**Supplementary Table 1.**

Summary of two-way ANOVAs showing the effects of age, season and their interaction on all peroxisomal parameters from proximal tubule segment I: surface density (Sv), volume density (Vv), numerical density (Nv), spherical-equivalent diameter (), surface (), volume (). P – peroxisome, Cell – proximal tubule cell, Cyt – cytoplasm.

|  |  |  |  |
| --- | --- | --- | --- |
| Parameters | Sex | Season | Interaction (Sex × Season) |
|  | Fisher’s F ratio | *p* value | Fisher’s F ratio | *p* value | Fisher’s F ratio | *p* value |
| Sv (P, Cell) | 4.40 | 0.044 | 1.81 | 0.167 | 0.10 | 0.962 |
| Vv (P, Cell) | 4.46 | 0.043 | 0.55 | 0.651 | 0.70 | 0.976 |
| Nv (P, Cell) | 5.90 | 0.021 | 2.99 | 0.046 | 1.13 | 0.353 |
|  | 0.12 | 0.732 | 4.58 | 0.009 | 1.76 | 0.175 |
|   | 0.65 | 0.427 | 2.61 | 0.069 | 1.17 | 0.336 |
|  | 0.08 | 0.777 | 4.84 | 0.007 | 1.79 | 0.169 |
| Sv (P, Cyt) | 3.88 | 0.058 | 2.30 | 0.097 | 0.07 | 0.973 |
| Vv (P, Cyt) | 3.45 | 0.073 | 1.07 | 0.374 | 0.02 | 0.996 |
| Nv (P, Cyt) | 7.29 | 0.011 | 4.21 | 0.013 | 0.89 | 0.459 |

Degrees of freedom (df): df(sex) = 1; df (season) = 3; df (interaction) = 3; df (residual) = 31.