
Preface

The last volume on histamine in the *Handbook of Experimental Pharmacology*, entitled *Histamine and Histamine Antagonists*, was published as Volume 97 in 1991 and edited by Börje Uvnäs. This seminal volume summarized the state of the art in histamine research with a focus on methods for histamine determination, regulation of histamine release from mast cells, histamine metabolism, histamine receptors in the brain, histamine in the cardiovascular and gastrointestinal system, the development of histamine H₁-receptor antagonists of the second generation as well as the development of histamine H₂-receptor antagonists for the treatment of gastroduodenal ulcer disease.

Since then, more than 25 years passed, and the Editors of this volume felt that again, it is time to review the field of histamine research. This is easier said than done because histamine research is very complex and encompasses researchers from very different directions and philosophies, reflecting the fact that histamine plays a role in so many (patho)physiological processes. Thus, the Editors are fully aware of the fact that this book cannot provide a complete overview of the entire field of histamine research. Rather, the book tries to highlight selected aspects of the field by leading experts, some more junior and some more senior, in the respective fields in a balanced manner. We tried to integrate scientists from various continents with distinct cultural approaches to the field. Every author was asked to put her/his research into a broader perspective and outline future directions of research.

This book gives an overview of new sensitive methods for histamine detection and emphasize major achievements on the molecular characterization of histamine receptors as well as histamine and histamine receptors in disease contexts. Since the last volume on histamine in this series, four histamine receptors have been cloned and characterized with methods from the fields of molecular pharmacology, molecular biology, and medicinal chemistry. Mouse gene knockout models have tremendously enhanced our knowledge on the function of the four histamine receptor subtypes. A highlight in the field has been the recent crystallization of the histamine H₁-receptor. Important roles of histamine and histamine receptors in diseases, including allergies, food intoxication, acute myelogenous leukemia, Tourette syndrome, and narcolepsy, are discussed in this book. The first histamine H₃-receptor antagonist has been approved for clinical use, even histamine has become a drug, and histamine H₄-receptor antagonists are in the clinical development. All these exciting aspects are covered in this book.

We really appreciate the commitment of the authors to write and revise their contributions in due time.

We do hope that this book will guide the large and diverse international community of histamine researchers in conducting productive and critical research in the field.

Toyama, Japan
Hannover, Germany

Yuichi Hattori
Roland Seifert

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