Reviewer's report

Title: Matrix Metalloproteinase 12 Is Induced by Heterogeneous Nuclear Ribonucleoprotein K and Promotes Migration and Invasion in Nasopharyngeal Carcinoma

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Reviewer: Cecilia Balbi

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Understanding the roles of heterogeneous ribonucleoproteins in tumor progression is a key area of cancer research. This study focused on the interaction between the hnRNP K and the matrix metalloproteinases, in particular the MMP12. The research has been well conducted and provides some new information related to invasion and metastasis in NPC.

Major Compulsory Revisions

1. The method section should give information regarding the origin and the characteristics of the NPC cell lines utilized in the work. Furthermore, the antibody concentrations, that were used in the WB experiments, should be reported.
2. The figures should be increased in size as it is presently difficult to interpret the results.
3. The IHC images, reported in Figures 2 E and G, show high and low-level expression of hnRNP K, respectively. But, whereas in Figure 2E the protein displays a strong immunoreactivity both cytoplasmic and nuclear, in Figure 2G it is primarily localized in the cytoplasm with very little nuclear staining. It is known that many human tumors manifest an overexpression of hnRNP K and, in several cases, an aberrant cytoplasmic localization and a correlation between the cytoplasmic protein expression and a worse prognosis have been frequently observed. But, a predominantly cytoplasmic expression of hnRNP K is a very abnormal localization. The significance of this should be studied in detail. Is the IHC image shown in Figure 2G representative of all samples with low-level expression of hnRNP K? The authors should analyze separately the nuclear and cytoplasmic expressions of hnRNP K.
4. The values of the scale bars should be indicated also for Figure 2 A and Figure 2 (D-G).

Minor Essential Revisions

1. On page 20 the concentrations of protease inhibitors are incorrectly reported.

Level of interest: An article of importance in its field
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