

# Adipocytes in hematopoiesis and acute leukemia: friends, enemies, or innocent bystanders?

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The interest in bone marrow adiposity (BMA)/marrow adipose tissue (MAT) has increased over the last decades due to its implications in metabolic homeostasis, pathologic conditions (including osteoporosis, diabetes, obesity, anorexia nervosa, blood diseases, and cancer), aging, and therapies (corticosteroid, thiazolidinediones, radiotherapy, and chemotherapy). Evidence for this is the recent publication of two consensus papers regarding the nomenclature {1} and the methodological standards {2} in BMA/MAT research.

In this review article, the authors “summarize recent conceptual advances in the field of MAT research and how these developments impact our understanding of MAT regulation of hematopoiesis”, both normal and malignant, with particular focus on acute leukemia for the latter. The authors emphasize the role of BMA/MAT in the negative regulation of normal hematopoiesis and, based on their extensive revision of the literature, discuss the influence of BMA/MAT on survival and proliferation of leukemic blasts, on its protective role on the chemotherapy-induced leukemic blasts’ cytotoxicity and on the possibility to target the interaction of leukemic blasts with adipocytes as a novel therapeutic approach. This review article provides an excellent updated overview of the knowledge on the role of BMA/MAT in acute leukemia.

## References

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## Disclosures

None declared