

Special Issue on
Animal Models of Hematopoiesis and Hematological Disorders

CALL FOR PAPERS

Insights concerning hematopoiesis and hematological disorders have been acquired in various model systems including mice and zebrafish. Further efforts to understand the physiological process of blood development and mechanisms underlying blood disorders including malignant transformation and progression will continue to rely on model organism research. Recent technological advances in animal models, especially the development of conditional site- and time-specific Cre-Lox gene targeting technology, allowed studying the function of genes which are relevant to normal hematopoiesis and development of hematological malignancies, but lethal when knocked out in embryonic cells. Moreover, the generation of multiple zebrafish models of human leukemia and zebrafish-based high-throughput drug screening promise to hasten the discovery of novel antileukemic therapeutics. These new technologies have led to novel and exciting findings, deepening our understanding of disease pathophysiology and treatment resistance as well as leading to novel therapeutic strategies. The purpose of this special issue is to publish research articles as well as reviews that report exciting novel findings relevant to normal and/or abnormal blood development and the genetic underpinnings critical to disease transformation/progression and treatment resistance, seeking to expand our understanding of disease mechanisms and help shape therapeutic strategies for improved outcomes in patients.

Potential topics include but are not limited to the following:

- ▶ New animal models of hematopoiesis or hematological disorders established by various approaches (e.g., transgenesis, mutagenesis, and transplantation)
- ▶ Mechanisms related to understanding normal blood development
- ▶ Mechanisms related to understanding pathophysiology of hematological disorders, including leukemic transformation, maintenance, progression, and treatment resistance
- ▶ Novel drug screening methods and promising lead compounds
- ▶ Novel genetic screens
- ▶ Novel therapeutics discovery and/or new combination treatments
- ▶ Mechanisms of drug efficacy and resistance
- ▶ Oncogene and tumor suppressor studies

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/hematology/amhh/>.

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First Round of Reviews

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