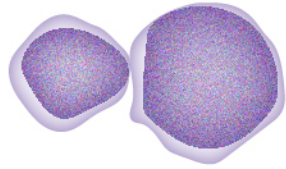


The use of the strains NSG and NSG-S to study the effects of human cytokines on engraftment and growth of AML and MDS

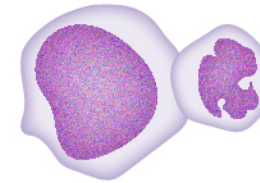
Specimens

Acute myeloid leukemia (AML)



- T-cell AML cells

Myelodysplastic syndrome (MDS)



- Human bone MNC alone
- Human bone MNC + MSC

Engraftment



NSG mice



NSG-S mice
expressing SCF, GM-CSF, IL-3

AML

- 50% of primary AML samples transplanted in NSG mice were able to engraft (>0.5% human blasts in marrow)
- 82% of primary AML samples transplanted in NSG-S mice were able to engraft
- Significantly higher leukemia burden in NSG-S compared to NSG mice

MDS

- 2% of primary MDS samples transplanted in NSG-S mice were able to engraft
- Co-injection of MSC did not enhance human MDS cells engraftment