Reviewer's report

Title: Seladin-1 e l'espressione regolata Dalla metilazione del promotore nel carcinoma surrenalico

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Reviewer: Suhu Liu

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In this paper, the author used methylation-specific PCR to evaluate the CpG island methylation status of Seladin-1 gene in adrenal cancer. Through comparing methylation status and mRNA expression of Seladin-1 in cell lines and tissues, as well as before and after de-methylation treatment of two adrenal cancer cell lines, the author elucidated for the first time that Seladin-1 expression was regulated by promoter methylation in this type of cancer. Two merits about this study are: 1, it is the first report to show that Seladin-1 gene expression maybe regulated by DNA methylation; 2. Methylation analysis was not only performed in cell lines but also “in vivo” tissue samples.

But there are some essential revisions need to be made.

1. The introduction part of this paper need to be revised considerably. Although Seladin-1 was originally implicated in Alzheimer's disease, the authors do not need to use 1/3 of the introduction part, and at the very beginning of the paper, to explain its postulated function in neuronal cells. For clarity and conciseness, it should be better if the authors can give a more comprehensive biological and functional review of Seladin-1 gene in CANCER.

2. Methylation-specific PCR method is good at detecting and screening for CpG island methylation. But Methylation-specific sequencing data from normal adrenal and adrenal cancer cells must be provided to establish the CpG island methylation status and their relationship with mRNA expression, especially when it is the first report about CpG island methylation in Seladin-1 gene.