

# ASBMT eNews

AMERICAN SOCIETY FOR BLOOD AND MARROW TRANSPLANTATION

February 2012

## CLINICAL RESEARCH

### Minimal Residual Disease Measurement Predictor of Acute Myeloid Leukemia Relapse

A paper published in *Blood* reviews evidence to determine whether minimal residual disease (MRD) detection is an effective way to determine the outcome of adult acute myeloid leukemia patients treated with chemotherapy and to tailor patient postremission therapy based on relapse risk rather than using the “one size fits all” approach. According to the researchers’ findings, pretreatment cytogenetic/genetic profiling is useful for determining the intensity and type of induction therapy to use, whereas measurement of MRD is helpful for indicating risk of relapse, hence helpful in directing postremission therapy. Measurement of MRD is particularly useful in patients with intermediate risk disease. [More...](#)

### Innovative Treatments for Steroid-Refractory Acute and Chronic GVHD

A review appearing in *Blood* describes developments in treatments for steroid-refractory acute and chronic graft-versus-host disease (GVHD), including potential pharmacologic compounds and forthcoming cellular therapies. Pharmacologic approaches reviewed include modification of conditioning-induced tissue damage and danger signals, targeting recipient and donor-type antigen presenting cells, targeting the T cell compartment, and targeting GVHD-associated neovascularization. Cellular compartment therapies reviewed include donor regulatory T cell infusion, Natural Killer T cells, mesenchymal stem cells and B cell targeting. [More...](#)

*Continues on page 3*

## BREAKING NEWS

### Nelson Chao Named to Federal National Biodefense Science Board

Former ASBMT President Nelson J. Chao, MD, MBA, has been named to the National Biodefense Science Board, a federal committee that advises the U.S. Department of Health and Human Services Secretary and Assistant Secretary for Preparedness and Response on preventing, preparing for and responding to adverse health effects of public health emergencies. Dr. Nelson, who co-founded the Radiation Injury Treatment Network and is chair of the ASBMT committees on Radiation Injury Preparedness and Clinical Research Training Course, will serve a four-year term. [More...](#)

## IN THIS ISSUE

- 1, 3 Clinical Research
- 1 Breaking News
- 2 A Word from the President
- 3 BMT Tandem Meetings
- 4, 5 Association News
- 5 Basic Science Studies
- 6 Calendar of Events

## SEE ALSO

[Job & Fellowship Connections](#)

[BBMT Journal](#)

[ASBMT Home](#)



## A WORD FROM PRESIDENT DANIEL WEISDORF, MD

### **The Road to Transplant Success: Diverging Paths That Come Together**

Starting a career in blood and marrow transplantation can be daunting. Some time ago one could just put your head down, forge ahead and try any number of new approaches modifying the conditioning, the graft source or the supportive care – everything was wide open for study. But the complexity and sophistication of our field intimidates some, and sadly, sends some young investigators off into alternative career paths. But whether your bent is clinical investigation, health care delivery, molecular analysis, immunotherapy, hematopoiesis or even cost efficiency, the road you take in the broad field of BMT study can intersect with other's work.

Some of us, with roots at the bedside, feel more comfortable changing day-to-day patient care by analyzing clinical pathways which outline a route to thorough, cost-efficient and, as possible, evidence-guided patient management.

Those who seek a new route but remain tied to a clinical path might analyze the impact of standardized BMT approaches in different patient cohorts defined by molecular analysis of disease subsets, biomarkers, GVHD subgroups or cohorts defined by genomic SNPs which alter immune response or drug metabolism or other, to-be-defined, genetic elements that influence the success of transplant therapies.

Additionally, we each work in our own institutional bubble, sometimes venturing across town, tentatively joining networks or traveling internationally to test how local observations are reproducible (or not) when they move into the arena of complex, multi-institutional heterogeneity. Each transplant centers' protocols, habits and personalities modulate their capacity to regularize, standardize and improve their delivery of transplant care and to assess its outcome.

Bedside clinicians who are also disciplined investigators must wrestle with the conflicts arising between the individual hunch during bedside rounds, established local protocols or new studies (including the ones you didn't design and don't like very much) and what you hear, read and absorb from friends, colleagues and the published, peer-reviewed literature. Finally, all this is tempered and scrambled by patients' heterogeneity in age, histocompatibility, performance status, pre-BMT complications and intrinsic comorbidities disconnected from their transplant diagnosis. Some investigations are best performed in a homogeneous group while some, destined to have applicability beyond a single institution pilot study, will be appropriate for patients of numerous shapes, sizes and colors.

Choosing a clinical and research pathway allows you to advance the field, make your name and grasp the excitement of bringing new molecular, immunologic, biochemical, care delivery or cost-effective advances right to the bedside. These all can keep the field fresh and keep it challenging. As young transplanters find their way, they only need to remember that all our research paths intersect and can move us along. Noisy heterogeneous research dialogue and debate isn't babble; it's simply a group thinking and struggling to advance another step ahead.

I think it is still fun, filled with eager and enthusiastic scientists and clinical investigators all trying hard to improve the care of an amazing group of courageous patients. So even when funding is challenging – don't get too discouraged and don't give up. Let's all keep at it.

....and thanks for listening this year.

*-Daniel*



## BMT TANDEM MEETINGS

### Record Number of Pre-Registrants Headed for San Diego

Pre-registration for the 2012 BMT Tandem Meetings has exceeded last year's record when the meetings convened in Hawaii. The scientific program, the agenda for parallel personnel conferences, local transportation and other information are available online. [More...](#)

### Meet Colleagues at Opening Night Welcome Reception

Network with your colleagues from across the country and around the world at the Welcome Reception being held in conjunction with the Poster Session at the Manchester Grand Hyatt on Wednesday, Feb 1.

### Andrea Bacigalupo to Present Bortin Lecture

Andrea Bacigalupo, MD, will present the Mortimer M. Bortin Lecture at the BMT Tandem Meetings in Hawaii. His presentation, "**Changes in Stem Cell Transplantation: Where Are We Going?**" will be on Thursday, Feb. 2.

### Paul Martin to Present E. Donnall Thomas Lecture

Paul J. Martin, MD, of the Fred Hutchinson Cancer Research Center, will present the E. Donnall Thomas Lecture at the 2012 BMT Tandem Meetings in San Diego. His presentation, "**Standards and Benchmarks: A Much Needed 'Fix' for GVHD Treatment Studies,**" will be on Friday, Feb. 3.

### ASBMT President's Reception on Saturday Night

ASBMT President Daniel J. Weisdorf, MD, invites you to enjoy the sunset overlooking San Diego's scenic harbor as Flamenco music and dance set the night ablaze on Saturday, Feb. 4. Tickets will be available at the conference registration desk.

### 2012 Lifetime Achievement Award and Public Service Award

During the 2012 BMT Tandem Meetings, ASBMT will present the 2012 Lifetime Achievement Award to Eliane Gluckman, MD, PhD, and the 2012 Public Service Award to Nancy DiFronzo, PhD.

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## CLINICAL RESEARCH (CONTINUED FROM PAGE 1)

### Acute GVHD Risk Factors and Survival Rates After Allogeneic Hematopoietic Cell Transplants

Researchers evaluated six different categories of transplant regimens used with allogeneic hematopoietic cell transplantation to determine risk factors for acute graft-versus-host disease (GVHD), overall survival and transplant related mortality. Both HLA-identical sibling donor (SD) and unrelated donor (URD) patients were included. The six groups included 1) myeloblative conditioning (MA) with total body irradiation (TBI) + peripheral blood stem cells (PBSCs); 2) MA + TBI + bone marrow (BM); 3) MA + nonTBI + PBSCs; 4) MA +

nonTBI + BM; 5) reduced intensity conditioning (RIC) + PBSCs; and 6) RIC + BM. Patients receiving SD transplants along with MA + nonTBI + BM and RIC with PBSCs had a lower risk of severe acute GVHD than patients receiving SD transplants in other categories. URD patients who received MA, TBI and BM; MA, nonTBI and BM; RIC and BM; or RIC and PBSCs were less likely to develop grades B-D acute GVHD than patients treated with other transplant regimens. Approximately 39% of SD patients developed grades B-D acute GVHD compared to 59% of URD patients. In addition, the five-year survival rate for SD patients was 46% vs. 33% in URD patients, according to the study published in *Blood*. [More...](#)

## ASSOCIATION NEWS

### **Sergio Giralt will Lead ASBMT in 2014**

Sergio A. Giralt, MD, has been chosen by ballot among ASBMT members to be the Society's Vice President. The election places him in line to assume the presidency two years from now. Dr. Giralt is chief of Adult Bone Marrow Transplant (BMT) Service at Memorial Hospital for Cancer and Allied Diseases, chief of Adult BMT Service at Memorial Sloan-Kettering Cancer Center, and professor of medicine at Weill Cornell Medical College. He earned his medical degree from the Universidad Central de Venezuela and remained in Venezuela to complete his internship at the Hospital Universitario de Caracas. He then moved to Good Samaritan Hospital in Cincinnati to perform his residency training.

Marco J.G. de Lima, MD, was also chosen by ballot among ASBMT members to be the Society's Treasurer. Dr. de Lima is director of the Department of Stem Cell Transplantation and Cellular Therapy Fellowship Program, as well as the Matched Unrelated Donor Stem Cell Transplantation Program at the MD Anderson Cancer Center in Houston. Dr. de Lima will take office at the close of the BMT Tandem Meetings this month in San Diego.

Newly elected directors are Corey S. Cutler, MD, MPH, of the Dana-Farber Cancer Institute in Boston; John F. DiPersio, MD, PhD, of the Washington University School of Medicine in St. Louis; and Brenda M. Sandmaier, MD, of the Fred Hutchinson Cancer Research Center in Seattle. All will take office at the close of the BMT Tandem Meetings this month in San Diego.

### **Clinical Research Training Course**

The ASBMT Clinical Research Training Course for fellows-in-training and junior faculty will be held in Park City, Utah in 2012. Applications are being accepted through March 1 for the course that will be held July 11-16. [More...](#)

### **Fifth Edition Cellular Therapy Standards to be Published March 1**

The fifth edition of *FACT-JACIE International Standards for Cellular Therapy Product Collection, Processing and Administration* is nearing completion. The following are important dates for cellular therapy programs to remember:

- **Fifth Edition Publication Date: March 1**  
The final version of the fifth edition Cellular Therapy Standards will be officially published on March 1. This includes the Accreditation Manual and associated documents.
- **Fifth Edition Effective Date: May 31**  
The fifth edition Cellular Therapy Standards will be effective on May 31. All documentation beginning on this date must demonstrate that your program is in compliance with the fifth edition.
- **Deadline for Fourth Edition Checklist: February 29**  
Programs wishing to be inspected under the fourth edition must submit their checklist before the fifth edition publication date.
- **Deadline for Fourth Edition On-site Inspections: May 30**  
Programs wishing to be inspected under the fourth edition must be inspected before the fifth edition effective date.

*Continues on page 5*

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## ASSOCIATION NEWS (CONTINUED FROM PAGE 4)

### **ASHI Harmonization Working Group Achieves Publication**

In early 2010, The American Society of Histocompatibility and Immunogenetics (ASHI) formed the Harmonization of Histocompatibility Typing Terms Working Group with members representing clinical, registry and histocompatibility organizations, including ASBMT and FACT, to harmonize histocompatibility typing terms. The goal was to define a consensual language for laboratories, physicians and registries to communicate

histocompatibility typing information. The Working Group defined terms for HLA typing resolution, HLA matching and a format for reporting HLA assignments. In addition, definitions of verification typing and extended typing were addressed. The 2011 article, "Definitions of Histocompatibility Typing Terms," was published in *Blood* ([doi: 10.1182/blood-2011-05-353490](https://doi.org/10.1182/blood-2011-05-353490)) and *Human Immunology* ([doi: 10.1016/j.humimm.2011.06.002](https://doi.org/10.1016/j.humimm.2011.06.002))

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## BASIC SCIENCE STUDIES

### **Recipient Nonhematopoietic Antigen-Presenting Cells Can Generate Lethal Acute GVHD**

The researchers of an article in *Nature Medicine* report the development of a bone marrow transplant model in mice whereby presentation of a processed recipient peptide within major histocompatibility complex (MHC) class II molecules could be spatially and temporally quantified. Recipient antigen presenting cells (APCs) were 100-1,000 times more potent than donor APCs in inducing acute graft-versus-host disease (GVHD). After myeloblative irradiation, T cell activation and memory differentiation occurred in lymphoid organs independent of alloantigen. Professional hematopoietic-derived recipient APCs within lymphoid organs had a limited capacity to induce GVHD, with no requirement for dendritic cells. Non-hematopoietic recipient APCs within target organs induced universal GVHD mortality and promoted marked alloreactive donor T cell expansion within the gastrointestinal tract and

inflammatory cytokine generation. These data suggest that experimental lethal acute GVHD can be induced by nonhematopoietic recipient APCs. [More...](#)

### **Changes in Aging Hematopoietic Stem Cells**

Hematopoietic stem cells (HSCs) experience alterations in both quantity and quality as they age, according to a study appearing in *The Journal of Experimental Medicine*. Using clonal assays, some of the characteristics the researchers observed in aging HSCs included an increase in the number of HSCs, a growth in mostly myeloid-based HSCs that regenerated less mature progeny than younger myeloid-based HSCs, a decrease in marrow-homing capability, functional frequency and seeding efficiency, and delayed proliferative response compared to younger HSCs in long-term stromal cell co-cultures. [More...](#)

## CALENDAR OF EVENTS

### •FEBRUARY

#### **BMT Tandem Meetings**

Combined ASBMT and CIBMTR Annual Meetings  
February 1-5  
San Diego, California

#### **European School of Hematology**

Updates in Clinical Hematology  
February 9-10  
Paris, France

#### **Canadian Society of Transplantation**

Annual Scientific Conference  
February 23-25  
Quebec City, Quebec, Canada

### •MARCH

#### **Association of Community Cancer Centers**

38<sup>th</sup> Annual Meeting  
March 12-14  
Baltimore, Maryland

#### **Regenerative Medicine: Harvesting Biology for Regeneration**

16<sup>th</sup> Annual Hilton Head Workshop  
March 14-17  
Hilton Head Island, South Carolina

#### **National Comprehensive Cancer Network**

Clinical Practice Guidelines & Quality Cancer Care  
March 14-18  
Hollywood, Florida

#### **American Association of Tissue Banks**

16<sup>th</sup> Annual Spring Meeting  
March 24-27  
San Juan, Puerto Rico

#### **American Association for Cancer Research**

Annual Meeting  
March 31-April 4  
Chicago, Illinois

### •APRIL

#### **European Group for Blood and Marrow Transplantation**

38<sup>th</sup> Annual Meeting  
April 1-4  
Geneva, Switzerland

#### **American Society of Apheresis**

Annual Meeting  
April 11-14  
Atlanta, Georgia

### •MAY

#### **7<sup>th</sup> International Symposium on Neuroprotection and Neurorepair**

May 2-5  
Potsdam, Germany

#### **Oncology Nursing Society**

37<sup>th</sup> Annual Congress  
May 3-6  
New Orleans, Louisiana

#### **The American Association of Immunologists**

Immunology 2012  
May 4-8  
Boston, Massachusetts

#### **American Society of Pediatric Hematology Oncology**

25<sup>th</sup> Annual Meeting  
May 9-12  
New Orleans, Louisiana

#### **American Society of Gene & Cell Therapy**

15<sup>th</sup> Annual Meeting  
May 16-19  
Philadelphia, Pennsylvania

### •JUNE

#### **American Society of Clinical Oncology**

Annual Meeting  
June 1-5  
Chicago, Illinois

### •JUNE (CONT.)

#### **American Transplant Congress**

American Society of Transplant Surgeons/American Society of Transplantation  
June 2-6  
Boston, Massachusetts

#### **CRYO 2012**

Society for Cryobiology, 49<sup>th</sup> Annual Meeting  
June 3-6  
Rosario, Argentina

#### **International Society for Cellular Therapy**

18<sup>th</sup> Annual Meeting  
June 5-8  
Seattle, Washington

#### **Foundation for the Accreditation of Cellular Therapy**

Cord Blood Inspection and Accreditation Workshop  
June 10  
San Francisco, California

#### **International Society for Stem Cell Research**

10<sup>th</sup> Annual Meeting  
June 13-16  
Yokohama, Japan

#### **Federation of Clinical Immunology Societies**

Annual Meeting  
June 21-24  
Vancouver, British Columbia, Canada

### •JULY

#### **2012 Pan Pacific Lymphoma Conference**

July 17-20  
Maui, Hawaii

### •2013

#### **BMT Tandem Meetings**

Combined ASBMT and CIBMTR Annual Meetings  
February 13-17  
Salt Lake City, Utah

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Do you have news, responses or opinions to share with us?

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