Author’s response to reviews

Title: DNA Methylation Alterations in Grade II- and Anaplastic Pleomorphic Xanthoastrocytoma

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Version: 3 Date: 28 November 2013

Author’s response to reviews: see over
To
Dafne Solera, Executive Editor
BMC Cancer

Dear Madam,

Please find enclosed our manuscript entitled “DNA Methylation Alterations in Malignant Transformation of Grade II Pleomorphic Xanthoastrocytoma”.

In this paper we identify changes in DNA methylation triggering the malignant transformation of pleomorphic xanthoastrocytoma (PXA), a poorly studied astrocytic tumor rarely undergoing malignant transformation, but causing high mortality in patients affected. We identified epigenetic alterations occurring in malignant transformation of PXA in comparison to benign lesions using a DNA methylation custom array, and compared our findings with epigenetic alterations characterizing glioblastoma multiforme.

A panel of five aberrantly methylated genes (CD81, TES, HOXA5, ASCL2, and HCK) were identified and validated in relation to the malignization of PXA. Additionally, common features were identified between malignant PXA and glioblastoma multiforme, suggesting mutual mechanisms of progression. We are aware of the limited set of samples analyzed in this study, given the difficulty in getting such samples. However, being fully conscious of the sample size constraints, we have tried to deeply characterize the tumors investigated, aiming to extract the maximum information of the data obtained, while being aware that the conclusions drawn should be taken with care and further confirmed in larger studies.

Neither the submitted paper nor any similar paper has been submitted to or published in any other primary scientific journal. In addition, all authors are aware and agree to the content of the manuscript and accept their being listed as an author on it.

We think our paper will be of interest to the readers of the journal as well as to the professionals on the field, and its conclusions should encourage further research in the area.

We are very grateful for your attention.
Yours sincerely,

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