
Marion Reid and Christine Lomas-Francis published the second edition of The Blood Group Antigen FactsBook in 2004. Transfusion medicine specialists thought it was THE reference book for facts and information about blood group antigens. Although this is still true today, it is somewhat difficult carrying a 561-page book on rounds or between laboratories. Reid and Lomas-Francis recently published the pocketbook sized Blood Group Antigens & Antibodies: A Guide to Clinical Relevance & Technical Tips with helpful variations in formats.

Individual antigens are listed in alphabetical order, but are also color-coded (blue, green, and red representing polymorphic and low- and high-prevalence antigens). Information is easier to locate as antigens are arranged in color-coded tabs at the edge of each page. A consistent format is used to provide the following information on each antigen: clinical significance, number of antigen-negative donors per 100, in vitro characteristics of the alloantibody, technical tips, and comments. Several informative tables, such as low-prevalence antigens present in ethnic populations and the effects of enzymes and chemicals on antigens, are provided.

I do miss the molecular diagrams and references from the earlier edition. However, including them would add pages, and the pocket-size book would no longer be easy to carry. I am thus looking forward to Reid and Lomas-Francis’s electronic version of Blood Group Antigens & Antibodies in the not-too-distant future.

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Methods in Molecular Medicine, Volume 134, Bone Marrow and Stem Cell Transplantation

The basic biology of stem cell activation and perpetuation is by no means a mature field, still more mysterious than resolved. However, there is a tendency toward rapid transfer of method from the bench to the clinic. Thus, given the rich advances made in both stem cell transplantation (SCT) and molecular medicine during the last decade, a textbook devoted to relevant laboratory methods is a welcome necessity.

This volume, one of an extensive series devoted to such applications in various medical specialties, begins with a brief overview of the topics covered and their clinical relevance. The first chapter devotes itself to evaluation of stem cells from the standpoint of quiescence versus activation, and self-renewal versus differentiation. A means of characterizing the distinct gene expression signatures of murine stem cells in different states is outlined, with detailed discussion of quality control and bioinformatics strategies for analysis. Chapter 2 describes in vivo imaging methods, which reveal the fate of labeled, transplanted stem cells in mice and provide insight into stem cell trafficking. The eventual development of translational approaches seems certain, and the clinical utility of such methods is obvious.

Chapters 3 through 6 focus on HLA. Chapter 3 gives a nice overview of available molecular typing methods and utilization strategies in the context of SCT. Chapter 4 focuses on sequence-specific primed PCR in the typing of HLA Class I and II, providing a rationale for its preferential use in unrelated transplantation (compared with sequence-specific oligonucleotide-primed PCR [SSO-PCR]) and a comprehensive description of the steps involved. Chapter 5 complements this with a similar description of SSO-PCR and its rendering on the Luminex, one of two available commercial systems. Chapter 6 discusses yet a third typing method and its role in the repertoire: sequencing-based typing, with its unique ability to define HLA type unambiguously at the allelic level.
Chapters 7 through 10 examine molecular typing for non-MHC loci. Chapter 7 discusses the major impact minor histocompatibility antigens can have on outcome in HLA-matched SCT, lists available information about these antigens and primary references, and summarizes the typing methods. Chapter 8 delves into non-HLA gene polymorphisms involving immune regulatory molecules, such as cytokines, steroid receptors, and response mediators, and their effect on SCT outcome. The author contrasts the simpler genomic variations found in such polymorphisms with those involving HLA and addresses study design and data interpretation issues as well as relevant methods. The authors of Chapter 9 report an association between single nucleotide polymorphisms in the intracytoplasmic epithelial receptor, NOD2/CARD15, and severe GVHD and mortality in HLA-identical SCT. They include discussion of their findings and a detailed methods section. Chapter 10 reviews the role of natural killer cells and killer immunoglobulin-like receptors (KIR) in postransplant immunologic dynamics, the structure of the relevant genes, and a fully elaborated PCR strategy for typing KIR polymorphisms.

Chapter 11 returns to the theme of stem cell trafficking, now in the context of histologic evaluation of human tissue, and presents methods for identifying marrow-derived nonhematopoietic cells by double labeling with immunohistochemistry and in situ hybridization. The applications, utility, and limitations of the approach are also discussed.

Chapters 12 and 13 tackle minimal residual disease (MRD), a key area of interest for clinicians. In Chapter 12 the author covers relevant chromosomal aberrations and those methods applicable to autologous and allogeneic SCT for chronic and acute myeloid disorders. These methods include real-time PCR (RT-PCR), and multiplex RT-PCR. Chapter 13 switches to lymphoid disorders, and the use of qualitative and quantitative PCR and quantitative RT-PCR in documenting MRD and monitoring tumor burden.

Chapter 14 shifts to the related area of molecular surveillance of hematopoietic chimerism. The author provides a thorough technical and theoretical description of the use of lineage-specific chimerism analysis in the detection of impending graft rejection and relapse. He compares this method favorably from the standpoint of both sensitivity and specificity with the common approach of microsatellite analysis by PCR.

In the book’s final chapter, the authors leave genetic analysis altogether, reporting on the utility of proteomic screening as a means of assessing patients for complications after allogeneic SCT. The specific method described is capillary electrophoresis coupled on-line to an electrospray-ionization-time-of-flight-mass spectrometer for the analysis of biomarkers in human urine.

In summary, *Methods in Molecular Medicine, Bone Marrow and Stem Cell Transplantation* offers detailed instructions for a range of sophisticated methods and couches them in brief reviews of both the reported experience and suggestions for application. It is recommended as a resource for those involved in SCT as either clinicians or investigators.

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Attention SBB and BB Students: You are eligible for a free 1-year subscription to *Immunohematology*. Ask your education supervisor to submit the name and complete address for each student and the inclusive dates of the training period to *Immunohematology*: P.O. Box 40325, Philadelphia, PA 19106.
Antibodies to Duffy antigens are usually clinically significant and have been reported to cause hemolytic disease of the fetus and newborn. This review provides a general overview of the Duffy blood group system, including the role of the Duffy glycoprotein as a chemokine receptor (Duffy antigen receptor for chemokines) and in malarial infection. Immunohematology 2010;26:51â€“56. Key Words: Duffy antigen receptor for chemokines, DARC, FYA, FYB.Â Key Words: blood groups, Rh blood group system, blood transfusion, partial antigen. Monoclonal antibodies to carcinoembryonic antigen (CEA) and blood group isoantigens A, B, and H (BGI) were used in these analyses. All MDA and ACA were CEA-positive, whereas none of the cases of MEH stained for the presence of this substance. Six of seven examples of MEH expressed appropriate BGI; the remaining case failed to stain for blood group substances.Â Several blood group related carbohydrate antigens were analyzed in human labial stratified non-keratinized epithelium from 16 healthy individuals by immunohistology using monoclonal antibodies. The expression of ...Â Tip: Most researchers use their institutional email address as their ResearchGate login. PasswordForgot password? Keep me logged in. A new reagent (ZZAP) having antibodies: a guide to clinical relevance and technical multiple applications in immunohematology. Am J tips. New York: Star Bright Books, 2007. Clin Pathol 1982;78:161â€“7.Â The antigens of the ABO system were the first to be recognized as Variation in A antigen expression was also recognized blood groups and actually the first human genetic markers known. very early in the twentieth century (reviewed in Race and Their presence and the realization of naturally occurring antibod- Sanger10), and the A blood group was divided into. How antigen â€“ antibody reactions in vitro helps in Dx of infectious disease? By determining whether an individual has developed antibodies in response to infection â€“ IgM antibodies are usually a reflection. of a recent infection. â€“ Rising levels of IgG antibodies often. indicate recent infection â€“ Sometimes a very high titre of antibody. will signal recent infection. 12/21/13.Â When an antibody reacts with a multivalent particulate (insoluble) antigen, lattice formation occurs due to cross linking of various antigen particles by the antibody. 12/21/13. Prof. 1. Blood Group Antigens & Antibodies: A Guide to Clinical Relevance & Technical Tips Marion E. Reid, Christine Lomas-Francis. 2. Publisher : Starbright Books Release Date : 3. ISBN : 1595721037 Author : Marion E. Reid, Christine Lomas-Francis Download Here http://eap-books.club/readonline/?item=1595721037&lan=en. 4. This easy-to-use, easy-to-carry pocket book contains nearly 300 ISBT recognized blood group antigens and their corresponding antibodies including: significance in transfusions, number of expected compatible donors, characters of the antibodies, and technical tips. Downl