

# Preface

Natural products can be thought of as originating from mankind's curiosity about odor, taste and cures for diseases, both in terrestrial and marine environments.

The study of natural products has always been the starting point in the discipline of chemistry worldwide. This observation is due to the importance of organic compounds in agriculture, medicine and industry.

Nowadays, every student and scientist feel the need to acquire further knowledge in this fascinating field which reveals natural "secrets."

The book contains 15 chapters which cover the following topics: The origin and nature of natural products; plant-derived natural products in drug discovery and development: an overview; plant and brain cannabinoids: the chemistry of major new players in physiology; natural products as biomarker tracers for environmental and geological processes; toxins of marine invertebrates and microorganisms; enantiometric composition of odorous oxygenated monoterpenes in aromatic plants; recent trends of natural sweet substances from plants; natural products for pest management; natural products in mycelial microorganisms: impact of morphology; insects pheromones; natural products and related compounds of realized and potential use in treating neurodegenerative disease; phytotoxic compounds with calmodulin inhibitor properties from selected Mexican fungi and plants, potential anticancer natural products from plant-anticancer fungi; plant fungal endophytes: interactions, metabolites and biosyntheses; antibiotics.

The reviews were written by accomplished scientists, with extensive records in their fields. This book is devoted to multidisciplinary studies of

various topics of natural products, which have always been fascinating and challenging for organic chemists.

Our wish is that this book will help in consolidating our understanding of various aspects of natural products.

The contributing authors are from Israel, Mexico, the United Kingdom and the United States of America.

Since the book covers many disciplines of natural products, I wish to complete this short Preface with a quote by Albert Szent-Györgi in his “Personal Reminiscences”: *“In my hunt for the secret of life, I started research in histology. Unsatisfied by the information that cellular morphology could give me clues about life, I turned to physiology. Finding physiology too complex, I took up pharmacology. Still finding the situation too complicated, I turned to bacteriology. But bacteria were even more complex, so I descended to the molecular level. Studying chemistry and physical chemistry. After twenty years of work, I was led to conclude that to understand life we have to descend to the electronic level, and to the world of wave mechanics. But electrons are just electrons, and have no life at all. Evidently on the way I lost life; it had run out between my fingers . . .”*

This statement approves once again the importance of natural products in our daily activities and well being.

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