The book ‘Vasomotion and Quantitative Capillaroscopy’ contains the proceedings and condensed discussions of a symposium held in July 1983. Vasomotion is the phenomenon of spontaneous, rhythmic changes in diameter of blood vessels or lymph vessels. The vessels of interest in this volume are the arterioles and small arteries. The phrase ‘quantitative capillaroscopy’ refers to the monitoring of dynamic microcirculatory phenomena in the human skin using intravital microscopic techniques, for instance measuring the red blood cell velocity in the nailfold capillaries. In these capillaries, periodic fluctuations in red blood cell velocity are often observed. It is assumed that these velocity changes reflect diameter variations in the upstream vessels, indirectly allowing the study of vasomotion in human skin arterioles.

The eight contributions to the symposium are grouped in three sections, each followed by a short discussion. The subject of the first section is the active element in the vascular wall: the smooth muscle cell. The three papers in this section present an outline of: factors affecting the activation level of smooth muscle cells in the wall of small arteries, the innervation of microvascular smooth muscle and the link between oscillations in membrane potential and metabolic activity.

The second section contains two papers about intravital microscopic studies on arteriolar vasomotion in animals. The first paper presents a short survey of the literature and describes observations made in a transparent chamber in the dorsal skin of awake rats. The second deals with a mathematical method, the Prony spectral technique, to analyze the waveforms that characterize vasomotion. The last section of the book deals with quantitative capillaroscopy. The first contribution to this section presents recent advances in the field: the use of fluorescence video microscopy to monitor the transcapillary and interstitial movement of fluorescent dyes and to visualize lymphatic capillaries. Findings in healthy subjects and in patients with diabetes, scleroderma, chronic venous incompetence and primary lymphedema are compared. The second paper gives a short survey of the measurement of red blood cell velocity, relative hematocrit and pressure in human skin capillaries. The last paper describes a study on the flow patterns in the nailfold capillaries of children with fulminant epidemic meningitis and the effect of the drug anisodamine on the capillary flow pattern and clinical condition of the patients.

The book will be of interest to many scientists in the fields of basic research and clinical medicine. It can be recommended to all students of the vascular system. Arteriolar vasomotion has been demonstrated to occur in various tissues. It is the merit of this book that it draws attention to this interesting phenomenon. However, the reader should be aware of the fact that it is not yet proven that it occurs in all tissues and that its functional consequences are still far from being understood. In addition, the statement that vasomotion can only be studied in
unanesthetized animals is not correct and the conclusion that studies of microcirculation in anesthetized preparations may some day belong to the past seems to be a bit far fetched.

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D.G.S. Thilo-Kömer
The Endothelial Cell – a Pluripotent Control Cell of the Vessel Wall
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This book aims to summarize current knowledge of endothelial cells. Any attempt to draw together all current knowledge of endothelial cells is welcome, especially if it succeeds in providing a coherent view of such complex and diverse subjects. Unfortunately, the editors did not succeed in doing so. The book become a series of disjointed and sometimes duplicating accounts instead of the balanced synthesis of the avail-