

# Preface—Anticancer Drugs from Marine Origin

Over the years, the invention of new compounds are isolated by using advanced technology has expanded significantly. There are number of compounds developed from marine environment for the treatment of various diseases. Increasing evidence suggested that anticancer drug discovery leads from the marine environment. This book combines the knowledge about the compounds isolated from marine environment and their product development. This handbook is divided into five parts.

Chapter 1 provides general introduction and sponges, seaweed, microbes, tunicates and other miscellaneous compounds derived from marine organisms.

Part I—Sponges (Chaps. 2–6), described the sponge derived drugs represent one of the most promising sources of research for finding new anticancer drugs. These chapters discusses about the anticancer and angiogenesis inhibitors isolated from marine sponges and mechanism of action and preclinical and clinical studies.

Part II—About the marine algae derived compounds on cancer targets (Chaps. 6–11)—explained the compounds isolated from algae species, amelioration and anti tumor effect of a tertiary sulfonium compound, dimethylsulfoniopropionate, carotenoids, polysaccharides etc and the possible mechanisms of action are described. Also the health benefits of seaweeds biological roles and potential benefits for female cancers to be discussed in this part.

Part III—Provides (Chaps. 12–17) the details about marine microbial derived compounds for cancer therapeutics. The antitumor compounds isolated from marine microbes such as fungi, bacteria and actinobacteria are discussed.

Part IV—Discusses (Chap. 18) with marine tunicate derived compounds for cancer therapeutics.

Part V—The final part of the book covers others marine organisms derived compounds and mechanism of actions. In this part sources of the marine compounds, pyridoacridine alkaloids, triterpene glycosides, meroterpenoids for cancer targets such as microtubules, apoptosis, angiogenesis and also discovery and computer-aided drug design studies of the anticancer marine triterpene siphonanes as novel P-gp and Brk modulators to be discussed in these chapters.

This book provides details about compounds isolation, chemistry, and application in detail. Hence, anticancer drugs from marine origin are important for academic research, pharmaceutical, nutraceutical and biomedical industries. I would

like to acknowledge Springer publisher, for their encouragement and suggestions to get this wonderful compilation related marine drugs for cancer treatment. I would also like to extend my sincere gratitude to all the contributors for providing help, support, and advice to accomplish this task.

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