COVID-19 Updates
Quick Links
Patient Resources
Publication List
Newsletters
News Releases
Slides and Reports
Statistical Resources
CIBMTR 50th Anniversary
Get Involved

November 2017 Newsletter

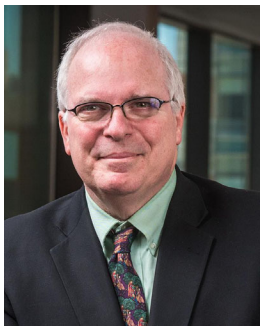
Volume 23, Issue 4

Table of Contents:

Perspectives
2018 BMT Tandem Meetings
Acute Leukemia Working Committee
Chronic Leukemia Working Committee
CIBMTR Trivia
Team Spotlight: Immunobiology Research Program
Dr. Ruiz-Argüelles Receives Honorary Doctorate
Stem Cell Therapeutic Outcomes Database
BMT CTN Update
Health Services Research: New Research Collaboration and PCOR Webinars
CIBMTR on Facebook and Twitter
Our Supporters
Abbreviations

Perspectives

By Robert Soiffer, MD



BMT is not the only cellular therapy on the block anymore. With the recent FDA approval of engineered cell therapies to treat patients with refractory ALL and NHL, we are entering a brave new world. To achieve tumor eradication, we may be on the verge of morphing from the potent - but still hard to characterize - graft-versus-tumor effect, long the muscle of transplant therapeutics, to a (hopefully) more targeted cellular therapy approach that can utilize autologous T cells expressing chimeric antigen receptors (CARs) targeting cell surface antigens, in this instance CD19. Moreover, it is likely that CAR T cell therapy will soon be applicable to tumors expressing antigens other than CD19, such as BCMA for multiple myeloma. In addition, cellular intervention is not limited to CAR T cells but will like extend to engineered T cell receptor therapies, manipulated NK cells, and antigen specific polyclonal T cells targeting an array of viral pathogens.

While BMT can induce significant collateral damage in the form of GVHD, CAR T cell therapy avoids that and obviates the need for an allogeneic donor. However, significant and potentially life threatening off target effects can still occur, most notably cytokine release syndrome and devastating neurologic toxicity. Understanding the clinical and biologic risk factors precipitating these events, and

determining best practices in treating them, is necessary to optimize the safety window.

The excitement generated by CAR T cells must be accompanied by a comprehensive assessment of its long-term efficacy and toxicity, particularly in light of the extremely high price tag attached to them. So where does the transplant community in general, and CIBMTR in particular, fit into this evolving landscape? It is likely for the foreseeable future that administration of commercial products will be limited to these settings at sites that are FACT accredited and well equipped to handle the spectrum of side effects that might be encountered with engineered cell therapies. As products from different commercial sources come on line, accurate compilation of these endpoints is critical so that patients, physicians, and payers alike can make accurate assessments to guide decision making. The CIBMTR is uniquely positioned to serve this role. With multiple decades of experience collecting and analyzing HCT, the CIBMTR has the tools to rapidly fill the void. Questions will naturally arise about the sequencing of engineered T cell therapies in a patient's care. The CIBMTR has access to comprehensive accurate outcomes data that will allow our community to place the short- and long-term results of CAR T cell therapy in context and perhaps to assess whether these treatments will serve as a bridge to, and adjunct with, or a replacement for autologous and allogeneic HCT for lymphoma, myeloma, and ALL.

Thus, the critical importance of constructing a vibrant database for cellular therapies cannot be understated. The transplant community has been remarkably cooperative in sharing clinical outcomes, demographic data, and biospecimens with the CIBMTR; this has resulted in unmistakable improvements in how we care for our patients. It is as important that we create an environment in the engineered cell community that mirrors this cooperative effort. The time to start is now.

Return to Top

2018 BMT Tandem Meetings

By Tia Houseman

The BMT Tandem Meetings - the combined annual meetings of the CIBMTR and ASBMT - are North America's largest international gathering of BMT clinicians and investigators, laboratory technicians, advanced practice professionals, transplant nurses, pharmacists, administrators, and clinical research associates since 1999.

Leading experts will convene at the Salt Palace Convention Center in Salt Lake City, Utah, February 21-25, to present the latest developments in blood and marrow transplantation and cellular therapy during the BMT Tandem Meetings. Scientific Program Chairs for the 2018 meetings are Fred Appelbaum, MD (CIBMTR), and Jerome Ritz, MD (ASBMT).

ASBMT will celebrate their 25th anniversary during the BMT Tandem Meetings, and there is some very exciting news to share about the 2019 meeting; you will not want to miss!

To register and view more details, visit the 2018 BMT Tandem Meetings webpage. As a reminder, January 23, 2018, is the last day for general registration rates. After registering, take advantage of special conference guest room rates at a wide variety of hotels within the BMT Tandem Meetings room block.

Remember to reserve your ticket to the BMT Tandem Meetings Reception on Saturday evening in the South Foyer of the Salt Palace for dancing, networking, and fun.

Questions regarding support opportunities at the 2018 BMT Tandem Meetings may be directed to Sherry Fisher, Director of Advancement for the CIBMTR. For general information, email bmttandem@mcw.edu.

We look forward to seeing you in Salt Lake City!

Return to Top

Acute Leukemia Working Committee

Committee Leadership

Co-Chairs		Scientific Directors	

			
Marcos de Lima, MD, Case Western Reserve University, Cleveland, OH	Brenda M. Sandmaier, MD, Fred Hutchinson Cancer Research Center and University of Washington, Seattle, WA	Daniel Weisdorf, MD, CIBMTR Minneapolis	Wael Saber, MD, MS, CIBMTR Milwaukee

Statistical Director	Statistician
	
Mei-Jie Zhang, PhD, CIBMTR Milwaukee	Hai-Lin Wang, MPH, CIBMTR Milwaukee

Acute leukemia remains the most common indication for allogeneic HCT. With transplant practice undergoing dramatic changes, observational studies play key and complementary roles in determining trends and identifying risk factors and prognostic indicators in a fast-evolving field. Questions were added to the 2013 Pre-TED forms regarding cytogenetics and molecular markers to allow for better disease-risk categorization of patients. The development of reduced intensity conditioning regimens, wide availability of high-resolution HLA typing, new combinations of immunosuppressive agents, and use of post-transplant cyclophosphamide for the prevention of GVHD opened the door for broad applicability of alternative donor transplants, including haploidentical donors, and the expanded use of allogeneic transplantation to older patients.

In addition, the complexity of data collection continues to increase. For example, presence of minimal residual disease (MRD) pre- and post-HCT have been shown to influence post-HCT outcomes. MRD test details including flow cytometry, cytogenetics, and fluorescence in situ hybridization (FISH) have been added to the 2017 CRFs. Discussions are ongoing as to the best format for incorporating newer markers of pre- and post-HCT MRD, including next-generation sequencing and PCR. The emergence of post-HCT therapies to prevent relapse has also added another setting for data collection, and we will certainly see many debates and analyses proposed on these and other topics in this committee. HCT indications, approaches, and comparison with other therapies are all valid topics for study.

The success of the Acute Leukemia Working Committee (ALWC) derives predominantly from a dedicated team with collaborative input. Committee leadership works closely with committee members, data managers, and transplant groups in the US and abroad. ALWC leadership develops and promotes the scientific agenda established with input from Working Committee members; determines priorities in the selection of high-impact studies; and ensures timely progress in protocol development, statistical analyses, manuscript development, and publications. This committee strives to improve quality and efficiency and is guided by the three principles established by the CIBMTR Advisory Committee: Publish peer-reviewed papers of high scientific impact, complete studies within a reasonable time period, and ensure inclusiveness and fairness within the study process.

The ALWC's recent academic activity includes two presentations at the 2016 ASH Annual Meeting and three submitted / accepted manuscripts. Thirty proposals were submitted for the 2017 BMT Tandem Meetings, and 10 proposals were selected for presentation to the committee. These numbers reflect a rapidly evolving field and a high-level of interest in the rich and vast data on acute leukemia within the CIBMTR Research Database. We are eager to review and discuss many new proposals from centers worldwide.

Number of Cases in the CIBMTR Research Database

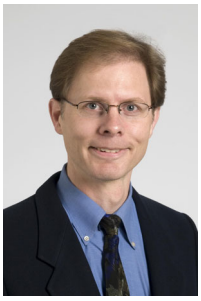
	TED-Level Data	CRF-Level Data
AML Autologous HCT	6,040	2,509
AML Allogeneic HCT	48,353	32,947
ALL Autologous HCT	1,181	505
ALL Allogeneic HCT	24,601	18,740

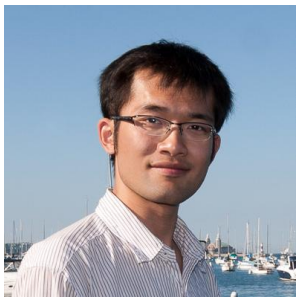
View planned, in-progress, and completed studies and publications on the Acute Leukemia Working Committee webpage.

Return to Top

Chronic Leukemia Working Committee

Committee Leadership

Co-Chairs			Scientific Director
			
Edwin Alyea, MD, Dana Farber Cancer Institute, Boston, MA	Uday Popat, MD, M.D. Anderson Cancer Center, Houston, TX	Ronald Sobecks, MD, Cleveland Clinic Foundation, Cleveland, OH	Wael Saber, MD, MS, CIBMTR Milwaukee

Statistical Directors:		Statistician:
		
Kwang Woo Ahn, PhD, CIBMTR Milwaukee	Ying Liu, PhD, CIBMTR Milwaukee	Zhenhuan Hu, MPH, CIBMTR Milwaukee

The main goal of the Chronic Leukemia Working Committee is to help establish the optimal timing of HCT for patients with MDS, CML, CLL, and myeloproliferative disorders as well as to improve outcomes for such patients. During the last several years, the efforts of the committee resulted in several published manuscripts as well as oral and poster presentations. The committee recently revised the CLL and CML data collection forms to better capture molecular and disease specific data of

prognostic importance. In addition, these forms now also incorporate more recent novel therapies, which will help generate important future studies for the committee to perform. To help foster new study proposals, our committee not only provides our members with disease specific lists of accepted studies but also with prior proposals that were not accepted and the rationale for the decision. This information allows investigators to better focus their new study proposals on concepts that are feasible and not redundant. A few of the published studies and proposals underway are described below.

Dr. Brian Shaffer led an important study that developed a prognostic scoring system of outcomes in those undergoing allogeneic HCT for MDS. The 3-year overall survival after transplantation in patients with low, intermediate, high, and very high scores was 71% (95% CI, 58% to 85%), 49% (95% CI, 42% to 56%), 41% (95% CI, 31% to 51%), and 25% (95% CI, 4% to 46%), respectively ($P < .001$). Increasing score was predictive of increased relapse ($P < .001$) and treatment-related mortality ($P < .001$) in the HLA-matched set and relapse ($P < .001$) in the HLA-mismatched cohort.

Dr. Hien Liu reported a study on allogeneic HCT for adult chronic myelomonocytic leukemia (CMML), which concluded that higher CMML-specific prognostic scoring system score at time of transplantation, lower Karnofsky performance score (KPS), and a bone marrow graft were associated with inferior survival after HCT. Investigation of transplant studies with CML have continued to ask important questions. Dr. Bei Hu submitted an abstract investigating the optimal timing of allogeneic HCT for CML patients in the tyrosine kinase inhibitor (TKI) era while Dr. Sarah Ann Schmidt is leading a study that examines the benefit of donor lymphocyte infusion for such patients.

Despite the development of highly active non-transplant therapies for CLL, allogeneic HCT remains a potential curative treatment strategy for selected, higher risk patients. To help better guide physicians and patients about this transplant approach, Dr. Haesook Kim and colleagues developed and validated a novel prognostic scoring system of HCT outcomes after reduced-intensity conditioning. This is the first score in the literature to risk stratify CLL patients at the time of HCT. A novel cytogenetic based risk stratification system was also developed, and then the two systems were combined. This may serve as a platform for assessment of future investigational approaches and allow better comparison of results from different studies.

The committee welcomes new participants as well as new proposals. We also encourage collaboration with other committees and the use of outside data sets, which can better define the role and timing of transplantation as new non-transplant strategies emerge. We encourage young investigators to take part in the committee, which will provide them an excellent opportunity to become familiar with novel study designs for observational research and the statistical methodologies utilized. The next in-person meeting of the Chronic Leukemia Working Committee is at the BMT Tandem Meetings in Salt Lake City in February 2018. We look forward to seeing you there and welcoming new proposals.

View planned, in-progress, and completed studies and publications on the Chronic Leukemia Working Committee webpage.

Return to Top

CIBMTR Trivia

The CIBMTR's Research Database has information on more than _____ transplant patients.

A. 375,000
B. 412,000
C. 475,000
D. 490,000

Enter your answer online. If you answer correctly, you will be entered into a drawing to win a CIBMTR prize.

Return to Top

Team Spotlight: Immunobiology Research Program

Left to right: Alyssa Carlson, Colleen Brady, Heather Severance, Stephanie Waldvogel, Ashley Spahn, Cynthia Vierra-Green, Alexandra (Allie) Erickson, Alan Howard, Maria Brown, and Steve Spellman.

The Immunobiology Research Program within CIBMTR is led by Assistant Scientific Director, Stephen Spellman, with scientific oversight provided by Senior Scientific Director, Dr. Stephanie Lee. The team is comprised of ten members and is based on the Minneapolis Campus.

The Immunobiology Research Program was established in 2010 and supports the Graft-versus-Host Disease, Graft Sources and Manipulation, and Immunobiology Working Committees. The program manages CIBMTR research sample collection and sample utilization. This includes the unrelated and related donor / cord blood pre-transplant sample collections and prospective clinical trial sample collection supporting the RCI BMT and BMT CTN. The CIBMTR Related and Unrelated Donor Transplant Repository contains samples from nearly 150,000 individuals, and the program distributed >16,000 samples to investigators during the 2016-2017 academic year. The Immunobiology Research team works closely with the Repository Steering Committee comprised of the NMDP Histocompatibility Advisory Group to monitor sample submission compliance, sample processing protocols, and approval of CIBMTR studies that use the stored samples. Details on the research sample inventory are available on the CIBMTR and BMT CTN websites.

The Immunobiology Research team manages the immunogenetic testing program that performs retrospective high-resolution HLA and killer immunoglobulin-like receptor (KIR) typing on stored donor and cord-recipient pairs. This testing program not only provides key immunogenetic data for histocompatibility research but also confirms sample identity in the repository for future analyses. In the past year, >1,300 related and >3,200 unrelated donor/recipient pairs were tested through the program. The immunogenetic database includes >25,000 pairs with retrospectively validated HLA data and >18,000 pairs with KIR presence/absence data. The HLA and KIR data are incorporated into the CIBMTR immunogenetics database and made available for future studies. In addition, the team provides HLA expertise for validation of all typing submitted on CIBMTR data collection forms prior to inclusion in research studies. The team also provides scientific expertise and logistical support to establish laboratory contracting and sample testing services for CIBMTR, BMT CTN, and RCI BMT studies.

Return to Top

Guillermo J. Ruiz-Argüelles, MD, FRCP (Glasg), MACP, Receives Honorary Doctorate

The Autonomous University of San Luis Potosí awarded Guillermo J. Ruiz-Argüelles, MD, FRCP (Glasg), MACP, with its greatest honorary Doctorate for being a prominent figure nationally and internationally. His long history in research and teaching in the field of hematology as well as his contributions to medical science in bone marrow transplantation distinguish him as an outstanding graduate of the Faculty of Medicine of this house of study and professionally committed to his vocation of service to humanity.

Dr. Ruiz-Argüelles received the Doctorate Honoris Causa from the Maximum House of Studies Potosina in September. Dr. Ruiz-Argüelles is a hematologist doctor from the Faculty of Medicine of this University and full member of the National Academy of Medicine of Mexico, the National System of Researchers (Level III), the Mexican Academy of Sciences, and the Commission of Health Research of Mexico.

Congratulations Dr. Ruiz-Argüelles on this accomplishment!

Return to Top

Stem Cell Therapeutic Outcomes Database

By Carol Doleysh and Martin Maiers, PhD

HRSA Renews SCTOD Contract
The CIBMTR successfully competed for, and was awarded, renewal of the SCTOD contract with HRSA. This contract was first awarded to CIBMTR in 2006. The outcomes registry of the CIBMTR currently contains information for >475,000 transplant recipients as well as critical data to continually evaluate the operations of the national transplant program.

“CIBMTR is privileged to continue to operate this important national Database on behalf of the C.W. Bill Young Cell Transplantation Program,” said J. Douglas Rizzo, MD, MS, Professor of Medicine at the Medical College of Wisconsin, Senior Scientific Director at CIBMTR, and Principal Investigator of the SCTOD. “CIBMTR delivers value by using the Outcomes Database to provide clinicians, scientists, patients, and policymakers the information they need to make the best possible clinical decisions. It is a beneficial platform to expand important research to advance the field, plan clinical trials, facilitate quality improvement, and perform studies on behalf of policymakers. The major goal of the program is to make blood

and marrow transplants available to all who need them and to increase their safety and effectiveness."

In addition, HRSA recently awarded other C.W. Bill Young Cell Transplantation Program contracts to NMDP to continue work through the Office of Patient Advocacy for transplant patients and the Single Point of Access Coordinating Center, which coordinates bone marrow and cord blood donation and matching with recipients.

Registry Models

The CIBMTR produced a three-year update of the Registry Models report, which analyzed the size, composition, and growth rate of the National Cord Blood Inventory and Adult Donor Registry. The goal of the report is to estimate the effect of different scenarios of cord blood inventory and adult donor registry growth under several different matching scenarios and protocols. The report was generated based on the size and composition of the registry at the end of 2016 and projects growth to 2023. This year's report differs from previous versions in that it includes analysis of matching based on HLA-DPB1 and donor age, and it puts more focus on allele matching for cord blood units.

The main finding regarding age is that 2/3 of patients with an 8/8 match will have an available donor in the youngest donor age group (18-29), and 80% will have a donor in the two youngest age groups (18-29 or 30-39). The main new finding regarding HLA-DPB1 is that the majority of patients (>93%) with an 8/8 match also have an available donor where the DPB1 alleles either match or are permissively mismatched according to a DP T-Cell Epitope matching strategy. In 2016, the number of international donors exceeded the number of US donors for the first time. Recruitment trends projected from the last five years for the two largest recruiters of donors, the German Bone Marrow Donor Program (DKMS) and Be The Match, suggest that in five years DKMS will have 50% more donors than Be The Match. Five years ago, DKMS had half as many donors as Be The Match, and today the two are equal. The gap will widen further for donors under 40; DKMS is projected to have two donors under 40 for everyone Be The Match donor by 2022. Overall donor availability is increased from previous years, possibly due to inclusion of a date of last contact on the search report, which is a predictor of donor commitment.

Return to Top

Blood and Marrow Transplant Clinical Trials Network Update

By Amy Foley, MA

The BMT CTN, with its 37 Core / Consortia Centers and approximately 75 Affiliate Centers, has now enrolled >9,800 patients. The Network was established in 2001 and recently renewed for a fourth grant cycle by NHLBI and NCI.

Clinical Trials: Open Enrollment

The BMT CTN encourages widespread transplant community participation in clinical trials. If your center is interested in participating, visit the BMT CTN website.

There are 13 trials open to accrual, 2 released to centers, and one in development.

BMT CTN Publications

There are 78 BMT CTN published articles, including 21 primary analyses. The following secondary analysis manuscripts were recently published:

- 0501: Eapen et al. **Umbilical cord blood transplantation in children with acute leukemia: Impact of conditioning on transplant outcomes**. Biology of Blood and Marrow Transplantation. 2017 Oct;23(10):1714-1721. Epub 2017 Jul 3. ncbi.nlm.nih.gov/pubmed/28684372
- 0704/CALGB 100104: Holstein et al. **Updated analysis of CALGB (Alliance) 100104 assessing lenalidomide versus placebo maintenance after single autologous stem-cell transplantation for multiple myeloma: A randomised, double-blind, Phase III trial**. Lancet Haematology. 2017 Sep;4(9):e431-e442. Epub 2017 Aug 17. ncbi.nlm.nih.gov/pubmed/28826616

About the BMT CTN

The CIBMTR shares administration of the BMT CTN Data and Coordinating Center with National Marrow Donor Program/Be The Match® and The Emmes Corporation®. Together, these three organizations support all BMT CTN activities. The BMT CTN Steering Committee is currently under the leadership of Chair Steve

Devine, MD, Ohio State University. Rick Jones, MD, Johns Hopkins, is Chair-Elect and Helen Heslop, MD, Baylor College of Medicine, is Vice-Chair.

To get up-to-date information about BMT CTN studies, meetings, and news:

facebook.com/bmtctn

twitter.com/bmtctn (@BMTCTN)

Return to Top

Health Services Research: New Research Collaboration and PCOR Webinars

By Linda Burns, MD; Ellen Denzen, MS; and Beth Murphy, EdD, RN

Palliative Care in HCT

As presented at the BMT Tandem Meetings in 2017, palliative care has a significant impact on patient outcomes, yet it is not consistently integrated in HCT care plans across transplant centers. The HSR Program is collaborating with the ASBMT Palliative Care Special Interest Group to conduct research on perceptions of palliative care among clinicians and patients as well the unmet need for palliative care services among transplant patients. Results of the study will be shared at the 2017 NMDP Council Meeting held November 10-11, 2017, in Minneapolis. The session will also highlight recent research on palliative care outcomes and include a panel with patient, caregiver, and physicians to share experiences with palliative care in HCT. Please join us for this informative education activity. NMDP 2017 Council Meeting details and registration information can be found on the Council Meeting webpage.

3-Year PCORI-Funded Research in Survivorship Care Plans Completed

The Health Services Research Program and RCI BMT successfully completed the PCORI-funded study, Individualized Care Plans for HCT Survivors, in August. Results of the study will be presented by Navneet Majhail, MD, MS, as an oral abstract at the ASH Annual Meeting, session number 723 on December 10, in Atlanta. Hope to see you there!

The Health Services Research Program will also facilitate a session at the 2017 NMDP Council Meeting on Effectiveness of Survivorship Care Plans and Patient Experiences as Participants in Research.

Patient-Centered Outcomes Research Webinars

Webinars were held in September and October as part of the PCORI-funded Engaging Patients in Developing a Patient-Centered HCT Research Agenda. The presenters highlighted patient and caregiver perspectives, gaps in the existing literature, and priority research questions on patient-reported HCT outcomes: Sexual, Physical, and Emotional Health and Priorities in Education, Care Delivery, and Financial Burden. More than 100 clinicians, patients, caregivers, researchers, and patient advocates participated in the live sessions. A manuscript detailing the prioritized PCOR agenda is also in progress.

If you missed the webinars, on demand versions of the recorded sessions will be available soon. CME and CNE are available. We will distribute an email with registration information, and additional information is available on the Be The Match Clinical Education webpage.

For questions about the Health Services Resarch Program, contact Ellen Denzen, MS, Senior Manager, Health Services Research, or visit the Health Services Research webpage.

Return to Top

CIBMTR on Facebook and Twitter

Like us on Facebook and follow us on Twitter to stay up-to-date with important news and events. We promote our publications, share important content from other organizations, and advertise our key meetings and events. Join us today!

facebook.com/theCIBMTR

twitter.com/CIBMTR (@CIBMTR)

Return to Top

Our Supporters

The CIBMTR is supported by Public Health Service Grant/Cooperative Agreement 5U24CA076518 from the National Cancer Institute (NCI), the National Heart, Lung and Blood Institute (NHLBI) and the National Institute of Allergy and Infectious Diseases (NIAID); a Grant/Cooperative Agreement 4U10HL069294 from NHLBI and NCI; a contract HHSH25020170006C with Health Resources and Services Administration (HRSA/DHHS); two Grants N00014-17-1-2388 and N0014-17-1-2850 from the Office of Naval Research; and grants from our corporate and private contributors.

Return to Top

Abbreviations

Need an acronym defined? Review our list of common abbreviations.

Return to Top

Last Updated: 11/1/2017 8:58 AM

CIBMTR® (Center for International Blood and Marrow Transplant Research®) is a research collaboration between the National Marrow Donor Program®/Be The Match® and the Medical College of Wisconsin