**Supplementary material**

**Table S1.** Results of PCA. Factor loadings of the variables.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Factor 7 | Factor 8 | Factor 9 | Factor 10 | Factor 11 | Factor 12 | Factor 13 | Factor 14 |
| LM | –0.810241 | –0.041582 | 0.023918 | 0.182738 | 0.027837 | 0.049973 | –0.137269 | –0.281312 | 0.153107 | –0.134789 | –0.109222 | –0.389566 | 0.031306 | –0.016826 |
| HM | –0.656102 | –0.104487 | 0.399586 | 0.339547 | 0.093328 | 0.156614 | 0.120022 | –0.013844 | –0.110101 | –0.417638 | 0.152500 | 0.155623 | –0.015089 | 0.039617 |
| HP | –0.511976 | –0.181904 | 0.470160 | 0.421585 | 0.127081 | –0.313070 | –0.212595 | 0.259941 | 0.055623 | 0.228326 | 0.140442 | –0.058957 | –0.024568 | –0.006992 |
| Lm1-m3 | –0.698516 | 0.441445 | –0.034958 | 0.214350 | –0.287470 | –0.055558 | 0.217713 | –0.106594 | 0.043424 | 0.169974 | 0.052872 | 0.077122 | 0.278843 | 0.090958 |
| Lc1-m3 | –0.654912 | 0.517243 | –0.030747 | 0.282998 | –0.275047 | 0.012566 | 0.044243 | –0.122001 | 0.027094 | 0.107549 | –0.115611 | 0.127313 | –0.282141 | –0.091580 |
| Hm1 | –0.523796 | –0.431095 | –0.357069 | 0.074801 | –0.333328 | 0.143927 | –0.329672 | –0.043037 | –0.383257 | 0.071280 | 0.101360 | 0.018133 | 0.031797 | –0.027631 |
| LI | –0.064597 | 0.608068 | 0.446158 | –0.423365 | 0.133686 | –0.236948 | –0.140768 | –0.173803 | –0.348922 | –0.020209 | –0.014945 | –0.034007 | 0.014042 | 0.003783 |
| CB | –0.801217 | 0.026946 | –0.170644 | –0.142780 | 0.451133 | 0.056629 | –0.011478 | –0.000775 | 0.055698 | 0.037057 | 0.000424 | 0.136890 | 0.124497 | –0.249492 |
| IO | –0.491902 | –0.312992 | 0.193986 | –0.588394 | –0.277170 | –0.079161 | –0.085419 | –0.179093 | 0.290958 | –0.000096 | 0.238426 | 0.095811 | –0.054970 | 0.008035 |
| ZB | –0.649389 | –0.409166 | 0.148458 | –0.206223 | –0.274522 | –0.236572 | 0.059628 | 0.197700 | –0.028407 | –0.128788 | –0.384368 | 0.066002 | 0.052455 | –0.010056 |
| CW | –0.618752 | –0.398725 | 0.186556 | –0.214989 | 0.150348 | 0.185811 | 0.441493 | –0.013547 | –0.186667 | 0.247994 | 0.020754 | –0.139077 | –0.089179 | 0.028975 |
| LN | –0.524768 | –0.159472 | –0.594697 | 0.043602 | 0.355245 | –0.400953 | 0.044641 | –0.134761 | –0.032360 | –0.046291 | 0.017969 | 0.073553 | –0.085060 | 0.142647 |
| P4-M3 | –0.551178 | 0.479637 | –0.342173 | –0.242835 | –0.165072 | –0.060108 | 0.106879 | 0.380290 | –0.019851 | –0.166439 | 0.186029 | –0.194790 | –0.039421 | –0.031549 |
| LR | –0.718239 | 0.276941 | 0.014819 | –0.211407 | 0.226576 | 0.366586 | –0.279818 | 0.169697 | 0.096124 | 0.080341 | –0.124792 | 0.075633 | –0.021827 | 0.179562 |

**Table S2.** Results of two-way ANOVA test on the first four principal components (PC). *P* values (*p*) associated with significant effects of age and/or sex and interaction between them are highlighted in bold.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Effect | F value | *p* |
| PC1 | Age | 9.071068 | **0.002996** |
| Sex | 0.134115 | 0.714661 |
| Interaction | 0.210851 | 0.646691 |
| PC2 | Age | 27.96902 | **< 0.000001** |
| Sex | 9.78019 | **0.002078** |
| Interaction | 0.59121 | 0.443026 |
| PC3 | Age | 36.93360 | **< 0.000001** |
| Sex | 0.00812 | 0.928295 |
| Interaction | 0.05251 | 0.819027 |
| PC4 | Age | 6.842402 | **0.009708** |
| Sex | 0.019479 | 0.889168 |
| Interaction | 0.027506 | 0.868473 |

**Table S3.** Results of PCA. Eigenvalues of the correlation matrix.

|  |  |  |
| --- | --- | --- |
|  | Eigenvalue | % Total variance |
| 1 | 5.660063 | 40.42902 |
| 2 | 2.024438 | 14.46027 |
| 3 | 1.348030 | 9.62878 |
| 4 | 1.050541 | 7.50386 |
| 5 | 0.901836 | 6.44169 |
| 6 | 0.587779 | 4.19842 |
| 7 | 0.537763 | 3.84117 |
| 8 | 0.407834 | 2.91310 |
| 9 | 0.395578 | 2.82556 |
| 10 | 0.322145 | 2.30104 |
| 11 | 0.259475 | 1.85340 |
| 12 | 0.237642 | 1.69745 |
| 13 | 0.190125 | 1.35803 |
| 14 | 0.076751 | 0.54822 |