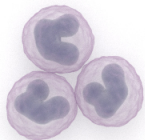


Differential hypoxic regulation of the microRNA-146a/CXCR4 pathway in normal and leukemic monocytic cells: impact on response to chemotherapy

Normal monocytes
derived from CD34+ cells



Hypoxia
HIF-1 α -2 α

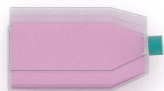


microRNA-146a \uparrow



CXCR4 \downarrow

Myeloid leukemic
cell lines



Hypoxia
HIF-1 α



microRNA-146a \uparrow



CXCR4 \uparrow

Acute monocytic leukemia
overexpressing CXCR4



Hypoxia

- \rightarrow maintains CXCR4 overexpression
- \rightarrow increases SDF-1 alpha induced survival
- \rightarrow decreases the sensitivity to anti-leukemic drugs

hypoxia-mediated regulation of microRNA-146a that controls CXCR4 expression is lost