



Stem Cells International

Special Issue on
**Cellular Therapies for the Prevention and Treatment
of Acute GVHD: Novel Strategies**

CALL FOR PAPERS

Allogeneic hematopoietic stem cell transplantation (allo-HCT) is a potentially curative therapy against many malignant and nonmalignant hematological diseases. The number of patients receiving allo-HCT continues to increase with approximately 8,000 transplantations in the US in 2013 (CIBMTR report). The development of novel strategies, such as donor leukocyte infusions, reduced intensity conditioning (RIC) regimens, and cord blood as a stem cell source, has helped expand the indications for allo-HCT and contributed to decreasing treatment related mortality, as well as increasing the long-term survival. However, acute graft-versus-host disease (acute GVHD) is still a life-threatening complication. Although severe acute GVHD has been significantly reduced over the past decades through the introduction of RIC regimens and intensive prophylaxis with immunosuppression, such as calcineurin inhibitors or antithymocyte globulin, approximately half of the patients demonstrate resistance to corticosteroid treatment which is first-line therapy for acute GVHD, known as steroid refractory acute GVHD.

The pathophysiology of acute GVHD is complex and demanding, but it is well established that allo-reactive donor T lymphocytes play an important role in mediating GVHD. To that end, both donor and host antigen presenting cells (APCs) must activate allo-reactive donor T lymphocytes to initiate acute GVHD. Recently, many advances examining the pathophysiology of acute GVHD have been reported in both experimental models and clinical studies with new strategies for the prevention and treatment of acute GVHD being progressively developed. Moreover, GVHD is tightly linked with graft-versus-tumor effects and it is thus a crucial issue to separate the two. Therefore, continuing to address these fundamental, unresolved issues from the bench to bedside and conversely is required.

We invite investigators to contribute original research articles as well as review articles that will help in understanding the pathophysiology of acute GVHD and developing new strategies to treat acute GVHD.

Potential topics include, but are not limited to:

- ▶ Epidemiology of acute GVHD
- ▶ The pathophysiology of acute GVHD, particularly, cellular and molecular immune mechanisms, such as donor T cells, donor and host antigen presenting cells, and host target tissues
- ▶ The risk factors of acute GVHD
- ▶ Stem cell sources and acute GVHD
- ▶ Conditioning regimens and acute GVHD
- ▶ Biomarkers for early diagnosis of acute GVHD
- ▶ Strategies in preventing acute GVHD (with focus on novel cellular therapies)
- ▶ Recent advances in the treatment of GVHD (with focus on innovative cellular therapies)
- ▶ Follow-up studies

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

Lead Guest Editor

Timothy Devos, University Hospitals
Leuven, Leuven, Belgium
timothy.devos@uzleuven.be

Guest Editors

Tomomi Toubai, University of
Michigan, Ann Arbor, USA
tomomit@med.umich.edu

Harry Dolstra, Radboud University
Medical Center, Nijmegen, Netherlands
harry.dolstra@radboudumc.nl

Hiroya Tamaki, Hyogo College of
Medicine, Nishinomiya, Japan
tamakhi@hyo-med.ac.jp

Manuscript Due

Friday, 23 September 2016

First Round of Reviews

Friday, 16 December 2016

Publication Date

Friday, 10 February 2017