Editorial

In this special issue of INFUSIONSTHERAPIE UND TRANSFUSIONSMEDIZIN the reader will find a selection of invited contributions to the 31st Annual Meeting of the German Society for Transfusion Medicine and Immunohematology held together with the Annual Meeting of the Swiss Society for Transfusion Medicine at Bern, Switzerland in the fall of 1998. The content of the papers has been updated early 1999 and, albeit not covering the entire field of transfusion medicine, represents a lively survey of the most important current topics.

The introduction of nuclear amplification testing (NAT) for detecting a remote risk of infectious disease transmission departing from the traditional screening tests by ELISA is a challenge to the transfusion community shifting our thinking in the direction of laboratory medicine. The industry supports us in finding sensitive laboratory tests, and at the same time usage of such sensitive tests including polymerase chain reaction (PCR) to test supralabile blood products requires special effort to speed up the techniques so that the test results become known in due time.

In this special issue we leave the NAT field with Williamson's contribution on Creutzfeld-Jacob disease, a new threat to transfusion medicine, especially when considering the new variant of this disorder (nvCJD). The author is particularly competent to write about this topic since in the UK nvCJD has been discovered in 35 cases by the end of 1998, and this country now makes filtration of cellular blood components or leukocyte depletion to $< 5 \times 10^6$ per unit mandatory. Her paper nicely completes the contribution of Aguzzi et al. to our congress (no paper here) which presented evidence that white blood cells indeed are possible carriers or enhancers of abnormal prions.

The injection of stem cells or bone marrow cells into patients for a variety of diseases such as cancer and leukemia has become routine in many hospitals worldwide, and transfusion medicine carries out the preparation of the stem cell products. Holzgreve et al. dwell on cord blood banking, constituting a convenient source for such cells because cord cells are most potent in expanding in the recipient and reconstituting the hemopoietic system. Perhaps, the CD34-negative, but stem cell

factor receptor(c-kit+, CD117)-carrying cells presented by Huss will be included in the collection for clinical use one day. Waiting for successful collection of allogeneic stem cells by cytopheresis, Morell et al. have completed an enormous effort reported here to establish a bone marrow registry in multicultural and multilingual Switzerland!

The contributions in this special issue now jump to a different topic, i.e. the efforts to avoid blood transfusion. The paper by Waschke et al. updates the reader on hemoglobin and perfluorocarbon-based oxygen carriers. In transplantation medicine, chronic renal anemia, sickle cell disease and other disorders, such compounds could become an option if the question of their safety could be resolved in due time.

The treatment of some neurological diseases by transfusion medicine is now well established. In fact, plasma exchange as well as intravenous immunoglobulins (IVIG) extracted from plasma pools of several thousand donations has brought relief to patients suffering from peripheral inflammatory neurological diseases. In the present issue, the possibility to use IVIG in a central neurological disease, i.e. multiple sclerosis (MS), is presented by Deisenhammer et al. who report the results of the Austrian immunoglobulin in Multiple Sclerosis trial. What is interesting in this study, is that relatively low doses of IVIG are effective to reduce the frequency of MS relapses.

Rieder et al. analyze the blood product usage in liver transplantation; between 1991 and 1998, 17% of our liver transplantations in Bern, Switzerland, could be performed without red blood cell concentrates. We believe that reduced blood substitution requirement in surgery is in part due to an improvement of surgical techniques but also to increased use of platelet concentrates which are most effective in confining intraoperative blood loss. Finally, the paper of Beythien et al. analyzes the biocompatibility of intracoronary stents that should be seen in conjunction with antiplatelet therapy to reduce thrombogenicity of artificial surfaces in contact with human blood.

*Urs E. Nydegger, Bern
Georg F. Riedler, Luzern
Volker Kretschmer, Marburg*