# Article information:

The differing roles of flavins and quinones in extracellular electron transfer in Lactiplantibacillus plantarum | bioRxiv
<https://www.biorxiv.org/content/10.1101/2022.07.29.502109v1.full>

# Article summary:

1. Lactiplantibacillus plantarum is a lactic acid bacteria that can perform extracellular electron transfer (EET) when provided with an exogenous quinone and riboflavin.

2. This study seeks to understand the role of quinones and flavins for EET by monitoring iron and anode reduction in the presence and absence of these small molecules.

3. The results suggest that electron transfer to extracellular iron occurs through both flavin-dependent and DHNA-dependent routes, while electron transfer to an anode proceeds most efficiently through the DHNA-dependent pathway.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, as it provides a detailed description of the research conducted on Lactiplantibacillus plantarum's ability to perform extracellular electron transfer (EET). The authors provide evidence for their claims, such as genetic mutants used to identify which proteins are necessary for EET, as well as data from experiments measuring iron and anode reduction in the presence or absence of quinones or flavins.

However, there are some potential biases in the article that should be noted. For example, the authors do not explore any counterarguments or alternative explanations for their findings. Additionally, they do not discuss any possible risks associated with manipulating EET for biotechnology purposes. Furthermore, they do not present both sides of the argument equally; instead they focus primarily on how EET can be manipulated for biotechnological uses without considering other implications or applications of their findings.

In conclusion, this article is generally reliable and trustworthy but could benefit from further exploration into counterarguments and potential risks associated with manipulating EET for biotechnology purposes. Additionally, it would be beneficial if both sides of the argument were presented more equally in order to provide a more balanced view of the research findings.

# Topics for further research:

* Risks associated with extracellular electron transfer
* Biotechnological applications of extracellular electron transfer
* Counterarguments to extracellular electron transfer
* Implications of manipulating extracellular electron transfer
* Alternatives to extracellular electron transfer
* Balanced view of extracellular electron transfer research

# Report location:

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