

# Erratum: Fatty acyl availability modulates cardiolipin composition and alters mitochondrial function in HeLa cells

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The publisher regrets that an error was introduced into the Abstract during production. The final sentence was duplicated within the body of the Abstract. The corrected Abstract is provided below. The publisher would like to apologize for any inconvenience caused.

## ABSTRACT

The molecular assembly of cells depends not only on the balance between anabolism and catabolism but to a large degree on the building blocks available in the environment. For cultured mammalian cells, this is largely determined by the composition of the applied growth medium. Here, we study the impact of lipids in the medium on mitochondrial membrane architecture and function by combining LC-MS/MS lipidomics and functional tests with lipid supplementation experiments in an otherwise serum-free and lipid-free cell culture model. We demonstrate that the composition of mitochondrial cardiolipins strongly depends on the lipid environment in cultured cells and favors the incorporation of essential linoleic acid over other fatty acids. Simultaneously, the mitochondrial respiratory complex I activity was altered, whereas the matrix-localized enzyme citrate synthase was unaffected. This raises the question on a link between membrane composition and respiratory control. This underlines the importance of considering these factors when using and establishing cell culture models in biomedical research. In summary, we found a strong dependency of central mitochondrial features on the type of lipids contained in the growth medium.  