Reviewer’s report

Title: Suppression subtractive hybridization profiles of radial growth phase and metastatic melanoma cell lines reveal novel potential targets

Version: 2 Date: 2 August 2007

Reviewer: David Julian Easty

Reviewer’s report:

General

The authors have applied subtractive hybridisation to the study of melanoma progression. Two subtractive libraries are: RGP (WM1552C-4 metastatic lines) and Mets (4 metastatic cell lines - WM1552C). They report two populations of 288 and 217 enriched genes in each library. The use of subtractive hybridisation is appropriate, since it complements current microarray data and will address unknown sequences of unknown transcripts. Expression validation was by northern blotting and RT-PCR.

Melanoma progression is poorly defined and this is a valuable area for study. These data are a valuable contribution to the present understanding. However, the author’s conclusions do not always agree with the data.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The source of RNA for subtraction is questionable; the use of one RGP melanoma, WM1552C rather than a pool of multiple RGP lines. This is likely to be a source of variation. What is the sex of the patient that WM1552C was derived from? The wistar melanoma lines are well catalogued and it should be easy to find this out. If the patient was female then this will explain loss of the Y chromosome. In addition, check on published cytogenetics: is chromosome 1 intact in WM155C, otherwise you cannot argue for loss of sequences corresponding to deletions in melanoma.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

A further details of work by Haqq et al would be useful.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests