# Preface

The care of infants, children and young people with hematological disorders provides a fascinating and ever changing spectrum of diagnoses, management challenges and treatment dilemmas. In infancy not only does the blood system undergo physiological changes in adaptation to the extra-uterine environment but it is also the time when congenital disease will present often for the first time within a family. During early childhood periods of rapid growth put great nutritional demands on the body and iron deficiency anemia is very common. Throughout childhood, the establishment of an immune repertoire with rapid lymphocyte proliferation in response to infectious challenge may also predispose to autoimmune disorders such as ITP or malignancies such as acute lymphoblastic leukemia. However, it is not only young children that provide challenges – adolescence is a time of great upheaval and there is increasing recognition of the unique needs of patients with lifelong conditions during their transition from pediatric to adult-centered models of care. In this volume, we focus on recent advances in the understanding and treatment of many of these neonatal, childhood and adolescent disorders. We are also delighted to include a chapter on the management of problems that may arise in the intensive care unit – either due to life-threatening presentations of primary hematological disorders or due to hematological responses secondary to significant systemic illness.

Drug therapy for pediatric disorders is particularly challenging, many drugs are unlicensed in children and it is often difficult to extrapolate optimal treatment schedules from adult data. In addition, although children often tolerate toxic treatment for conditions such as leukemia much better than adults, the impact of late effects of treatment can be much greater due to the long life expectancy. This leads to great debate and controversy: How aggressive does the treatment need to be? What are the long-term effects of treatment? Can we tailor treatment more specifically to individuals to maximize benefit while minimizing risk? These questions are addressed in this volume for a spectrum of diseases with some of the controversies moving towards resolution, for the time being at least, and translating into advances in clinical practise.

We are very grateful to the authors for their expertise and enthusiasm in helping us complete this project in a timely fashion and to the publishers for their help and encouragement with the volume. We hope that you both enjoy the debate and discussion in the book and find it a useful tool for your clinical practise.

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