

Preface

The aim of this book is to provide a brief introduction to medicinal chemistry for final year chemistry and biochemistry undergraduates and for chemistry postgraduates. Many final year university courses include a 16–20 lecture course on medicinal chemistry as part of a programme of options. This book is based on short lecture courses, which have been given to these groups of students and on summer schools at the University of Sussex.

Medicinal chemistry utilizes aspects of bio-organic chemistry, organic synthetic methods, physical organic chemistry and organic reaction mechanisms. Many chemists are employed by the pharmaceutical industry in the design and synthesis of new drugs and in establishing structure:activity relationships. Chemists play a major role in identifying the metabolites of drugs, in formulating medicines and in their analysis. It is hoped that this book will provide a broad, short introduction to the chemistry of medicines for chemists starting work in these areas. The first two chapters provide an introduction to the subject and describe some of the general chemical features that can affect a drug between the site of administration and the site of action. The remaining chapters are concerned with the role of medicinal chemistry in treating specific therapeutic targets. This approach has been adopted in this introductory text because the students may be aware of these diseases from their general knowledge. The development of drugs to treat these diseases illustrate many of the general strategies of medicinal chemistry.

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