Reviewer's report

Title: Efficacy of Wnt-1 monoclonal antibody in sarcoma cells

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Reviewer: Lorenzo Lo Muzio

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General:

Title: Efficacy of Wnt-1 monoclonal antibody in sarcoma cells
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Authors:
Iwao Mikami, Liang You, Biao He, Zhidong Xu, Amie Lee, Julien Mazieres, Noemi Reguart, Sonny Batra, Kazutsugu Uematsu, Kiyoshi Koizumi, Frank McCormick and David Jablons

The authors propose a new therapeutic possibility for sarcomas, one of the most refractory diseases among malignant tumors. They showed that a monoclonal anti-Wnt-1 antibody induces apoptosis in sarcoma cells. The blockade of Wnt-1 signalling was also found in Wnt-1 siRNA treatment.

To date only a paper from the same research group suggested a monoclonal antibody therapy against Wnt-1 for the treatment of these tumours (He B., You L. et al. "A monoclonal antibody against Wnt-1 induces apoptosis in human cancer cells." Neoplasia 2004; 6(1): 7-14). In this paper the authors investigated the effect of inhibition of Wnt-1 signaling in a variety of human cancer cell lines, including non small cell lung cancer, breast cancer, mesothelioma, and sarcoma. Both monoclonal antibody and RNA interference (RNAi) were used to inhibit Wnt-1 signaling. The present report supported their previous results indicating that both monoclonal anti-Wnt-1 antibody and Wnt-1 siRNA inhibit Wnt-1 signalling and can induce apoptosis in human cancer cells. Another paper of the same group showed that blocking Wnt-1 signaling by Wnt-1 siRNA in beta-catenin-deficient mesothelioma cell lines H28 and MS-1 induces apoptotic cell death (You L., He B. et al. "Inhibition of Wnt-1 signaling induces apoptosis in beta-catenin-deficient mesothelioma cells." Cancer Res 2004; 64(10): 3474-8).

The question posed by the authors is new and well defined. The methods are appropriate and well described, but a question: the authors performed experiments only one time or performed a series to control the possibility of replication?

The discussion and conclusions are adequately supported by the data.

In conclusion these findings hold promise as a novel therapeutic strategy for cancer and for our proposal is Acceptation after minor essential revisions.

Major Compulsory Revisions:

1. Abstract: the authors described only methods used to evaluate apoptosis. They must describe also methods used in the experiments.
2. Materials and methods: please specify if experiments were performed only one time or more times to control the possibility of replication.
3. there are some typographical errors (such as at pag. 6 line 5 substitute "(custom-made....)." with "(custom-made....)," or at line 7 "(Santa ...)." with "(Santa ...),").
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests: None