



## Book Reviews

**Essentials of medical biochemistry: With clinical cases, 2<sup>nd</sup> edition**, N.V. Bhagavan, Chung-Eun Ha, editors (Academic Press, Elsevier Inc., USA) 2015. 752 pages. Price: Not mentioned.

ISBN 978-0-12-416687-5

This book has been authored by five eminent academicians and covers basics and fundamentals of biochemistry related to medical science. Also, as the title suggests, it includes clinical cases with important and relevant teaching points in most of the chapters.

The book consists of 37 chapters, each chapter starting with key points, outlining the main concept of the chapter which gives concise summary and upturns interest in the topic. Language is easy to follow. Topics are mentioned as subheadings and are explained in lucid fashion. Although topics are explained in detail, yet beginner level students may experience some difficulty in finding definitions of technical terms.

The first chapter starts with explaining science at a basic level, describing cell, organelles, prokaryotes, eukaryotes, organ systems, evolution, *etc.*, helpful for beginners to get a vision and an initial understanding of the relevance of basic science in biochemistry. A few topics appear to be put randomly in sequence, for example, the chapter on lipid digestion and absorption is placed before explaining lipids. Chapters also include relevant physiological explanations, *eg.*, digestion and absorption, and contractile system, which enhance the overall understanding of the topic.

Metabolism has been discussed well. Each and every chapter has been written with utmost delicacy. The inclusion of chapters on topics like cancer, metabolism of xenobiotics, *etc.* would have made this edition more suitable for MBBS students and students of medical biochemistry. The book includes detailed chapters on immunology and haematology, enough to build basic concepts. Haematological tests important for diagnostics

are also mentioned. Endocrinology is allotted five chapters and is explained extensively, describing all systems involved, including the reproductive system. Additional topics and chapters of applied importance such as autophagy, obesity, diabetes mellitus, *etc.* are also described, which provide a good clinical correlation and understanding of pathophysiology.

Text in the book is supported by well depicted, coloured, clear figures and illustrations. Compact summarizing tables are also given that are useful for quick sight and revision. At the end of each chapter, authors have provided a list of supplemental references and required readings, to encourage further learning. Readers who wish to explore the beyond chapter material will be benefited from it.

Close of each chapter also provides relevant clinical cases/problems, abstracted from previously published articles to illuminate interconnections between biochemistry, molecular biology and medicine. Readers will need to refer to reference values of the tests mentioned in the cases to conclude diagnosis. Clinicians and postgraduate students will easily grasp these clinical cases and explanations, but the undergraduate students may need reading of additional chapters to understand the overall picture plotted in the problem. This additional part of the book is targeted at promoting problem-solving skills, diagnostic acuity and evidence-based medicine in students. These cases are followed by explanations and important facts about the topic as the 'teaching points', useful for teachers to focus on important facts of the topic. Clinical conditions relevant to the topics are also mentioned in-between text.

Companion website : <http://booksite.elsevier.com/9780124166875> is given on the starting page of the book which links to the webpage of the book providing resources to: multiple choice questions and answers, and all figures and tables from the book available as

power point slides. The book is targeted for medical students but may also be useful for researchers in this field as it also mentions the latest areas of research and references to publications.

This book can be recommended as a reference book to the undergraduate and postgraduate students of biochemistry.

**Jyotsna Kailashiya, Avijit Mukherjee &  
Debabrata Dash\***

Department of Biochemistry  
Institute of Medical Sciences  
Banaras Hindu University

Varanasi 221 005, Uttar Pradesh, India

*\*For correspondence:*

ddash.biochem@gmail.com