Reviewer's report

Title: Notch Signalling is linked to Epidermal Cell Differentiation Level in Basal Cell Carcinoma, Psoriasis and Wound Healing

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Reviewer: Dr Joseph Rothnagel

Level of interest: not specified

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

Discretionary revisions
1) With respect to Figure 1, is it possible to show a section with hair follicles so that the reader can ascertain expression of these genes in and around these appendages? How does the expression of these genes correlate with the findings of Powell et al (1998)?
2) In the 2nd paragraph of the Results, it states that three types of BCCs were examined but in the legend to Figure 3 it is stated that four types of BCCs were studied. This anomaly should be addressed.
3) At the end of the 3rd paragraph of the Results it is stated that the 'timecourse of transcript reactivation differed from gene to gene'. Are you able to quantitate this and can you provide the reader with an idea on the temporal differences in reactivation?
4) What is the expression pattern for Notch1 and Delta1 in psoriatic plaques? It seems to me that these data should be included to allow for comparison with the data in normal skin (Figure 1).

Compulsory revisions
1) The manuscript would benefit from editorial assistance to correct minor grammar infringements.
2) In the Discussion (Paragraph 1) you should also point out the difference between your findings and that of Lowell et al (2000) in Notch1 and Delta1 expression patterns.
3) In the 6th paragraph of the Discussion reference is made to microarray and differential display data (refs 39, 40). How many genes were found to be down-regulated in these studies and did these studies indicate the classes of genes that were down-regulated? Did they for instance include Notch-related genes?
4) Figure 5 should include the RT-PCR expression data for all the Notch-related genes examined in Figures 1, 2, 3 and 4.

Competing interests:

None declared.