***Appendix: Effect Sizes***

Table 1 below clearly shows that Effect Sizes are similar between the **resistance training studies in the** **small hypertrophy cluster (20 data lines- no highlight and blue highlight)** and the **endurance training** **studies within the same cluster** (7 data lines – yellow highlight) (trivial difference in ES – 0.044), suggesting that the latter group of studies does not affect our results and that myonuclei addition may also occur to optimize biological processes (other than muscle hypertrophy) after resistance training. When the same analysis is performed for myonuclei addition, Frese’s et al. (2015) [[1](#_ENREF_1)] study should be carefully considered as it produced the highest ES among all of the studies included in the present meta-analysis. Thus, for the purpose of presenting our point, we removed Frese’s data (red highlight on the right-hand side of the table) and the difference in average ES between resistance training and endurance training studies in the small hypertrophy cluster is also trivial (ES=0.11). Finally, we would like to point out that within the 20 data lines of resistance training studies in the small hypertrophy cluster, 8 out of the 20 (blue highlight) displayed muscle hypertrophy and myonuclei addition (green highlight) at similar, or even lower, levels to the endurance training studies (yellow highlight).

Table 1. Individual and average Effect Sizes and Standard Errors for the small hypertrophy cluster (cluster #1) separated by resistance training (no highlight and blue highlight) and endurance training (yellow highlight) studies.



**Reference**

1. Frese S, Ruebner M, Suhr F, Konou TM, Tappe KA, Toigo M, et al. Long-Term Endurance Exercise in Humans Stimulates Cell Fusion of Myoblasts along with Fusogenic Endogenous Retroviral Genes In Vivo. PLoS One. 2015;10(7):e0132099. doi: 10.1371/journal.pone.0132099. PubMed PMID: 26154387; PubMed Central PMCID: PMC4495930.