Reviewer’s report

Title: miR-124a and miR-137 inhibit proliferation of GBM cells and induce differentiation of tumor stem cells

Version: 4 Date: 13 February 2008

Reviewer: Maria Giulia Farace

Reviewer’s report:

Major compulsory revisions:

point 3) The serious issue of only one GBM stem cell sample has not been addressed. There is no doubt about the effect of miR-124a/miR-137 transfection in these samples, but this limitation of the results described in this study must be underlined in the discussion. Even if the results are nice and convincing, as far as they refer to the samples tested here, it is not possible to draw general about GBM stem cells on the basis of these data.

Discretionary revisions:

point 2) What do the authors mean by writing that only a minority of cells respond to the transfected miR mimics?

point 1) It is difficult to explain why the less sensitive profiling technologies used in ref. 21 and 22 (microarray and Northern Blot) could have detected the differential expression of one microRNA, miR-221, whose modulation is not detected by TaqMan in the samples studied in this paper, whereas miR-124 and miR-137 modulation was not detected in the cited references. The reason for this may be more likely found in the difference between control tissues used in the different works.

In any case, the use of tumor-free areas from the same patients would enhance the value of the data presented in this manuscript, especially in view of the very limited number of samples tested here.

Which journal?: Appropriate or potentially appropriate for BMC Medicine: an article of importance in its field

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.