

Supplementary Data

Evidence for AJUBA-catenin-CDH4-linked differentiation resistance of mesenchymal stem cells implies tumorigenesis and progression of head and neck squamous cell carcinoma: a single-cell transcriptome approach

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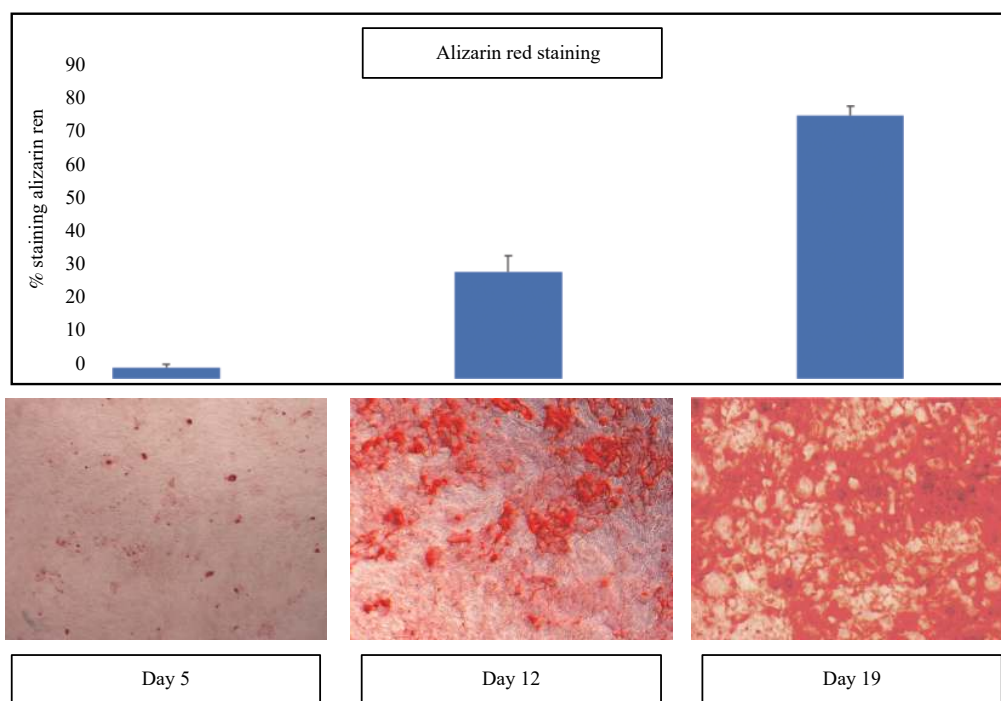
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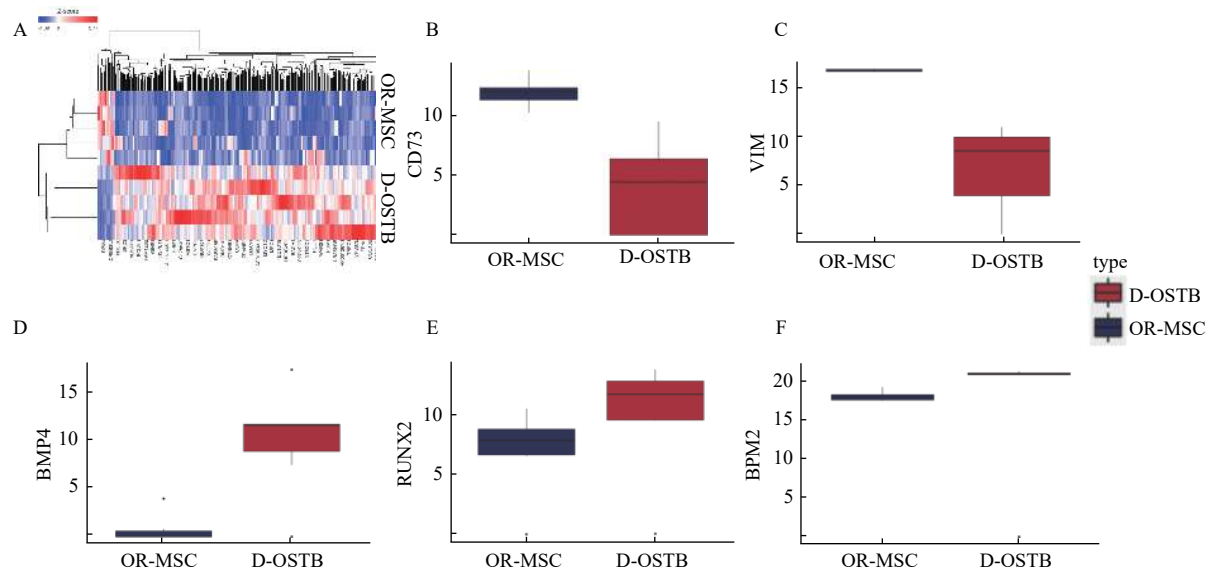
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Supplementary Fig. S1 Summary of MSC differentiation protocols. The figure shows representative images of differentiating mesenchymal stem cells stained with Alizarin red at 5, 12 and 19 days post-incubation in an osteogenic differentiation medium. The bar chart shows quantification of relative alizarin red staining at day 5, 12, and 19.

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Supplementary Fig. S2 Gene expression patterns. A: Heatmap illustrating 1 256 genes that were significantly different ($P < 0.05$) (> 2 fold) between OR-MSC and D-OSTB. Color intensities represent larger or smaller differences in gene expression. B-C: Figures show a significant decrease in the expression of mesenchymal stem cell markers CD73 ($P = 0.025$) and VIM ($P = 0.010$) respectively in OR-MSC compared to D-OSTB. D-F: Figures show from the left to the right differential expression of BMP4 ($P = 0.004$), RUNX2 ($P = 0.040$), and BMP2 ($P = 0.0002$).