

Outstanding Marine Molecules

About 70% of the world's surface is covered by oceans, which are home to numerous, mostly unique creatures. The abundance of species in the sea is reflected in a tremendous chemical diversity, which intrigues biologists, physicians, and chemists alike. For a long time, research on marine natural products focused almost exclusively on the identification of medically useful compounds. In recent years, however, ecological questions have increasingly attracted attention and have come into the spotlight. The book *Outstanding Marine Molecules: Chemistry, Biology, Analysis* by Stéphane La Barre and Jean-Michel Kornprobst is intended to provide the reader with an overview of the manifold variety and current trends in marine natural products research.

It is obvious to every insider that the subject addressed by La Barre and Kornprobst cannot be covered exhaustively in a single volume. This makes the selection of topics and the structuring of the book even more important. With that in mind, the two editors decided on the following strategy, as described in the foreword: only a few substances or substance classes are presented as examples, but these are treated comprehensively. The criteria leading to the selection of a particular compound might be its structural peculiarity, its biological relevance, or its therapeutic potential. In accordance with this selection process, the main content of the book is organized in three parts, in which marine natural products are discussed primarily from a chemical, an ecological, or a pharmacological perspective. These chapters on the "outstanding marine molecules" are complemented by a fourth part on methodology and analysis, which describes the current state of the art, including the use of so-called Omics technologies.

Does *Outstanding Marine Molecules* meet the expectations for an introductory survey? In my opinion, definitely yes. First of all, the editors have done a great job in covering the entire breadth of the research area. The contributions were provided by an impressive number of 70 experts from different disciplines. Despite the fact that the authors were predominantly recruited from French-speaking countries, all the examples are presented and discussed in a global context. Every chapter starts with a brief introduction to the topic concerned. Prior knowledge is, in general, not required, as most of the texts are easily understandable. More complex issues are explained in a

comprehensive way, without including too much detailed information. Students, who want to inform themselves about marine natural products, will certainly benefit greatly from reading this book. Every chapter provides sufficient literature references for those who want to dig deeper into the subject. Another very positive feature is the up-to-date quality of the information. That is emphasized by the fact that one finds here several references to publications as recent as the year before publication, which is certainly not always true for such reviews in book form.

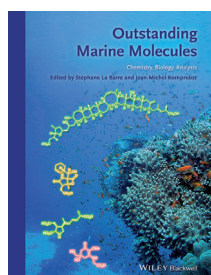
As one might expect from such a large team of authors, the contributions tend to vary depending on the personal backgrounds and preferences of the writers. This applies both to their choice of content and to their style of writing. The book contains several chapters that are both thrilling and highly informative, such as those about domoic acid and marine cyanotoxins, while some others are more in the nature of listings or tables. This heterogeneity is both an asset and a drawback at the same time. I am sure that every reader will find his or her own favorites. On the other hand, I did not find a common theme running through the book. This impression is reinforced by the fact that several chapters hardly deal with molecules at all. Instead, one sometimes finds that the attention is centered on certain producer organisms, on ecological habitats, or on biosynthesis enzymes. Thus, from my point of view, the title *Outstanding Marine Molecules* is a little bit misleading.

The graphical design of the book and the many figures in color are of high quality. The use of color in the edges of the pages serves as a guide to the four overarching themes of the chapters: chemistry, ecology, pharmacology, and methods. However, to retrieve specific information one should rely on the detailed index. What I did not like about the book is that the depiction of the chemical structures is not standardized. Even several different formats can occur within a single chapter. Notwithstanding this criticism and the imprecise title, I consider *Outstanding Marine Molecules* to be a very thoroughly prepared compendium, which brings a fresh and timely view of marine natural products research. The book is an extremely useful source of information, which I recommend warmly to every colleague in this field and to every interested reader.

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