Dear colleagues,

It is our great honour and pleasure to serve as guest editors for the two congress issues of Hämostaseologie – Progress in Haemostasis on the occasion of the 64th Annual Meeting of the Society of Thrombosis and Haemostasis Research (GTH) taking place in the Free Hanseatic City of Bremen.

Our motto for the 2020 congress is Novel Concepts for a Lifetime Challenge, which reflects the fact that a plethora of thrombotic and haemostatic disorders affect patients throughout their entire life. Thus it constitutes a priority to understand the underlying mechanisms of thrombosis and bleeding from both a clinical and scientific perspective. This knowledge is key to providing our patients with the best possible treatment in a rapidly changing landscape of novel diagnostic tests and therapeutic agents. The well-known Town Musicians of Bremen are depicted in the annual meeting’s logo. They nicely symbolise the urgent need for trustful collaborative work. Our combined knowledge and expertise are the basis for Novel Concepts for a Lifetime Challenge.

Researches and physician scientists, who are leading in the field of thrombosis and haemostasis, will present cutting edge data at the 64th GTH Annual Meeting. In the current and next issue of Hämostaseologie, our speakers will share summaries of their fields of expertise, including their own outstanding contributions. The articles highlight the complexity of our professional specialty and its importance throughout life, ranging from diagnostic challenges in newborns and infants to use of oral anticoagulants in geriatric patients.

In a historical perspective, Dr Dahlbäck gives a summary of his discovery of the most important genetic risk factors for venous thromboembolism (VTE). He also summarises our present understanding of the biochemistry and physiology of pro- and anticoagulant systems that control thrombosis and haemostasis, respectively.

Stroke constitutes a major medical burden. Dependent on the localisation and distribution of infarct lesions visualized by advanced neuroimaging, other causes distinct from thrombophilia must be considered in patients with acute ischaemic stroke. Drs Jensen and Thomalla present this emerging field.

Antiphospholipid syndrome (APS) is a potentially life-threatening disorder characterised by arterial, venous and/or microvascular thromboses. The diagnosis of APS is challenging and based on an array of clinical and laboratory criteria. Even more challenging is the highly individualised management of APS patients. Recent data from clinical trials on the role of direct oral anticoagulants (DOACs) in APS are discussed by Drs Kalmanti and Lindhoff-Last.

Cancer is a strong risk factor for thrombosis, and anti-coagulation in cancer patients remains a challenge. Long-term subcutaneous injection of low-molecular-weight heparin appears to diminish treatment persistence, while DOACs are associated with increased bleeding compared to heparins. Using different clinical case presentations, Drs Moik and Ay present their approaches to treat cancer-associated thrombosis in challenging scenarios.

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In his educational session, Dr Koschmieder provides a comprehensive overview of the competing risks of thromboembolism, haemorrhage, and antithrombotic therapy, which gain specific importance in patients with myeloproliferative neoplasms. VTE is a major cause of maternal morbidity and mortality during pregnancy and the puerperium. Drs Linnemann and colleagues review current therapeutic strategies based on observational studies and provide expert guidance for the perinatal management of affected parturients.

While a multitude of evidence-based guidelines are available for use of anticoagulants in adults, results from clinical studies in children and adolescents have remained scarce until recently. This important field is discussed by Dr Albisetti. Similarly, oral anticoagulant therapy in geriatric patients remains a challenge in daily practice. Drs Herold and Bauersachs point out pitfalls and areas of uncertainty in treating this constantly growing patient population.

The laboratory work-up of thrombotic and haemostatic disorders is highly complex and prone to (pre-) analytical confounders. Specific challenges in coagulation and platelet function testing in newborns and infants are summarised by Dr Eberl.

Tremendous progress has been made in haemophilia care, including development of factor concentrates with improved pharmacokinetics and non-factor replacement therapies with more convenient, subcutaneous dosing. Furthermore, knowledge of risk factors and immunologic pathways underlying inhibitor development and eradication is constantly growing. Drs Kurnik and colleagues provide their view on how to give state-of-the-art advice to parents of a newly diagnosed boy with haemophilia A.

Finally, Drs Bidlingmaier and colleagues address a critical phase in the management of haemophilia, the transition from adolescence to adulthood. In this specific period, dramatic changes in disease awareness and contacts with healthcare professionals may jeopardize treatment success.

We highly appreciate the time and effort all our authors have spent in preparing their exciting manuscripts. We cordially thank them and the article reviewers for actively supporting the two congress issues of Hämostaseologie. We are deeply convinced that the articles provided to the GTH 2020 Annual Meeting issues do not only mirror the diversity and interdisciplinary nature of our field, but also serve as state-of-the-art references for Novel Concepts for a Lifetime Challenge.

References
1. Dahlbäck D. Advances in understanding mechanisms of thrombophilic disorders. Hämostaseologie 2020;40:12–21