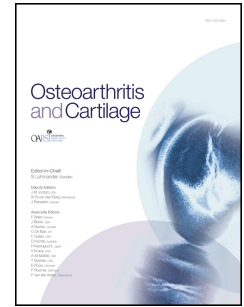


Accepted Manuscript

Hypoxia regulates sumoylation pathways in intervertebral disc cells: implications for hypoxic adaptations

Feng Wang, Feng Cai, Rui Shi, Ji-Nan Wei, Xiao-Tao Wu



PII: S1063-4584(16)00153-9

DOI: [10.1016/j.joca.2016.01.134](https://doi.org/10.1016/j.joca.2016.01.134)

Reference: YJOCA 3679

To appear in: *Osteoarthritis and Cartilage*

Received Date: 2 October 2015

Revised Date: 13 January 2016

Accepted Date: 19 January 2016

Please cite this article as: Wang F, Cai F, Shi R, Wei J-N, Wu X-T, Hypoxia regulates sumoylation pathways in intervertebral disc cells: implications for hypoxic adaptations, *Osteoarthritis and Cartilage* (2016), doi: 10.1016/j.joca.2016.01.134.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Title

Hypoxia regulates sumoylation pathways in intervertebral disc cells: implications for hypoxic adaptations

Running title

Sumoylation in Intervertebral Disc Cells

Author names and affiliations

Feng Wang^{1,2}, Feng Cai^{1,2}, Rui Shi^{1,2}, Ji-Nan Wei^{2,3}, Xiao-Tao Wu^{1,2}

1 Department of Spine Surgery, Zhongda Hospital, School of Medicine, Southeast University, 87# Dingjiaqiao Road, 210009 Nanjing, China

2 Surgery Research Center, School of Medicine, Southeast University, 87# Dingjiaqiao Road, 210009 Nanjing, China

3 Department of Orthopedics, Zhongda Hospital, School of Medicine, Southeast University, 87# Dingjiaqiao Road, 210009 Nanjing, China

Contact information

Feng Wang

E-mail: wangfengspinespine@163.com

Feng Cai

E-mail: fzzs_1987@163.com

Rui Shi

E-mail: 277834792@qq.com

Ji-Nan Wei

E-mail: jinanwei@163.com

Xiao-Tao Wu

E-mail: wuxiaotaospine@163.com

Corresponding author

Xiao-Tao Wu

Department of Spine Surgery, Zhongda Hospital, School of Medicine, Southeast University, 87# Dingjiaqiao Road, 210009 Nanjing, China

Fax: +86 25 83262331.

E-mail address: wuxiaotaospine@163.com

Abstract**Objective:**

To explore the hypoxic regulation of sumoylation pathways and cell viability in nucleus pulposus (NP) and annulus fibrosus (AF) cells.

Design:

Expression of small ubiquitin-like modifier (SUMO) molecules, SUMO E1 activating enzymes SAE1 and SAE2, SUMO E2 conjugating enzyme UBC9, and de-sumoylation enzyme SENP1 was immunolocalized in rat intervertebral disc (IVD) cells. NP and AF cells were cultured in hypoxia and cell viability was evaluated by

Download English Version:

<https://daneshyari.com/en/article/6124585>

Download Persian Version:

<https://daneshyari.com/article/6124585>

[Daneshyari.com](https://daneshyari.com)