Book Review

Dee Unglaub Silverthorn

Human Physiology
An Integrated Approach (Second Edition)


Professor Silverthorn (University of Texas) lectures in physiology, coordinates student laboratories in physiology, and instructs graduate students in courses developing teaching skills in the life sciences. She has substantial experience with active learning in the classroom, and has given workshops on this subject at national and international conferences. Most recently, she was one of the organizing chairpersons of a teaching symposium and workshop at the 4th International Congress of Pathophysiology (Budapest, Hungary, 2002). Professor Silverthorn has performed several important obligations, e.g. by chairing the Teaching Section of the American Physiological Society, and being an associate editor of Advances in Physiology Education.

This book consists of 24 chapters in four units: I. Basic Cell Processes: Integration and Coordination; II. Homeostasis and Control; III. Integration of Function; IV. Metabolism, Growth, and Aging. As the author claims, the book has four key themes: a focus on problem solving, an emphasis on integration, cellular and molecular physiology, and physiology as a dynamic field. The uniqueness of this volume is especially reflected by the author’s major goal to provide the students not only with information about how the human body functions, but also with tips for studying and learning to solve problems. In order to construct a global view of the human organism, that is to integrate information on hierarchically and heterarchically organized body functions, the students have to do more than simply memorize it. They must truly understand it and be able to use their knowledge to solve problems that they have never encountered before. Her book offers an excellent guide to perform this task. A good idea, that before the reader starts with the detailed contents, gets an “Owner’s Manual” about how to use this book. The clear, logical descriptions in the book are reachly supplied with highly professional illustrative colour figures. The success of the problem based active learning of human physiology, as a basic concept of the book, has been surely facilitated by a clinical consultant, the physician Andrew C. Silverthorn, too.
Among the many interesting special features of the book one can find the “Silverthorn Physiology WebSite”, which contains study questions and the answers to all those questions listed in the book.

This textbook is a valuable contribution to teaching and learning human physiology. It is recommended to both medical students and teachers, and also to all of those non-medical individuals who are interested in understanding the scientific basics about the operation of their own organism. Studying physiology by using a book like this is one of the best ways to respond adequately to the old Latin imperative “Nosce Te Ipsum”.

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