# Article information:

Detecting new microRNAs in human osteoarthritic chondrocytes identifies miR-3085 as a human, chondrocyte-selective, microRNA - PubMed
<https://pubmed.ncbi.nlm.nih.gov/26497608/>

# Article summary:

1. Deep sequencing was used to identify novel microRNAs (miRNAs) in human osteoarthritic cartilage which may have a functional role in chondrocyte phenotype or function.

2. 990 known miRNAs and 1621 potential novel miRNAs were identified, with 60 of the latter expressed in all samples assayed.

3. One sequence (novel #11), annotated as microRNA-3085-3p, was preferentially expressed in cartilage and shown to target the ITGA5 gene directly, inhibiting adhesion to fibronectin.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, providing evidence for its claims through deep sequencing, northern blot analysis, qRT-PCR, microarray and computational analysis, 3'-UTR-luciferase reporter plasmids, western blotting and functional analysis by cell adhesion. The authors also provide a detailed description of their methods and results which allows readers to assess the validity of their findings.

However, there are some potential biases that should be noted. Firstly, the study only looked at human osteoarthritic chondrocytes so it is unclear if the same results would be found in other types of cells or tissues. Secondly, the authors do not explore any counterarguments or alternative explanations for their findings which could lead to an incomplete understanding of the topic. Finally, there is no discussion of possible risks associated with manipulating miRNA expression which could be important for future research into this area.

# Topics for further research:

* miRNA expression manipulation risks
* alternative explanations for miRNA expression
* osteoarthritic chondrocytes in other tissues
* counterarguments to miRNA expression
* deep sequencing methods
* 3'-UTR-luciferase reporter plasmids

# Report location:

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