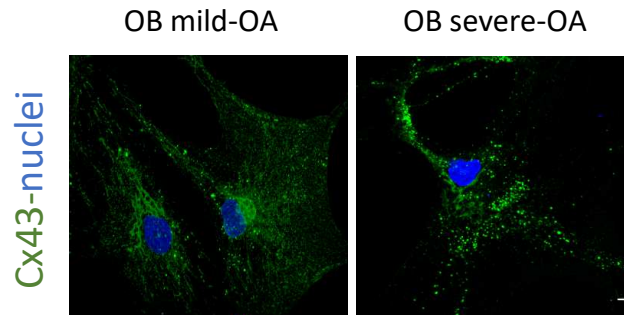
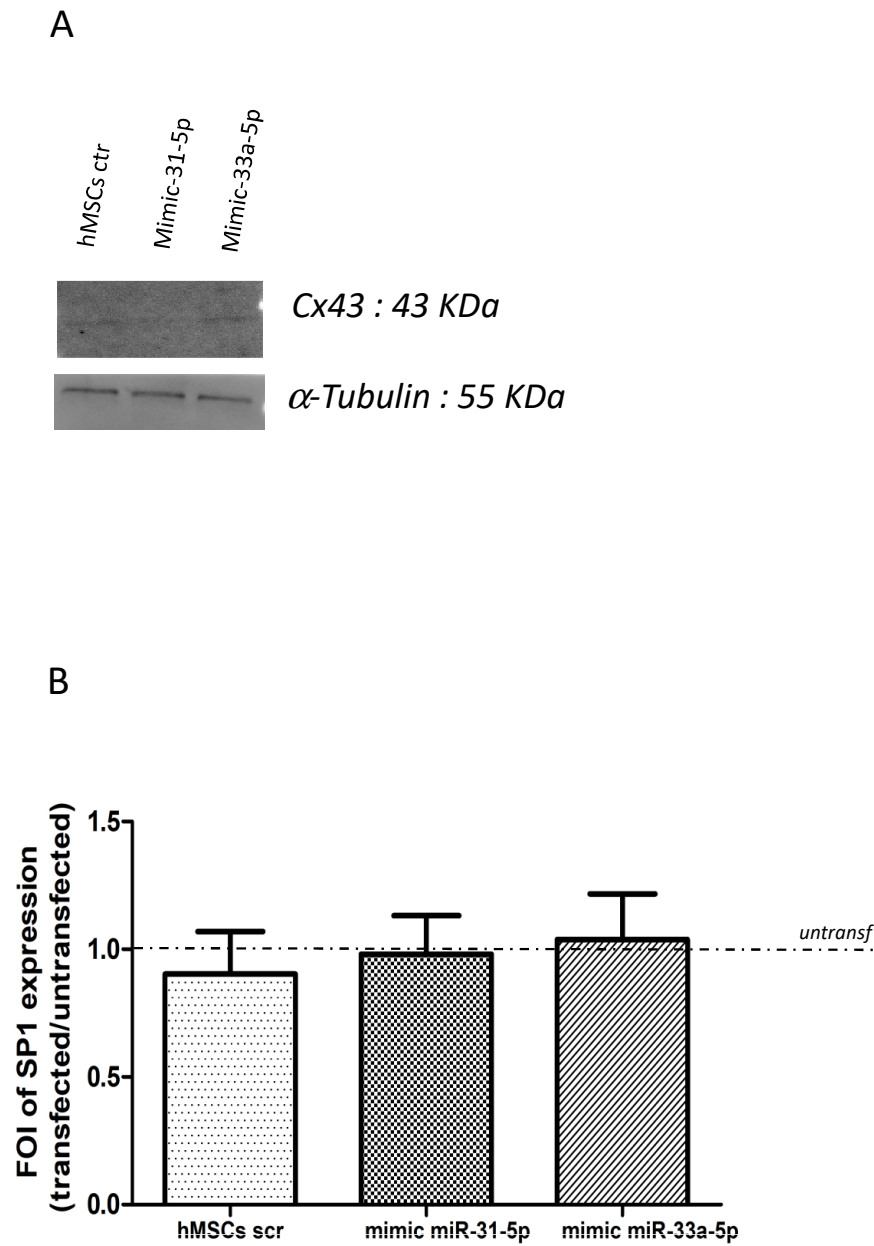


## Supplementary Figure 1



**Figure 1S:** Confocal analysis of Cx43 protein expression and localization on OB isolated by OA patients (mild and severe grade); in green the Cx43 signals, while in blue the nuclei localization.

## Supplementary Figure 2



**Figure 2S:** Preliminary investigation on Cx43 and SP1 expression into hMSCs.

- A) Evaluation of Cx43 and  $\alpha$ -tubulin expression on hMSCs transfected with scramble, miR-31-5p mimic and miR-33a-5p mimic.
- B) qRT-PCR analysis of SP1 expression on hMSCs transfected with scramble, miR-31-5p mimic and miR-33a-5p mimic. Data are represented as fold of change (FOI) in gene expression ( $2^{-\Delta\Delta Ct}$ ) occurred in transfected cells vs untransfected cells. Student t test:  $p < 0.05$ , \*\*,  $p < 0.005$ , \*\*\*,  $p < 0.0005$  between experimental group.