

prostaglandin synthetase systems and their subsequent effects on smooth muscle, and the nonclassical concept of unspecific interference with physiological membrane function, similar to the barbiturates, resulting in both anti-inflammatory response and GI irritation. The latter theory accounts for the fact that all attempts, to date, to develop acidic non-steroidal anti-inflammatory agents without gastrototoxicity have met with limited success.

Four chapters are devoted to studies on GI side effects of aspirin and related drugs, with emphasis on postulated biochemical mechanisms resulting in subsequent physiological damage. Additional findings are presented concerning the pharmacokinetics of salicylates in rheumatoid arthritis; drug interactions; naturally occurring salicylates as alternatives to aspirin; and copper-salicylate complexes with enhanced anti-inflammatory potency.

As expected with any work by 12 different authors, the writing style is far from uniform; little effort was made to organize the varied papers into standard book form. However, pharmacologists interested in non-steroidal anti-inflammatory drug research will find this book a useful addition to their technical library.

*Reviewed by William P. Heilman
Diamond Shamrock Corporation
T. R. Evans Research Center
Painesville, OH 44077*

Cannabinoid Assays in Humans. NIDA Research Monograph 7.

Edited by ROBERT E. WILLETTE. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1976. 120 pp. 21 × 27 cm. Price \$6.00. Available from National Technical Information Service, Springfield, VA 22161.

This seventh monograph of the continuing series on drug abuse research describes recent developments in the determination of the levels of cannabinoids in the human body. The monograph consists of 12 papers dealing with three major methods of cannabinoid assay: immunoassay techniques, chromatographic (gas-liquid and high-pressure liquid) methods, and mass spectrometric techniques.

This monograph is highly recommended for a wide range of marijuana researchers. The techniques described would be useful for marijuana screening procedures, forensic toxicology, and pharmacokinetic and pharmacological research.

*Reviewed by David J. Slatkin
University of Pittsburgh
School of Pharmacy
Pittsburgh, PA 15261*

Testing and Screening for Drugs of Abuse: Techniques, Issues and Clinical Implications. By G. G. De ANGELIS. Dekker, 270 Madison Ave., New York, NY 10016, 1976. 152 pp. 15 × 23 cm. Price \$17.50.

Urine analysis has become an integral part of our society. Its results affect the private sector as well as the Governmental sector, but its greatest impact is in the treatment centers for drug abuse. "Testing and Screening for Drugs of Abuse" takes a hard look at the issues and clinical implications of urine analysis. The chemical techniques are superficially discussed so that the nonscientific person is able to obtain a fair understanding of the methodologies used in drug screening laboratories.

The book is divided into three main sections. The first section deals with general considerations, such as the rationale behind the choice of urine over blood as the body fluid for drug screening. Other nonchemical tests such as the Himmelsbach test and the pupillary test are discussed and compared to urine analysis. The author also discusses the use of diagnostic tests such as serum amylase, serum glutamic-oxaloacetic transaminase, 17-ketosteroids, serum uric acid, blood sugar, and cholesterol for determining whether or not a drug abuse problem exists. The author suggests that this type of testing would be much more effective in determining whether a patient is a beginner or chronic drug user.

The second section deals with the analytical methodologies employed by drug screening laboratories. Techniques such as TLC, spectrophotofluorometry, GLC, and the immunoassays (FRAT, EMIT, RIA, and HI) are briefly discussed. These analytical methods are compared for

sensitivity, specificity, false positives, false negatives, productivity, and cost. The concepts of sensitivity, specificity, false positives, and false negatives are developed so that the nonscientific individual can follow the comparisons. Possible sources of analytical error are investigated, and methods of recognizing and correcting them are mentioned.

The third section deals with the clinical implications of urine screening. Problems related to the stigmatism of urine analysis with illegal behavior are revealed. Urine analysis scheduling is also discussed. The author refers to Goldstein and Brown who published a thorough analysis of testing schedules. The sociological effects of urine analysis are investigated. The author discusses various parallel studies involving treatment with and without urine screening. Based on the results of these studies, he evaluates the effects of urine screening and the manner in which urine screening data should be utilized. The idea of urine surveillance *versus* urine screening is also developed. Other important factors such as the client's rights, vocational screening, the role of the drug user in the testing program, and the community role are presented.

"Testing and Screening for Drugs of Abuse" is written with a non-scientific reader in mind. It translates technical language into simple terms, making the book valuable to program directors, clinicians, staff members, and any other nontechnical personnel. The problems associated with drug screening are accurately presented and possible solutions are suggested, thus making this book worthwhile reading for the technical staff as well. In my opinion, this book is a valuable reading experience for students and personnel involved in drug treatment programs irrespective of their position.

*Reviewed by Thomas Catalano
Scientific Research Division
New York City Police Department
New York, NY 10003*

NOTICES

Handbook of Injectable Drugs. By LAWRENCE A. TRISSEL. American Society of Hospital Pharmacists, 4630 Montgomery Ave., Washington, DC 20014. 1977. 431 pp. 15 × 23 cm. Price \$15.00.

Narcotic Antagonists: Naltrexone Progress Report. NIDA Research Monograph 9. Edited by DEMETRIOS JULIUS and PIERRE RENAUULT. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1976. 181 pp. 20 × 27 cm. Price \$7.50. Available from National Technical Information Service, Springfield, VA 22161.

Rx: 3X/Week LAAM: Alternative to Methadone. NIDA Research Monograph 8. Edited by JACK D. BLAINE and PIERRE F. RENAUULT. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1976. 127 pp. 20 × 27 cm. Price \$6.00. Available from National Technical Information Service, Springfield, VA 22161.

Effects of Labeling the "Drug-Abuser": An Inquiry. NIDA Research Monograph 6. By JAY R. WILLIAMS. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1976. 39 pp. 20 × 27 cm. Price \$1.05. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Young Men and Drugs—A Nationwide Survey. NIDA Research Monograph 5. By JOHN A. O'DONNELL, HARWIN L. VOSS, RICHARD R. CLAYTON, GERALD T. SLATIN, and ROBIN G. W. ROOM. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1976. 144 pp. 20 × 27 cm. Price \$2.25. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Aminergic Hypotheses of Behavior: Reality Or Cliche? NIDA Research Monograph 3. Edited by BRUCE KENNETH BERNARD. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1975. 148 pp. 20 × 27 cm. Price \$2.25. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Operational Definitions in Socio-Behavioral Drug Use Research 1975. NIDA Research Monograph 2. Edited by JACK ELINSON and DAVID NURCO. National Institute on Drug Abuse, 11400 Rockville Pike, Rockville, MD 20852. 1975. 58 pp. 20 × 27 cm. Price \$2.50. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.