Author’s response to reviews

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

Authors:

Marie P Piechocki (piechock@karmanos.org)

Version: 2 Date: 25 October 2007

Author’s response to reviews: see over
It is with great pleasure and much enthusiasm that I submit my manuscript entitled “A stable explant culture of HER2/neu invasive carcinoma supported by α-SMA expressing stromal cells to evaluate therapeutic agents”. Please consider it for publication in BMC Cancer as a Research Article. The aim of these studies was to develop and characterize an ex vivo model of breast cancer expressing HER2/neu and methods for simultaneous, qualitative and quantitative evaluation of tumor cell and stromal cell subpopulations for response to therapeutic agents. This manuscript describes the development of a regenerative co-culture model that faithfully recapitulates the microenvironment of invasive breast cancer. The model is stable for extended passages in culture and thus suitable for long term studies. The high levels and distinctive expression of HER2/neu in the tumor cells and alpha-SMA in the cancer associated myofibroblasts facilitates the identification and separation of these populations for downstream analyses. By exploiting this model to understand mechanism(s) of the tyrosine kinase inhibitor, Iressa, we were able to determine the specificity of this agent for the tumor cells. The relative resistance of the cancer associated myofibroblasts to this agent and the induction of a profound fibrotic response has important implications for therapy of invasive cancers. This model will be extremely useful for understanding mechanisms of therapeutic agents on the tumor and its microenvironment and enable the development and implementation of novel targeted therapies.

As sole author I concur with the submission of this manuscript to “BMC Cancer”. The described study has not been published in any form elsewhere. The manuscript has not been submitted to another journal and will not be published elsewhere within one year after its publication in “BMC Cancer”. The figures include color photographs. I am aware of the additional cost for reproducing colored figures and agree to these charges. I thank you for your effort on our behalf and look forward to hearing from you soon.

Sincerely yours,

Marie Patrice Piechocki, Ph.D.
Assistant Professor
Department of Otolaryngology
Wayne State University – Karmanos Cancer Institute
Room 4123 Prentis Building
110 E. Warren Avenue
Detroit, MI 48201
piechock@karmanos.org