CD14+CD16+ MONOCYTE SUBPOPULATION IS CHONDROCYTES UNDER PATHOLOGICAL STRESS IN OA chondrocytes.

Methods: Using qRT-PCR RNase gene expression was measured. Of these RNAs 250 µM TBHP treatment at 12 hour induced KIAA0430 (p<0.05), RNase3 (p<0.001) and ZC3H12A (p<0.0001) but not angiogenin or SND1, 10 ng/ml IL18 treatment at 6 hour induced SND1 (p<0.0001), RNase 7 (p<0.01), ZC3H12A (p<0.01) but not angiogenin or KIAA0430. Chondrocytes undergoing oxidative or ER stress produced tiRNA halves in a time dependent manner, tiRNA formation was highest at 6 hour of IL18 treatment and after 12 hour of TBHP treatment. tiRNA fragments of RNAs specific for arginine, glutamic acid, glycine, histidine, lysine and valine were increased after TBHP or IL18 treatment. Ten tiRNAs that were induced by IL18 and TBHP were selected for further study. Primer sets for these tiRNA and the parent RNAs were designed and screened across a wider time course, and with higher patient numbers.

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