**Table S4**

|  |  |  |  |
| --- | --- | --- | --- |
| Metabolites [μM/l] | Young-Males | Elderly-Males | Centenarians-Males |
| Mean ± SD | Mean ± SD | Mean ± SD |
| Trp | 90.9 ± 14.1 | 81.7 ± 13.9 a(\*) | 74.9 ± 10.2 b (\*),c(\*\*) |
| PC32:0 | 9.49 ± 2.16 | 10.9 ± 1.91 a(\*\*) | 12.4 ± 2.15 b(\*\*),c(\*\*\*) |
| PC34:4 | 0.90 ± 0.32 | 1.11 ± 0.36 a(\*\*\*) | 0.77 ± 0.24 b(\*\*\*) |
| PC36:5 | 9.91 ± 2.73 | 22.9 ± 23.1 a(\*\*\*) | 11.7 ± 5.41 b(\*\*\*) |
| PC36:6 | 0.41 ± 0.15 | 0.65 ± 0.33 a(\*\*) | 0.35 ± 0.17 b(\*\*\*) |
| PC38:4 | 81.6 ± 14.3 | 93.9 ± 23.8 a(\*\*\*) | 82.1 ± 20.7 b(\*)  |
| PC38:6 | 46.8 ± 8.83 | 68.5 ± 24.6 a(\*\*\*) | 55.0 ± 25.4 b(\*\*\*) |
| PC40:6 | 14.6 ± 2.28 | 23.6 ± 9.77 a(\*\*\*) | 19.1 ± 8.46 b(\*\*\*) |
| PC-O 32:1 | 1.96 ± 0.38 | 1.91 ± 0.41 | 2.23 ± 0.44 b(\*\*\*),c(\*\*\*) |
| PC-O 34:1 | 6.94 ± 0.87 | 7.53 ± 1.48 | 9.25 ± 1.84 b(\*\*\*),c(\*\*\*) |
| PC-O 34:3 | 5.62 ± 1.52 | 4.65 ± 1.33 | 4.04 ± 1.17 c(\*\*\*) |
| PC-O 36:2 | 9.02 ± 1.55 | 8.83 ± 1.71 | 9.05 ±1.72 |
| PC-O 36:4 | 14.6 ± 3.82 | 13.8 ± 2.94 | 12.3 ± 2.01 b(\*\*\*),c(\*\*\*) |
| PC-O 38.0 | 1.28 ± 0.31 | 1.89 ± 0.71 a(\*\*\*) | 1.31 ± 0.45b(\*\*\*) |
| PC-O 38:6 | 4.69 ± 1.06 | 5.71 ± 1.63 a(\*\*\*) | 4.62 ± 1.27b(\*\*\*) |
| PC-O 40:1 | 1.43 ± 0.41 | 1.36 ± 0.36 | 1.05 ± 0.26b(\*\*\*),c(\*\*\*) |
| LPC 18:0 | 53.6 ± 13.5 | 49.1 ± 12.9 | 41.9 ± 10.49b(\*),c(\*\*\*) |
| LPC 18:2 | 65.2 ± 11.0 | 40.9 ± 12.1 a(\*\*\*) | 31.9 ± 11.3b(\*\*\*),c\*\*\*) |
| LPC 20:4 | 13.12 ± 2.86 | 10.4 ± 2.88 a(\*\*) | 7.87 ± 2.47b(\*\*\*),c(\*\*\*) |
| SM 16:0 | 115 ± 13.9 | 124 ± 19.7 a(\*) | 136 ± 23.1b(\*\*),c(\*\*\*) |
| SM 24:0 | 24.5 ± 4.90 | 25.9 ± 4.90 | 20.0 ± 5.59b(\*\*\*),c(\*\*) |
| SM 24:1 | 56.1 ± 7.16 | 66.4 ± 9.04 a(\*\*\*) | 71.1 ± 13.9b(\*),c(\*\*\*) |
| SM-OH 22:1 | 14.5 ± 2.95 | 15.7 ± 2.85 | 11.1 ± 3.09b(\*\*\*),c(\*\*\*) |