Reviewer's report

Title: Dickkopf-1 is a potential novel mediator of cisplatin-refractoriness in non-small cell lung cancer

Version: 1 Date: 5 December 2014

Reviewer: Fredrik Jerhammar

Reviewer's report:

Major compulsory revisions
The discrepancy of the microarray results and lack of robustness is a major concern. In three replicates authors find only one overlapping gene. This gene is not studied at length.

The authors have noted the discrepancy between replicates but even so decided to proceed. Optimization of the protocol and further analysis of three replicates with less discrepancy would have been preferred.

Further evaluation of DKK-1 in tumor samples would strengthen the data significantly.

Minor essential revisions
The title suggests that Dickkopf-1 is a potential novel mediator of cisplatin-refractoriness in non-small cell lung cancer, which is a far-fetched conclusion given that this gene is not deregulated even in the three replicates.

Discretionary revisions
Including more cell lines reflecting both sensitivity and resistance would have been a useful approach. The genetic background and deregulation of genes of only one cell line makes the data of limited value for the clinical situation.

A resistance mechanism of FMN1 is discussed and speculated upon in the paper but not tested experimentally which would have been interesting. A simple cell adhesion assay with or without cisplatin treatment in cells with differing expression patterns of FMN1 could have been informative.

Level of interest: An article of limited interest

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