Author's response to reviews

Title: BAP1: case report and insight into a novel cutaneous tumor suppressor

Authors:

Kanad Ghosh (kanad70@gmail.com)
Badri Modi (badri.modi@gmail.com)
William James (william.james@uphs.upenn.edu)
Brian Capell (brian.capell@uphs.upenn.edu)

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Prof. Ioannis Bassukas
Editor, BMC Dermatology

Dear Dr. Bassukas,

We are delighted to submit a revised version of our manuscript to BMC Dermatology. We thank the reviewers and editors for their comments and reviews (below in italics). Below we provide a point by point response (normal text).

Editor Comments:

Thank you for submitting your focused short skin bapoma update.

Reviewer reports:

Ioannis Bassukas (Reviewer 2): This is a well-written and referenced as well as timely brief update of skin 'bapomas'. I suggest that it could be useful for the readers if the authors would shortly comment on possible mechanisms connecting 'BAP1 deficiency' and the distinct
keratinocyte-independent, epithelioid phenotype of BAP1 mutated (dermal) melanocyte aggregates.

We appreciate the chance to address this comment, particularly since there have been some new exciting findings in this realm of understanding mechanistically how BAP1-deficiency may promote tumorigenesis. Most compelling are recent results published in Nature in June 2017 (Bononi A, et al. Nature 2017) demonstrating that a deficiency of BAP1, including in patients with inherited heterozygosity for BAP1 (BAP1+/-), leads to the inability of cells with extensive DNA damage to undergo apoptosis. This includes DNA damage induced by ultraviolet radiation. Thus, in the case of “BAPomas”, either inherited or acquired deficiency of BAP1 would likely lead to accumulated DNA damage in melanocytes. These melanocytes, unable to undergo apoptosis, may then continue to proliferate forming a BAPoma. We’ve added these mechanistic possibilities to our discussion and believe it has enhanced the manuscript (end of second paragraph of the Discussion).

Thank you for your thoughtful consideration of our manuscript.

Sincerely,

Brian Capell, M.D., Ph.D.