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Hal E Broxmeyer is Vice President of the American Society of Hematology (ASH). He is also Chairman, Mary Margaret Walther Professor of Microbiology and Immunology, Professor of Medicine and Scientific Director of the Walther Oncology Center at the Indiana University School of Medicine. His fields of interest are stem/progenitor cell regulation, cytokines/chemokines, clinical transplantation and immunology. He has published more than 600 papers and has been funded as a Principal Investigator by National Institutes of Health (NIH) grants since 1978. He is Editor of the *Journal of Leukocyte Biology*, Senior Editor of *Stem Cells Development*, Section Editor (Haematopoiesis) of *Critical Reviews in Oncology/Hematology* and a member of the Editorial Boards of the *Journal of Experimental Medicine*, *Stem Cells*, the *International Journal of Hematology*, *Annals of Hematology*, *Cell Transplantation* and the *International Journal of Biological Sciences*. Dr Broxmeyer obtained his PhD from New York University in 1973.

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Optimal blood cell production and function is critical for healthy life. Too few or too many blood cells or the production of blood cells that do not function normally result in malignant and non-malignant disorders. These disorders can be fatal if not correctly treated. Blood cells are produced by a catenated pipeline initiated by haematopoietic stem cells that have the capacity for renewing and/or differentiating down multiple lineages. Stem cells give rise to haematopoietic progenitor cells with multipotentialities and then to cells with more lineage-restricted capabilities that form the earliest stages of recognisable precursor cells each for the erythroid, myeloid (granulocytes, monocytes/macrophages and platelets) and lymphoid cells (T, B, natural killer [NK], NKT cells and dendritic cells). The production, differentiation and functional capability of each blood cell type is tightly regulated.

This issue of *European Haematology 2007* covers new information that defines the current state of understanding of coagulopathies, haemoglobinopathies and anaemias, infection, thrombosis, haemostatis and transplantation and transfusion. These reviews touch on the function of platelets and the clotting of blood, the biology and treatment of anaemias and sickle cell disease, the influence of viruses on platelets and the interaction of thrombosis and inflammation.

Also highlighted are the pathways involved in mobilising haematopoietic stem cells out of the marrow and into the blood for collection, which will be used for haematopoietic stem cell transplantation and activities to enhance the engrafting capabilities of these stem cells. This issue also covers the advances in preventing cytomegalovirus (CMV) disease in stem cell recipients, detailing the attempts to curb the high morbitity and mortality rates of immunosuppressed patients infected with the disease. In addition, we are informed about treatment modalities for low-risk myelodysplastic syndromes, a pre-leukaemic group of bone marrow disorders that affect approximately 67,000 people throughout Europe. Also reviewed is an alternative to transfusion when there is a need for an increased number of mature functional blood cells.

This overview of various aspects of haematology and the intricacies of the cells that make up our blood system provides a useful update of our understanding of these processes for the practising physician, as well as for scientists, clinical investigators and students who will become physicians, scientists and clinical investigators.

I am certain that you will find this inaugural edition of *European Haematology* to be a useful reference tool, as it provides a comprehensive overview of the subjects touched upon. ■