**Tables**

Table 1. Volumetric changes in brain regions comparing the CON-NA vs CON-A from F1, F2 and F3 offspring.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Generation | label | t-value | x | y | z | p-adjusted |
| F1 | right Piriform Cortex | 11.93 | 6.3395 | -2.7505 | 3.3544 | 3.0866E-07 |
| F3 | caudate putamen | 5.595 | -4.7604 | -8.1505 | 3.1744 | 9.7829E-07 |
|  | caudate putamen | 4.782 | 4.7195 | -5.4505 | 5.8744 | 1.6268E-05 |
|  | Frontal Association Cortex | 4.388 | 1.9595 | -12.0505 | 5.0944 | 6.0739E-05 |
|  | Retrosplenial Cortex | 4.363 | -0.6204 | -3.8305 | 8.6944 | 6.5949E-05 |
|  | amygdaloid area | -5.713 | 3.0995 | -6.7105 | 2.0944 | 6.4582E-07 |
|  | Thalamus | -5.657 | -2.4804 | -5.9305 | 5.6344 | 7.8665E-07 |
|  | Primary Somatosensory Cortex | -5.557 | 5.1995 | -7.7905 | 7.1344 | 1.1179E-06 |
|  | Crus 1 ansiform lobule | -4.797 | 4.5395 | 2.8294 | 7.8544 | 1.5462E-05 |
|  | Corpus Callosum & associated White Matter | -4.456 | -3.1404 | -2.0905 | 9.1744 | 4.8517E-05 |
|  | Cerebellar White Matter / Arbor vita of cerebellum | -4.431 | -1.8804 | 4.7494 | 7.4944 | 5.2702E-05 |
|  | dentate gyrus | -4.263 | 3.9995 | -2.9305 | 6.7744 | 9.1501E-05 |

Table 2. Volumetric changes in brain regions comparing the CON-NA vs CAF-A from from F1, F2 and F3 offspring.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Generation | label | t-value | x | y | z | p-adjusted |
| F1 | cerebellar lobule 3 | 12.31 | -1.2804 | -9.9505 | 8.8144 | 0 |
|  | right Thalamus | 10.65 | 3.5795 | -5.1505 | 5.3944 | 2.3981E-14 |
|  | right Secondary Motor Cortex | 8.471 | 0.3395 | -2.8105 | 10.6745 | 3.6719E-11 |
|  | Cerebellar White Matter / Arbor vita of cerebellum | 6.733 | 4.1195 | -12.3505 | 5.6344 | 1.7198E-08 |
|  | right Hippocampal layer CA3 | -13.36 | 3.8195 | -4.9705 | 7.3744 | 0 |
|  | left Frontal Association Cortex | -10.06 | -1.6404 | 2.8894 | 6.5944 | 1.6498E-13 |
|  | cerebellar lobule 6 | -9.749 | 0.2195 | -12.4705 | 9.1144 | 4.6496E-13 |
|  | left Secondary Somatosensory Cortex | -8.394 | -8.1204 | -1.1905 | 6.1144 | 4.8023E-11 |
| F3 | Third ventricle | 6.412 | -1.1604 | -8.0905 | 5.8744 | 5.4053E-08 |
|  | copula | 5.872 | -4.4604 | 4.0894 | 5.0944 | 3.6833E-07 |
|  | rhinal cortex | 5.771 | 5.3195 | 0.0694 | 4.9144 | 5.2633E-07 |
|  | amygdaloid area | 5.13 | -4.7004 | -6.8905 | 1.7944 | 4.9458E-06 |
|  | Hippocampal layer CA3 | 5.124 | 3.2195 | -3.9505 | 2.6944 | 5.0493E-06 |
|  | Cerebellar White Matter / Arbor vita of cerebellum | 4.875 | 1.2395 | 4.8694 | 8.2744 | 1.1861E-05 |
|  | Internal capsule | -5.267 | 2.5595 | -5.3905 | 3.2344 | 3.0776E-06 |
|  | Retrosplenial Cortex | -5.243 | -2.6004 | -2.1505 | 9.9544 | 3.345E-06 |
|  | Lateral ventricle | -5.098 | -4.4604 | -5.1505 | 3.2344 | 5.523E-06 |
|  | cerebellar lobule 6 | -5.086 | 0.3395 | 3.7294 | 9.1744 | 5.7561E-06 |
|  | Corpus Callosum & associated White Matter | -5.001 | -4.2804 | -10.9105 | 6.0544 | 7.7096E-06 |

Table 3. Effect of diet on volumetric changes in brain regions comparing CAF-NA vs CON-NA from F1, F2 and F3 offspring.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Generation | label | t-value | x | y | z | p-adjusted |
| F1 | cerebellar lobule 3 | 17.38 | -1.2204 | -9.9505 | 8.8144 | 8.4287E-09 |
|  | right Olfactory Bulb | 13.91 | 0.7595 | 6.2494 | 9.8344 | 7.2027E-08 |
|  | right hypothalamus | 12.35 | 0.4595 | -2.6305 | 3.1144 | 2.2283E-07 |
|  | left Olfactory Bulb | 8.073 | -1.8204 | 3.9094 | 3.5344 | 1.0873E-05 |
|  | left Infralimbic Cortex | -17.72 | -1.6404 | 2.7694 | 6.8344 | 6.9831E-09 |
|  | left substantia nigra | -13.8 | -2.7204 | -4.8505 | 3.2344 | 7.7698E-08 |
|  | right Crus 1 ansiform lobule | -12.42 | 5.4395 | -11.8105 | 6.3544 | 2.1126E-07 |
|  | right Thalamus | -10.29 | 0.6995 | -1.6705 | 6.5944 | 1.2224E-06 |
|  | left Secondary Somatosensory Cortex | -9.287 | -8.1204 | -1.2505 | 6.1144 | 3.1177E-06 |
|  | cerebellar lobule 6 | -9.135 | 0.2195 | -12.4705 | 9.1144 | 3.6189E-06 |
| F3 | Third ventricle | 5.543 | -0.6204 | -4.6705 | 6.2344 | 1.1742E-06 |
|  | hypothalamus | 5.035 | 0.0804 | -8.3905 | 2.5744 | 6.8602E-06 |
|  | paramedian lobe | 4.952 | 3.5195 | 4.1494 | 6.3544 | 9.1188E-06 |
|  | subincular region | 4.921 | 5.5595 | -2.4505 | 3.7744 | 1.0138E-05 |
|  | flocculus | 4.678 | -7.4604 | 2.3494 | 4.2544 | 2.3114E-05 |
|  | cerebellar lobule 8 | 4.464 | -1.6404 | 5.2294 | 7.0144 | 4.7247E-05 |
|  | Cingulate Cortex area 1 | 3.952 | 0.3995 | -12.7105 | 8.2744 | 0.00024859 |
|  | Hippocampal layer CA1 | 3.872 | -5.5404 | -3.1705 | 4.7344 | 0.00031985 |
|  | Corpus Callosum & associated White Matter | -5.446 | 1.0595 | -11.3905 | 5.2744 | 1.6493E-06 |
|  | Corpus Callosum & associated White Matter | -5.324 | 1.8995 | -5.0905 | 9.2944 | 2.5243E-06 |
|  | subicular region | -5.236 | -4.9404 | -0.2905 | 7.1944 | 3.4272E-06 |
|  | Internal capsule | -5.223 | 2.5595 | -5.3305 | 3.2944 | 3.5852E-06 |
|  | Stria terminalis | -5.025 | -4.8204 | -6.2905 | 6.4744 | 7.1E-06 |
|  | Secondary Visual Cortex | -4.586 | 5.4395 | -1.0705 | 8.8744 | 3.1473E-05 |
|  | Piriform Cortex | -4.359 | -6.4404 | -9.1105 | 2.6344 | 6.6822E-05 |
|  | rhinal cortex | -4.169 | 6.1595 | -1.1305 | 3.3544 | 0.00012416 |
|  | Olfactory Bulb | -4.152 | -3.5004 | -13.7305 | 4.6744 | 0.00013117 |

Table 4. Effect of diet on volumetric changes in brain regions comparing CAF-A vs CON-A from F1, F2 and F3 offspring.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Generation | label | t-value | x | y | z | p-adjusted |
| F1 | cerebellar lobule 3 | 14.64 | -1.2204 | -9.9505 | 8.814496 | 4.4146E-08 |
|  | right Primary Somatosensory Cortex | 10.01 | 2.8595 | 2.8894 | 6.594496 | 1.5751E-06 |
|  | right Crus 1 ansiform lobule | 9.569 | 5.4395 | -11.8105 | 6.354496 | 2.3768E-06 |
|  | left paraflocculus | 8.872 | -6.4404 | -11.2705 | 4.074496 | 4.706E-06 |
|  | right amygdaloid area | 7.913 | 3.4595 | -2.4505 | 1.734496 | 1.2957E-05 |
|  | right Olfactory Bulb | 7.386 | 0.7595 | 6.2494 | 9.834496 | 2.3531E-05 |
|  | right Primary Somatosensory Cortex | 6.901 | 5.6795 | -2.9905 | 8.754496 | 4.1893E-05 |
|  | right Piriform Cortex | -10.2 | 6.3995 | -3.0505 | 3.174496 | 1.3253E-06 |
|  | right Hippocampal layer CA3 | -9.099 | 3.6395 | -5.0305 | 7.254496 | 3.75E-06 |
|  | left Frontal Association Cortex | -8.177 | -1.7004 | 3.0694 | 6.894496 | 9.7161E-06 |
|  | amygdala | -8.096 | -5.4804 | -3.1105 | 4.074496 | 1.0605E-05 |
|  | Periaqueductal grey | -6.963 | -1.6404 | -7.6705 | 5.574496 | 3.8855E-05 |
| F2 | right hypothalamus | 6.375 | 0.2795 | -3.6505 | 4.854496 | 1.1464E-07 |
|  | paramedian lobule | 5.264 | 2.4995 | 4.5094 | 6.654496 | 4.5003E-06 |
|  | Secondary somatosensory cortex | 5.11 | 5.1395 | -7.7905 | 4.434496 | 7.4432E-06 |
|  | left motor cortex | 5.015 | -2.2404 | -9.7105 | 8.094496 | 1.0139E-05 |
|  | Corpus Callosum & associated White Matter | 4.886 | 1.6595 | -6.1705 | 8.994496 | 1.5401E-05 |
|  | Corpus Callosum & associated White Matter | 4.543 | -3.4404 | -3.1705 | 9.234496 | 4.6247E-05 |
|  | Lateral ventricle | -5.78 | -5.1804 | -5.0305 | 4.434496 | 8.2276E-07 |
|  | right dentate gyrus | -5.415 | 3.4595 | -6.1705 | 7.074496 | 2.7421E-06 |
| F3 | paramedian lobe | 6.158 | 1.1195 | 3.5494 | 6.894496 | 1.3354E-07 |
|  | Primary Somatosensory Cortex | 6.048 | 5.1995 | -7.7905 | 7.134496 | 1.9739E-07 |
|  | amygdaloid area | 5.913 | -3.9804 | -6.4105 | 1.734496 | 3.1857E-07 |
|  | amygdaloid area | 5.332 | 3.0995 | -6.7105 | 2.094496 | 2.455E-06 |
|  | rhinal cortex | 5.251 | 5.1395 | -0.0505 | 5.814496 | 3.2534E-06 |
|  | Thalamus | 4.729 | -1.4004 | -5.1505 | 6.174496 | 1.9463E-05 |
|  | Frontal Association Cortex | 4.72 | 2.1995 | -11.7505 | 3.414496 | 2.0063E-05 |
|  | paraflocculus | 4.594 | -4.8204 | 3.3094 | 5.514496 | 3.0642E-05 |
|  | Primary Somatosensory Cortex | 4.515 | -3.5604 | -9.9505 | 8.514496 | 3.9885E-05 |
|  | amygdaloid area | -5.757 | -3.9804 | -6.5905 | 2.514496 | 5.5299E-07 |
|  | Internal capsule | -5.26 | 3.2795 | -6.5305 | 4.614496 | 3.1533E-06 |
|  | cerebellar lobule 4&5 | -5.248 | -0.1404 | 2.8894 | 9.894496 | 3.2874E-06 |
|  | lateral septum | -5.053 | -1.4604 | -9.3505 | 6.594496 | 6.4486E-06 |
|  | Retrosplenial Cortex | -4.671 | -0.6204 | -3.7705 | 8.574496 | 2.3665E-05 |
|  | Frontal Association Cortex | -4.536 | 2.0795 | -13.0705 | 5.514496 | 3.7191E-05 |
|  | Frontal Association Cortex | -4.395 | -3.7404 | -14.6905 | 6.774496 | 5.9353E-05 |