Reviewer's report

Title: Human cancer cells express Slug-based epithelial-mesenchymal transition gene expression signature obtained in vivo

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Reviewer: Li Cai

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The paper by Anastassiou et al., entitled "Human cancer cells express Slug-based epithelial mesenchymal transition gene expression signature obtained in vivo" describes a gene expression analysis of tumor cells resulted from human cancer cells grafted in immunodeficient mice.

Major problems:

In addition of lack of novelty, significance and functional verification, this work does not provides new insight into molecular control mechanisms for EMT-specific gene expression, as many studies have already demonstrated that Slug Promote Epithelial-Mesenchymal Transition.

There is no control data, and also lacks of comparisons of the arrays with the cells before implanting and during implantation.

It is not clear how "species-specific probes" was used in this study, do the authors mean by using Human and Mouse affymetrix Gene Chips or by isolating human and mouse cells.

There are numerous typos, grammatical errors, lack of punctuation, and poor sentence structure throughout the manuscript, for example:

p. 2 (Results section) "gene expression signature" is repeated twice;

p. 6 (beginning of second paragraph) not sure "relatedly" is a word;

p. 6 again (towards end of second paragraph), "cancer stem cells (CSSs)" should say "cancer stem cells (CSCs)";

p. 8 not sure what is "15 Ag of biotinylated cRNA"? maybe 15 microgram or nanogram?

etc.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.