

HEMATOPOIESIS

Edited by

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The process of developing the diverse blood cell repertoire from stem and progenitor cells termed hematopoiesis has been subject to considerable investigation. However, key steps in the complex process of hematopoiesis, including hematopoietic stem cell generation during embryogenesis, hematopoietic stem and progenitor cell expansion to accommodate physiological and pathological requirements, and mechanisms that ensure hematopoietic stem and progenitor cell phenotypic integrity, remain incompletely understood. Elucidating these mechanisms will yield concepts that can be extrapolated to diverse biological realms, and given the vital importance of the hematopoietic system, future efforts will invariably lead to medical breakthroughs that advance human health.

This issue of *Current Topics in Developmental Biology* reviews cutting-edge research on mechanistic and biological aspects of hematopoiesis. The initial chapters lay the groundwork for understanding the cellular origin of hematopoietic stem cells and the pivotal role of the microenvironment or "niche" in non-cell-autonomously regulating hematopoietic stem cell genesis and function. The next series of chapters probe into molecular mechanisms governing the development of hematopoietic stem and progenitor cells and for maintaining their unique phenotypes.

KEY FEATURES:

- Authoritative and expert contributions from this exciting area of biomedical research
- Comprehensive and state of the art reviews with emphasis on current developments in hematopoiesis

Cover images:
Composite E-box-GATA elements regulate diverse aspects of hematopoietic stem/progenitor cell development and function. Chapter 3, figure 1, Hewitt, Johnson, Gao, Keles & Bresnick



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