

cocaine analog for the DA transporter, and analog 5c is the most selective analog thus far reported. In addition, analog 4b is also the most selective of known iodinated ligands for the DA transporter and may be useful for the study of the DA transporter. These results suggest that further studies will lead to even more selective, highly potent cocaine analogs for the DA transporter.

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† Addiction Research Center.

F. Ivy Carroll,* Philip Abraham, Anita H. Lewin
Karol A. Parham, John W. Boja,[†] Michael J. Kuhar[†]

Chemistry and Life Sciences
Research Triangle Institute
Post Office Box 12194
Research Triangle Park, North Carolina 27709

Neuroscience Branch
Addiction Research Center
National Institute on Drug Abuse
Baltimore, Maryland 21224

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Book Reviews

Progress in Drug Research. Volume 36. Edited by Ernst Jucker. Birkhäuser Verlag, Basel, Boston, Berlin. 1991. 475 pp. 16.5 × 24.5 cm. ISBN 0-8176-2582-8. \$249.00.

The last review in this series published in the *Journal of Medicinal Chemistry* appeared in 1982 (pg 1267 of issue 10). In that review Carl Kaiser summarizes volume 25: "...in keeping with previous issues...consists of...subjects of general interest to those involved in drug research," and "in keeping with other volumes..., the topics are generally unrelated..., the book is of greater utility as a library reference source...an encyclopedic reference." Such a description characterizes volume 36 and the 10 intervening volumes published between 1982 and 1991. This volume is referenced generally into the late 1980s, contain a volume index, has an index of titles (unfortunately incomplete) found in volumes 1-36, an author (alphabetical and with addresses) and paper (article) index for volumes 1-36, and a price tag \$89 more than in 1982.

Volume 36 contains five articles: (1) Pharmacology of synthetic organic selenium compounds, by M. J. Parnham and E. Graf, includes discussions on antineoplastic selenopurines and selenazoles; certain inorganics; coumarin relatives; selenium-dependent glutathione peroxidase and lipid peroxidation; antiarrhythmic and antihypertensive species; the mechanism of acute antihypertensive activity of phenyl-2-aminoethyl selenide; reactive oxygen species and antilipidemic, antiinflammatory, and CNS drugs; antimalarial and antiviral compounds; ebsele metabolism; radioimaging agents; compounds affecting liver damage; and a rather large list of patented selenium-containing structures whose biological properties have not been subjected to peer review. The redox properties of these drugs, and applicable drug design concepts should be incorporated into medicinal chemistry courses. (2) Opiate receptors: Search for new drugs, by V. M. Kolb, provides references to numerous reviews and key references, considers opioid receptor modeling by computer and NMR methods, interesting message-address and hybrid drug concepts, and their use in drug design. This chapter is of particular interest to medicinal chemists in search of a concise summary of important opiate receptor lecture material. (3) Chemistry and pharmacology of cannabis, by R. Seth and S. Sinha, reveals isolation and characterization methods; physical-chemical and spectroscopic properties of the cannabinoids; similar discussions of basic nitrogen-containing compounds found in cannabis including substances such as L-(+)-isoleucine betaine, the four cannabamines and anhydrocannabisativine, and certain cyclic and polycyclic phenols including spiro systems. Forensic methods of detection

and identification are discussed in some detail. Pharmacological effects of cannabis on the reproductive, gastrointestinal, lung, cardiovascular and nerve systems, appetite, intraocular pressure, blood sugar, hormones, hypertension, analgesia, ulcer formation, tumors, inflammation, hypothermia, allergenicity, and cough reflex are covered. The work concludes with a discussion of pharmacokinetics and metabolism. Numerous disciplines encompassing medicinal and natural product chemistry through forensic toxicology will find useful information summarized in this section. (4) Drug receptors and control of the cardiovascular system: Recent advances, by R. R. Ruffolo, Jr., J. P. Hieble, D. P. Brooks, G. Z. Feuerstein, and A. J. Nichols, is a comprehensive article (pp 117-360) with individual current sections on (1) control of the cardiovascular system, (2) α -adrenoceptors, (3) β -adrenoceptors, (4) dopamine, (5) serotonin, (6) vasoactive lipid, (7) angiotensin II, (8) purinergic, (9) vasopressin, (10) peptide, and (11) histamine receptors wherein each section is individually referenced. Although deficient in chemical structures and SAR, the pharmacology and mechanism discussions are excellent. This well-written article represents an excellent starting point for medicinal chemists or pharmacologists who need to learn more about or be brought up-to-date on cardiovascular biology and applicable targets for drug development. (5) Molecular modeling and quantitative structure-activity analysis of antibacterial sulfanilamides and sulfones, by P. G. De Benedett, serves to orient the reader on the methods and approaches applicable to the title topic and is an excellent source of lecture material for academic medicinal chemists. Prototropic and conformational equilibria and molecular and submolecular descriptors (empirical, theoretical, interactive) are discussed. Subsequently, QSAR equations relating to different levels of biological complexity (bacterial and enzymic) are analyzed and rationalized in some detail. The role of sulfanilamide anionic, imidic, and amidic forms and QSAR involving both experimental and theoretical descriptors provide a basis for interesting discussions. A partial least squares analysis of enzymic inhibition data values of multisubstituted sulfones is presented, and the article concludes with a presentation on molecular superposition of inhibitors and receptor mapping.

Thus, volume 36 continues in the traditional thrust of the editor. All five chapters have information of considerable medicinal chemical and pharmacological interest and are recommended reading for either the generalist or the specialist.

Division of Medicinal Chemistry
College of Pharmacy
The Ohio State University
Columbus, Ohio 43210

Donald T. Witiak