**Supplemental Table 1:** Correlation of blood copy number, NAc gene expression and anxiety-like behavior

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Blood CN |  | EPM Open/Closed | Splash Grooming | Weight at P35 |
|  |  | Ctl | Fent |  | Ctl | Fent | Ctl | Fent | Ctl | Fent |
| EPMOpen / Closed | Female | -0.30 18 | 0.1016 |  |  |  |  |  |  |  |
| Male | -0.0411 | -0.4510 |  |  |  |  |  |  |  |
| Splash Grooming | Female | 0.0618 | 0.0816 |  |  |  |  |  |  |  |
| Male | -0.179 | 0.1210 |  |  |  |  |  |  |  |
| P35 Weight | Female | 0.1118  | 0.2816 |  |  |  |  |  |  |  |
| Male | 0.409 | 0.310 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Fission- and fusion-related genes |
| *Drp1* | Female | **0.77\*****8** | -0.067  |  | -0.23 10 | **-0.77\* 8**  | 0.4010 | -0.02 8 | 0.0510 | 0.118 |
| Male | -0.657 | -0.417 |  | -0.5 10 | 0.398 | -0.16 10 | -0.52 8 | -0.17 10 | 0.318 |
| *Fis1* | Female | 0.308 | 0.069 |  | -0.19 12 | 0.36 11 | 0.47 12 | 0.28 11 | -0.28 12 | 0.15 11 |
| Male | -0.208  | -0.369 |  | -0.44 11 | **0.66\* 11** | 0.34 11 | 0.11 11 | 0.39 11 | -0.14 11 |
| *Mfn1* | Female | 0.368 | -0.4010 |  | -0.312 | -0.45 12 | 0.2312 | -0.22 12 | -0.39 12 | 0.01 12 |
| Male | 0.078 | -0.639 |  | 0.1711 | 0.53 11 | 0.19 11 | -0.13 11 | -0.30 11 | -0.51 11 |
| *Mfn2* | Female | **0.83\*****8** | -0.3610 |  | -0.36 12 | -0.51 12 | 0.55 12 | -0.04 12 | -0.54 12 | -0.34 12 |
| Male | -0.108  | -0.178 |  | -0.1512 | 0.28 10 | 0.33 12 | -0.01 10 | -0.17 12 | 0.15 10 |
| *Opa1* | Female | 0.428 | 0.017 |  | 0.03 12 | -0.41 9 | 0.01 12 | -0.22 9 | 0.36 12 | 0.44 9 |
| Male | -0.118  | 0.169 |  | 0.1312 | 0.56 11 | -0.30 12 | -0.44 11 | -0.13 12 | -0.19 11 |
|  | Mitochondrial function, health, stress-resistance, mitophagy, and protein transport |
| *Cycs* | Female | 0.106 | -0.569 |  | -0.05 9 | -0.19 11 | 0.629 | 0.43 11 | -0.23 9 | -0.59 11 |
| Male | -0.54 8 | 0.497 |  | -0.18 11 | 0.20 9 | -0.05 11 | -0.26 9 | 0.2511 | 0.38 9 |
| *Park2* | Female | -0.107 | -0.1010 |  | -0.16 10 | -0.03 12 | 0.3910 | 0.39 12 | -0.37 10 | -0.45 12 |
| Male | 0.088 | -0.177 |  | -0.37 11 | **0.82\*\* 9** | 0.17 11 | -0.649 | 0.33 11 | -0.13 9 |
| *Pink1* | Female | -0.227 | 0.0210 |  | -0.3410 | -0.45 12 | -0.10 10 | -0.04 12 | -0.25 10 | 0.06 12 |
| Male | 0.518 | -0.417 |  | 0.0711 | 0.27 9 | 0.2511 | -0.20 9 | 0.00 11 | **-0.70\* 9** |
| *Tomm20* | Female | 0.157  | 0.3410 |  | -0.139 | 0.3012 | -0.239 | 0.30 12 | 0.339 | -0.09 12 |
| Male | -0.028 | 0.297 |  | 0.07 11 | **0.69\* 9** | 0.07 11 | -0.25 9 | 0.1611 | -0.17 9 |
|  | Nuclear transcription factors and transcriptional co-activators |
| *Egr3* | Female | 0.378 | 0.3010 |  | -0.10 12 | -0.3612 | -0.13 12 | -0.14 12 | 0.2612 | 0.18 12 |
| Male | 0.008 | 0.479 |  | -0.29 12 | 0.09 11 | 0.3612 | -0.27 11 | -0.07 12 | 0.06 11 |
| *Nrf1* | Female | 0.148 | 0.1410 |  | -0.611 | -0.37 12 | 0.07 11 | -0.2412 | -0.52 11 | 0.23 12 |
| Male | -0.667 | -0.037 |  | -0.5110 | 0.439 | -0.12 10 | -0.21 9 | 0.46 10 | 0.389 |
| *Nrf2* | Female | **0.75\*****8** | -0.4810 |  | -0.20 12 | -0.07 12 | 0.45 12 | 0.03 12 | -0.07 12 | -0.15 12 |
| Male | -0.308 | -0.037 |  | -0.55 11 | 0.43 9 | 0.24 11 | -0.21 9 | 0.5111 | 0.38 9 |
| *Pgc1α* | Female | 0.538 | -0.228  |  | -0.06 12 | **-0.64\* 10** | 0.12 12 | 0.12 10 | -0.03 12 | -0.49 10 |
| Male | -0.688 | -0.146 |  | -0.0110 | 0.288 | -0.42 10 | -0.27 8 | 0.07 10 | 0.498 |
|  | Mitochondrial transcriptase and transcription factors |
| *Polγ* | Female | 0.416 | -0.488 |  | 0.079 | 0.10 10 | 0.66 9  | 0.0510 | -0.409  | 0.0710 |
| Male | -0.188 | 0.345 |  | -0.43 11 | -0.11 7 | 0.52 11 | -0.14 7 | 0.13 11 | 0.377 |
| *Tfam* | Female | 0.218 | -0.478  |  | -0.28 12 | -0.49 10 | 0.1012 | -0.3 10 | -0.22 12 | -0.0810 |
| Male | -0.058 | -0.218 |  | 0.1311 | 0.58 10 | -0.11 11 | -0.18 10 | 0.14 11 | -0.38 10 |
| *Tfb1m* | Female | 0.647 | -0.317  |  | -0.14 10 | -0.53 9 | 0.41 10 | 0.109 | 0.13 10 | **-0.70\* 9**  |
| Male | -0.488 | 0.865 |  | -0.411 | 0.516 | 0.12 11 | 0.096 | **0.65\* 11** | 0.446 |

Note: Cells contain the Pearson correlation coefficient and n. Significant results in bold; \* p < 0.05, \*\* p < 0.01