Reviewer's report

Title: Phase II Study of Olaparib in Patients with Refractory Ewing Sarcoma Following Failure of Standard Chemotherapy

Version: 2 Date: 6 August 2014

Reviewer: Mohamad Farid

Reviewer's report:

This is an important, if sobering, direct clinical evaluation of very promising preclinical data.

Minor Essential Revisions:

1) Under "Methods": The authors should state the diagnostic criteria for Ewing sarcoma used to accrue patients. Specifically, it should be mentioned if molecular testing for the EWS translocation was performed, as one of the mechanisms underlying the preclinical efficacy of PARP inhibitors in Ewings centers around the interaction between the Ewings-defining FET-ETS fusion transcript and PARP.

2) Line 207: In spite of the fact that some of the preclinical data may be based on cell lines derived from tumors that have yet to develop resistance, it should be mentioned that there is some data for PARP efficacy in cell lines derived from resistant, pretreated tumors, as described in Brenner et al Cancer Research 2012 (ref 13).

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

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.