

## Review of: "Electron Tunneling in Ferritin and Its Potential Influence on Myelin and Cardiomyocytes"

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Potential competing interests: No potential competing interests to declare.

This could be considered a mini review, although it does not follow the regular review structure.

The abstract is not structured and very brief, and the aim and significance of this review were not mentioned clearly.

The article sections were created based on which sequence? Introduction, myelin,.....??? with too much redundant, irrelevant, and repetitive distractive information.

"The spatial and temporal evolution of the transaxonal potentials beneath myelin is strikingly complex, with gradually attenuating waves toward the middle of the internode (Figures 5 and 6).": Why is it italic? Where are figures 1-4??

"Such a pattern of AP propagation is ......", "incompatible with either a tightly sealed DC or SC<sup>9t</sup> mention of abbreviations such as AP, DC....... so should be preceded by the full form followed by an abbreviation.

"For example, transmyelin potentials not only rapidly depolarize but also rapidly repolarize to drive local-circuit currents that impact the time course of internodal axolemmal potentials [...]." What is the significance of repetitively using [...].????

The references were not cited appropriately within the text, such as: For example, (Mukherjee et al., 2020) notes that "Fth1 transcripts, In tests of disordered layers of ferritin (Rourk et al., 2021),.....

Grammar and English need rechecking, such as: "it is possible that ferritin structures in the myelin sheath are arranged with sufficient order" should be "it is possible that ferritin structures in the myelin sheath are arranged in sufficient order"

"This hypothesized electrical activity is shown in Figure 1 (modified from DeSilva, 2022)." How does figure 1 come after figures 5-7? Where is the figure caption? Where are the other figures??

You mentioned a summary after each section. It is a summary of what? What is the value or addition it added?

The titles of the article sections do not reflect the content. Too much basic information was given in detail with no need.

"A number of sources for the repolarization reserve have been proposed, but there is no conclusive model for all repolarization reserve sources. Electron conduction through macrophages would be able to provide repolarization assistance for cardiomyocytes, depending on the specific location and configuration of macrophages. The macrophages could form a bridge between other cells (possibly other cardiomyocytes) that are temporally out of phase with a first cardiomyocyte to which the macrophages are attached. For example, a second cardiomyocyte could be polarized and



could act as a source of electrons for repolarization of the first cardiomyocyte as part of the process of becoming polarized after the first cardiomyocyte has been polarized and when it is being depolarized. In this manner, the repolarization of the first cardiomyocyte could also assist with polarization of the second cardiomyocyte." Where are the references??

Conclusion is redundant, not conclusive, with unclear significance.