Author's response to reviews

Title: Retinoblastoma Binding Protein-1 (RBP1) is a Runx2 Coactivator and Promotes Osteoblastic Differentiation

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Author's response to reviews:

April 30th, 2010

Dr. Melissa Norton
Editor-in-Chief
BMC Musculoskeletal Disorders

Dear Dr. Norton:

Attached is a PDF of our re-revised manuscript entitled, “Retinoblastoma Binding Protein-1 (RBP1) is a Runx2 Coactivator and Promotes Osteoblastic Differentiation” for consideration of publication in BMC Musculoskeletal Disorders. This manuscript is not currently under review at any other journal. I have reviewed for BMC Musculoskeletal Disorders within the last year.

In this paper, we show that retinoblastoma binding protein-1 (RBP1) is an important component of normal osteoblast function, since its suppression leads to a severe delay in osteoblastic nodule formation coupled with drastic decreases in classical bone gene expression. Furthermore, we show that RBP1 acts as a potent transcriptional coactivator of Runx2 function. This underscores a dualism in the effects of RBP1 on Runx2, both through the maintenance of Runx2 expression as well as transcriptional coactivation.

We believe the information contained in this manuscript is uniquely suitable and would be of significant interest to the readers of BMC Musculoskeletal Disorders since it uncovers RBP1 as an important regulatory component of Runx2 transcriptional function, necessary for proper bone formation. We hope that our re-revised manuscript is of sufficient quality and scientific interest to warrant publication in your esteemed journal.

Respectfully,

David G. Monroe, Ph.D.
April 30, 2010

The authors wish to thank the reviewers for their time and attention in re-reviewing our manuscript entitled “Retinoblastoma Binding Protein-1 (RBP1) is a Runx2 Coactivator and Promotes Osteoblastic Differentiation.” We carefully considered each comment by both reviewers and provide our responses, detailed below. We hope that this re-revision is of sufficient quality for publication in BMC Musculoskeletal Disorders.

NOTE: The reviewer’s and editorial advisor’s comment(s) for each point are reiterated in quotation marks, and our response follows.

1) Comments from editorial adviser: “The authors did not explain how they isolated or obtained calvarial osteoblasts. This needs to be added.”

We have added a section in the Methods to describe the procedure for isolation of mouse calvarial osteoblasts.

2) “Even though the proliferation assay brings a negative result, I do believe that it should be shown.”

We agree with this comment and do believe adding this data is informative. We have added the proliferation assay as part of Figure 1 (panel C). We have also added a section in the Methods to describe the proliferation assay as well as edited the Results and Figure Legend 1 to accommodate the inclusion of this data.

3) “The last sentence of the abstract should be properly formatted.”

We have fixed the formatting error in the abstract.

4) “Cell density should be expressed as number of cells/cm2 and not as percentage.”

We have expressed our cell density as cells/cm2 in the Methods section.

5) “Acknowledgment: Patricia Ducy worked with Gerard Karsenty and not Pamela Ducy. Please correct.”
We have corrected this oversight and the Acknowledgment now reads “Patricia Ducy.”