Journal of Oncology

Hindawi

Special Issue on

The Tumor Clone and the Supportive Bone Marrow Milieu in Multiple Myeloma: Identification of New Molecular Targets for Therapy and Advanced Diagnosis

CALL FOR PAPERS

Multiple Myeloma (MM) is a plasma cell disorder and the second most common hematological malignancy. It is characterized by the clonal proliferation of malignant plasma cells within the bone marrow (BM). MM is currently an incurable disease, which has a median survival rate of approximately 4.7 years. Although there has been therapeutic advancement in MM, including autologous stem cell transplantation, immunomodulatory drugs, and proteasome inhibitors which have increased the overall survival of patients, MM remains difficult to treat and relapses in virtually all patients due to chemotherapeutic resistance. This indicates that novel biologically based treatment approaches are required urgently.

The biological and clinical behavior of MM cells are determined by their genetic background and their cross-talk within the BM microenvironment. This is responsible for the activation of a pleiotropic cascade of proliferative/antiapoptotic signaling pathways leading to MM cell growth, survival and migration and contributing to MM progression, and resistance to drug treatment. These events are triggered by the direct physical interactions of MM cells with BM Stromal Cells (BMSCs) and by growth factors released from BMSCs and/or MM cells in an autocrine/paracrine manner. In this frame, the direct production of angiogenic cytokines by plasma cells and their induction within the microenvironment play a pivotal role in MM vascularization, BM angiogenesis representing a constant hallmark of MM progression with prognostic potential.

Altogether, these findings indicate that gaining new insights into the molecular evolution of the tumor clone and more specifically, its interaction within the supportive BM milieu, represents an important challenge in the field of MM. This will allow the identification of novel targets responsible for disease progression that can be used for therapeutic interventions, advanced diagnosis, and assessment of the minimal residual disease.

This special issue aims to provide new insights regarding the progression of Multiple Myeloma and the role of its supportive microenvironment, as well as the identification of novel molecular targets useful for new diagnostic and therapeutic approaches. We encourage submissions of both original research and review articles.

Potential topics include but are not limited to the following:

- Evolution of the MM tumor clone
- Genomic and transcriptome signatures of the tumor clone and the BM milieu
- The role of the bone marrow milieu in MM progression and therapeutic resistance
- Bone morrow angiogenesis in MM progression
- The immune microenvironment of MM
- MRD (Minimal Residual Disease) testing in MM
- New diagnostic and prognostic technologies in MM
- New therapeutic approaches in MM

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jo/mmttc/.

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

Lead Guest Editor
Arianna Giacomini, University of Brescia, Brescia, Italy
arianna.giacomini@unibs.it

Guest Editors
Giada Bianchi, Harvard Medical School, Boston, USA
giada_bianchi@dfci.harvard.edu

Yawara Kawano, Kumamoto University Hospital, Kumamoto City, Japan
yawara.kawano@gmail.com

Klaus Podar, Krems University Hospital, Krems an der Donau, Austria
klaus.podar@krems.lknoe.at

Aldo M. Roccaro, ASST Spedali Civili di Brescia, Brescia, Italy
aldomaria.roccaro@asst-spedalicivili.it

Submission Deadline
Friday, 31 January 2020

Publication Date
June 2020