

Table S1 Statistical Analyses

In the following table, the results of a Mann-Whitney test on three different type of sequences and tissues of mouse (M) and chicken (C) are listed. Each result has been re-analysed with Monte Carlo permutation test. The Monte Carlo permutation test builds sampling distributions by resampling the initial data, and then tests the difference between the different groups. In particular, the test takes several smaller samples from the original distributions and statistically tests their difference, thus obtaining an interval of confidence for the true p-value. 10^4 permutations were performed in each comparison.

| Tissue | Type of sequence | Number of samples (M x C) | Mann-Whitney U | z | p | Monte Carlo permutation |
|--------|------------------|---------------------------|----------------|-------|----------|-------------------------|
| Heart | NUMT reads | 12 x 14 | 0 | -4.3 | 1.75E-05 | 0.0001 |
| Brain | NUMT reads | 13 x 13 | 0 | -4.4 | 1.12E-05 | 0.0001 |
| Liver | NUMT reads | 14 x 13 | 0 | -4.5 | 7.45E-06 | 0.0001 |
| Heart | mtDNA-only reads | 12 x 14 | 58 | -1.31 | 0.189 | 0.194 |
| Brain | mtDNA-only reads | 13 x 13 | 79 | -0.56 | 0.577 | 0.583 |
| Liver | mtDNA-only reads | 14 x 13 | 78 | -0.9 | 0.37 | 0.362 |
| Heart | mtDNA reads | 12 x 14 | 68.5 | -0.77 | 0.44 | 0.433 |
| Brain | mtDNA reads | 13 x 13 | 38 | -2.5 | 0.011 | 0.009 |
| Liver | mtDNA reads | 14 x 13 | 37 | -2.8 | 0.005 | 0.004 |

Table S2 Distribution Statistics

In the following table, we reported the general statistics on the mouse (M) and chicken small mitochondrial RNAs distribution. Three distributions are based on samples of different tissue and species (heart, brain, liver in mouse and chicken) and the last distribution is on pooled samples. The distribution on pooled samples is generated after pooling together the data of the three tissues of each species, making 3 different distributions (NUMT, mtDNA-only and mtDNA reads) for each species.

| Type of read | N | Tissue | Min | Max | Sum | Mean | Median | Std. Error | Std. Dev | Variance |
|---------------|----|--------|-------|-------|--------|-------|--------|------------|----------|----------|
| C. NUMT | 13 | Brain | 0.002 | 0.089 | 0.168 | 0.012 | 0.004 | 0.006 | 0.022 | 0.0005 |
| C. mtDNA-only | 13 | Brain | 0.701 | 2.237 | 23.111 | 1.650 | 1.820 | 0.120 | 0.452 | 0.2044 |
| C. mtDNA | 13 | Brain | 0.71 | 2.24 | 23.28 | 1.662 | 1.825 | 0.122 | 0.456 | 0.2086 |
| M. NUMT | 13 | Brain | 0.235 | 6.581 | 40.161 | 2.868 | 1.185 | 0.731 | 2.737 | 7.4917 |
| M. mtDNA-only | 13 | Brain | 0.617 | 6.279 | 27.745 | 1.981 | 1.873 | 0.380 | 1.424 | 2.0291 |
| M. mtDNA | 13 | Brain | 1.27 | 9.1 | 63.38 | 4.875 | 2.44 | 0.950 | 3.426 | 11.7392 |
| C. NUMT | 14 | Heart | 0.016 | 0.571 | 1.762 | 0.125 | 0.066 | 0.045 | 0.170 | 0.0291 |
| C. mtDNA-only | 14 | Heart | 2.725 | 11.89 | 75.247 | 5.374 | 4.094 | 0.747 | 2.796 | 7.8204 |
| C. mtDNA | 14 | Heart | 2.75 | 12.36 | 77.01 | 5.5 | 4.14 | 0.789 | 2.953 | 8.7258 |
| M. NUMT | 12 | Heart | 0.708 | 4.065 | 30.273 | 2.522 | 2.651 | 0.272 | 0.945 | 0.8941 |
| M mtDNA-only | 12 | Heart | 1.024 | 6.03 | 43.056 | 3.588 | 3.759 | 0.567 | 1.966 | 3.8680 |
| M. mtDNA | 12 | Heart | 2.11 | 9.1 | 73.33 | 6.11 | 6.515 | 0.718 | 2.489 | 6.1963 |
| C. NUMT | 13 | Liver | 0.004 | 0.020 | 0.161 | 0.011 | 0.011 | 0.001 | 0.004 | 0 |
| C. mtDNA-only | 13 | Liver | 1.049 | 2.759 | 22.248 | 1.589 | 1.533 | 0.119 | 0.445 | 0.1988 |
| C. mtDNA | 13 | Liver | 1.06 | 2.78 | 22.41 | 1.600 | 1.545 | 0.120 | 0.449 | 0.2016 |
| M. NUMT | 14 | Liver | 0.480 | 1.876 | 14.370 | 1.026 | 0.969 | 0.097 | 0.366 | 0.1344 |
| M mtDNA-only | 14 | Liver | 0.583 | 1.903 | 19.049 | 1.360 | 1.443 | 0.098 | 0.369 | 0.1366 |
| M. mtDNA | 14 | Liver | 1.11 | 3.78 | 33.42 | 2.387 | 2.42 | 0.190 | 0.713 | 0.5094 |
| C. NUMT | 40 | Pooled | 0.002 | 0.571 | 2.076 | 0.051 | 0.012 | 0.017 | 0.113 | 0.013 |
| C. mtDNA-only | 40 | Pooled | 0.701 | 11.89 | 117.35 | 2.933 | 1.926 | 0.388 | 2.456 | 6.032 |
| C. mtDNA | 40 | Pooled | 0.71 | 12.36 | 119.43 | 2.985 | 1.945 | 0.404 | 2.557 | 6.539 |
| M. NUMT | 39 | Pooled | 0.235 | 6.581 | 82.128 | 2.105 | 1.175 | 0.302 | 1.886 | 3.557 |
| M mtDNA-only | 39 | Pooled | 0.583 | 6.279 | 88.001 | 2.256 | 1.657 | 0.265 | 1.655 | 2.739 |
| M. mtDNA | 39 | Pooled | 1.11 | 9.1 | 170.13 | 4.362 | 2.83 | 0.457 | 2.857 | 8.168 |