Reviewer's report

Title: Implication of Intracellular Localization of Transcriptional Repressor PLZF in Thyroid Neoplasms

Version: 2
Date: 24 February 2014
Reviewer: Ericka Trarbach

Reviewer's report:

The paper by Matsuzawa et al. reports on the interesting finding of PLZF protein expression in thyroid neoplasms. This is a well conducted study but the manuscript is not well writing.

Minor essential revisions

For example, the term tissue was incorrectly used as synonymous of thyroid lesions. In Abstract: P3, L31: "different types of benign and malignant thyroid lesions as well as in normal thyroid tissue" instead "various thyroid tissue". P3, L36: "all samples of thyroid lesions" instead "all types of thyroid tissues". P3, L41: "PLZF shows different subcellular localizations among PTC, ATC, and other thyroid lesions" instead "PLZF shows different localizations among PTC, ATC, and other tissue". The author need to review this in all manuscript.

P6, L76-80: "We performed immunohistochemical (IHC) staining in all samples whereas western blot analyses was carried out using four samples of N (cases 1–4), five samples of AL (cases 5–9), and 13 samples of PTC (cases 12–24). We performed immunohistochemical (IHC) staining using four samples of N, five samples of AL, two samples of FA, 20 samples of PTC, and three samples of ATC. The characteristics of analyzed samples are listed in Table 1." instead "We performed western blot analyses using four samples of N (cases 1–4), five samples of AL (cases 5–9), and 13 samples of PTC (cases 12–24). We performed immunohistochemical (IHC) staining using four samples of N, five samples of AL, two samples of FA, 20 samples of PTC, and three samples of ATC. The characteristics are listed in Table 1."

P8, L108: "The proportions of positively stained cells and the intensity scores were evaluated by two experienced professionals." instead "Two authors (K.M., S-I.T.) evaluated the proportions of positively stained cells and the intensity score".

In my opinion, lines 171 to 181, P12 (Discussion) are more suitable as conclusion. The authors could reformulate this.

Also, the finding of cytoplasmatic localization of PLZF in malignant thyroid tumors is very interesting. Although this mechanisms in not investigated in thyroid tumors the authors could discuss the results in other cancer (e.g. Sergei Doulatovl et al, PLZF is a regulator of homeostatic and cytokine-induced myeloid
Legend of Table 1 is not appropriate, suggestion: "Summary of thyroid neoplasm histotypes studied and patients sex and age distributions". It is no clear that CI, LN are subclassification of PTC; the author need to corrected this. They could delete the line papillary carcinoma, and add PTC before CI, LN ... It is also necessary a table footnote to explain CI and LN abbreviations.

**Level of interest:** An article of importance in its field

**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