



**S2 Fig. Spatial variation in distribution of mitochondria and nuclei along the longitudinal axis of the cell.** The black and green lines correspond to the total area fraction of mitochondria and nucleus present in each cross section of the cell. The first and third quartile of the mitochondrial density distribution in each cross section is represented using the lower and upper bound of the light blue area. There is negligible difference between the mitochondrial area fraction and quartile values of mitochondrial density distribution corresponding to different cross sections.