

Review of: "[Perspective] Glucolipotoxicity: A Novel Different Perspective on the Causes of Cancer"

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Potential competing interests: No potential competing interests to declare.

The article titled "Glucolipotoxicity: A Novel Different Perspective on the Causes of Cancer" summarizes the metabolic changes that occur in cells during the development of a tumor, with emphasis on the way glycolysis diverts to the production of lactic acid as a consequence of the fermentation process, even in the presence of oxygen.

The authors propose a working hypothesis to complement the explanation given by the Warburg effect, related to the effect of high levels of glucose, called glucolipotoxicity, which is produced by high levels of glycolipids synthesized by the cells as a product of a downregulation of the process when high levels of glucose occur.

The link between glucolipotoxicity and tumor development is called by the authors "Akl's theory" or the "Maher Akl effect". However, the results that support this theory have not been published yet, and the only reference provided is an abstract from an annual meeting. Because of that, I think that first, the results that support the link between glucolipotoxicity and cancer development should be published, and after that, a new perspective to explain the role of this cell's response to the high levels of glucose and the oversynthesis of glycolipids with a basement in the results obtained by the research group should be proposed.

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