Reviewer's report

Title: MicroRNAs define distinct human neuroblastoma cell phenotypes and regulate their differentiation and tumorigenicity

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Reviewer: Maria Grazia Borrello

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The manuscript of Leleesha Samaraweera and co-workers addresses an interesting question for a tumor highly heterogeneous as neuroblastoma. The idea is to define miRNA profile of distinct cell components of neuroblastoma. To this purpose the authors consider human cell lines with different phenotypes, identify the expression of specific miRNA and address their functional role. Although each finding is not analyzed in deep, the authors present many interesting results.

Major
The major concern is about the discussion of the data. The presentation in a unique section of results and discussion does not allow to go further and to discuss the relevance of in vitro findings respect to the published results in “true” neuroblastoma specimens and following retinoic acid treatment.

Minor
The abstract well describes the results. However, it is not clear, without reading the paper, if the cited miRNA are up or down.

Background about miRNA in neuroblastoma is insufficient.

Discretionary
The manuscript should be improved by in situ analysis of selected miRNAs in neuroblastoma FPPE specimens.

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

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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