Reviewer's report

Title: Effect of troglitazone on tumor growth and pulmonary metastasis development of the mouse osteosarcoma cell line LM8

Version: 1 Date: 23 November 2009

Reviewer: Avudai Maran

Reviewer's report:

Major Compulsory Revisions

• In order to be convinced that TGZ regulates MMP-2 levels, the authors need to provide a better gel picture in Fig 6B with quantitative differences between the control and TGZ-treated groups.
• The authors should discuss their results with reference to what is shown in the literature. They should explain how the mechanism is unique, how the AKT-pathway would be useful in the diagnosis and treatment of osteosarcoma. The discussion as it is repeats the information in the results.

Minor Essential Revisions

• The rationale for using GW9662 is not clear. It has been discussed later in the “Discussion” but it should be explained in the results.
• Result 3A shows only very minimal effect on cell invasion.
• The authors claim that TGZ only downregulates the pAKT and not AKT. However, the western result shows that both phosphorylated and non-phosphorylated form of AKT is down regulated. This needs better presentation.

Discretionary Revisions

Discussion section needs to be short.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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.