**Supplementary table 1:** Spearman correlation coefficient between age, weight, body condition score (BCS), thyroid palpation score (TPS), Karnfosky score (KS), and T4 in all cats.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **All cats** |  | Age  (years) | Weight  (kg) | BCS  (1–9) | TPS  (1–6) | KS  (0–100%) |
| Weight (kg) | r  95% CI  *P*  n | -0.282\*  -0.373– -0.185  *<0.001*  386 |  |  |  |  |
| BCS  (1–9) | r  95% CI  *P*  n | -0.218\*  -0.318– -0.113  *<0.001*  353 | **0.750\***  **0.698–0.794**  ***<0.001***  **349** |  |  |  |
| TPS  (0–6) | r  95% CI  *P*  n | 0.202\*  0.093–0.306  *<0.001*  332 | -0.219\*  -0.325–0.108  *<0.001*  315 | -0.240\*  -0.347– -0.127  *<0.001*  299 |  |  |
| KS  (0–100%) | r  95% CI  *P*  n | **-0.617\***  **-0.765– -0.407**  ***<0.001***  **52** | 0.459\*  0.204–0.655  *0.001*  52 | **0.593\***  **0.375–0.749**  ***<0.001***  **52** | -0.455\*  -0.652– -0.199  *<0.001*  52 |  |
| T4  (0.8–4.7 µg/dL) | r  95% CI  *P*  n | 0.190\*  0.094–0.283  *<0.001*  427 | -0.105\*  -0.205–0.002  *0.040*  386 | -0.092  -0.198–0.015  *0.084*  353 | 0.443\*  0.350–0.528  *<0.001*  332 | -0.358\*  -0.580– -0.086  *0.009*  52 |

CI = confidence interval; *P* = level of significance; n = number; \*correlation is significant after Bonferroni-Holm correction; bold = r ≥0.5

**Supplementary table 2:** Spearman correlation coefficient between age, weight, body condition score (BCS), thyroid palpation score (TPS), Karnfosky score (KS), and T4 in hyperthyroid cats.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Hyper-thyroid cats** |  | Age  (years) | Weight  (kg) | BCS  (1–9) | TPS  (1–6) | KS  (0–100%) |
| Weight (kg) | r  95% CI  *P*  n | **-0.601\***  **-0.752– -0.390**  ***<0.001***  **54** |  |  |  |  |
| BCS  (1–9) | r  95% CI  *P*  n | -0.419\*  -0.632– -0.148  *0.011*  49 | **0.846\***  **0.738–0.912**  ***<0.001***  **49** |  |  |  |
| TPS  (0–6) | r  95% CI  *P*  n | 0.033  -0.265–0.325  *1.000*  47 | -0.050  -0.344–0.252  *0.740*  46 | -0.172  -0.453–0.141  *0.265*  44 |  |  |
| KS  (0–100%) | r  95% CI  *P*  n | **-0.641\***  **-0.867– -0.198**  ***0.022***  **16** | 0.308  -0.237–0.706  *0.491*  16 | 0.503  -0.007–0.805  *0.142*  16 | -0.442  -0.776–0.085  *0.434*  16 |  |
| T4  (0.8–4.7 µg/dL) | r  95% CI  *P*  n | 0.051  -0.225–0.319  *1.000*  55 | -0.319  -0.546–0.047  *0.057*  54 | -0.273  -0.521–0.018  *0.142*  49 | 0.096  -0.205–0.381  *1.000*  47 | -0.358  -0.733–0.183  *0.346*  16 |

CI = confidence interval; *P* = level of significance; n = number; \*correlation is significant after Bonferroni-Holm correction; bold = r ≥0.5

**Supplementary table 3:** Spearman correlation coefficient between age, weight, body condition score (BCS), thyroid palpation score (TPS), Karnfosky score (KS), and T4 in healthy cats.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Healthy cats** |  | Age  (years) | Weight  (kg) | BCS  (1–9) | TPS  (1–6) | KS  (0–100%) |
| Weight (kg) | r  95% CI  *P*  n | -0.038  -0.358–0.290  *1.000*  39 |  |  |  |  |
| BCS  (1–9) | r  95% CI  *P*  n | -0.048  -0.375–0.289  *1.000*  37 | **0.652\***  **0.399–0.813**  ***<0.001***  **35** |  |  |  |
| TPS  (0–6) | r  95% CI  *P*  n | 0.074  -0.252–0.385  *1.000*  40 | -0.264  -0.549–0.076  *0.458*  37 | -0.044  -0.371–0.294  *1.000*  37 |  |  |
| KS  (0–100%) | r  95% CI  *P*  n | -0.356  -0.713–0.148  *0.558*  18 | -0.305  -0.684–0.204  *0.458*  18 | -0.437  -0.757–0.052  *0.278*  18 | 0.129  -0.373–0.572  *1.000*  18 |  |
| T4  (0.8–4.7 µg/dL) | r  95% CI  *P*  n | 0.319  0.019–0.566  *0.163*  45 | 0.247  -0.084–0.529  *0.458*  39 | 0.146  -0.197–0.456  *1.000*  37 | 0.048  -0.276–0.362  *1.000*  40 | -0.259  -0.656–0.250  *0.658*  18 |

CI = confidence interval; *P* = level of significance; n = number; \*correlation is significant after Bonferroni-Holm correction; bold = r ≥0.5

**Supplementary table 4:** Spearman correlation coefficient between age, weight, body condition score (BCS), thyroid palpation score (TPS), Karnfosky score (KS), and T4 in cats with non-thyroidal illness.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Cats with non-thyroidal illness** |  | Age  (years) | Weight  (kg) | BCS  (1–9) | TPS  (0–6) | KS  (0–100%) |
| Weight (kg) | r  95% CI  *P*  n | -0.181\*  -0.293– -0.065  *0.009*  293 |  |  |  |  |
| BCS  (1–9) | r  95% CI  *P*  n | -0.124  -0.244–0.001  *0.172*  267 | **0.743\***  **0.682–0.794**  ***<0.001***  **265** |  |  |  |
| TPS  (0–6) | r  95% CI  *P*  n | 0.075  -0.055–0.202  *0.726*  245 | -0.101  -0.230–0.032  *0.376*  232 | -0.107  -0.240–0.030  *0.347*  218 |  |  |
| KS  (0–100%) | r  95% CI  *P*  n | -0.131  -0.573–0.371  *1.000*  18 | 0.306  -0.202–0.684  *0.434*  18 | 0.343  -0.162–0.706  *0.347*  18 | -0.171  -0.601–0.335  *0.497*  18 |  |
| T4  (0.8–4.7 µg/dL) | r  95% CI  *P*  n | 0.017  -0.095–0.129  *1.000*  327 | 0.006  -0.112–0.124  *0.921*  293 | 0.080  -0.044–0.202  *0.347*  267 | 0.231\*  0.105–0.349  *0.002*  245 | -0.050  -0.516–0.439  *1.000*  18 |

CI = confidence interval; *P* = level of significance; n = number; \*correlation is significant after Bonferroni-Holm correction; bold = r ≥0.5