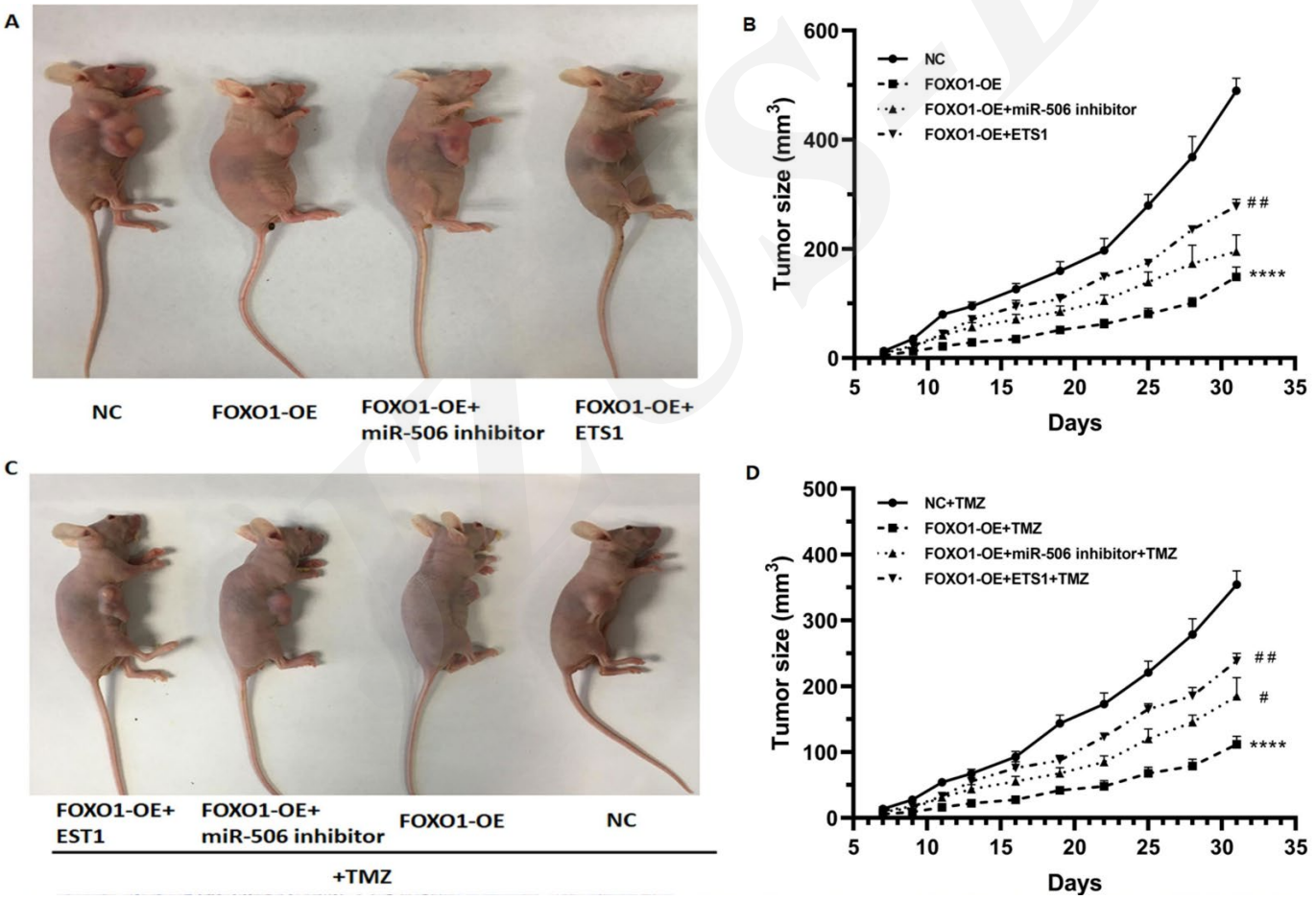
Cite this as: Chao CHEN, Yu'e LIU, Hongxiang WANG, Xu ZHANG, Yufeng SHI, Juxiang CHEN. FOXO1-miR-506 axis promotes chemosensitivity to temozolomide and suppresses invasiveness in glioblastoma through a feedback loop of FOXO1/miR-506/ETS1/FOXO1[J]. Journal of Zhejiang University Science B, 2023, 24(8): 698-710. http://doi.org/10.1631/jzus.B2200503

FOXO1-miR-506 axis promotes chemosensitivity to temozolomide and suppresses invasiveness in glioblastoma through a feedback loop of FOXO1/miR-506/ETS1/FOXO1

Key words: glioblastoma, FOXO1, miR-506, ETS1, chemosensitivity

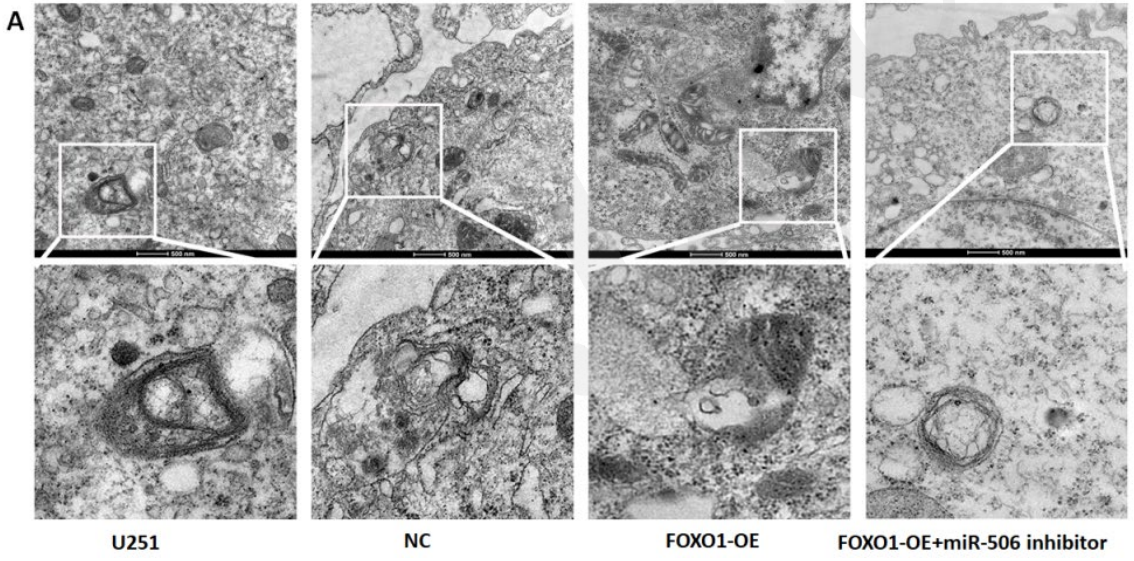
Research Summary

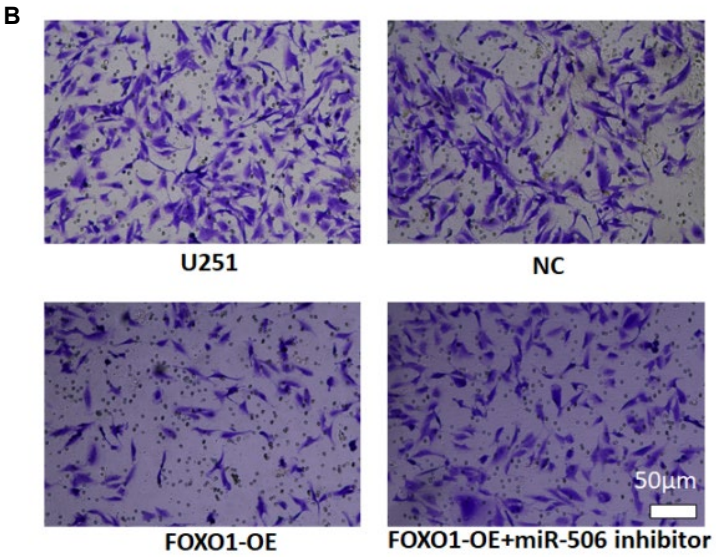
- This study demonstrated a negative feedback loop of FOXO1/miR-506/ETS1/FOXO1 in GBM in regulating invasiveness and chemosensitivity.
- The axis might be a promising therapeutic target for GBM.



Innovation points

- **FOXO1 inhibited autophagy in GBM, which was reversed by the miR-506 inhibitor.**
- **FOXO1 inhibited the migration and invasion of cells in GBM, which was reversed by the miR-506 inhibitor.**





Innovation points

- FOXO1 enhances miR-506 promoter transcriptional activity to upregulate the expression of miR-506
- ETS1, a miR-506 target, promoted FOXO1 translocation from the nucleus to the cytosol to enhance GBM growth

