Reviewer's report

Title: The influence of P-glycoprotein expression and its inhibitors on the distribution of doxorubicin in solid tumors

Version: 2 Date: 15 July 2009

Reviewer: Yan Li

Reviewer's report:

- Major Compulsory Revisions

1. The authors studied the distribution of doxorubicin in tumor xenoplants at only one time point (10 min after IV. dosing) in this study. Doxorubicin uptake into cancer cells was reported to be relatively slow. Has the uptake and distribution of doxorubicin into cancer cells reached steady-state in present study?

2. In figure 4A and 4B, the curves for Pgp treatments appear apparently to be non-linear. In Page 7 and Figure 4C, linear regression was performed to correlate the average doxorubicin fluorescence intensity with distance from the nearest blood vessel. Is this model fitting and associated conclusion valid?

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

- Discretionary Revisions

1. In table 1 and figure 1 and 2, there is no data or figures showing the doxorubicin fluorescence intensity in wild-type tumor treated with verapamil or PSC 833.

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