Reviewer’s report

Title: The antifibrotic drug pirfenidone inhibits spondyloarthritis fibroblast-like synoviocytes and osteoblasts in vitro

Version: 0 Date: 27 Jul 2018

Reviewer: Angelo Calado

Reviewer’s report:

In this manuscript, the authors present in vitro data supporting the use of the antifibrotic drug pirfenidone (PFD) for the problem of new bone formation in spondyloarthritis (SpA). Briefly, it is here shown that PFD inhibits the proliferation of fibroblast-like synovial cells (FLS) from SpA patients, either unstimulated or stimulated with TNFa, TGFb and IFNg, as well as their differentiation into myofibroblasts. Furthermore, PFD was shown to alter FLS expression of membrane proteins and several chemokines and cytokines, like DKK-1 and OPG which are critical for bone homeostasis. Finally, PFD was shown to inhibit mineralization in Saos-2 cells or human osteoblasts.

The current manuscript is well written and is presented in a clear manner. Authors have clearly posed an important and well defined scientific question and working hypothesis and consistently, have performed a battery of experiments to tackle them. The obtained data are original and sound and have enabled the authors to withdraw relevant preliminary insights on the potential use of PFD to target new bone formation in SpA.

This manuscript is a substantially revised and improved version of their previous manuscript submitted to BMC Musculoskeletal Disorders. In this novel version, I was pleased to note that the authors have fully and well answered to all my previous comments to this latter manuscript.

Still, there are a couple of issues that the authors show correct:

- In figure 1, the authors have eliminated the legend of the histograms presented in panels C and D.

- The legend of figure 3 does not match exactly the figure presented. Moreover in the figure, the presented panels are not letter labelled.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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