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PII: S0014-4827(18)30261-1
DOI: https://doi.org/10.1016/j.yexcr.2018.04.030
Reference: YEXCR11022

To appear in: *Experimental Cell Research*

Received date: 27 November 2017
Revised date: 25 April 2018
Accepted date: 28 April 2018

Cite this article as: Zichang Yang, Xiaonan Shi, Ce Li, Xiaoxun Wang, Kezuo Hou, Zhi Li, Xiaojie Zhang, Yibo Fan, Xiujuan Qu, Xiaofang Che and Yunpeng Liu, Long non-coding RNA UCA1 Upregulation Promotes the Migration of Hypoxia-resistant Gastric Cancer Cells Through the miR-7-5p/EGFR Axis, *Experimental Cell Research,* https://doi.org/10.1016/j.yexcr.2018.04.030

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Abstract

A variety of solid tumors are surrounded by a hypoxic microenvironment, which is known to be associated with high metastatic capability and resistance to various clinical therapies, contributing to a poor survival rate for cancer patients. Although the majority of previous studies on tumor-associated hypoxia have focused on acute hypoxia, chronic hypoxia more closely mimics the actual hypoxic microenvironment of a tumor. In this study, two novel hypoxia-resistant gastric cancer (HRGC) cell lines which could grow normally in 2% oxygen were established. The long non-coding RNA UCA1 was upregulated in HRGC cells, which promoted their migration. Bioinformatics analysis and a luciferase reporter assay showed that miR-7-5p could