

CORRECTION

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# Correction to: Low levels of pyruvate induced by a positive feedback loop protects cholangiocarcinoma cells from apoptosis

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**Correction to: Zhang et al. *Cell Communication and Signaling* (2019) 17:23**  
<https://doi.org/10.1186/s12964-019-0332-8>

Following publication of the original article [1], the authors reported an error in Fig. 3. The corrected Fig. 3 is given below. Please note that these revisions do not affect the overall conclusions reported in the article. The authors apologise for the error and any inconvenience caused.

Received: 24 April 2019 Accepted: 24 April 2019  
Published online: 06 May 2019

#### Reference

1. Zhang, et al. Low levels of pyruvate induced by a positive feedback loop protects cholangiocarcinoma cells from apoptosis. *Cell Commun Signal.* 2019;17:23 <https://doi.org/10.1186/s12964-019-0332-8>.

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