in inflammation research will be made familiar with the important concept that inflammation is controlled not only by pro-inflammatory factors but also, and perhaps more importantly, from a therapeutic perspective, by anti-inflammatory checks and messengers. The more advanced researcher is provided with comprehensive overviews of pro- and anti-inflammatory peptides, although it is important to point out that only a limited selection of anti-inflammatory peptides is treated in depth.

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Emerging Drugs: The Prospect for Improved Medicines (Vol. 3)

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The third Annual Executive Briefing on emerging drugs offers an elaborative overview of drugs currently emerging from pharmaceutical pipelines. It consists of 25 reviews that cover the development of future drugs within a wide range of therapeutic areas. They are written by a variety of scientists who are all actively engaged in selected areas of interest within R&D departments of pharmaceutical industries. These areas, among others, include pain, stroke, cardiovascular disease, cancers, incontinence, thromboses and atherosclerosis. All reviews adhere to one unitary format which covers short background information, existing treatments, the scientific rationale for new drugs, medical need for new drugs, current research goals and a highlight of compounds currently in development. Furthermore, each review concludes with an editorial analysis of the prospects for improved medicines in the particular areas of interest.

One drawback of this exploratory book is inherently related to its purpose, that is to reflect innovative drug research within a very broad range of scientific disciplines. The individual reader might therefore find only a few of the reviews directly relevant to their everyday professional activities. However, the book also contains several chapters that will appeal to most people's interests. For example, the review of cannabinoid pharmacology provides an exiting update on the anatomical distribution of the two subtypes of cannabinoid receptors CB_1 and CB_2 in both central and peripheral nervous systems, and their involvement in physiological functions such as analgesia, cognition, memory, locomotor activity, control of appetite and vomiting, and regulation of the inflammatory and immune responses. Existing cannabinoid receptor agonists and antagonists already appear to have promising therapeutic effects, many of which will lead undoubtedly to the emergence of new useful drugs. Today, cannabinoid pharmacology is one of the most promising examples of innovative research in the pharmaceutical industry that could lead to improved medicines for the treatment of a range of psychiatric, neurological and immune-related disorders.

Other examples of new interesting chemical entities with novel specific actions in animals or man or both are being reviewed. The single element that seems to underpin them all is the search for therapeutic superiority. The reason is, of course, that the R&D-based industry will not be able to market its new products unless they provide worthwhile advantages over existing treatments. Yet that same goal might also be attained by the development of medicines with an improved safety profile. Though less practised, such an approach might certainly result in promising drugs as well. For example, the therapeutic utility of either activating or antagonizing muscarinic receptors has long been recognized, but the clinical use of existing compounds is limited by their central and peripheral side-effects, e.g. drowsiness, amnesia, confusion, mydriasis, dry mouth and cycloplegia. Because these effects usually emanate from a lack of subtype discrimination, a concerted effort is underway to identify selective muscarinic acetylcholine receptor agonists and antagonists. One review describes how this has led to the development of functionally selective M_1 receptor agonists for the treatment of cognitive disorders, and to some challenging selective M_2 and M_3 receptor antagonists for the treatment of smooth muscle function.

Generally, this is an informative book which achieves its objectives. It is a thorough, open and fair account of current trends in drug development, which, in addition to researchers and marketing people from pharmaceutical industries, should also appeal to academic researchers in their particular fields of interest.

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