 0.298	0.298 0.95	-0.038	0.567	0.961 6	0.078
KO - Ctrl, 2, 15	0.015 0.024	0.024 0.95	-0.193	0.288	0.553 6	0.893
KO - Ctrl, 4, 15	0.179 0.175	0.175 0.95	-0.132	0.474	0.867 0	0.265
KO - Ctrl, 2, 18	0.466 0.458	0.458 0.95	0.134	0.751	0.997 0	0.007
KO - Ctrl, 4, 18	0.618 0.609	0.609 0.95	0.390	0.800	1.000 0	0.000
KO - Ctrl, 2, 21	0.117 0.120	0.120 0.95	-0.152	0.426	0.775 0	0.450
KO - Ctrl, 4, 21	0.271 0.272	0.272 0.95	-0.019	0.634	0.964 0	0.072

Parameter	Median		Mean.1		. – .	CI_high		
:								
f.age11 - f.age13, Ctrl, 2					-0.122		:	0.127
f.age11 - f.age15, Ctrl, 2								0.005
f.age11 - f.age18, Ctrl, 2							:	0.001
f.age11 - f.age21, Ctrl, 2	0.295	0.301	0.301	0.95	0.096	0.529	0.997	0.007
f.age13 - f.age15, Ctrl, 2		-0.101			-0.588			0.594
f.age13 - f.age18, Ctrl, 2		0.192	0.192	0.95	-0.024	0.370	0.965	0.069
f.age13 - f.age21, Ctrl, 2	-0.062	-0.067	-0.067	0.95	-0.404	0.352	0.625	0.750
f.age15 - f.age18, Ctrl, 2		0.293	0.293	0.95	0.085	0.625	1.000	0.000
f.age15 - f.age21, Ctrl, 2	0.027	0.035	0.035	0.95	-0.143	0.198	0.638	0.724
f.age18 - f.age21, Ctrl, 2	-0.257	-0.258	-0.258	0.95	-0.529	0.059	0.935	0.131
f.age11 - f.age13, KO, 2	0.057	0.058	0.058	0.95	-0.090	0.216	0.776	0.448
f.age11 - f.age15, KO, 2	0.081	0.080	0.080	0.95	-0.074	0.244	0.833	0.334
f.age11 - f.age18, KO, 2	-0.070	-0.060	-0.060	0.95	-0.205	0.167	0.761	0.478
f.age11 - f.age21, KO, 2	0.020	0.018	0.018	0.95	-0.125	0.156	0.605	0.790
f.age13 - f.age15, KO, 2	0.016	0.022	0.022	0.95	-0.105	0.217	0.562	0.877
f.age13 - f.age18, KO, 2	-0.123	-0.119	-0.119	0.95	-0.264	0.044	0.940	0.121
f.age13 - f.age21, KO, 2	-0.033	-0.040	-0.040	0.95	-0.213	0.075	0.681	0.637
f.age15 - f.age18, KO, 2	-0.147	-0.141	-0.141	0.95	-0.345	0.117	0.889	0.222
f.age15 - f.age21, KO, 2	-0.060	-0.062	-0.062	0.95	-0.285	0.130	0.746	0.507
f.age18 - f.age21, KO, 2	0.086	0.079	0.079	0.95	-0.132	0.228	0.836	0.328
f.age11 - f.age13, Ctrl, 4	0.379	0.367	0.367	0.95	-0.122	0.806	0.936	0.127
f.age11 - f.age15, Ctrl, 4	0.266	0.266	0.266	0.95	0.092	0.453	0.998	0.005
f.age11 - f.age18, Ctrl, 4	0.569	0.559	0.559	0.95	0.213	0.809	1.000	0.001
f.age11 - f.age21, Ctrl, 4	0.295	0.301	0.301	0.95	0.096	0.529	0.997	0.007
f.age13 - f.age15, Ctrl, 4	-0.081	-0.101	-0.101	0.95	-0.588	0.227	0.703	0.594
f.age13 - f.age18, Ctrl, 4	0.199	0.192	0.192	0.95	-0.024	0.370	0.965	0.069
f.age13 - f.age21, Ctrl, 4	-0.062	-0.067	-0.067	0.95	-0.404	0.352	0.625	0.750
f.age15 - f.age18, Ctrl, 4	0.278	0.293	0.293	0.95	0.085	0.625	1.000	0.000
f.age15 - f.age21, Ctrl, 4	0.027	0.035	0.035	0.95	-0.143	0.198	0.638	0.724
f.age18 - f.age21, Ctrl, 4	-0.257	-0.258	-0.258	0.95	-0.529	0.059	0.935	0.131
f.age11 - f.age13, KO, 4	0.057	0.058	0.058	0.95	-0.090	0.216	0.776	0.448
f.age11 - f.age15, KO, 4	0.081	0.080	0.080	0.95	-0.074	0.244	0.833	0.334
f.age11 - f.age18, KO, 4	-0.070	-0.060	-0.060	0.95	-0.205	0.167	0.761	0.478
f.age11 - f.age21, KO, 4	0.020	0.018	0.018	0.95	-0.125	0.156	0.605	0.790
f.age13 - f.age15, KO, 4	0.016	0.022	0.022	0.95	-0.105	0.217	0.562	0.877
f.age13 - f.age18, KO, 4	-0.123	-0.119	-0.119	0.95	-0.264	0.044	0.940	0.121
f.age13 - f.age21, KO, 4	-0.033	-0.040	-0.040	0.95	-0.213	0.075	0.681	0.637
f.age15 - f.age18, KO, 4	-0.147	-0.141	-0.141	0.95	-0.345	0.117	0.889	0.222
f.age15 - f.age21, KO, 4	-0.060	-0.062	-0.062	0.95	-0.285	0.130	0.746	0.507
f.age18 - f.age21, KO, 4	0.086	0.079	0.079	0.95	-0.132	0.228	0.836	0.328
					•		•	

Parameter	Median	Mean	Mean.1	CI	CI_low	CI_high	pd	pval
:	:	:	:	:	:	: -	: -	:
f.layer4 - f.layer2, Ctrl, 11	-0.248	-0.240	-0.240	0.95	-0.376	-0.056	1.000	0.00
f.layer4 - f.layer2, KO, 11	-0.091	-0.088	-0.088	0.95	-0.158	0.000	0.975	0.05
f.layer4 - f.layer2, Ctrl, 13	-0.248	-0.240	-0.240	0.95	-0.376	-0.056	1.000	0.00

f.layer4 -	f.layer2,	KO, 13	-0.091	-0.088	-0.088	0.95	-0.158	0.000	0.975	0.05
f.layer4 -	f.layer2,	Ctrl, 15	-0.248	-0.240	-0.240	0.95	-0.376	-0.056	1.000	0.00
f.layer4 -	f.layer2,	KO, 15	-0.091	-0.088	-0.088	0.95	-0.158	0.000	0.975	0.05
f.layer4 -	f.layer2,	Ctrl, 18	-0.248	-0.240	-0.240	0.95	-0.376	-0.056	1.000	0.00
f.layer4 -	f.layer2,	KO, 18	-0.091	-0.088	-0.088	0.95	-0.158	0.000	0.975	0.05
f.layer4 -	f.layer2,	Ctrl, 21	-0.248	-0.240	-0.240	0.95	-0.376	-0.056	1.000	0.00
f.layer4 -	f.layer2,	KO, 21	-0.091	-0.088	-0.088	0.95	-0.158	0.000	0.975	0.05