NATIONAL MARROW DONOR PROGRAM®

Entrusted to operate the C.W. Bill Young Cell Transplantation Program,
including Be The Match Registry®

July 29, 2011

CDR Sheri Parker
Office of Naval Research (ONR 342)
875 N. Randolph St.
Arlington, VA 22203-1995

Subject: **Quarterly Performance/Technical Report of the National Marrow Donor Program®**

Reference: Grant Award #N00014-11-1-0339 between the Office of Naval Research and the National Marrow Donor Program

Dear Cdr. Parker:

Enclosed is subject document which provides the performance activity for each statement of work task item of the above reference for the period of April 1, 2011 to June 30, 2011.

Should you have any questions as to the scientific content of the tasks and the performance activity of this progress report, you may contact our Chief Medical Officer – Dennis L Confer, MD directly at 612-362-3425.

With this submittal of the quarterly progress report, the National Marrow Donor Program has satisfied the reporting requirements of the above reference for quarterly documentation. Other such quarterly documentation has been previously submitted under separate cover.

Please direct any questions pertaining to the cooperative agreement to my attention at 612-362-3403 or at cabler@nmdp.org.

Sincerely,

Carla Abler-Erickson

Carla Abler-Erickson, MA
Sr. Contracts Representative

Enclosure: Quarterly Report with SF298

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14. ABSTRACT

1. Contingency Prepardness: Collect information from transplant centers, build awareness of the Transplant Center Contingency Planning Committee and educate the transplant community about the critical importance of establishing a nationwide contingency response plan.

2. Rapid Identification of Matched Donors : Increase operational efficiencies that accelerate the search process and increase patient access are key to preparedness in a contingency event.

3. Immunogenetic Studies: Increase understanding of the immunologic factors important in HSC transplantation.

4. Clinical Research in Transplantation**:** Create a platform that facilitates multicenter collaboration and data management.

15. SUBJECT TERMS
Research in HLA Typing, Hematopoietic Stem Cell Transplantation and Clinical Studies to Improve Outcomes

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NATIONAL MARROW DONOR PROGRAM®

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Grant Award N00014-11-1-0339

QUARTERLY
PERFORMANCE / TECHNICAL REPORT
FOR
APRIL 01, 2011 to JUNE 30, 2011

Office of Naval Research

And

The National Marrow Donor Program
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TABLE OF CONTENTS

IIA. Contingency Preparedness – Objective 1: Recovery of casualties with significant myelosuppression following radiation or chemical exposure is optimal when care plans are designed and implemented by transplant physicians	
IIA.1 Task 1: Secure Interest of Transplant Physicians	**Period 2 Activity:** • Began coordination of Advanced Medical Radiation Response training to be held in October at the Radiation Emergency Assistance Center and Training Site in Oakridge, TN.
IIA.1 Task 2: GCSF in Radiation Exposure	**Period 2 Activity:** • No activity this quarter.
IIA.1 Task 3: Patient Assessment Guidelines and System Enhancements	**Period 2 Activity:** • Planning conducted for the State of the Science Workshop: Radiation effects, Medical Countermeasures and Treatment
IIA 1 Task 4: National Data Collection Model – This task is closed.	
IIA. Contingency Preparedness – Objective 2: Coordination of the care of casualties who will require hematopoietic support will be essential in a contingency situation.	
IIA.2 Task 1: Contingency Response Network	**Period 2 Activity:** • Growth of RITN during 2011: o This year we have added four new transplant centers to RITN. o Seven additional transplant centers are reviewing the RITN participation agreement to decide if they will join. o Current composition of RITN is: 59 total centers including; 45 transplant centers, seven donor centers and seven cord blood banks • Fukushima Nuclear Power Plant – RITN Situation Reports: o On June 23, after 104 days, we discontinued sending the RITN Situation Reports about the Japanese Nuclear Power Plant Crisis.

- We ultimately sent 34 situation reports to the RITN network and our partners.
- Positive feedback was heard from a multitude of public, private and non-profit agencies including from American Hospital Association staff, CDC staff, public health officials, and ASPR leadership.

- Three RITN Executive Committee members attended a special meeting of the European Group for Blood and Marrow Transplantation – Nuclear Accident Committee (EBMT-NAC) meeting in London on June 9th.
- Site Assessments:
  - Conducted assessments of three RITN transplant centers; assessments reviewed critical areas necessary for responding to a mass casualty incident with marrow toxic injuries. These areas included:
    - Victim processing
    - Outpatient treatment of victims
    - Inpatient treatment of victims
    - Coordination with region, state or federal agencies
    - Documentation review
- RITN Medical Advisor activity; Dr. Weinstock participated in the following activities supporting the Radiation Injury Treatment Network:
  - He was a featured speaker and panelist at the CDC meeting "Bridging the Gaps: Public Health and Radiation Emergency Preparedness Conference" in Atlanta, GA between March 21-24, 2011.
  - He was a featured speaker and panelist at the Center for Biosecurity of the University of Pittsburgh meeting "Advancing U.S. Resilience to a Nuclear Catastrophe" (available at: http://216.251.248.90/video/20110519-nukeresilience/04_panel2.html) on May 19, 2001.
  - He participated in a webinar for the American Medical Association entitled, "Crisis in

	Japan: Medical and public health implications of a radiation emergency" (available at: http://www.ama-assn.org/ama/pub/physician-resources/public-health/center-public-health-preparedness-disaster-response/japan-earthquake/radiation-webinar.page) on April 6, 2011. o He participated in an international meeting organized by the European Bone Marrow Transplant Nuclear Accident Committee in London, England on June 9, 2011. o He helped co-author: ▪ a manuscript in Biology of Blood and Marrow Transplant, entitled "Planning and Response to Radiation Exposures" (available at: http://www.ncbi.nlm.nih.gov/pubmed/21723406) ▪ a manuscript pending publication in Radiation Research ▪ a manuscript in preparation for Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science ▪ as well as a series of articles focused on medical response after a nuclear detonation that were organized by the Department of Health and Human Services and published in Disaster Medicine and Public Health Preparedness (2011 Supplement 1). o In addition to participation in Executive Committee teleconferences, he is assisting with planning for the RITN meeting in October 2011. o Finally, he is organizing a review of pediatric guidelines for the treatment of acute radiation syndrome that involves governmental and nongovernmental experts in emergency medicine, hematology/oncology, stem cell transplantation and radiation event response. • Tested HealthCare Standard (HCS) software; 50 of 55 centers submitted a Capabilities report through this new crisis management tool. • Review for publication of Scarce resource pubs
IIA.2 Task 2: Sibling Typing Standard Operating Procedures	**Period 2 Activity:** • No activity this quarter.

IIA. Contingency Preparedness – Objective 3: NMDP's critical information technology infrastructure must remain operational during contingency situations that directly affect the Coordinating Center.	
IIA.3 Task 1: I.S. Disaster Recovery	**Period 2 Activity:** • No activity this quarter.
IIA.3 Task 2: Critical Facility and Staff Related Functions	**Period 2 Activity:** • Published lessons learned and key gaps identified from the Business Continuity Plan (BCP) and Disaster Recovery (DR) plan walkthrough. • Continued to coordinate department preparation for the 2011 Business Continuity Plan Exercise (BCPeX 2011). The exercise will be conducted at a non-NMDP office location approximately 15 miles from the NMDP offices. • Continued to coordinate the update of the Business Continuity Plan through the review of the Critical Task List with each department. This updated task list will be reviewed line by line with the Critical Task List Review Committee in August.
IIB. Rapid Identification of Matched Donors – Objective 1: Increasing the resolution and quality of the HLA testing of volunteers on the registry will speed donor selection.	
IIB.1 Task 1: Increase Registry Diversity	**Period 2 Activity:** Five contracted HLA testing laboratories performed HLA-A, B, DRB1 typing and two laboratories performed HLA-A, B, C, DRB1 typing on a total of 62,516 newly recruited donors. • Blind quality control testing error rate was 0.03%, meeting the project requirement of ≤ 2.0%. • On-time testing completion rate was 99.0%, meeting the project requirement of a minimum of 90% of typing results reported within 14 days of shipment of samples. In addition to managing the new donor recruitment typing program, performing registry file maintenance, and working on HLA discrepancy resolution, NMDP staff continued to manage and fine-tune the recently implemented process of sorting samples on the newly recruited donor queue to strategically direct samples with particular donor demographic data to specific laboratories. The goal is to enhance the donor recruitment typing program through optimal use of NMDP contracted lab by directing the most desired

	donors (young males and females) to the laboratories that provide the most complete and highest resolution HLA typing to ensure these donors are listed on the registry with the most comprehensive typing available. During this quarter: 100% of males and 95% of females 18-30 years of age were typed at HLA-A, B, C and DRB1. **Rare allele retyping project** During this quarter, 385 samples which carried a rare allele in the Be The Match Registry were retyped. Selection of these samples was determined by factors such as type date, alleles reported in a sample whose race differed from the race the allele was initially described in, association with other loci, and previous corrections made on other samples that carried the rare allele. The total retyped by loci was 98 HLA-A, 189 HLA-B, 24 HLA-C, and 74 HLA-DRB1. After SBT typing of the sample, 47% of the reported rare alleles changed to a different allele. To date 804 samples have had a correction to the rare allele reported and 450 samples have been retyped and the rare allele was confirmed. An abstract was accepted and presented as a poster presentation at the European Federation of Immunogenetics (EFI) meeting 2011 in May 2011 providing the results to date of this project.
IIB.1 Task 2: Evaluate HLA-DRB1 High Res typing – This task is closed.	
IIB.1 Task 3: Evaluate HLA-C Typing of Donors – This task is closed	
IIB.1 Task 4: Evaluate Buccal Swabs	**Period 2 Activity:** Sample Storage Research Study A comprehensive interim report was written with the results of the first 4 time points for donor samples. (Time point zero through time point 3 years.) o HLA typing: 100% accuracy o DNA Quantity and Quality: sufficient quantity and quality for HLA testing. At time point 3 years, 3% of the buccal swab samples needed some repeat testing in order to obtain results for all loci A final report was written for the Quality Control samples. (Time point zero through time point 18 months.) o HLA typing: 100% accuracy

	• DNA Quantity and Quality: sufficient quantity and quality for HLA testing. At 18 months, 1 sample needed repeat testing for high resolution DQB1.
IIB 1 Task 5: Enhancing HLA Data for Selected Donors – This task is closed.	
IIB 1 Task 6: Maintain a Quality Control Program	**Period 2 Activity:** • During this quarter a comprehensive analysis of the NMDP QC sample inventory was performed to evaluate the allele composition and identify any areas that need development in order to ensure optimal allele composition and robustness of the QC program. As a result of the analysis, 70 samples from the Research Repository were selected for incorporation into the NMDP QC program and will be sent for cell initiation/expansion in July, 2011. The addition of 50 of the 70 samples will round out the QC inventory and ensure complete coverage of CWD common US alleles; the remaining 20 will expand current B-LCL inventory.
IIB. Rapid Identification of Matched Donors – Objective 2: Primary DNA typing data can be used within the registry to improve the quality and resolution of volunteer donor HLA assignments.	
IIB 2 Task 1: Collection of Primary Data	**Period 2 Activity:** • No activity this quarter.
IIB 2 Task 2: Validation of Logic of Primary Data – This task is closed.	
IIB 2 Task 3: Reinterpretation of Primary Data – This task is closed.	
IIB 2 Task 4: Genotype Lists & Matching Algorithm	**Period 2 Activity:** Transplant Center Proficiency Study – FY 2011 The TC Proficiency study design was reviewed by the Histocompatibility Advisory Group in March 2011 in which they accepted the design with minimal changes. The project summary: • Domestic Transplant Centers were included • Five active searches (random) for each TC to be evaluated by NMDP senior search strategists • Donor selection is being evaluated at the point of the first donor requests and ranked for the

	following: o Resolution of Patient HLA typing o Adequate number of donors selected o Search Strategy • The study began accrual in June and will continue through September 2011, to date about 380 searches have been accrued. Searches are archived at the time of search formalization so they are available for review and ranking by the search strategists. Centers will be evaluated on up to five searches accrued during this period and the results will be summarized in the next quarter. The results will be compared to the 2005 TC Proficiency Study. • Developed detailed statement of work for Silver Standard prototype. Presented to Histocompatibility Advisory Group for approval and feedback.
IIB. Rapid Identification of Matched Donors – Objective 3: Registry data on HLA allele and haplotype frequencies and on the nuances of HLA typing can be used to design computer algorithms to predict the best matched donor.	
IIB.3 Task 1: Phase I of EM Haplotype Logic	**Period 2 Activity:** • No activity this quarter.
IIB 3 Task 2: Enhancement of EM Algorithm	**Period 2 Activity:** • Developed 2-locus imputation for use in newly-conceived Blocks/Imputation EM approach to improve 5-locus frequencies. • Tested methods for synthetic 3-locus frequencies for unobserved haplotypes – Found using 2-locus information works best.
IIB 3 Task 3: Optimal Registry Size Analysis	**Period 2 Activity:** • Submitted Math Model manuscript to the journal BBMT

IIB 3 Task 4: Target Under- Repre-sented Phenotypes	**Period 2 Activity:** • Completed automating and building 4,000 country-specific BMDW maps. Updated HaploStats to display maps and launched via www.haplostats.org • Completed and displayed a poster at EFI describing our process for building and displaying BMDW Maps. • Began working on US Maps in order to more granularly understand US HLA distributions, especially for patients with a rare type.
IIB 3 Task 5: Bioinformatics Web Site – This task is closed.	
IIB 3 Task 6: Consultants to Improve Algorithm – This task is closed.	
IIB 3 Task 7: Population Genetics – This task is closed.	
IIB 3 Task 8: Haplotype Matching – This task is closed.	
IIB 3 Task 9: Global Haplotype/Benchmark – This task is closed.	
IIB. Rapid Identification of Matched Donors – Objective 4: Reducing the time and effort required to identify closely matched donors for patients in urgent need of HSC transplants will improve access to transplantation and patient survival in the context of a contingency response and routine patient care.	
IIB.4 Task 1: Expand Network Communications – This task is closed.	
IIB.4 Task 2: Central Contingency Management	**Period 2 Activity:** • No activity this quarter.
IIB.4 Task 3: Benchmarking Analysis – This task is closed.	
IIB.4 Task 4: Expand Capabilities of Collection and Apheresis Centers – This task is closed.	

IIC. Immunogenetic Studies – Objective 1: HLA mismatches may differ in their impact on transplant outcome, therefore, it is important to identify and quantify the influence of specific HLA mismatches. In contingency situations it will not be possible to delay transplant until a perfectly matched donor can be found.	
IIC.1 Task 1: Donor Recipient Pair Project	**Period 2 Activity:** In 1994 a retrospective D/R Pair HLA typing project to characterize class I and class II alleles of donor/recipient paired samples from NMDP's Repository was initiated. The goals of this ongoing research project are to assay the impact of DNA-based HLA matching on unrelated donor transplant outcome, develop strategies for optimal HLA matching, evaluate the impact of matching at alternative HLA loci on transplant outcome and finally to promote the development of DNA-based high resolution HLA typing methodologies. Presence/absence typing of 14 KIR loci (2DL1-5, 2DS1-5, 3DL1-3 and 3DS1) has been included. • Final results were received on the 175 cord/recipient pairs included in SG 27. All 175 pairs were typed for HLA and KIR. Initial auditing of the data has begun. No make resolution has been initiated and the discrepancy review has started. • SG 28 began on April 1, 2011 with a period of performance through July 31, 2011, 110 pairs are being typed for HLA and KIR. • To date over 2100 pairs and 1180 additional donors have been typed for presence/absence of 14 KIR loci (2DL1-5, 2DS1-5, 3DL1-3 and 3DS1).
IIC. Immunogenetic Studies – Objective 2: Even when patient and donor are HLA matched, GVHD occurs so other loci may play a role.	
IIC 2 Task 1: Analysis of non-HLA loci	**Period 2 Activity:** Immunobiology Integration DataBase (IIDB) • Completed mapping of 25% of all elements contained in caDSR to BRIDG UML Model. Completed plan for mapping the remaining 1500+ elements, and we are slated to end the modeling task in November of 2011.

	• We've completed Business Analysis of loading HLA data into IIDB, and specific Technical Documents are slated to begin this Quarter.
IIC 2 Task 2: Related Pairs Research Repository – This task is closed.	
IIC 2 Task 3: CIBMTR Integration – This task is closed.	
IID. Clinical Research in Transplantation – Objective 1: Clinical research in transplantation improves transplant outcomes and supports preparedness for a contingency response.	
IID.1 Task 1: Observational Research, Clinical Trials and NIH Transplant Center	**Period 2 Activity:** **Observational Research** • Staff continued work on various observational studies within the area of Immunobiology, GVHD and Graft Sources Working Committees. **Prospective Studies; RCI BMT** • During this quarter, follow up activities continued for donors participating in the PBSC vs. Marrow clinical trial. • Four patients were enrolled on the Adult Double Cord trial this quarter bringing the total accrual to forty-eight patients (87% complete). Staff continued to coordinate, manage data collection and monitor sites. • Activities continued on the Long Term Donor Follow up project. During this period, Survey Research Team continued to receive consents back from the previously donated group and began to make scheduled follow up calls. To date they have enrolled more than 8200 donors. During this report period staff began preparations for email outreach to those donors we have not yet received consent in an effort to increase accrual of the previously donated group. Donor Centers are actively performing consent sessions with donors during their standard work-up process. • During this reporting period, database management and system updates were performed to the AdvantageEDC system being used for both the Double Cord and Revelimid trials.

Cord Blood Research

- The Duke and MD Anderson laboratory staff continued work on validating the assay methodologies to ensure consistent results were generated at both testing sites for the study investigating biomarkers associated with cord blood engraftment.
    - Initial statistical analysis of the validation testing results showed poor inter-laboratory reliability for all assays performed.
    - Further protocol development and testing at Duke led to refinements of the testing protocol aimed at improving inter-laboratory reliability.
    - The study team held a conference call to discuss the data and planned a final attempt at improving inter-laboratory reliability. Results of the analysis indicated persistent poor inter-laboratory reliability.
    - Testing using a third laboratory is under development to determine whether the poor reliability is due to center-specific or assay related issues.
- A white paper detailing recommendations/guidelines for the assessment of new assays (potency or other assays) relevant to cord blood banking and/or transplantation was published in Cytotherapy.
    - The NMDP was contacted by Hemogenix regarding a collaborative validation study for their potency assay (HALO).
    - The proposal was reviewed by the Cord Blood Advisory Group and the Cord Research Subcommittee. Plans are in place to proceed with protocol development.
- The NMDP performed an analysis of the likelihood of finding a non-inherited maternal antigen/allele (NIMA) match for HLA mismatched cord blood unit for transplant when upfront maternal typing is not available. The retrospective analysis compared the frequencies of the NIMA

matched and mismatched HLA- A, B antigens or DRB1 alleles found in the Eurocord/NMDP/CIBMTR study to determine any significant differences.

- NIMA matches were associated with high frequency of HLA-A, B antigens, or –DRB1 alleles in this retrospective population.
- Further work is required to develop predictive algorithms for the likelihood of finding a NIMA match.
- The results were presented at the 9th annual International Umbilical Cord Blood Transplantation Symposium in June and received the Best Abstract award.

- Work began on a study to assess CBU characteristics (viability, TNC, CFU and CD34) pre-freeze and post thaw. Segment evaluation prior to unit release is under consideration as a third evaluation point, but will require an understanding of the release testing performed by the various CBBs.
  - A survey was sent out to Network cord blood banks to collect data on cord blood release testing practices

FormsNet Activity

- Completed the build, quality assurance testing and Implementation of Donor Audit Functionality into FormsNet. This adds to the Audit functionality released last quarter to provide the materials required to conduct on-site audits of Donor Centers(DC) to determine the error rate in the FormsNet2 database, document the error rate, and identify systematic and non-systematic errors. Requirements are underway to support monitoring of Clinical Trial sites and adherence to study protocols. Established the requirements for an interim approach to provide materials for monitoring the Related Donor Safety study. This release has moved from analysis into build this quarter. The interim approach is intended for use until the full requirements for monitoring clinical trials can be completed and implemented.
- The Sample Tracking Application in support of Clinical Trials was implemented into production in

June 2011, along with the 1st clinical trial it supports. This application provides sample management/inventory tracking functionality for clinical trials. The associated Clinical Trial that was implemented was the 09-MRD (Minimal Residual Disease) Study. The new Form 2007 (Cord Blood) was also implemented.

- Management Reporting Website documented produced and released ten new reports based on FormsNet data. Requirements were for management oversight and clinical trials support.
- Quality assurance of the mapping of NMDP legacy data (before 11/2007) to the FormsNet database continues. The first sample set of the baseline form has completed the full migration path. Planning for the full data migration is underway with increased storage requirements addressed during the quarter.
- The Cord Blood/ Event Reporting project was initiated in this quarter. It will be implemented in FormsNet to support the 10-CBA (Cord Blood Access) study and Event Reporting scope. The Event Reporting requirements include those to support reporting of Adverse Events and Product Deviations. This project will be implemented by September 2011 in support of the FDA requirement to collect and display Licensure status and IND information on CBUs by October 2011. Another release will be implemented in October 2011 to support additional Adverse Event follow-up needs.

AGNIS Activity:

- Authorized three additional transplant centers to retrieve form data using the Stemsoft BMTBase 4.0 product.
    - A total of 24 centers have been authorized for form retrieval
    - 19 of these centers have retrieved completed forms through this AGNIS interface.
- Completed quality assurance on the Chimerism form and development and quality assurance of the Selected Post-TED forms. Released both forms to production. The current form revision is available for submission; both revisions of these forms are available for retrieval.

	• Began quality assurance on the 6 month to 2 year Follow-up form. • Began development on the ability to assign a patient unique identifier using AGNIS, quality assurance is still outstanding on this feature. • Provided support for Memorial Sloan Kettering on their AGNIS development efforts. • Provided support to EBMT development and form mapping efforts. EBMT completed their mapping to the Infectious Disease Markers and HLA forms. They have begun mapping of the Chimerism form and on the 6 month time point for the Post Transplant TED form. They have begun testing of Pre-Transplant form submission to AGNIS. • Began analysis on an approach to provide data on US transplants using European cord units back to the EBMT and Eurocord • Quality Assurance continues of AGNIS changes to allow submission of forms prior to form curation in the caDSR.
IID.1 Task 2: Research with NMDP Donors – This task is closed.	
IID.1 Task 3: Expand Immuno-biology Research	**Period 2 Activity:** • No activity this quarter.

ACRONYM LIST

AABB	American Association of Blood Banks	HR	High Resolution
AFA	African American	HRSA	Health Resources and Services Administration
AGNIS	A Growable Network Information System	HSC	Hematopoietic Stem Cell
AML	Acute Myelogenous Leukemia	IBWC	Immunobiology Working Committee
ABD	Antigen Binding Domain	IDM	Infectious Disease Markers
API	Asian Pacific Islander	IHWG	International Histocompatibility Working Group
ARS	Acute Radiation Syndrome (also known as Acute Radiation Sickness)	IPR	Immunobiology Project Results
ASBMT	American Society for Blood and Marrow Transplantation	ICRHER	International Consortium for Research on Health Effects of Radiation
ASHI	American Society for Histocompatibility and Immunogenetics	IND	Investigational New Drug
B-LCLs	B-Lymphoblastoid Cell Lines	IS	Information Services
BARDA	Biomedical Advanced Research and Development Authority	IT	Information Technology
BBMT	Biology of Blood and Marrow Transplant	IRB	Institutional Review Board
BCP	Business Continuity Plan	JCAHO	Joint Commission on Accreditation of Healthcare Organizations
BCPeX	Business Continuity Plan Exercise	KIR	Killer Immunoglobulin-like Receptor
BMCC	Bone Marrow Coordinating Center	MDACC	MD Anderson Cancer Center
BMDW	Bone Marrow Donors Worldwide	MDS	Myelodysplastic Syndrome
BMT	Bone Marrow Transplantation	MHC	Major Histocompatibility Complex
BMT CTN	Blood and Marrow Transplant - Clinical Trials Network	MICA	MHC Class I-Like Molecule, Chain A
BODI	Business Objects Data Integrator	MICB	MHC Class I-Like Molecule, Chain B
BRT	Basic Radiation Training	MKE	Milwaukee
C&A	Certification and Accreditation	MRD	Minimal Residual Disease
CAU	Caucasian	MSKCC	Memorial Sloan-Kettering Cancer Center
CBMTG	Canadian Blood and Marrow Transplant Group	MSP	Minneapolis
CBB	Cord Blood Bank	MUD	Matched Unrelated Donor

CBC	Congressional Black Caucus	NAC	Nuclear Accident Committee
CBS	Canadian Blood Service	NCBM	National Conference of Black Mayors
CBU	Cord Blood Unit	NCI	National Cancer Institute
CHTC	Certified Hematopoeitic Transplant Coordinator	NEMO	N-locus Expectation-Maximization using Oligonucleotide typing data
CIBMTR	Center for International Blood & Marrow Transplant Research	NHLBI	National Heart Lung and Blood Institute
CIT	CIBMTR Information Technology	NIH	National Institutes of Health
CLIA	Clinical Laboratory Improvement Amendment	NIMS	National Incident Management System
CME	Continuing Medical Education	NK	Natural Killer
CMF	Community Matching Funds	NLE	National Level Exercise
COG	Children's Oncology Group	NMDP	National Marrow Donor Program
CREG	Cross Reactive Groups	NRP	National Response Plan
CSS	Center Support Services	NST	Non-myeloablative Allogeneic Stem Cell Transplantation
CT	Confirmatory Testing	OCR/ICR	Optical Character Recognition/Intelligent Character Recognition
CTA	Clinical Trial Application	OIT	Office of Information Technology
DC	Donor Center	OMB	Office of Management and Budget
DHHS-ASPR	Department of Health and Human Service – Assistant Secretary Preparedness and Response	ONR	Office of Naval Research
DIY	Do it yourself	P2P	Peer-to-Peer
DKMS	Deutsche Knochenmarkspenderdatei	PBMC	Peripheral Blood Mononuclear Cells
DMSO	Dimethylsulphoxide	PBSC	Peripheral Blood Stem Cell
DoD	Department of Defense	PCR	Polymerase Chain Reaction
DHHS-ASPR	Department of Health and Human Services – Assistant Secretary for Preparedness and Response	PSA	Public Service Announcement
DNA	Deoxyribonucleic Acid	QC	Quality control
DR	Disaster Recovery	RCC	Renal Cell Carcinoma
D/R	Donor/Recipient	RCI BMT	Resource for Clinical Investigations in Blood and

			Marrow Transplantation
EBMT	European Group for Blood and Marrow Transplantation	REAC/TS	Radiation Emergency Assistance Center/Training Site
EDC	Electronic Data Capture	RFP	Request for Proposal
EFI	European Federation of Immunogenetics	RFQ	Request for Quotation
EM	Expectation Maximization	RG	Recruitment Group
EMDIS	European Marrow Donor Information System	RITN	Radiation Injury Treatment Network
ENS	Emergency Notification System	SBT	Sequence Based Typing
ERSI	Environment Remote Sensing Institute	SCTOD	Stem Cell Therapeutics Outcome Database
FBI	Federal Bureau of Investigation	SG	Sample Group
FDA	Food and Drug Administration	SLW	STAR Link® Web
FDR	Fund Drive Request		
FLOCK	Flow Cytometry Analysis Component	SSA	Search Strategy Advice
Fst	Fixation Index	SSO	Sequence Specific Oligonucleotides
GETS	Government Emergency Telecommunications Service	SSP	Sequence Specific Primers
GCSF	Granulocyte-Colony Stimulating Factor (also known as filgrastim)	SSOP	Sequence Specific Oligonucleotide Probes
GIS	Geographic Information System	STAR®	Search, Tracking and Registry
GvHD	Graft vs Host Disease	TC	Transplant Center
HCS	HealthCare Standard	TED	Transplant Essential Data
HCT	Hematopoietic Cell Transplantation	TNC	Total Nucleated Cell
HEPP	Hospital Emergency Preparedness Program	TSA	Transportation Security Agency
HHQ	Health History Questionnaire	UI	User Interface
HHS	Health and Human Services	UML	Unified Modeling Language
HIPAA	Health Insurance Portability and Accountability Act	URD	Unrelated Donor
HIS	Hispanic	WGA	Whole Genome Amplification
HLA	Human Leukocyte Antigen	WMDA	World Marrow Donor Association
HML	Histoimmunogenetics Mark-up Language	WU	Work-up