

PREFACE

Susceptibility to diseases presents an ongoing challenge for scientists who are involved in the discipline of drug development. Medicinal Chemistry is perhaps the most important tool in man's efforts for disease control. Considering the rapid proliferation of primary research articles, which is often difficult to be screened by one individual, the well-crafted reviews are indispensable. However, reviews which appear in the literature after long interval are not particularly useful to active scientific scholars who wish to keep abreast of the rapid developments in the field of medicinal chemistry. This journal is intended to fulfill this need.

This inaugural issue of the journal contains eleven mini reviews on an equal number of topics contributed by leading experts in the field. B.D. Silverman, with his own contributions in the area of computer-aided drug discovery and QSAR studies, reviews recent work on the utilization of comparative molecular moments analysis in computer-aided drug development. Hasegawa *et al.* review recent literature on the inhibitors of TNF and their therapeutic potential. Advances in the chemistry of bioreductive drugs with the examples of indolequinone and other prodrugs, is reviewed by Naylor and Thomson. Perry and Jenkin's article review the recent work on the development of new class of DNA-interactive antitumour drugs ("G"-quadruplex) anti-tumor therapies such as inhibitors of telomerase activity in cancer cells. Serine/threonine phosphatases play a role in cancer, cystic fibrosis, immunosuppression, and cardiac and neurological disorders. McCluskey and Sakoff review the chemistry and biology of small molecule inhibitors of serine/threonine phosphatases. Bandarage and Janero review recent researches on nitric-oxide-releasing nonsteroidal anti-inflammatory drugs (NSAIDs) which provide a promising approach in the prevention of NSAID-induced gastropathy. Greenidge and Weiser's contribution deals with computer based methods for the prediction of pharmacophore models by using 3D-QSAR studies. The mini-review contributed by Crider and Scheideler give a concise introduction on dopamine receptors (D₃) and summarize recent advances in the development of D₃ agonists and antagonists. The topic of P. Buchwald's review is the metabolism of carboxylic esters in the body and how it is effected by the structure and steric nature of various esters. Malaria remains the focus of active scientific research. T.J. Egan reviews the structure-function relationship (SAR) studies carried out on chloroquine and 4-aminoquinoline derivatives, which are known to have potent antimalarial activity. The article of one of us (C.P.) deals with the enterohepatic recirculation and its importance in inosine monophosphate dehydrogenase (IMPDH) field.

The topics are diverse, but united by a common theme, i.e. developing new therapies based on understanding of diseases at the molecular level. The contributors have assembled vast bodies of literature on the preparation of these mini reviews and since each one of them has his own contributions in these fields, these reviews represent deep insight and excellent understanding of the subject.

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