**Figure 3—figure source data 1.** All significant links (FDR p<0.05) between the AAL2 areas for the drinking group.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Functional connectivity** | | **t value** | **p value** | **Functional connectivity** | | **t value** | **p value** |
| Precentral\_L | OFCmed\_L | -3.445 | 6.02E-04 | Cingulate\_Ant\_R | Heschl\_R | -3.044 | 2.42E-03 |
| Precentral\_R | OFCmed\_L | -3.689 | 2.41E-04 | Cingulate\_Mid\_L | Heschl\_R | -3.182 | 1.52E-03 |
| Rolandic\_Oper\_R | OFCmed\_L | -3.851 | 1.28E-04 | Cingulate\_Mid\_R | Heschl\_R | -3.105 | 1.97E-03 |
| Olfactory\_L | OFCmed\_L | -4.112 | 4.35E-05 | Heschl\_L | Heschl\_R | -3.281 | 1.08E-03 |
| Rectus\_R | OFCmed\_L | -3.611 | 3.25E-04 | Frontal\_Inf\_Orb\_2\_L | Temporal\_Sup\_L | -3.215 | 1.36E-03 |
| Frontal\_Mid\_2\_R | OFCmed\_R | -3.442 | 6.10E-04 | Frontal\_Inf\_Orb\_2\_R | Temporal\_Sup\_L | -3.227 | 1.31E-03 |
| OFCmed\_L | OFCpost\_L | -3.540 | 4.25E-04 | Frontal\_Sup\_Medial\_L | Temporal\_Sup\_L | -3.057 | 2.31E-03 |
| Precentral\_L | Cingulate\_Ant\_L | -3.523 | 4.52E-04 | Frontal\_Sup\_Medial\_R | Temporal\_Sup\_L | -3.118 | 1.89E-03 |
| Precentral\_R | Cingulate\_Ant\_L | -3.680 | 2.50E-04 | OFCmed\_R | Temporal\_Sup\_L | -3.163 | 1.62E-03 |
| Rolandic\_Oper\_L | Cingulate\_Ant\_L | -3.528 | 4.44E-04 | OFCpost\_L | Temporal\_Sup\_L | -3.216 | 1.36E-03 |
| Rolandic\_Oper\_R | Cingulate\_Ant\_L | -3.819 | 1.45E-04 | OFCpost\_R | Temporal\_Sup\_L | -3.124 | 1.85E-03 |
| Insula\_R | Cingulate\_Ant\_L | -3.481 | 5.27E-04 | Insula\_L | Temporal\_Sup\_L | -2.967 | 3.10E-03 |
| Rolandic\_Oper\_R | Cingulate\_Ant\_R | -3.484 | 5.22E-04 | Pallidum\_L | Temporal\_Sup\_L | -3.060 | 2.29E-03 |
| OFCmed\_L | Cingulate\_Ant\_R | -3.478 | 5.34E-04 | Frontal\_Inf\_Orb\_2\_R | Temporal\_Sup\_R | -3.003 | 2.76E-03 |
| Precentral\_R | Cingulate\_Mid\_L | -3.458 | 5.75E-04 | OFCmed\_L | Temporal\_Sup\_R | -3.009 | 2.71E-03 |
| Cingulate\_Ant\_L | Postcentral\_L | -3.598 | 3.42E-04 | Frontal\_Inf\_Orb\_2\_R | Temporal\_Pole\_Sup\_L | -3.097 | 2.03E-03 |
| Cingulate\_Mid\_L | Postcentral\_L | -3.756 | 1.86E-04 | Frontal\_Inf\_Tri\_R | Rolandic\_Oper\_R | -2.936 | 3.43E-03 |
| OFCmed\_L | Postcentral\_R | -3.511 | 4.73E-04 | Frontal\_Inf\_Oper\_R | Olfactory\_R | -2.947 | 3.31E-03 |
| Cingulate\_Ant\_L | Postcentral\_R | -3.658 | 2.72E-04 | Insula\_L | Hippocampus\_L | -2.946 | 3.32E-03 |
| Cingulate\_Mid\_L | Postcentral\_R | -3.745 | 1.94E-04 | OFCpost\_L | Hippocampus\_R | -2.951 | 3.27E-03 |
| Cingulate\_Ant\_L | SupraMarginal\_R | -3.472 | 5.47E-04 | OFCpost\_L | Fusiform\_L | -2.950 | 3.27E-03 |
| OFCmed\_L | Heschl\_L | -3.834 | 1.36E-04 | Frontal\_Inf\_Orb\_2\_R | Fusiform\_R | -2.940 | 3.38E-03 |
| Cingulate\_Ant\_L | Heschl\_L | -3.803 | 1.55E-04 | OFCpost\_L | Postcentral\_L | -2.940 | 3.39E-03 |
| Cingulate\_Mid\_L | Heschl\_L | -3.495 | 5.02E-04 | OFCpost\_L | Heschl\_L | -2.937 | 3.41E-03 |
| Cingulate\_Mid\_R | Heschl\_L | -3.544 | 4.19E-04 | Supp\_Motor\_Area\_R | Heschl\_R | -2.937 | 3.42E-03 |
| SupraMarginal\_R | Heschl\_L | -3.661 | 2.68E-04 | Rolandic\_Oper\_R | OFCpost\_R | -2.928 | 3.52E-03 |
| SupraMarginal\_R | Heschl\_R | -3.575 | 3.72E-04 | Frontal\_Sup\_Medial\_L | Postcentral\_L | -2.923 | 3.57E-03 |
| Cingulate\_Ant\_L | Temporal\_Sup\_L | -3.812 | 1.49E-04 | Precentral\_L | Frontal\_Inf\_Orb\_2\_L | -2.886 | 4.01E-03 |
| Cingulate\_Ant\_R | Temporal\_Sup\_L | -3.464 | 5.61E-04 | Rolandic\_Oper\_R | Frontal\_Sup\_Medial\_L | -2.898 | 3.86E-03 |
| Cingulate\_Mid\_R | Temporal\_Sup\_L | -3.521 | 4.55E-04 | Frontal\_Mid\_2\_L | OFCmed\_L | -2.900 | 3.84E-03 |
| OFCmed\_L | Temporal\_Sup\_L | -3.394 | 7.26E-04 | Frontal\_Mid\_2\_R | OFCmed\_L | -2.899 | 3.85E-03 |
| Frontal\_Inf\_Oper\_L | OFCmed\_L | -3.341 | 8.77E-04 | OFCmed\_R | Insula\_R | -2.890 | 3.96E-03 |
| Frontal\_Inf\_Oper\_R | OFCmed\_L | -3.345 | 8.63E-04 | Frontal\_Inf\_Oper\_L | Cingulate\_Ant\_R | -2.885 | 4.02E-03 |
| Supp\_Motor\_Area\_L | OFCmed\_L | -3.354 | 8.37E-04 | Frontal\_Sup\_2\_R | ParaHippocampal\_R | -2.891 | 3.95E-03 |
| Cingulate\_Ant\_L | SupraMarginal\_L | -3.354 | 8.37E-04 | OFCmed\_R | Parietal\_Sup\_L | -2.909 | 3.73E-03 |
| Cingulate\_Ant\_R | Heschl\_L | -3.365 | 8.04E-04 | Cingulate\_Mid\_R | SupraMarginal\_L | -2.888 | 3.99E-03 |
| Frontal\_Inf\_Orb\_2\_R | Rolandic\_Oper\_R | -3.302 | 1.00E-03 | Rolandic\_Oper\_L | SupraMarginal\_R | -2.884 | 4.04E-03 |
| Olfactory\_R | Insula\_R | -3.305 | 9.93E-04 | OFCpost\_L | SupraMarginal\_R | -2.887 | 3.99E-03 |
| Cingulate\_Mid\_L | Temporal\_Sup\_L | -3.302 | 1.00E-03 | Postcentral\_R | Pallidum\_L | -2.887 | 4.00E-03 |
| Frontal\_Inf\_Orb\_2\_L | Rolandic\_Oper\_L | -3.085 | 2.11E-03 | Rolandic\_Oper\_R | Pallidum\_R | -2.904 | 3.80E-03 |
| Frontal\_Inf\_Orb\_2\_L | Rolandic\_Oper\_R | -3.045 | 2.41E-03 | Cingulate\_Ant\_L | Pallidum\_R | -2.893 | 3.93E-03 |
| Precentral\_L | Frontal\_Sup\_Medial\_L | -3.015 | 2.66E-03 | OFCpost\_R | Heschl\_L | -2.900 | 3.84E-03 |
| Rolandic\_Oper\_R | Frontal\_Sup\_Medial\_R | -3.126 | 1.84E-03 | Pallidum\_R | Heschl\_R | -2.897 | 3.88E-03 |
| Rolandic\_Oper\_L | OFCmed\_L | -2.978 | 3.00E-03 | Heschl\_L | Temporal\_Sup\_L | -2.901 | 3.83E-03 |
| Supp\_Motor\_Area\_R | OFCmed\_L | -3.063 | 2.27E-03 | Rolandic\_Oper\_L | OFCpost\_L | -2.876 | 4.14E-03 |
| Frontal\_Sup\_Medial\_R | OFCmed\_L | -3.040 | 2.45E-03 | OFCmed\_L | Calcarine\_R | -2.865 | 4.29E-03 |
| Rolandic\_Oper\_R | OFCmed\_R | -3.021 | 2.60E-03 | Frontal\_Inf\_Oper\_L | Frontal\_Inf\_Tri\_L | -2.862 | 4.33E-03 |
| Precentral\_L | OFCpost\_L | -3.079 | 2.15E-03 | Insula\_L | Cingulate\_Ant\_R | -2.852 | 4.46E-03 |
| Rolandic\_Oper\_R | OFCpost\_L | -3.025 | 2.57E-03 | Precentral\_R | Pallidum\_L | -2.849 | 4.50E-03 |
| Rolandic\_Oper\_L | Insula\_L | -3.110 | 1.94E-03 | Rolandic\_Oper\_R | Pallidum\_L | -2.850 | 4.49E-03 |
| OFCmed\_L | Insula\_L | -3.034 | 2.49E-03 | Precentral\_L | Frontal\_Sup\_Medial\_R | -2.847 | 4.54E-03 |
| OFCmed\_L | Insula\_R | -3.056 | 2.32E-03 | Frontal\_Sup\_Medial\_L | OFCmed\_L | -2.827 | 4.82E-03 |
| Frontal\_Inf\_Oper\_L | Cingulate\_Ant\_L | -2.977 | 3.00E-03 | OFCmed\_L | Fusiform\_L | -2.839 | 4.65E-03 |
| Supp\_Motor\_Area\_R | Cingulate\_Ant\_L | -3.143 | 1.74E-03 | OFCmed\_L | Fusiform\_R | -2.838 | 4.66E-03 |
| OFCmed\_L | Cingulate\_Ant\_L | -3.077 | 2.16E-03 | OFCpost\_L | Postcentral\_R | -2.835 | 4.71E-03 |
| Insula\_L | Cingulate\_Ant\_L | -3.133 | 1.80E-03 | Olfactory\_R | Caudate\_R | -2.832 | 4.74E-03 |
| Precentral\_L | Cingulate\_Ant\_R | -3.193 | 1.47E-03 | ParaHippocampal\_R | Caudate\_R | -2.829 | 4.79E-03 |
| Precentral\_R | Cingulate\_Ant\_R | -3.074 | 2.19E-03 | Frontal\_Sup\_Medial\_R | Heschl\_L | -2.828 | 4.80E-03 |
| Rolandic\_Oper\_L | Cingulate\_Ant\_R | -3.175 | 1.56E-03 | Frontal\_Inf\_Orb\_2\_R | Temporal\_Pole\_Sup\_R | -2.831 | 4.76E-03 |
| Insula\_R | Cingulate\_Ant\_R | -3.091 | 2.07E-03 | OFClat\_R | Angular\_R | 2.825 | 4.85E-03 |
| Precentral\_L | Cingulate\_Mid\_L | -3.139 | 1.76E-03 | Frontal\_Inf\_Oper\_L | OFCpost\_L | -2.805 | 5.15E-03 |
| Rolandic\_Oper\_L | Cingulate\_Mid\_L | -3.169 | 1.59E-03 | OFCmed\_L | Cingulate\_Mid\_L | -2.803 | 5.19E-03 |
| Rolandic\_Oper\_R | Cingulate\_Mid\_L | -3.067 | 2.24E-03 | OFCmed\_L | Lingual\_L | -2.810 | 5.08E-03 |
| Precentral\_R | Cingulate\_Mid\_R | -3.256 | 1.18E-03 | Cingulate\_Ant\_L | Parietal\_Sup\_R | -2.807 | 5.12E-03 |
| Rolandic\_Oper\_L | Cingulate\_Mid\_R | -3.239 | 1.25E-03 | OFCmed\_L | SupraMarginal\_R | -2.814 | 5.02E-03 |
| Rolandic\_Oper\_R | Cingulate\_Mid\_R | -3.073 | 2.20E-03 | ParaHippocampal\_R | Caudate\_L | -2.805 | 5.16E-03 |
| Frontal\_Inf\_Orb\_2\_R | Hippocampus\_R | -3.046 | 2.40E-03 | Hippocampus\_L | Pallidum\_R | -2.808 | 5.11E-03 |
| Frontal\_Sup\_Medial\_R | Hippocampus\_R | -3.175 | 1.56E-03 | Insula\_L | Heschl\_L | -2.813 | 5.03E-03 |
| OFCmed\_L | ParaHippocampal\_L | -2.995 | 2.83E-03 | Frontal\_Inf\_Oper\_R | Frontal\_Inf\_Tri\_R | -2.785 | 5.49E-03 |
| OFCpost\_L | ParaHippocampal\_L | -3.009 | 2.71E-03 | Precentral\_L | Frontal\_Inf\_Orb\_2\_R | -2.794 | 5.34E-03 |
| Frontal\_Inf\_Orb\_2\_R | ParaHippocampal\_R | -3.052 | 2.35E-03 | Frontal\_Inf\_Oper\_L | Frontal\_Sup\_Medial\_L | -2.777 | 5.62E-03 |
| Frontal\_Sup\_Medial\_R | ParaHippocampal\_R | -3.169 | 1.59E-03 | Precentral\_L | OFCmed\_R | -2.776 | 5.63E-03 |
| OFCpost\_R | ParaHippocampal\_R | -3.098 | 2.02E-03 | Frontal\_Inf\_Oper\_R | Cingulate\_Ant\_L | -2.784 | 5.51E-03 |
| OFCmed\_L | Calcarine\_L | -2.977 | 3.00E-03 | Cingulate\_Mid\_L | Hippocampus\_L | -2.785 | 5.49E-03 |
| OFCmed\_L | Lingual\_R | -2.989 | 2.89E-03 | Frontal\_Inf\_Orb\_2\_R | Amygdala\_R | -2.776 | 5.63E-03 |
| Frontal\_Inf\_Orb\_2\_R | Fusiform\_L | -3.071 | 2.21E-03 | Supp\_Motor\_Area\_R | Pallidum\_L | -2.775 | 5.65E-03 |
| Frontal\_Sup\_Medial\_R | Fusiform\_L | -2.971 | 3.06E-03 | Occipital\_Sup\_R | Pallidum\_L | -2.788 | 5.43E-03 |
| Frontal\_Inf\_Orb\_2\_L | Postcentral\_L | -2.965 | 3.12E-03 | SupraMarginal\_L | Pallidum\_L | -2.796 | 5.30E-03 |
| OFCmed\_L | Postcentral\_L | -3.132 | 1.80E-03 | OFCmed\_L | Thalamus\_L | -2.783 | 5.52E-03 |
| Cingulate\_Ant\_R | Postcentral\_L | -3.095 | 2.04E-03 | OFCmed\_R | Heschl\_L | -2.787 | 5.45E-03 |
| Cingulate\_Mid\_R | Postcentral\_L | -3.262 | 1.15E-03 | Frontal\_Inf\_Orb\_2\_R | Heschl\_R | -2.797 | 5.29E-03 |
| Frontal\_Sup\_Medial\_L | Postcentral\_R | -2.968 | 3.09E-03 | Frontal\_Sup\_Medial\_R | Heschl\_R | -2.779 | 5.58E-03 |
| Frontal\_Sup\_Medial\_R | Postcentral\_R | -2.963 | 3.14E-03 | Frontal\_Inf\_Orb\_2\_L | Temporal\_Pole\_Sup\_L | -2.784 | 5.50E-03 |
| Cingulate\_Ant\_R | Postcentral\_R | -2.987 | 2.91E-03 | Frontal\_Sup\_2\_R | OFCmed\_L | -2.770 | 5.75E-03 |
| Cingulate\_Mid\_R | Postcentral\_R | -3.084 | 2.11E-03 | Rectus\_L | OFCmed\_L | -2.768 | 5.77E-03 |
| Cingulate\_Post\_L | Postcentral\_R | -2.974 | 3.03E-03 | Precentral\_L | Cingulate\_Mid\_R | -2.764 | 5.86E-03 |
| Cingulate\_Ant\_R | SupraMarginal\_L | -3.152 | 1.68E-03 | Frontal\_Mid\_2\_R | ParaHippocampal\_R | -2.768 | 5.78E-03 |
| Rolandic\_Oper\_R | SupraMarginal\_R | -3.123 | 1.86E-03 | Cingulate\_Ant\_R | ParaHippocampal\_R | -2.761 | 5.90E-03 |
| Olfactory\_R | SupraMarginal\_R | -3.193 | 1.47E-03 | Cingulate\_Post\_R | Postcentral\_R | -2.761 | 5.89E-03 |
| Hippocampus\_L | SupraMarginal\_R | -3.173 | 1.57E-03 | OFCmed\_L | Parietal\_Sup\_L | -2.768 | 5.78E-03 |
| SupraMarginal\_L | SupraMarginal\_R | -3.122 | 1.86E-03 | Frontal\_Inf\_Orb\_2\_R | Heschl\_L | -2.760 | 5.92E-03 |
| OFCmed\_L | Precuneus\_L | -2.997 | 2.81E-03 | Frontal\_Sup\_Medial\_L | Heschl\_L | -2.765 | 5.83E-03 |
| Cingulate\_Mid\_L | Paracentral\_Lobule\_L | -3.002 | 2.77E-03 | Rolandic\_Oper\_L | Frontal\_Sup\_Medial\_L | -2.756 | 6.00E-03 |
| OFCmed\_L | Caudate\_L | -2.959 | 3.18E-03 | Frontal\_Sup\_2\_R | OFCmed\_R | -2.752 | 6.07E-03 |
| Cingulate\_Mid\_L | Pallidum\_L | -3.013 | 2.67E-03 | Cingulate\_Mid\_R | SupraMarginal\_R | -2.750 | 6.10E-03 |
| Hippocampus\_L | Pallidum\_L | -3.071 | 2.21E-03 | Cuneus\_L | Pallidum\_L | -2.752 | 6.07E-03 |
| ParaHippocampal\_R | Pallidum\_R | -3.116 | 1.90E-03 | Frontal\_Inf\_Orb\_2\_R | Rolandic\_Oper\_L | -2.744 | 6.20E-03 |
| SupraMarginal\_L | Pallidum\_R | -3.029 | 2.53E-03 | Frontal\_Med\_Orb\_R | OFCmed\_L | -2.736 | 6.36E-03 |
| SupraMarginal\_R | Pallidum\_R | -3.162 | 1.63E-03 | Cingulate\_Ant\_L | ParaHippocampal\_R | -2.737 | 6.34E-03 |
| Putamen\_R | Pallidum\_R | -3.221 | 1.33E-03 | Frontal\_Sup\_Medial\_R | Fusiform\_R | -2.740 | 6.29E-03 |
| Pallidum\_R | Thalamus\_L | -2.979 | 2.99E-03 | Cingulate\_Mid\_L | SupraMarginal\_R | -2.735 | 6.38E-03 |
| Pallidum\_L | Heschl\_L | -3.006 | 2.74E-03 | Cingulate\_Ant\_L | Paracentral\_Lobule\_L | -2.741 | 6.26E-03 |
| Pallidum\_R | Heschl\_L | -2.992 | 2.86E-03 | ParaHippocampal\_L | Caudate\_L | -2.737 | 6.34E-03 |
| Thalamus\_R | Heschl\_L | -2.994 | 2.84E-03 | Frontal\_Inf\_Orb\_2\_L | Heschl\_L | -2.748 | 6.15E-03 |
| OFCmed\_L | Heschl\_R | -3.111 | 1.93E-03 | Frontal\_Inf\_Tri\_R | Temporal\_Sup\_L | -2.740 | 6.28E-03 |
| OFCmed\_R | Heschl\_R | -2.960 | 3.17E-03 | Supp\_Motor\_Area\_L | Cingulate\_Ant\_L | -2.733 | 6.42E-03 |
| Cingulate\_Ant\_L | Heschl\_R | -3.107 | 1.96E-03 | Cingulate\_Ant\_L | Occipital\_Sup\_R | -2.728 | 6.51E-03 |