Reviewer's report

Title: Relevance of cyclin D1b expression and CCND1 polymorphism in the pathogenesis of multiple myeloma and mantle cell lymphoma

Version: 1 Date: 14 May 2006

Reviewer: L. Jeffrey Medeiros

Reviewer's report:

General
The authors have assessed for cyclin D1 a and b mRNA and protein in mantle cell lymphoma (MCL) and myeloma (MM). They conclude that cyclin D1 b protein is inconsistently present in these tumors and therefore is unlikely to have an important role in pathogenesis. The hypothesis is of interest, especially in light of recent studies referenced by the authors, and methods used appear to be well chosen. Some of the mRNA observations are published in a previous study published in the journal Leukemia.

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

1. The study groups are small. The authors have assessed 10 MCL patient samples as well as cell lines. Protein data is only shown for 6 MCL patient samples and it is unclear if the other 4 were studied. Only 1 MCL cell line was used to assess the location (cytoplasm or nucleus) of cyclin D1b. This is a bit minimalistic. Location of cyclin D1b should be assessed in a few of the MCL patient samples.

2. For MM, only 3 patient samples are assessed with cell lines. This seems inadequate to this reviewer.

3. The presentation of the mRNA data. The authors use the CT and compare cyclin D1 a to b. Figure 1 then shows the comparison which initially is not intuitive as higher CTs signify lower quantity. The cyclin D1 a/b ratio is also a number that has little meaning in this context. Could the authors use a known amount of cyclin 1 a and b and, using serial dilutions, create standard curves by which the cylin D1 a and b could be quantified or semi-quantified?

4. The methods are very brief. Some additional methods are in the figure legends and perhaps these can be moved to the text. What is the source of the R3 antibody?

5. In this reviewer's opinion, the conclusions are not justified by the limited data presented. This study needs to be expanded.

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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)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

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