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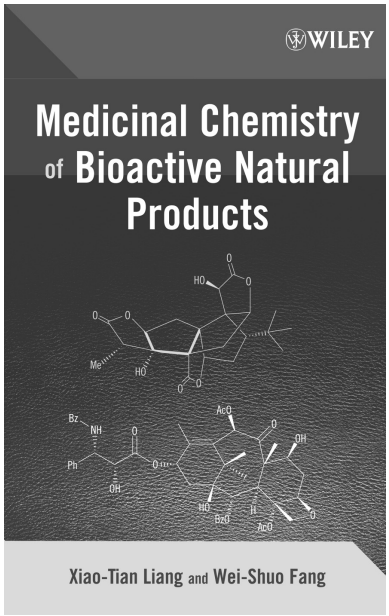

Medicinal Chemistry of Bioactive Natural Products

Xiao-tian Liang and Wei-shuo Fang (Editors)
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The book entitled "Medicinal Chemistry of Bioactive Natural Products", provides a much-needed overview of bioactive natural products and their applications in medicinal chemistry. The book covers a wide range of fields, including isolation and characterization of bioactive compounds from natural sources, structural modifications in order to optimize the biological activity and synthetic strategies. The main focus is the structure activity relationship (SAR) of bioactive natural products. In Chapters 1 and 3, the anticancer drugs epothilones and taxanes, both based on microtubule function inhibition, are discussed in detail featuring their synthesis, structure activity relationship, pharmacology, mechanism, *etc*. Other microtubule-interacting compounds are also described in these chapters. Chapter 2 deals with glycopeptide antibiotics. The chemistry and biology of vancomycin, the most important representative, and other glycopeptide antibiotics are discussed in detail with structure activity relationship studies as the main topic. Chapters 4 and 5 discuss the two compounds Hyperzine A and artemisinin, first isolated from traditional Chinese medicines. Hyperzine A is a potent acetylcholinesterase inhibitor and has been approved as a drug for the treatment of Alzheimer's disease in China. After a short introduction to Alzheimer's disease, Chapter 4 summarizes the pharmacology, synthesis and structure activity relationship of Hyperzine A and its analogs. Artemisinin (from *Artemisia annua* L.) is an antimalarial drug and the major aspects of this sesquiterpene and its derivatives are summarized in Chapter 5. Chapter 6 covers the area of natural marine products and deals with cembranoids, a class of compounds from soft corals with potent cytotoxicities and other activities. The next chapter looks into the ginkgolides (from *Ginkgo biloba*) and besides isolation, structural elucidation, chemistry and biosynthesis, the interesting biological activities of these highly complex structures are described in detail. Ginkgolides are potent antagonists of the platelet-activating factor (PAF) receptor, and recently it was discovered that they also antagonize the glycine receptor. Anti-HIV agents derived from natural products such as calanolides, coumarins, lignans and triterpenes are the topics of Chapters 8 and 9. Another class of highly cytotoxic natural products, the acetogenins, is the focus of Chapter 10, where the efforts in the chemical synthesis of these compounds are described.

The topics in this book are carefully selected since all the bioactive natural products described are either clinically useful drugs or key compounds under extensive medicinal chemistry exploration. Although "Medicinal Chemistry of Bioactive Natural Products" is not a comprehensive encyclopedia of bioactive natural products, it is an excellent guide to the key developments in the field. Besides the scientific part, the book has an excellent index and topics of interest can be easily found using the detailed list of keywords. In summary, I can highly recommend this interesting book for all scientists interested in bioactive natural products.

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