Reviewer’s report

Title: The anticancer activity of lytic peptides is inhibited by heparan sulfate on the surface of the tumor cells

Version: 1 Date: 26 October 2008

Reviewer: Jörg Engel

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The MS "The anticancer activity of lytic peptides is inhibited by heparan sulfate on the surface of tumor cells" describes the antiproliferative effect of bovine lactoferrin and KW 5, two cationic antimicrobial peptides in various tumor cell lines. The authors also investigated the potential mechanism of action of these compounds and found that their lytic effect is decreased by negatively charged molecules on the cell surface, such as haparan sulfate. The authors also described a decrease of the lytic effect by cotreatment with heparin.

The authors present a large and convincing amount of data supporting their conclusion, therefore the paper merits publication. However I would like to draw the authors’ attention to the following publication by Clara P.W. Klerk and coworkers "The Effect of Low Molecular Weight Heparin on Survival in Patients With Advanced Malignancy" (J Clin Oncol 23:2130-2135) where improved OAS in patients with advanced malignancies after treatment with low molecular weight heparin is described. The authors should include a paragraph discussing these results in the light of their findings.

Level of interest: An article whose findings are important to those with closely related research interests

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’