

Review of: "Modelling Skeletal Muscle Motor Unit Recruitment Contributions To Contractile Function: Part 2 — Total (aerobic + anaerobic) ATP Turnover"

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Potential competing interests: No potential competing interests to declare.

Thank you for the opportunity to review the manuscript "Modelling Skeletal Muscle Motor Unit Recruitment Contributions to Contractile Function: Part 2 - Total (aerobic + anaerobic) ATP Turnover". My overall recommendation is to accept with some suggestions as per below.

The manuscript provides model data to estimate the total ATP cost of varying skeletal muscle motor units under theoretical output conditions and compares the model to previous experimental data. As such, the work lays the groundwork for future experimental and computational models of the contractile energy costs. The manuscript is well-written, the methods are clearly explained, and the discussion covers most aspects. I would recommend adding a couple of sentences on the potential practical application of this model in the future. Can you elaborate on how the model's findings might impact future experimental designs or research directions? Could you provide examples of specific practical applications or fields where this model could be beneficial?

I have only one minor comment on the text itself: In the Limitations paragraph, please leave the words ~~would have out~~ (This ~~would have~~ resulted in a higher $\text{totATP}_{\text{to}}$).