Reviewer’s report

Title: Best Fitting Tumor Growth Models of the von Bertalanffy-Pütter Type

Version: 0 Date: 20 Apr 2019

Reviewer: Hermann Frieboes

Reviewer’s report:

The paper is well written. The following items should be considered before publication:

- Based on the experimental data shown in Figures 2 and 4, it is apparent that the mathematical form of the model represented by Eq. (1) is inadequate no matter what the values of the parameters are. The data shows that the growth curve is composed of sigmoidal segments, which is a typical growth pattern observed with tumor xenografts (e.g., see http://clincancerres.aacrjournals.org/content/17/13/4612), as their interaction with the surrounding tissue, including vascularization, goes through various stages. These types of limitations should be discussed.

- The relevance of the results to clinical application should be discussed. As is pointed out in the Conclusion, "prognosis of tumor growth is feasible only for a short time span into the future." Based on the results of this study with the given model, what more specific message can be given to clinicians struggling to help patients suffering from cancer?

- The data points in Figures 2 and 4 should have error bars and statistical information.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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