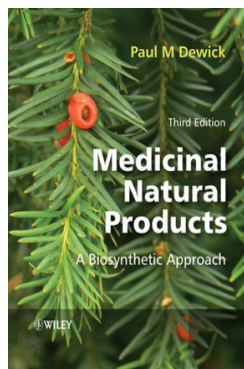


## BOOK REVIEW



Book title: Medicinal Natural Products: A Biosynthetic Approach  
 Edition Statement: 3<sup>rd</sup> Edition  
 Author: Paul M Dewick  
 Format: 550 pages  
 Publisher: John Wiley & Sons, Inc., New York, United States  
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Medicinal Natural Products: A Biosynthetic Approach (Third edition) is written by Prof Dr Paul M Dewick, Formerly of the School of Pharmaceutical Sciences, University of Nottingham, United Kingdom. This is an irreplaceable book emphasizes the elucidated biosynthetic routes leading to the de novo synthesis of various natural products showing the pharmacological and therapeutic activities found in certain organisms (e.g., plants, animals, fungi, and bacteria). As the name suggested, each chapter provides in very details regarding the relevant mechanisms of enzymes involved in the pathways, where their corresponded genes cloned, and biotechnological perspective also contained. It also covered medicinal specimens, original source, medicinal uses, production strategies, and unraveled molecular mode of actions. Equally important, the newly synthetic routes yielding the semi-synthetic derivatives and synthetic analogues of those natural products prescribed in the hospitals nowadays are shown. This book is categorized into eight chapters based on their biosynthetic origins, including about this book, and how to use it (chapter-1), secondary metabolism: the building blocks and construction mechanisms (chapter-2), the acetate pathway: fatty acids and polyketides (chapter-3), the shikimate pathway: aromatic amino acids and phenylpropanoids (chapter-4), the mevalonate and methylerythritol phosphate pathways: terpenoids and steroids (chapter-5), alkaloids (chapter-6), peptides, proteins, and other amino acid derivatives (chapter-7), and carbohydrates (chapter-8). This is an invaluable book that strongly recommended not only for the synthetic biologist but also for the students in the fields of chemistry, biology, biochemistry, biotechnology, pharmacy, and related areas.

### Reference:

Medicinal Natural Products: A Biosynthetic Approach. Dewick P. M. 2009. 3<sup>rd</sup> edition. John Wiley & Sons, Inc., New York, United States. 550 pp. (Print) USD 60.95. ISBN 978-0-470-74168-9

Dr Anuwachakij Klamrak has received the research fellow for postdoc position with Prof Dr Jureerut Daduang and Prof Dr Sakda Daduang at the Faculty of Associated of Medical Sciences<sup>1</sup>, Khon Kaen University, and also working with Assoc Prof Dr Natsajee Nualkaew and at the Faculty of Pharmaceutical Sciences<sup>2</sup>, Khon Kaen University, Khon Kaen Province, Thailand. By working with Yutthakarn Saengkun, Ph.D. student in Research and Development in Pharmaceuticals, his research is now focused on studying the antilipogenesis of Thai-traditional plants both in vitro and in vivo models. He is now attempting to produce the antimicrobial peptides (AMPs) derived from the venom of arthropods by means of biotechnological approaches. Engineering microbes to produce various forms of plant-derived natural produces have also been carried out with his group.