Reviewer's report

Title: Heparin (GAG-hed) inhibits LCR activity of Human Papillomavirus type 18 by decreasing AP1 binding

Version: 1 Date: 7 June 2006

Reviewer: Werner Zwerschke

Reviewer's report:

Villanueva et al. show that the heparin GAG-hed can block growth of HPV-18 positive tumour cells in cell culture and in athymic mice. Moreover, addressing the underplaying mechanisms at a first glance, they show that GAG-hed inhibits the expression of the HPV-18 E6/E7 open reading frame. The methods are appropriate and well described. The manuscript is well written and the presentation of the results is straightforward. The abstract and title do accurately convey what has been found. Only some minor points should be improved.

Minor Essential Revisions:
First and second chapter page 2; first line page 10: The English should be improved. The author should specific the terms cell proliferation and cell growth. Although the presented findings suggest that GAG-hed inhibits the transcription of HPV-18 E6/E7 by an AP1-dependent mechanism, the underlying mechanism remains largely unknown. The authors should discuss how GAG-hed could functions. For example, does it bind to specific receptors at the cytoplasm membrane? How blocks GAG-hed AP1 binding to its DNA-binding side?

What next?: Accept after minor essential revisions

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests