

# PLANT MICRO-RNA IDENTIFICATION AND TRANSFER– A NEW DIMENSION TO HERBAL MEDICINE

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## REFERENCES

## INTRODUCTION

MicroRNAs (miRNAs) are a group of small, noncoding endogenous RNA (21-25 nucleotides long) with an important role in gene expression regulation by targeting specific mRNAs in plants, animals and humans. To date, no miRNAs from marigold (*Calendula officinalis*), one of the best known medicinal plants, have been identified.

## OBJECTIVES AND BACKGROUND

Identification of plant microRNAs that survive the passage through the gastrointestinal tract following digestion in mice

## MATERIALS AND METHODS

- Small plant RNA isolation and extraction
- Sequencing data analysis and plant miRNA identification
- Animal experiment

## RESULTS

The cDNA libraries of two tissues from *Calendula* (petals and inflorescence) were prepared and small RNA-seq were conducted according to Illumina's protocols. A total number of 4 miRNAs, with 0 mismatches, (mir166a, lus-mir166e, ppt-mir894 and ath-mir8175), were identified based on their sequence complementarities.

## CONCLUSIONS

The potentially conserved miRNAs from *Calendula* were identified only in inflorescence, the part that is being used for medicinal purposes. These aspects could lead to a better comprehension of the relationship between exogenous plant genetic material and the changes that occur in mammals following oral ingestion.

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