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

Normal monocyes derived from CD34+ cells:
- Hypoxia
- HIF-1α
- microRNA-146a
- CXCR4

Myeloid leukemic cell lines:
- Hypoxia
- HIF-1α
- microRNA-146a
- CXCR4

Acute monocytic leukemia overexpressing CXCR4:
- Hypoxia
- Maintains CXCR4 overexpression
- Increases SDF-1 alpha induced survival
- Decreases the sensitivity to anti-leukemic drugs

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

Spinello et al., Haematologica, 2015