Grouping of the cell types:

**DS Blood Liver**

HSC/MPP – HSC/Progenitors

Cycling HSC/MPPs - HSC/Progenitors

MEMPs - HSC/Progenitors

Granulocyte progenitors – HSC/Progenitors

Early erythroid - Erythroid

Late erythroid cells - Erythroid

Mast cells – Mast

Megakaryocytes – Megakaryocytes

Cycling megakaryocytes - Megakaryocytes

Monocyte precursors - Myeloid

Inflammatory macrophages – Myeloid

Kupffer cells - Myeloid

pDCs - Myeloid

Cycling pDCs - Myeloid

cDC2 – Myeloid

NK progenitors – NK cells

NK cells – NK cells

Pre-pro B cells- B cells

Pro-B cells – B cells

All other cell types- Stroma

**Healthy blood liver**

HSC/MPPs – HSC/Progenitors

MEMPs – HSC/Progenitors

Cycling MEMPs – HSC/Progenitors

Granulocyte progenitors – HSC/Progenitors

Early erythroid cells - Erythroid

Late erythroid cells - Erythroid

Cycling erythroid cells - Erythroid

Mast cells - Mast cells

Megakaryocytes - Megakaryocytes

Neutrophils - Myeloid

Monocyte precursors - Myeloid

Inflammatory macrophages - Myeloid

Kupffer cells - Myeloid

pDCs - Myeloid

cDC2 – Myeloid

NK progenitors - NK cells

NK cells - NK cells

Pre pro B cells – B cells

Pro B cells - B cells

B cells - B cells

All other cell types- Stroma

**DS femur blood**

HSC/MPP - HSC/Progenitors

MEMPs - HSC/Progenitors

Cycling MEMPs - HSC/Progenitors

Granulocyte progenitors - HSC/Progenitors

Cycling granulocyte progenitors - HSC/Progenitors

Early erythroid- Erythroid

Late erythroid cells - Erythroid

Mast cells - Mast cells

Megakaryocytes - Megakaryocytes

Neutrophils - Myeloid

Cycling neutrophils - Myeloid

Inflammatory macrophages – Myeloid

Tolerogenic macrophages - Myeloid

Collagen+ macrophages – Myeloid

Osteoclasts – Myeloid

pDCs - Myeloid

Cycling pDCs - Myeloid

cDC2 - Myeloid

Early lymphoid – NK/T cells

NK cells - NK/T cells

Cycling NK cells - NK/T cells

SPI1+ NK cells - NK/T cells

Pre-pro B cells - B cells

Pro B cells - B cells

B cells - B cells

All other cell types- Stroma

**Healthy femur blood**

HSC/MPP – HSC/Progenitors

MEMPs - HSC/Progenitors

Granulocyte progenitors - HSC/Progenitors

Early erythroid- Erythroid

Late erythroid cells - Erythroid

Mast cells - Mast cells

Megakaryocytes - Megakaryocytes

Neutrophils - Myeloid

Cycling neutrophils - Myeloid

Inflammatory macrophages – Myeloid

Tolerogenic macrophages - Myeloid

Collagen+ macrophages – Myeloid

Osteoclasts – Myeloid

pDCs - Myeloid

cDC2 - Myeloid

Cycling cDC2 - Myeloid

NK cells - NK cells

Pre-pro B cells - B cells

Pro B cells - B cells

Cycling pro B cells - B cells

B cells - B cells

All other cell types- Stroma

Genes for the small dotplot –femur (1 for DS and 1 for healthy)

HSC/Progenitors – CD34, SPINK2

Erythroid – GATA1, KLF1

Mast cells – HDC, CPA3

Megakaryocytes – ITGA2B, GP9

Myeloid – LYZ, SPI1

NK cells – NKG7, GZMA

B cells – CD79A, IGHM

Stroma – PDFRB, DCN

Genes for the small dotplot – liver (1 for DS and 1 for healthy)

HSC/Progenitors – CD34, SPINK2

Erythroid – GATA1, KLF1

Mast cells – HDC, CPA3

Megakaryocytes – ITGA2B, GP9

Myeloid – LYZ, SPI1

NK cells – NKG7, GZMA

B cells – CD79A, IGHM

Stroma – ALB, AFP