Reviewer's report

Title: Stable Alterations of CD44 Isoform Expression in Prostate Cancer Cells Decrease Invasion and Growth and Alter Ligand Binding and Chemosensitivity

Version: 1 Date: 11 November 2009

Reviewer: Zoran Culig

Reviewer's report:

The role of CD44 in prostate cancer is of interest. It is known that the expression of splicing variants may influence migration and invasion. The authors have presented some interesting information, however controls and background information are not always included.

The following issues should be considered by the authors:

1. It should be made clear what is the purpose of the study and how it advances previous work in the field.
2. The authors should pay attention to manuscripts showing that CD44 is a stem cell marker that is remarkably expressed in neuroendocrine prostate cancers (Palpattu et al: Prostate 69:787, Simon et al: Hum Pathol 40:252)
3. Animal experimentation description is not satisfactory. Number of experimental animals must be clearly stated in the Materials and Methods Section
4. This part also lacks details of ethical approval.
5. Importantly, RNAi experiments (CD44v7-10 RNAi) lacks appropriate controls. The figures should contain control RNAi.
6. There is an important part on docetaxel sensitivity. However, the authors did not attempt to clarify the mechanism. Why are PC-3M CD44v7-10 RNAi cells so sensitive?
7. The Discussion section is too much focused on merlin. This part should be more balanced and also address the previous studies on CD44 in prostate cancer.

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'