

Preface to the Fifth Edition

The base of knowledge in many sectors of physiology has grown considerably in magnitude and in depth since the last edition of this book was published. Many advances, especially the rapid progress in sequencing the human genome and its gene products, have brought completely new insight into cell function and communication. This made it necessary to edit and, in some cases, enlarge many parts of the book, especially the chapter on the fundamentals of cell physiology and the sections on neurotransmission, mechanisms of intracellular signal transmission, immune defense, and the processing of sensory stimuli. A list of physiological reference values and important formulas were added to the appendix for quick reference. The extensive index now also serves as a key to abbreviations used in the text.

Some of the comments explaining the connections between pathophysiological principles and clinical dysfunctions had to be slightly truncated and set in smaller print. However, this base of knowledge has also grown considerably for the reasons mentioned above. To make allowances for this, a similarly designed book, the *Color Atlas of Pathophysiology* (S. Silbernagl and F. Lang, Thieme), has now been introduced to supplement the well-established *Color Atlas of Physiology*.

I am very grateful for the many helpful comments from attentive readers (including my son Jakob) and for the welcome feedback from my peers, especially Prof. H. Antoni, Freiburg,

Prof. C. von Campenhausen, Mainz, Dr. M. Fischer, Mainz, Prof. K.H. Plattig, Erlangen, and Dr. C. Walther, Marburg, and from my colleagues and staff at the Institute in Würzburg. It was again a great pleasure to work with Rüdiger Gay and Astrid Rothenburger, to whom I am deeply indebted for revising practically all the illustrations in the book and for designing a number of new color plates. Their extraordinary enthusiasm and professionalism played a decisive role in the materialization of this new edition. To them I extend my sincere thanks. I would also like to thank Suzyon O'Neal Wandrey for her outstanding translation. I greatly appreciate her capable and careful work. I am also indebted to the publishing staff, especially Marianne Mauch, an extremely competent and motivated editor, and Gert Krüger for invaluable production assistance. I would also like to thank Katharina Völker for her ever observant and conscientious assistance in preparing the index.

I hope that the 5th Edition of the *Color Atlas of Physiology* will prove to be a valuable tool for helping students better understand physiological correlates, and that it will be a valuable reference for practicing physicians and scientists, to help them recall previously learned information and gain new insights in physiology.

Würzburg, December 2002
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Preface to the First Edition

In the modern world, visual pathways have outdistanced other avenues for informational input. This book takes advantage of the economy of visual representation to indicate the simultaneity and multiplicity of physiological phenomena. Although some subjects lend themselves more readily than others to this treatment, inclusive rather than selective coverage of the key elements of physiology has been attempted.

Clearly, this book of little more than 300 pages, only half of which are textual, cannot be considered as a primary source for the serious student of physiology. Nevertheless, it does contain most of the basic principles and facts taught in a medical school introductory course. Each unit of text and illustration can serve initially as an overview for introduction to the subject and subsequently as a concise review of the material. The contents are as current as the publishing art permits and include both classical information for the beginning students as well as recent details and trends for the advanced student.

A book of this nature is inevitably derivative, but many of the representations are new and, we hope, innovative. A number of people have contributed directly and indirectly to the completion of this volume, but none more than *Sarah Jones*, who gave much more than editorial assistance. Acknowledgement of helpful criticism and advice is due also to *Dr. R. Greger*, *A. Ratner*, *J. Weiss*, and *S. Wood*, and *Prof. H. Seller*. We are grateful to *Joy Wieser* for her help in checking the proofs. *Wolf-Rüdiger* and *Barbara Gay* are especially recognized, not only for their art work, but for their conceptual contributions as well. The publishers, *Georg Thieme Verlag* and *Deutscher Taschenbuch Verlag*, contributed valuable assistance based on extensive experience; an author could wish for no better relationship. Finally, special recognition to *Dr. Walter Kumpmann* for inspiring the project and for his unquestioning confidence in the authors.

Basel and Innsbruck, Summer 1979
Agamemnon Despopoulos
Stefan Silbernagl

From the Preface to the Third Edition

The first German edition of this book was already in press when, on November 2nd, 1979, *Agamennon Despopoulos* and his wife, *Sarah Jones-Despopoulos* put to sea from Bizerta, Tunisia. Their intention was to cross the Atlantic in their sailing boat. This was the last that was ever heard of them and we have had to abandon all hope of seeing them again.

Without the creative enthusiasm of *Agamennon Despopoulos*, it is doubtful whether this book would have been possible; without his personal support it has not been easy to continue with the project. Whilst keeping in mind our original aims, I have completely revised the book, incorporating the latest advances in the field of physiology as well as the welcome suggestions provided by readers of the earlier edition, to whom I extend my thanks for their active interest.

Würzburg, Fall 1985
Stefan Silbernagl



Dr. Agamennon Despopoulos

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