



# Corrigendum: Chronic Stress: Impacts on Tumor Microenvironment and Implications for Anti-Cancer Treatments

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## A corrigendum on

**Chronic Stress: Impacts on Tumor Microenvironment and Implications for Anti-Cancer Treatments** by Tian, W., Liu, Y., Cao, C., Zeng, Y., Pan, Y., Liu, X., Peng, Y., and Wu, F. (2021). *Front. Cell Dev. Biol.* 9:777018. doi: 10.3389/fcell.2021.777018

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In the original article, there were some mistakes in **Figure 1** as published. 1) In the right part of **Figure 1**, “PD-L1” should be “PD-1”. 2) In the right part of **Figure 1**, “ITM-3” should be “TIM-3”. 3) In the right part of **Figure 1**, “dedective” should be “defective”. The corrected **Figure 1** appears below.

In the original article, there was an error in the section, **Anti-Cancer Treatments and Interventions Targeting Chronic Stress,  $\beta$ -Blocker**. “The combination of propranolol and immune checkpoint inhibitors may improve the efficacy of immunotherapy.” should be “The combination of propranolol with targeted therapy may improve the efficacy.”, as the following part talks about targeted therapy.

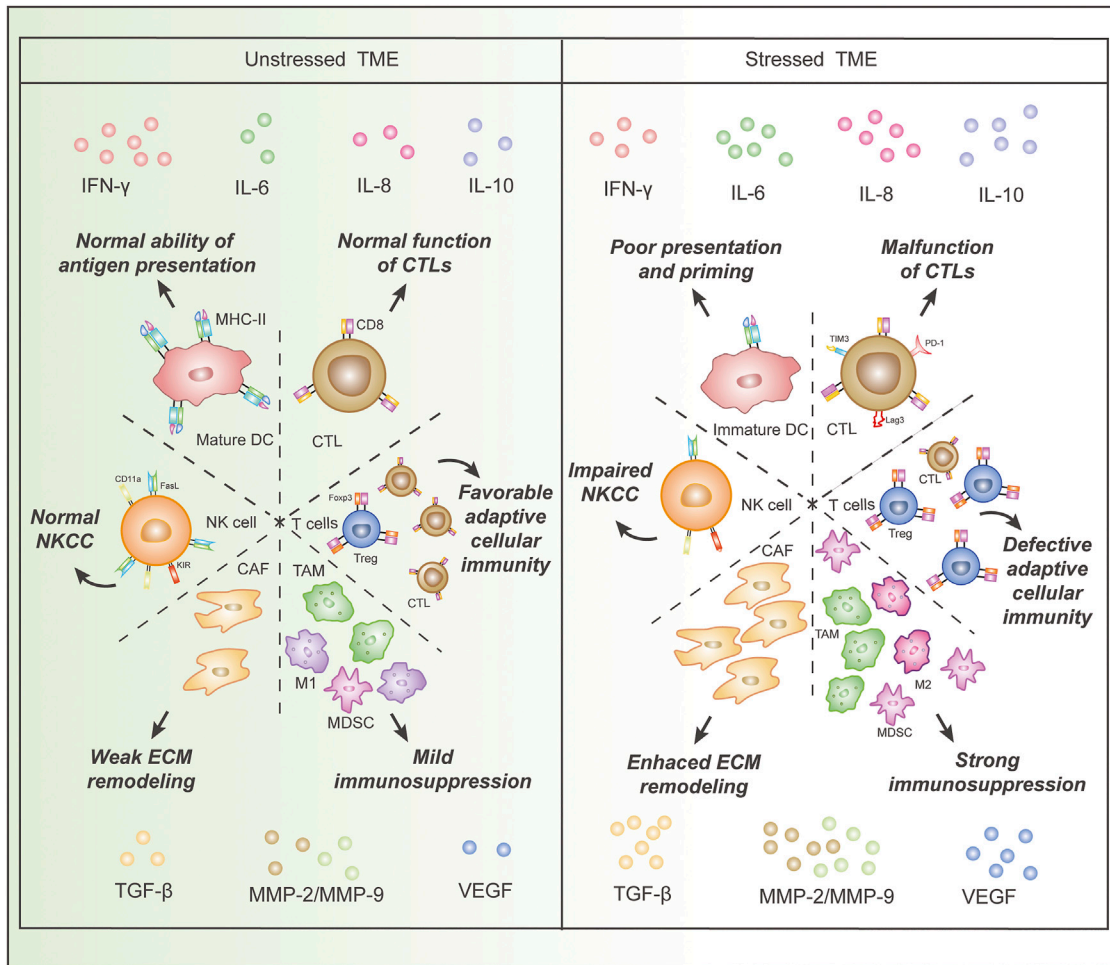
A correction has been made to **Anti-Cancer Treatments and Interventions Targeting Chronic Stress,  $\beta$ -Blocker**, Paragraph 3:

“The combination of propranolol with targeted therapy may improve the efficacy. An exploratory analysis of the LUX-Lung3 study revealed a significant PFS prolongation of NSCLC patients taking  $\beta$ -blockers with EGFR-TKI afatinib compared with those taking afatinib alone (median 11.1 vs. 6.9 months,  $p = 0.0001$ ), indicating there is a synergic effect combining  $\beta$ -blockers with anti-EGFR therapy (Nilsson et al., 2017)”.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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**FIGURE 1 |** Comparison of immune cells and cytokines in the stressed and unstressed tumor microenvironment (TME). Stressed TME is characterized by (I), decreased proportion and dysfunction of immune-supportive cells, including DCs and CTLs, as well as an increased proportion of cancer-promoting cells, such as MDSCs, Treg cells, CAFs, TAMs, and M2 macrophages; (II), increased concentrations of cytokines that impair anti-cancer immunity and induce angiogenesis, epithelial-mesenchymal transition, and extracellular matrix damage, as well as a decreased concentration of IFN- $\gamma$ . Abbreviations: IFN, interferon; MMP, matrix metalloproteinase; IL, interleukin; TGF, transforming growth factor; VEGF, vascular endothelial growth factor; DC, dendritic cell; CTL, cytotoxic T lymphocyte, CAF, cancer-associated fibroblast; Treg, regulatory T cell; MDSC, myeloid-derived suppressor cell; TAM, tumor-associated macrophage; NK cell, natural killer cell; FasL, Fas ligand; NKCC, NK cell cytotoxicity; ECM, extracellular matrix.