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CENTER FOR INTERNATIONAL BLOOD
& MARROW TRANSPLANT RESEARCH

Center for International Blood and Marrow Transplant Research: Immunobiology Working Committee

The overall goal of the Immunobiology Working Committee (IBWC) is to facilitate collaborative research studies focused on 1) improving the outcomes after hematopoietic cell transplantation (HCT) through a better understanding of the immune response pathways that participate in host-versus-graft and graft-versus-host allorecognition, and that modulate risks of graft-versus-host disease, relapse and mortality, and 2) increasing the availability of unrelated donor HCT through a better understanding of donor and recipient genetic determinants. The specific areas of research include, but are not limited to, the study of genes and gene products of the major histocompatibility complex, natural killer cell repertoire, cytokine/pro-inflammatory cytokine and immune response determinants, and minor histocompatibility loci.

The IBWC seeks proposals that are highly translational and hypothesis-driven. Such studies usually seek to define the clinical importance of the immune system using hematopoietic cell transplantation as the model system. Investigators are invited to submit their proposal to cibmtr@mcw.edu. Upon review, proposals will be recommended for consideration by either the IBWC or the National Marrow Donor Program® (NMDP) Histocompatibility Committee on the basis of the research questions.

To meet the research goals of the IBWC, collaboration of researchers in the clinical and basic sciences communities is desirable and highly encouraged. The NMDP Research Sample Repository provides a unique resource to investigators for retrospective analysis of immune response determinants and transplant outcome. The NMDP has developed and actively maintains a research sample repository. Currently, there are over 9,200 cases wherein samples from both the transplant donor and recipient are available and for whom complete clinical data has been collected and validated (table 1). Over 70% of the paired samples have complete high resolution data available for HLA-A, B, C, DRB1/3/4/5, DQ and DP loci. For studies which seek to examine the clinical role of the immune system in transplantation and which do not require complete high resolution HLA typing data and/or samples, clinical data on over 34,000 HLA identical sibling, 3,100 HLA matched other related and 14,700 unrelated transplants is available to interested investigators (table 2).

In addition to the NMDP Research Sample Repository, the CIBMTR provides research resources including one of the largest clinical databases related to hematopoietic cell transplantation, and expertise in biostatistics and study design. Investigators are encouraged to contact the Co-chairs and/or Scientific Director of the IBWC to discuss proposals. A formal mechanism for submission and review of proposals is in place, and specific instructions can be found at www.cibmtr.org. Proposals should be short (2-3 pages) and include the hypothesis to be tested, objectives, scientific justification, description of the study population, clinical endpoints, variables to be analyzed, study design, and key references. Proposals are initially reviewed by the Co-Chairs and Scientific Director. Occasionally, studies are appropriate for immediate initiation. The majority of studies are presented and discussed at the annual Tandem Transplant Meeting of the CIBMTR/IBMTR/ASBMT. Studies are approved based on scientific merit, originality, feasibility and biostatistical considerations including statistical power and the need for additional resources.

Investigators with expertise in the basic biological sciences encompassing immunology, immunobiology, and human genetics are invited and encouraged to become actively involved in the IBWC. Working Committee meetings convene annually at the Tandem Transplant Meeting of the CIBMTR/IBMTR/ASBMT although other venues for interaction with basic scientists are being explored. For up-to-date information on committee structure, submission of research proposals, and contact numbers, please refer to www.cibmtr.org and www.nmdpresearch.org.