**Supplementary Table 1. ANCOVA of thoracic mitochondrial function traits in young and middle-aged Lisinopril treated and control flies.** CS (citrate cynthase activity) is a covariate; df: degrees of freedom; SS: Type III Sums of Squares, MS: Mean square;

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Phenotype** | **Source of Variation** | **df** | **SS** | **MS** | **F-value** | ***P*-value** |
| **State 3 respiration rate** | CS | 1 | 2578.4750 | 2578.4750 | 0.42 | 0.5206 |
|  | Treatment | 1 | 14889.1030 | 14889.1030 | 2.41 | 0.1256 |
|  | Genotype | 2 | 233726.9637 | 116863.4818 | 18.91 | <.0001 |
|  | Age | 1 | 117385.7626 | 117385.7626 | 18.99 | <.0001 |
|  | Treatment\*Genotype | 2 | 41529.9432 | 20764.9716 | 3.36 | 0.0410 |
|  | Treatment\*Age | 1 | 16103.7394 | 16103.7394 | 2.61 | 0.1114 |
|  | Genotype\*Age | 2 | 256267.3192 | 128133.6596 | 20.73 | <.0001 |
|  | Treatment\*Genotype\*Age | 2 | 38915.3060 | 19457.6530 | 3.15 | 0.0496 |
|  | Error | 64 | 395528.2430 | 6180.1290 |  |  |
|  |  |  |  |  |  |  |
| **State 2 respiration rate** | CS | 1 | 2266.9393 | 2266.9393 | 17.96 | <.0001 |
|  | Treatment | 1 | 47.3618 | 47.3618 | 0.38 | 0.5423 |
|  | Genotype | 2 | 2496.4788 | 2496.4788 | 9.89 | 0.0002 |
|  | Age | 1 | 911.7504 | 911.7504 | 7.23 | 0.0092 |
|  | Treatment\*Genotype | 2 | 211.3272 | 105.6636 | 0.84 | 0.4375 |
|  | Treatment\*Age | 1 | 22.0185 | 22.0185 | 0.17 | 0.6775 |
|  | Genotype\*Age | 2 | 2039.7226 | 1019.8614 | 8.08 | 0.0007 |
|  | Treatment\*Genotype\*Age | 2 | 211.6894 | 105.8447 | 0.84 | 0.4369 |
|  | Error | 64 | 8076.0180 | 126.1878 |  |  |
|  |  |  |  |  |  |  |
| **State 4o respiration rate** | CS | 1 | 1.9170 | 1.9170 | 12.36 | 0.0008 |
|  | Treatment | 1 | 0.0282 | 0.0282 | 0.18 | 0.6406 |
|  | Genotype | 2 | 7.4005 | 3.7003 | 23.86 | <.0001 |
|  | Age | 1 | 0.0341 | 0.0341 | 0.22 | 0.6406 |
|  | Treatment\*Genotype | 2 | 0.3978 | 0.1989 | 1.28 | 0.2847 |
|  | Treatment\*Age | 1 | 0.0864 | 0.0864 | 0.56 | 0.4584 |
|  | Genotype\*Age | 2 | 7.7533 | 3.8767 | 25.00 | <.0001 |
|  | Treatment\*Genotype\*Age | 2 | 0.1699 | 0.0850 | 0.55 | 0.5810 |
|  | Error | 61 | 9.4588 | 0.1551 |  |  |

CS and oligomycin-induced state 4 (state 4o) data were log10 transformed to fulfill the assumption of normality