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## Epigallocatechin 3-gallate and BIX-01294 have different impact on epigenetics and senescence modulation in acute and chronic myeloid leukemia cells

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### Abstract

Myeloid leukemia treatment is quite successful nowadays; nevertheless the development of new therapies is still necessary. In the present study, we investigated the potential of epigenetic modulators EGCG (epigallocatechin 3-gallate) and BIX-01294 (N-(1-benzylpiperidin-4-yl)-6,7-dimethoxy-2-(4-methyl-1,4-diazepan-1-yl)quinazolin-4-amine) to alter epigenetic state and cause cellular senescence in acute and chronic myeloid leukemia NB4 and K562 cells. We have shown that after leukemia cell treatment with EGCG and BIX-01294 the proliferation and survival were inhibited of both cell lines; however, only NB4 cells underwent apoptosis. Both epigenetic modulators caused cell cycle arrest in G0/G1 phase as assessed by RT-

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