Preface

Blood circulation is vital for our survival. It plays an important role in carrying nutrients and oxygen to every tissue and organ and in removing all waste products and carbon dioxide. Any imbalance in hemostasis or circulatory systems can lead to death and severe debility. With the increasing average age of the population, coupled with changes in lifestyle, there has been a significant increase in demand for better therapeutic agents for cardiovascular and hematological disorders to improve the quality of life. This impetus has led to the search for novel therapeutic agents from various sources that interfere with, stimulate or alter cardiovascular and hematological processes.

A number of animals have developed strategies to target hemostatic systems and exploit its vulnerability. In some species (for example, snakes), such mechanisms are used to immobilize and kill the victim/prey, whereas in others (for example, leeches, mosquitoes and ticks), they are used to provide a continuous supply of blood. These exogenous factors affecting thrombosis and hemostasis have evolved over millions of years. Their studies have contributed significantly to our understanding of physiological processes as research tools as well as providing new leads in the development of therapeutic agents. This special issue is devoted to recent studies on some of these exogenous factors. The research of a number of leading investigators in the field is reviewed in this volume in order to consolidate the efforts in this area and to recruit new, talented researchers. These reports are intended to create elevated awareness and enthusiasm for the field of exogenous factors affecting thrombosis and/or hemostasis.

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