Author's response to reviews

Title: The Cyclin-Like Protein Spy1/RINGO Promotes Mammary Transformation and is Elevated in Human Breast Cancer

Authors:

Mohammad Al Sorkhy (sorakhy@gmail.com)
Rosa-Maria Ferraiuolo (ferraiur@uwindsor.ca)
Espanta Jalili (jalilie@uwindsor.ca)
Agnes Malysa (malysa@uwindsor.ca)
Andreea R Fratiloiu (arfratil@ucalgary.ca)
Bonnie F Sloane (bslope@med.wayne.edu)
Lisa A Porter (lporter@uwindsor.ca)

Version: 2 Date: 2 September 2011

Author's response to reviews: see over
September 2, 2011

Managing Editor
BMC Cancer

Title: "The Cyclin-Like Protein Spy1/RINGO Promotes Mammary Transformation and is Elevated in Human Breast Cancer"

Running Title: "Oncogenic Properties of Spy1"

Authors: Mohammad Al Sorkhy1, Rosa-Maria Ferraiuolo1, Espanta Jalili1, Agnes Malysa1, Andreea R. Fratiloiu2, Bonnie F. Sloane3 and Lisa A. Porter1 *

Enclosed please find our manuscript, as referenced above, for consideration to be published in BMC Cancer. This article was reviewed previously in Breast Cancer Research (#8915743255410773) and while both reviewers thought the content merited publication they had a number of suggested revisions. The editors suggested that we address these concerns and send to one of the BMC journals. We have done this and we have outlined our changes in an appended document.

This manuscript focuses on a protein Spy1, which is a unique ‘cyclin-like’ protein known to promote movement through the cell cycle and inhibit apoptosis. While Spy1 levels have been implicated in hepatocarcinoma, and mouse models have demonstrated a link for this protein in the initiation and/or progression of breast cancer, this is the first work to demonstrate that levels of this unique class of cell cycle regulators are elevated in a number of human breast cancers and hence is of wide interest. We further demonstrate that critical levels of Spy1 protein trigger classical oncogenic transformation dependent upon the activation of the G2/M cyclin-dependent kinase, Cdk1. We show that this mechanism is sensitive to inhibition by the apoptotic regulator FOXO1. This work suggests that Spy1 levels play an important regulatory mechanism in a subset of breast cancers and we further reveal molecular mechanisms that may be valuable for therapeutic intervention.

The material presented herein is original research; it has not been previously published and is not submitted for publication elsewhere. The authors have no conflict of interest to claim.

Thank you for your consideration and we look forward to hearing from you.

Sincerely,

Lisa A. Porter