

## RETRACTION NOTE

---

### **Retraction Note to: Antitumor effects of helenalin in doxorubicin-resistant leukemia cells are mediated via mitochondrial mediated apoptosis, loss of mitochondrial membrane potential, inhibition of cell migration and invasion and downregulation of PI3-kinase/AKT/m-TOR signalling pathway**

Jingxin Liu<sup>1</sup>, Yanan Zhao<sup>2</sup>, Zhangzhen Shi<sup>2</sup>, Yuansong Bai<sup>2</sup>

<sup>1</sup>Department of Radiology and <sup>2</sup>Department of Oncology and Hematology, China-Japan Union Hospital of Jilin University, Changchun 130033, Jilin, China.

#### **Retraction note to:**

**JBUON 2019;24(5):2068-2074; PMID: 31786877**

*Following the publication of this article [1], readers drew to our attention that part of the data was unreliable. The authors were requested to provide the raw data to prove the originality, but were unable to do so. After an investigation, the Editors of JBUON decided to retract this article. We thank the readers for bringing this matter to our attention. We apologize for any inconvenience it may cause.*

#### **References**

1. Jingxin L, Yanan Z, Zhangzhen S, Yuansong B. Antitumor effects of helenalin in doxorubicin-resistant leukemia cells are mediated via mitochondrial mediated apoptosis, loss of mitochondrial membrane potential, inhibition of cell migration and invasion and downregulation of PI3-kinase/AKT/m-TOR signalling pathway. JBUON 2019;24(5):2068-74

---

The original article can be found online at: <https://www.jbuon.com/archive/24-5-2068.pdf>

---

Correspondence to: Yuansong Bai, MD. Department of Oncology and Hematology, China-Japan Union Hospital of Jilin University, No.126 Xiantai Street, Changchun 130033, Jilin, China.  
Tel: +86 0431 84997634, Email: blamevul@yahoo.com