Reviewer's report

Title: P-LAP/IRAP induced cell proliferation and glucose uptake in endometrial carcinoma cells via insulin receptor signaling

Version: 1 Date: 18 October 2006

Reviewer: Romel Somwar

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1) The authors state on Page 15 that "we demonstrated that increased glucose uptake into cells by insulin also induces cell proliferation in endometrial cancer cells". This overstates the results of this study. The authors demonstrate insulin-induced cell proliferation and insulin-induced glucose uptake but show no dependence of one phenomenon on the other. Therefore, the authors should re-write this sentence to more accurately reflect the results.

2) The authors indicate that there is increased GLUT4 and IRAP staining with tumor grade advancement. Was the same observation made for IR and IRS-1 staining? This should be stated.

3). Were the tumors that were negative for P-LAP/IRAP staining also negative for GLUT4, IR and IRS-1? This should be addressed as well in the discussion.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1.) Was insulin treatment conducted in the presence on serum? This should be clearly indicated either in the methods section or figure legends.

2) The time of insulin and wortmannin treatment in Figs 5 and 6 is not clear. This should be included in the figure legend.

3) Human AKT should be written with Block letters. Please correct this throughout the manuscript.

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Discretionary Revisions (which the author can choose to ignore)

1) The authors should consider blotting total membranes for GLUT4 and IRAP in the cell lines. This will provide better staining by Western blotting.

2) Insulin-dependent cell proliferation adn AKT phosphorylation should be measured in low serum condition. There authors may observe a better response.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests