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Abstract

CXCL12-CXCR4 axis potentiates stemness of glioma cells

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Abstract:
Glioblastoma multiforme (GBM) is a common primary tumor of the central nervous system. The change of cell stemness is one of the important characteristics of tumors including GBM, which is a cause and effect of tumor recurrence and metastasis. Upon binging to the receptor special CXCR4, CXCL12 is involved in the proliferation, invasion and metastasis of tumor cells. Here we report the impact of CXCL12-CXCR4 axis on cancer stem cells (CSCs) in GBM. Bioinformatics software was used, based on TCGA, to analyze of the potential correlation between CXCL12-CXCR4 axis and stem-related genes (OCT4, SOX2, NANOG). Quantitative real time polymerase chain reaction (qRT-PCR), western blotting and sphere forming ability analyses were performed to access the effect of CXCL12-CXCR4 axis on GBM cell stemness in vitro and vivo.

Biography:
Xuewen Xu is postgraduate student at the Medical College of Jiangsu University in China and will graduate in June this year. His research direction is the correlation between tumor stem cells and lipid metabolism, early diagnosis and treatment of tumors. He has published several articles about glioma and pancreatic cancer in multiple journals.

Publication of speakers:

- Xuewen Xu et al ;The major□effect quantitative trait locus Fnl7.1 encodes a late embryogenesis abundant protein associated with fruit neck length in cucumber, 2020 Jan 24

- Xuewen Xu et al ; Noninvasive in vivo 3D bioprinting, 2020 Jun 5
- Xuewen Xu et al ; Proximal Tubular Development Is Impaired with Downregulation of MAPK/ERK Signaling, HIF-1□, and Catalase by Hyperoxia Exposure in Neonatal Rats, 2019 Aug 28
- Xuewen Xu et al ; Identification of Differentially Expressed Non-coding RNA in Porcine Alveolar Macrophages from Tongcheng and Large White Pigs Responded to PRRSV, 2018 Oct 23
- Xuewen Xu et al ; Genome-Wide Analysis and Functional Characterization of the Polyadenylation Site in Pigs Using RNAseq Data, 2016 Nov 4

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