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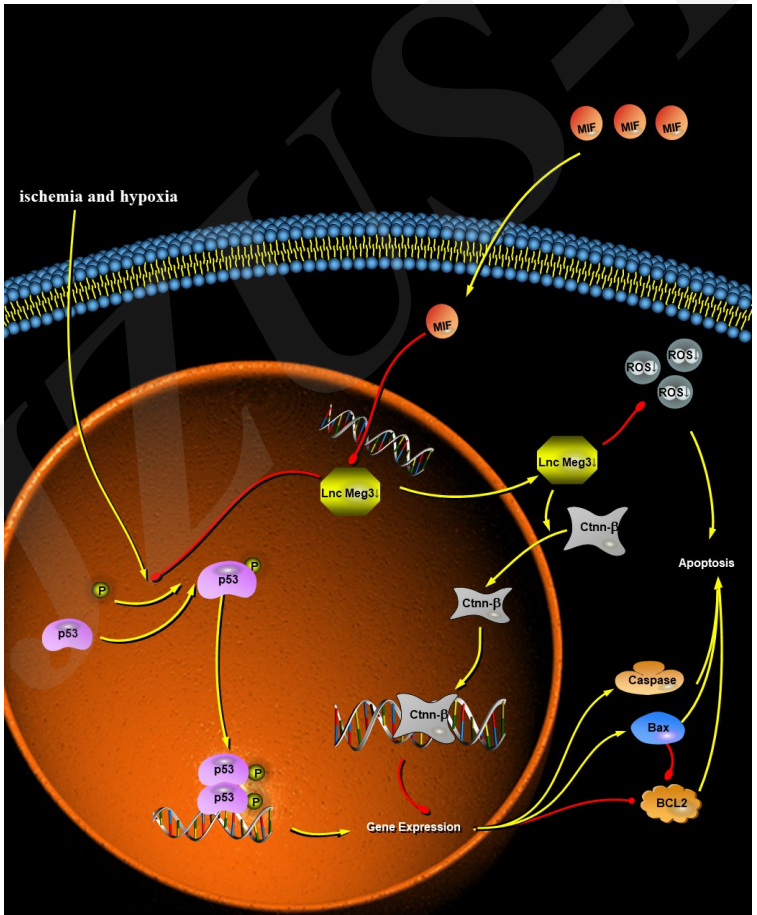
# Macrophage migration inhibitory factor protects bone marrow mesenchymal stem cells from hypoxia/ischemia-induced apoptosis by regulating lncRNA MEG3

**Key words: Macrophage migration inhibitory factor, LncRNA MEG3, BMSCs, β-catenin, Apoptosis**

# *Research Summary*

**This research revealed that MIF protected BMSCs from H/I-induced apoptosis by downregulating the lncRNA MEG3/p53 signaling pathway, activating the Wnt/β-catenin signaling pathway and decreasing ROS levels.**



# *Innovation points*

- **We reported for the first time that MIF can inhibit H/I-induced apoptosis of BMSCs by inhibiting lncRNA MEG3/p53, activating Wnt/β-catenin and decreasing intracellular ROS**

- **We revealed that lncRNA MEG3 may be a potential target to inhibit apoptosis in transplanted BMSCs and improve the efficacy of regenerative treatments in patients with ONFH.**

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