



MEDICINAL CHEMISTRY by Dr. Jyotsna Chaturvedi and Dr. S. C. Sharma Published by Vishal Publishing Co., Books Market, Old Railway Road, Jalandhar, 144 008 Pages: 328 Price: Rs. 285/298 (India) / 700 (International).

It's my privilege to comment on the book entitled: Medicinal Chemistry written by Dr. Jyotsna Chaturvedi and Dr. S. C. Sharma. I have carefully gone through the book and found following points to highlight. The book focuses mainly on three major aspects of medicinal chemistry such as design and synthesis of small molecule therapeutics, use of small molecules in drug discovery and chemical biology. At the beginning an introduction to the classification of drugs, their nomenclature and several terminologies used in the drug discovery program have been carefully presented with up-to-date informations. An introductory discussion has also been included on the efficacy of drug

molecules, financial involvement in the drug development program as well as structure activity relationship (SAR) of the lead molecules. Important pharmacokinetic parameters of the lead molecules and their ADME (absorption, distribution, metabolism, and elimination) related issues, which are important factors for therapeutic agents have been elaborately presented in chapter 2. In the third chapter, the authors discussed on different pharmacodynamic parameters of potential drug candidates covering several aspects such as, enzyme stimulation and inhibition, drug metabolism, xenobiotics etc. Detailed discussions are presented on the development of therapeutics against a variety of diseases such as cancer, cardiovascular problem, stroke, hyperlipidemia, hyperglycaemia, rheumatoid arthritis and other metabolic disorders in chapter 4 and the following chapters. In addition, the authors also highlighted on the development of a number frontline therapeutics use for controlling infectious diseases such as tuberculosis, malaria, filariasis, protozoal and fungal infections. Development of antibiotics and psychoactive agents, antithrombic agents has also been covered in several chapters. Every chapter consists of following subjects: (a) introduction about the disease; (b) its biological target for the drug development; (c) chemical synthesis of small molecules; (d) structure-activity relationship and (e) detailed discussion on the development of the currently used therapeutics. The last chapter briefly covers the introduction of Combinatorial Chemistry. It includes the techniques used in combinatorial synthesis e.g. solid support synthesis of polypeptide, parallel synthesis, mix and split techniques etc. Modern encoding strategies used in the combinatorial synthesis of compounds library have also been covered. Combinatorial synthesis in solution and Dynamic Combinatorial Chemistry has been emphasised very well for the beginners in medicinal chemistry. I understand that the authors' intention was to provide a spectrum of areas in the medicinal chemistry and drug development that gives global perspective of drug design and drug development to the graduate and postgraduate students of pharmacy and chemistry and they have successfully made it possible. This book contains good working knowledge of common organic reactions as well as basic informations in biology. It would

be of interest to the organic chemists curious about the development of therapeutic agents and encourage the younger generation to get attracted towards the drug development program instead of getting involved only in the synthetic organic chemistry. I strongly recommend this book to be included in the syllabus of graduate and

postgraduate program of pharmacy and chemistry. □

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