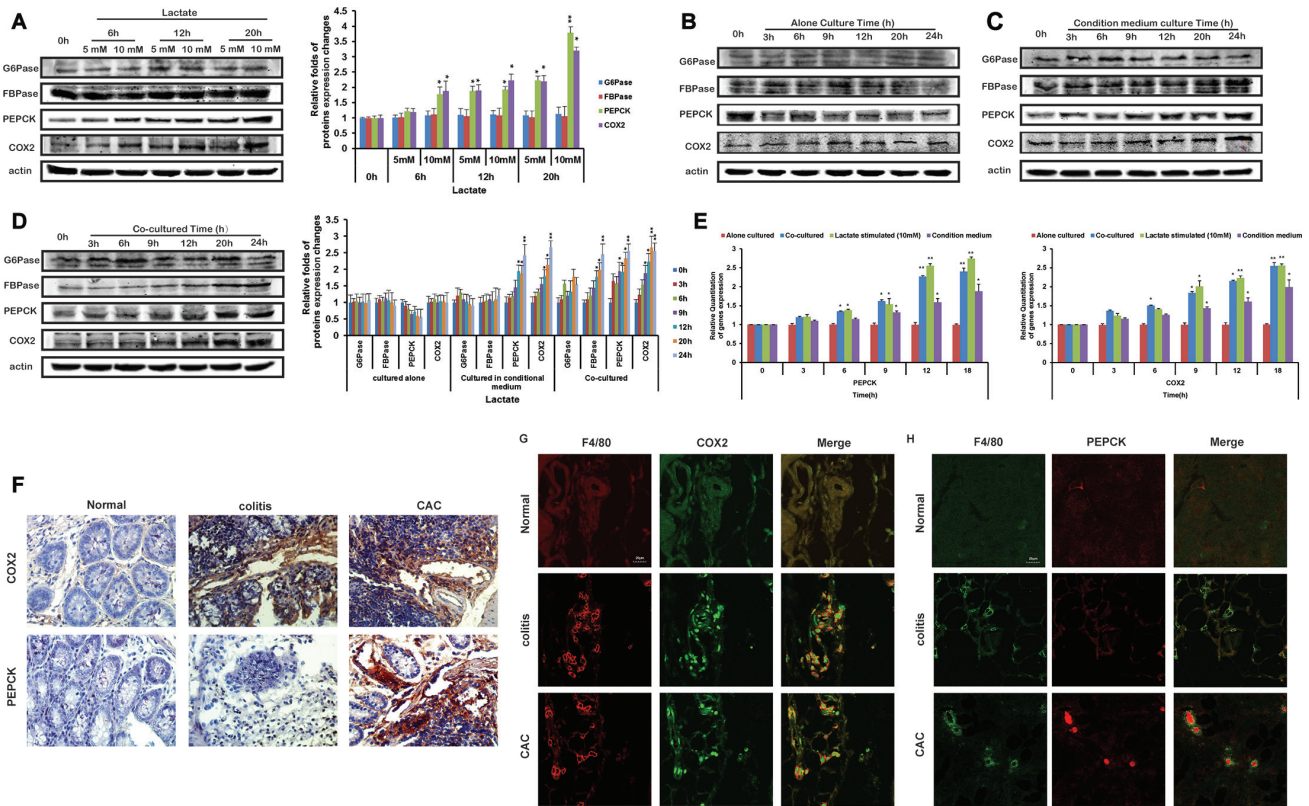
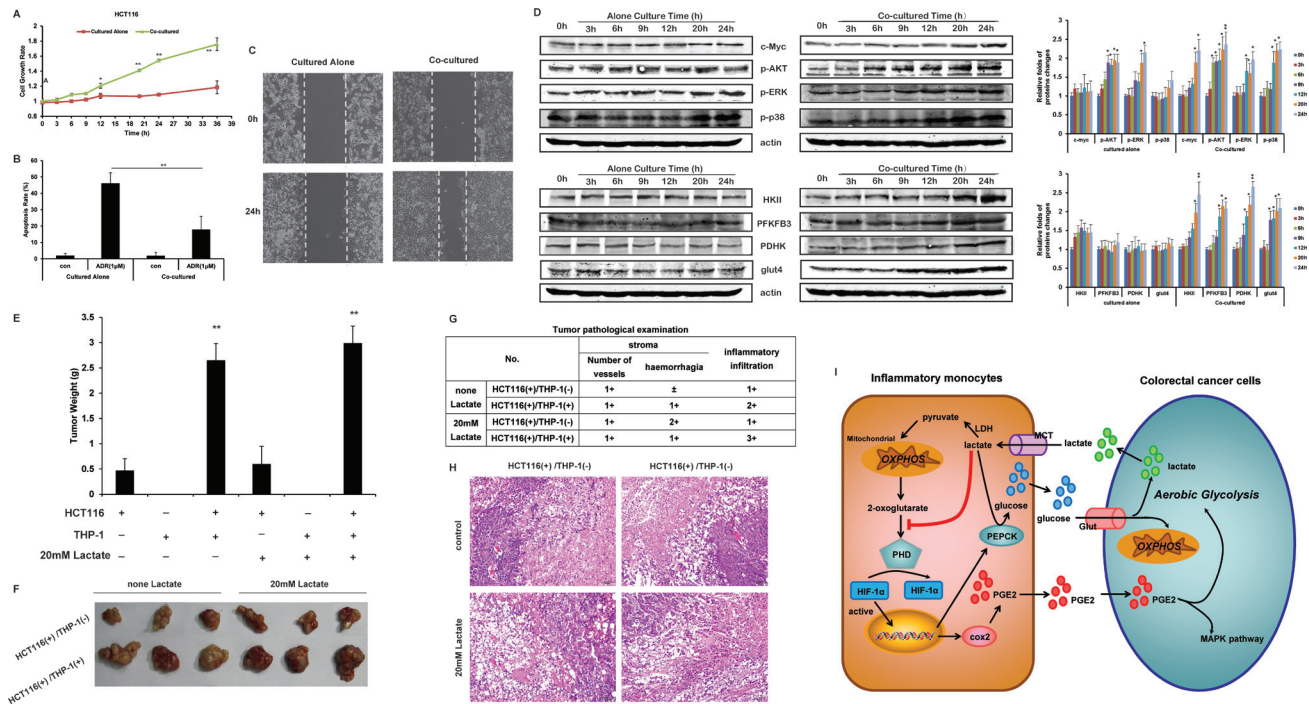


## Correction

**Correction: Lactate promotes PGE2 synthesis and gluconeogenesis in monocytes to benefit the growth of inflammation-associated colorectal tumor****Libin Wei<sup>1</sup>, Yuxin Zhou<sup>1</sup>, Jing Yao<sup>1</sup>, Chen Qiao<sup>1</sup>, Ting Ni<sup>1</sup>, Ruichen Guo<sup>2</sup>, Qinglong Guo<sup>1</sup> and Na Lu<sup>1</sup>**<sup>1</sup>State Key Laboratory of Natural Medicines, Jiangsu Key Laboratory of Carcinogenesis and Intervention, China Pharmaceutical University, Nanjing, The People's Republic of China<sup>2</sup>Xi'an Middle School of Shanxi Province, Xi'an, The People's Republic of China**Published:****Copyright:** Wei et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License 3.0 (CC BY 3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.**This article has been corrected:** Due to errors during figure assembly, the PDHK protein of the “alone culture” group in Figure 7D is an accidental duplicate of the HKII protein band in that group. In addition, the COX2 protein bands in Figure 3B and Figure 3C have been updated to provide better image quality. The authors declare that these corrections do not change the results or conclusions of this paper.Original article: Oncotarget. 2015; 6:16198–16214. <https://doi.org/10.18632/oncotarget.3838>



**Figure 3: Lactate influenced the protein levels of COX2 and PEPCK in THP-1 monocytes.** The protein expressions of COX2, PEPCK, FBPase and G6Pase in THP-1 monocytes stimulated with lactate (A) cultured alone (B) cultured in CM (C) or co-cultured with HCT116 cells (D) were detected by Western blot. Protein bands were quantified. (E) The mRNA expressions of COX2 and PEPCK in THP-1 monocytes stimulated with lactate, cultured alone, cultured in CM, or co-cultured with HCT116 cells were detected by Realtime PCR, respectively. (F) The modes of AOM-based colitis-associated cancer (CAC) and acute colitis by using C57 mice were constructed. Expressions of COX2 and PEPCK proteins were detected by IHC. (G, H) Expression of COX2 (G) and PEPCK (H) proteins were detected by IF. The staining of F4/80 was used to distinguish monocytes from the other cells in tissue.



**Figure 7: THP-1 monocytes promotes the cell growth of HCT116 cells.** (A) HCT116 cell growth rates were measured by MTT assay. (B) 1 μM ADM treated HCT116 cells were co-cultured with/without THP-1 monocytes for 24 h. The cell apoptosis rates were detected by Annexin V/PI double staining, and quantified. (C) Cell monolayer was scraped by a sterile micropipette tip. Then HCT116 were cocultured with/without THP-1 monocytes for 24 h. White lines indicate the wound edge. (D) HCT116 were cultured alone, or co-cultured with THP-1 monocytes for 24 h. The protein expressions involving with cell growth and glycolysis were detected by Western blot. The actin controls of upper group were the same as those of lower group. Protein bands were quantified. (E) Heterotopic transplantation tumor animal models were constructed as the describes in the method. The tumor weight were measured. (F) The photos of the xenograft. (G) The tumor tissue were assessed by histological analysis. The tags in the table represent the severity : Minor “±”, Mild “1+”, Annual “2+”, Severe “3+”, Extremely severe “4+”, and Normal “-”. (H) Histological analysis were photographed (×100). (I) Schematic diagram of lactate driving tumor-inflammation co-evolution. Lactate from cancer cells was taken up by inflammatory monocytes through MCT1. Lactate oxidation increases the intracellular pyruvate, which were available to compete with 2-oxoglutarate from PHD, resulting in HIF-1α protein stabilization and HIF-1 activation. HIF-1α-mediated upregulated transcription of COX2, causing the increased synthesis and secretion of PGE2 in monocytes. Meanwhile, lactate was recycled for gluconeogenesis under the catalysis of PEPCK, which was transcriptional upregulated by HIF-1α as well. In return, inflammatory monocytes fed cancer cells, promoting cell growth of. Bars, SD; \*\**p* < 0.01 versus untreated controls.