Marrow adipose tissue provides stem cell factor essentially for steady-state and skewed hematopoiesis upon metabolic stresses.

**Generation of fat-specific SCF knockout (KO) mice**

Adiponectin (Adipoq)-Cre mice × Kitl^+/− mice (controls) → Adipoq-Cre^+;Kitl^+/− KO mice

- Deletion of Kitl gene and reduction of Kitl mRNA levels
- Reduction of UCP1 protein levels

- Nerve-activated adaptive thermogenesis assessment: No variation in levels of Ucp1 mRNA or UCP1 protein upon treatment with a β3-adrenoceptor agonist

**Quantification of hematopoietic stem and progenitor cells (HSPCs) in the bone marrow of Adipoq-Cre^+;Kitl^+/− KO mice**

- Reduced marrow cellularity
- No functional decline of HSPCs

- Adipocyte-derived niche factor SCF is essential for the maintenance of hematopoietic stem and myeloid progenitor cells

Zhang et al., Haematologica, 2019