Reviewer's report

Title: A stable explant culture of HER2/neu invasive carcinoma supported by alpha-SMA expressing stromal cells to evaluate therapeutic agents

Version: 4 Date: 17 January 2008

Reviewer: Mary Helen Barcellos-Hoff

Reviewer's report:

The author’s rebuttal answers some minor questions but does not include any substantive changes or provide data that addresses the central issue raised in the previous review: functional and genetic tests the cells that appear morphologically fibroblastic are indeed normal. In the absence of such data the model is misrepresented as reflecting a tumor and its stroma.

Morphology is a poor descriptor when dealing with tumors since they are pleiotropic. Alpha smooth muscle actin is not a specific marker of cell origin and is indeed expressed by multiple cell types (pericyte, myoepithelial, myofibroblast) and the Her 2/neu could be down-regulated (which would actually be interesting). As raised in the previous review, a similar cell line was described by Medina that exhibits two morphological phenotypes but which is clonal in origin (Campbell, S. M., Taha, M. M., Medina, D. and Rosen, J. M. (1988). A clonal derivative of mammary epithelial cell line COMMA-D retains stem cell characteristics of unique morphological and functional heterogeneity. Expt Cell Res 177, 109-121. Jerry, D. J., Medina, D. and Butel, J. S. (1994). p53 mutations in COMMA-D cells. In Vitro Cell. Dev. Biol. 30A, 87-89.).

Overall I still consider this paper as confused at best, and scientifically unsound when represented as a model of tumor and stroma.

What next?: Reject because scientifically unsound

Level of interest: An article of limited interest

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.