

## Erratum

# MicroRNA-373 promotes migration and invasion in human esophageal squamous cell carcinoma by inhibiting TIMP3 expression: Am J Cancer Res. 2016; 6(1): 1-14

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**Abstract:** Esophageal squamous cell carcinoma (ESCC) is the predominant pathological type of esophageal carcinoma in Asia. MicroRNAs (miRNAs) are a class of 19-22-nucleotide non-coding RNAs acting on target mRNAs that function as either oncogenes or anti-oncogenes. It has been confirmed that miR-373 expression varies among different tumor types. However, its mechanism is still unclear in ESCC. In our current study, we found that miR-373 expression was upregulated in ESCC tissues compared with matched adjacent normal tissues, as well as in the plasma of ESCC patients compared with that of healthy volunteers. Overexpression of miR-373 in ECA109 cells enhanced proliferation, G1-phase cell proportion, migration, and invasion. On the other hand, suppression of miR-373 in KYSE410 cells decreased proliferation, G1-phase cell proportion, migration, and invasion and also improved cell apoptosis. Moreover, we found that TIMP3, which was reported to suppress invasion and metastasis of ESCC, was a direct target of miR-373. Overexpression of miR-373 in ECA109 caused a reduction of TIMP3 mRNA and protein, whereas suppression of miR-373 in KYSE410 led to an increase of TIMP3 mRNA and protein. Introducing TIMP3 in miR-373 over-expressed cells or knocking down TIMP3 in miR-373 suppressed cells could partially abrogate the effect of miR-373 on migration and invasion. Therefore, these results prove that as an oncogene, miRNA-373 would be an important and reliable biomarker for ESCC diagnosis and treatment by targeting TIMP3.

**Keywords:** Esophageal cancer, microRNA-373, TIMP3, oncogene

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