Reviewer's report

Title: P-gp activity attenuates AVE9633 and DM4 cytotoxicity in acute myeloid leukemia cells, but is not a major mechanism of chemoresistance

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Reviewer: Albert Breier

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Main idea of paper is linked with fact that while P-gp is able to confer resistance to AVE9633 and DM4 of several P-gp expressing cell models of myeloid leukemia in cells isolated from AML patient P-gp did not play pivotal role in resistance to these substances. This represents very important fact that has to be studied. Authors were measuring the P-gp expression in cells using immunofluorescence staining of external part of P-gp by phycoerythrin conjugated UIC2 antibody and therefore they did not used permeabilization of cells for antigen availability. This may be accepted as correct method for estimation of P-gp located on plasma membrane. However P-gp was described to be present also in intracellular membrane structures. Therefore I think that estimation of P-gp encoding mRNA levels by RT-PCR in samples from AML patients as a measure of net P-gp expression will improve the quality of paper.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.