## Erratum

## Angiopoietin-2 induces the neuronal differentiation of mouse embryonic NSCs via phosphatidylinositol 3 kinase-Akt pathway-mediated phosphorylation of mTOR: Am J Transl Res. 2019; 11(3): 1895-1907

Hengxing Zhou<sup>1,2\*</sup>, Meng Wei<sup>3\*</sup>, Lu Lu<sup>1,2\*</sup>, Tianci Chu<sup>4\*</sup>, Xueying Li<sup>3</sup>, Zheng Fu<sup>3</sup>, Jun Liu<sup>1,2</sup>, Yi Kang<sup>1,2</sup>, Lu Liu<sup>1,2</sup>, Yongfu Lou<sup>1,2</sup>, Chi Zhang<sup>1,2</sup>, Yanzheng Gao<sup>5</sup>, Xiaohong Kong<sup>6</sup>, Shiqing Feng<sup>1,2</sup>

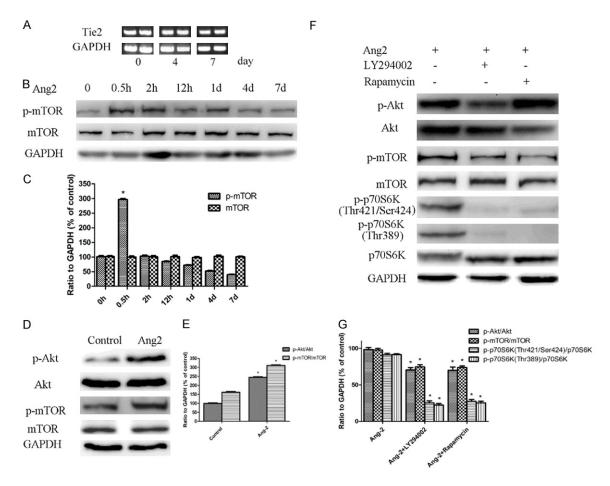
<sup>1</sup>Department of Orthopedics, Tianjin Medical University General Hospital, No. 154 Anshan Road, Heping District, Tianjin 300052, PR China; <sup>2</sup>Tianjin Neurological Institute, Key Laboratory of Post-Neuroinjury Neurorepair and Regeneration in The Central Nervous System, Ministry of Education and Tianjin City, No. 154 Anshan Road, Heping District, Tianjin 300052, PR China; <sup>3</sup>Key Laboratory of Immuno Microenvironment and Disease of The Educational Ministry of China, Department of Immunology, Tianjin Medical University, No. 22 Qixiangtai Road, Heping District, Tianjin 300070, PR China; <sup>4</sup>Kosair Children's Hospital Research Institute at The Department of Pediatrics, University of Louisville School of Medicine, Louisville, Kentucky 40202, USA; <sup>5</sup>Department of Orthopedics, Henan Province People's Hospital, Zhengzhou 450000, Henan, China; <sup>6</sup>School of Medicine, Nankai University, No. 94 Weijin Road, Nankai District, Tianjin 300071, PR China. \*Equal contributors.

Received August 15, 2019; Accepted August 16, 2019; Epub September 15, 2019; Published September 30, 2019

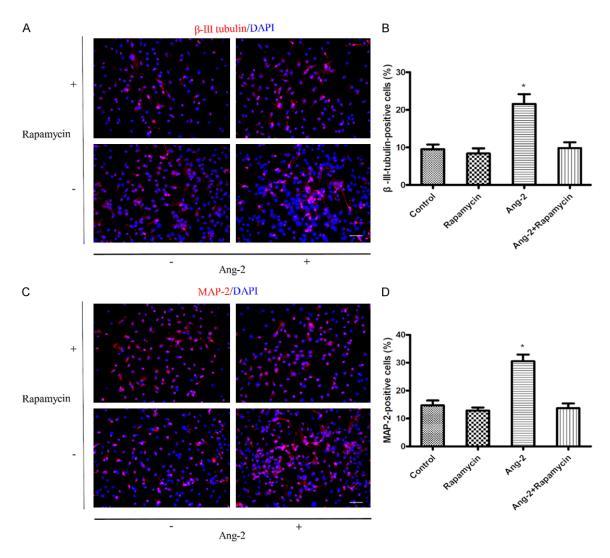
In this article published in AJTR, we found several images were mixed, resulting in incorrect images mistakenly shown in **Figures 3-5**. We would like to publish this Erratum to reflect this change. The new figures are as follows. The authors apologize for this mistake.

Address correspondence to: Xiaohong Kong, School of Medicine, Nankai University, No. 94 Weijin Road,

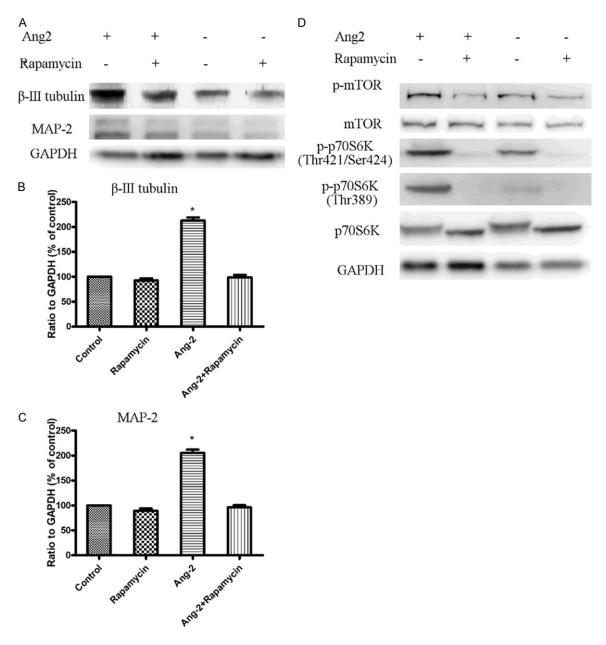
Nankai District, Tianjin 300071, PR China. Tel: +8602260363937; Fax: +8602260363937; E-mail: kongxiaoh0@126.com; Shiqing Feng, Department of Orthopedics, Tianjin Medical University General Hospital, No. 154 Anshan Road, Heping District, Tianjin 300052, PR China. Tel: +8602288366139; Fax: +8602288366139; E-mail: sqfeng@tmu.edu. cn



**Figure 3.** Activation of mTOR by Ang-2 was mediated by the PI3K/Akt pathway. A. RT-PCR analysis of Tie-2 expression in differentiated NSCs was performed at different time points. B, C. The protein expression levels of p-mTOR and mTOR at different time points over 7 days of Ang-2-mediated neuronal differentiation of NSCs. D, E. The protein expression levels of p-Akt, Akt, p-mTOR and mTOR after treatment with Ang-2 for 7 days. F, G. The dissociated neurospheres were pretreated with LY294002 or rapamycin for 2 hours before Ang-2 treatment. The protein expression levels of p-Akt, Akt, p-mTOR, mTOR, p-p70S6K (Thr<sup>421</sup>/Ser<sup>424</sup> and Thr<sup>389</sup>), and p70S6K were evaluated by Western blot analysis.



**Figure 4.** mTOR was involved in the promotion of mouse embryonic NSC neuronal differentiation by Ang-2. A. Dissociated neurospheres were pretreated with rapamycin for 2 hours before Ang-2 treatment and subsequently grown on PLL-coated plates. Representative immunostaining of mouse embryonic NSCs for β-III tubulin. B. The percentage of β-III tubulin-positive neurons was calculated. C. Representative immunostaining of mouse embryonic NSCs for MAP-2. D. The percentage of MAP-2-positive neurons was calculated. Scale bar =  $50 \mu m$ . \*P <  $0.05 \mu m$  \*P <  $0.05 \mu m$ 



**Figure 5.** Ang-2-induced neuronal differentiation of mouse embryonic NSCs is dependent on mTOR. A-C. Differentiated mouse embryonic NSCs were treated with Ang-2 and Rapamycin, and the protein expression levels of β-Ill tubulin and MAP-2 were determined by Western blot. D. Differentiated mouse embryonic NSCs were treated with Ang-2 and Rapamycin, and the protein expression levels of p-Akt, Akt, p-mTOR, mTOR, p-p70S6K (Thr $^{421}$ /Ser $^{424}$  and Thr $^{389}$ ), and p70S6K were determined by Western blot. \*P < 0.05 compared with the control cultures.