



## **AMPK/FIS1-Mediated Mitophagy Is Required for Self-Renewal of Human AML Stem Cells**

Leukemia stem cells (LSCs) are thought to drive acute myeloid leukemia (AML). Despite decades of research, effective therapies for AML remain extremely limited.

Dr. Shanshan Pei and his colleagues from the University of Colorado Cancer Center have discovered that that intrinsic overexpression of the mitochondrial dynamics regulator FIS1 mediates mitophagy activity that is essential for primitive AML cells. Depletion of FIS1 or its upstream regulator AMPK blocked mitophagy and lead to a loss of LSC self-renewal potential.

This data suggests that targeting the AMPK/FIS1-mediated mitophagy axis may represent a promising strategy to eradicate AML LSCs. The authors used Bio X Cell's anti-human CD3 antibody (clone OKT-3) to prevent potential graft versus host disease in xenografts.

Read the full article in Cell Stem Cell: [https://www.cell.com/cell-stem-cell/abstract/S1934-5909\(18\)30239-X](https://www.cell.com/cell-stem-cell/abstract/S1934-5909(18)30239-X)