Developmental Origins of the Murine Hematopoietic System

1. The physiological tracing of embryo-generated HSCs to the bone marrow in the mammalian adult remains an interesting challenge (this thesis).

2. Ly-6A strains of mice express Sca-1 on virtually all (99%) marrow repopulating cells, while Ly-6E strains express Sca-1 on only 25% of these cells (Spangrude and Brooks, 1993, Blood 82: 3327-3332).

3. Despite transcription of CreERT in appropriate embryonic and adult hematopoietic tissues, only rare induced recombination/ expression events were observed (this thesis).

4. Transcription factor levels determine the balance between proliferation and differentiation (this thesis).

5. The mouse strain and developmental stage of the recipient is one of the most important considerations in in vivo HSC transplantation assays (this thesis).

6. In contrast to what has been suggested, the first HSCs appear at day 10 of mouse gestation in the intra-embryonic aorta-gonad-mesonephros region (Müller et al., 1994, Immunity 1: 291-301; Medvinsky and Dzierzak, 1996, Cell 86: 897-906; Yoder et al., 1997, Immunity 7: 335-44; Bertrand et al., 2005, PNAS 102: 134-9).


11. “Science can purify religion from error and superstition. Religion can purify science from idolatry and false absolutes.” (Pope John Paul II).