

Reductive carboxylation of glutamine as a potential target in acute myeloid leukemia

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A new editorial paper was published in *Oncotarget* titled, "<u>Reductive</u> <u>carboxylation of glutamine as a potential target in acute myeloid</u> <u>leukemia</u>."



In this new editorial, researchers Alessia Roma, Lawrence D. Goodridge, and Paul A. Spagnuolo from the University of Guelph discuss <u>acute</u> <u>myeloid leukemia</u> (AML)—an aggressive cancer of the blood and bone marrow defined by poor patient outcomes and sub-optimal therapeutics.

Recent advancements in our understanding of AML biology bring optimism to improving patient outcomes for this devastating disease. For example, discovering and validating metabolic vulnerabilities distinct to AML opens new strategies for novel drug development.

In fact, since 2017, a third of newly approved AML therapeutics have targeted metabolic abnormalities. Thus, further identification and elucidation of metabolic vulnerabilities in AML could lead to novel therapies to improve patient outcomes.

"One approach is to weaken tumor cell survival mechanisms. In this regard, exploring reductive carboxylation as a possible drug target could provide new avenues for optimizing existing treatments aimed at improving AML patient outcomes," the researchers conclude.

More information: Alessia Roma et al, Reductive carboxylation of glutamine as a potential target in acute myeloid leukemia, *Oncotarget* (2023). DOI: 10.18632/oncotarget.28474

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