

Special Issue on
**Hematopoietic Malignancies and Pathogenic Events in
the Stem Cell Niche**

CALL FOR PAPERS

Hematopoietic cells are increasingly recognized as playing key roles in tumor growth and metastatic progression. Hematopoietic stem cell (HSC) proliferation, self-renewal, and trafficking are dependent, in part, upon signals generated by stromal cells in the bone marrow. A major topic of the scientific community in the field would be how pathogenic alterations occurring in the bone marrow stromal cells can arise in hematopoietic malignancies and how do detailed molecular mechanisms contribute to such diseases. Indeed, there is an emerging bulk of evidence that malignant hematopoietic cells may generate signals that alter the number and/or function of specific stromal cell populations in the bone marrow. The questions are still open also in the light of safety of novel HSC-based cell therapies.

Regarding safety and quality, the range of application of the standards for hematopoietic progenitor cell collection, processing, storage, administration, and transplantation has to ensure a level of quality, alertness, and homogeneity in the implementation of autologous and allogenic HSC transplantation for both donors and recipients in oncohematology. Differences in standards for all aspects of the inspection process for HSC transplant programs exist yet. How alterations in bone marrow stromal cells arise in hematopoietic malignancies and how they contribute to disease pathogenesis are questions still open in the light of safety and existing management quality system for novel HSC-based cell therapies. More studies on accelerating engraftment, ensuring quality, and examining outcomes in patients with hematological malignancies are needed.

The purpose of this special issue is to publish high-quality original research articles, as well as reviews, which seek to address recent development on quality and safety of HSCs, as well as the relevant prospect on hematopoietic malignancies. This topic is a challenge for scientific community to explore HSC efficiency and novel cell therapies.

Potential topics include but are not limited to the following:

- ▶ Pathogenic alterations in bone marrow stromal cells in the development of hematopoietic malignancies
- ▶ Kinetic data on HSC output
- ▶ Safety of HSC-based cell therapies
- ▶ Hematopoietic malignancies related to novel clinical HSC-based therapies
- ▶ Recent advances in preclinical and clinical trials on HSCs

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

Papers are published upon acceptance, regardless of the Special Issue publication date.

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