Reviewer's report

Title: PADI4 Has Increased Expression In Blood and Tissues of Malignant Tumors

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Reviewer: Sunil Badve

Reviewer's report:

The authors present very interesting and potentially HIGH impact data with regards to the expression of PADI4 in various tissues. The manuscript is adequately written and discussed. However, there are several "major compulsory revisions" that are needed.

1) Based on the authors' data, PADI4 seems to predominantly express in epithelial cells. The authors compare RNA levels in normal and tumor tissues and claim that in situ RNA quantity was similar, so differences in PADI4 are real. Normal tissues tend to be less cellular and have a significant amount of stromal, muscle, etc. Normalization of the data needs to be performed with (?)Keratin to assess the relative amount of PADI4. This will significantly change a number of results described by the authors.

2) The authors seem to confuse endothelium with endoderm (page 15). Adenomas of the thyroid are derived from endoderm and have nothing to do with endothelium.

3) Keratin is NOT a tumor marker (page 3) nor does it play a role in cell differentiation and apoptosis.

4) Some of the micro-photographs are of poor quality and not representative of the lesion they are supposed to be demonstrating e.g. the picture entitled chondroma does not show any cartilage. The intradermal nevus picture similarly does not show any nevus cells (only epidermis). The pictures of cervicitis and leiomyosarcoma are of poor quality.

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: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

Nil