

*Handbook of*  
*Psychopharmacology*

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Volume 10  
Neuroleptics and Schizophrenia

# *Handbook of Psychopharmacology*

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## **SECTION I: BASIC NEUROPHARMACOLOGY**

- Volume 1 Biochemical Principles and Techniques in Neuropharmacology
- Volume 2 Principles of Receptor Research
- Volume 3 Biochemistry of Biogenic Amines
- Volume 4 Amino Acid Neurotransmitters
- Volume 5 Synaptic Modulators
- Volume 6 Biogenic Amine Receptors

## **SECTION II: BEHAVIORAL PHARMACOLOGY IN ANIMALS**

- Volume 7 Principles of Behavioral Pharmacology
- Volume 8 Drugs, Neurotransmitters, and Behavior
- Volume 9 Chemical Pathways in the Brain

## **SECTION III: HUMAN PSYCHOPHARMACOLOGY**

- Volume 10 Neuroleptics and Schizophrenia
- Volume 11 Stimulants
- Volume 12 Drugs of Abuse
- Volume 13 Biology of Mood and Antianxiety Drugs
- Volume 14 Affective Disorders: Drug Actions in Animals and Man

Volume 10

# Neuroleptics and Schizophrenia

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PLENUM PRESS • NEW YORK AND LONDON

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Library of Congress Cataloging in Publication Data

Main entry under title:

Handbook of psychopharmacology.

Includes bibliographies and indexes.

CONTENTS: v. 1. Biochemical principles and techniques in neuropharmacology. — v. 2. Principles of receptor research. — v. 3. Biochemistry of biogenic amines. — v. 4. Amino acid neurotransmitters. — v. 5. Synaptic modulators. — v. 6. Biogenic amine receptors. — v. 7. Principles of behavioral pharmacology. — v. 8. Drugs, Neurotransmitters, and Behavior. — v. 10. Neuroleptics and Schizophrenia. I. Psychopharmacology. I. Iversen, Leslie Lars. II. Iversen, Susan D., 1940- III. Snyder, Solomon H., 1938- [DNLM: 1. Psychopharmacology. QV77 H236] RC483.H36 615'.78 75-6851  
ISBN-13: 978-1-4613-4044-7 e-ISBN-13: 978-1-4613-4042-3  
DOI: 10.1007/978-1-4613-4042-3

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© 1978 Plenum Press, New York  
Softcover reprint of the hardcover 1st edition 1978

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227 West 17th Street, New York, N.Y. 10011

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## PREFACE

Perhaps more than any other group of psychotropic drugs, the neuroleptics are a focus for integrating clinical application, neurotransmitter disposition, and pathophysiologic mechanisms of mental illness. *Neuroleptic* is a term referring to drugs of several chemical classes—phenothiazines, thioxanthenes, and butyrophenones—which have in common a selective ability to alleviate schizophrenic symptoms. Delay and Deniker derived the word *neuroleptic* from the Greek meaning “to grasp the neuron.” They coined the name because they noted that therapeutic responses to chlorpromazine tended to accompany the onset of neurological, extrapyramidal side effects, which they therefore felt related to the essence of the drug’s antischizophrenic actions. Subsequent research, particularly relating to neuroleptic effects on dopamine receptors, suggests that both therapeutic and neurologic untoward effects involve dopaminergic mechanisms, explaining their close though not invariant association. The chapter by Davis and Garver summarizes clinical facets of neuroleptics, analyzing their apparently specific clinical effects as well as reviewing practical features of drug use. Crane’s chapter deals with tardive dyskinesia and other neurological side effects. Fielding and Lal discuss behavioral studies in animals which provide models for assessing the drugs’ therapeutic efficacy. Janssen and Van Bever deal with the remarkable structure–activity relationships of the butyrophenones, the most potent and selective neuroleptics which were almost single-handedly developed through the brilliant efforts of Paul Janssen. Shore and Giachetti describe basic and clinical features of reserpine, the neurotransmitter effects of which differ from those of most neuroleptics and which therefore may shed unique light on the fundamentals of neuroleptic actions. Creese, Burt, and Snyder delineate influences of these drugs on dopamine receptors, while Matthyse and Sugarman incorporate these and other influences of the drugs into comprehensive theorizing on the nature of schizophrenia.

L. L. I.  
S. D. I.  
S. H. S.

# CONTENTS

## CHAPTER 1

### Structure–Activity Relationships of the Butyrophenones and Diphenylbutylpiperidines

PAUL A. J. JANSSEN and WILLEM F. M. VAN BEVER

1. Introduction .....	1
2. Structure–Activity Relationships .....	3
2.1. Butyrophenones .....	7
2.2. Diphenylbutylpiperidines .....	14
3. Pharmacology .....	15
3.1. Potency and Duration of Action .....	17
3.2. Oral Effectiveness .....	21
3.3. Antipsychotic Activity .....	22
3.4. Side-Effect Liability .....	25
4. Conclusion .....	29
5. References .....	31

## CHAPTER 2

### Biochemical Actions of Neuroleptic Drugs: Focus on the Dopamine Receptor

IAN CREESE, DAVID R. BURT, and SOLOMON H. SNYDER

1. Introduction .....	37
2. Early Biochemical Studies .....	39
3. Dopamine Metabolism and Neuroleptics .....	42
4. The Dopamine-Sensitive Adenylate Cyclase .....	47
5. Labeling the Dopamine Receptor .....	49
5.1. Evidence for a Two-State Model of the Dopamine Receptor .....	55

5.2. LSD as a Mixed Agonist–Antagonist at Dopamine Receptors .....	57
5.3. Dopamine-Receptor Binding Predicts Clinical and Pharmacological Potencies of Antischizophrenic Drugs .....	65
5.4. Dopamine-Receptor Binding Increases after Destruction of Dopamine Innervation: Correlation with Behavioral Supersensitivity .....	72
5.5. Dopamine-Receptor Binding after Chronic Drug Treatment .....	74
5.6. A Radioreceptor Assay to Measure Blood Neuroleptic Levels .....	77
5.7. Labeling Dopamine Receptors in Brain and Pituitary with [ <sup>3</sup> H]Spiroperidol .....	79
6. References .....	84

### CHAPTER 3

#### Behavioral Actions of Neuroleptics

STUART FIELDING and HARBANS LAL

1. Introduction .....	91
2. Effect on Feeding and Drinking .....	93
2.1. Feeding in Normal Animals .....	93
2.2. Recovery from Lateral Hypothalamic Syndrome .....	94
3. Locomotor Activity and Catalepsy .....	96
4. Antiamphetamine Action .....	96
4.1. Stereotypy .....	96
4.2. Mouse Jumping .....	99
4.3. Agitation and Oxygen Consumption .....	102
4.4. Circling Behavior .....	104
5. Avoidance Behavior .....	105
6. Brain Self-Stimulation .....	110
7. Aggression .....	113
7.1. Apomorphine-Induced Aggression .....	113
7.2. Morphine-Withdrawal Aggression .....	117
7.3. Isolation-Induced Aggression .....	118
7.4. Pain-Induced Aggression .....	119
8. Narcotic-Withdrawal Syndrome .....	119
9. Conclusions .....	122
10. References .....	125

### CHAPTER 4

#### Neuroleptics: Clinical Use in Psychiatry

JOHN M. DAVIS and DAVID L. GARVER

1. Introduction .....	129
2. The Methodology of Drug Studies .....	132



3. Efficacy of Antipsychotic Drugs .....	133
3.1. Comparative Effects .....	137
3.2. High-Dose Phenothiazine Treatment .....	140
3.3. Blood Levels and Therapeutic Response .....	142
4. Maintenance Treatment with Antipsychotic Medication ...	144
4.1. Drug Holidays .....	147
5. Cost of Medication and Dispensing .....	148
6. Antipsychotic Drugs and Somatic Therapies .....	152
7. Drug Combinations .....	153
8. Drug, Psychological, and Social Treatments .....	153
9. New Antipsychotic Drugs .....	155
10. References .....	160

## CHAPTER 5

## Tardive Dyskinesia and Related Neurologic Disorders

GEORGE E. CRANE

1. Historical Background .....	165
2. Clinical Findings .....	168
2.1. Classification .....	168
2.2. Description .....	169
3. Predisposing Factors .....	173
3.1. Age .....	174
3.2. Sex .....	174
3.3. Diagnosis .....	174
4. Drug Effects .....	175
4.1. Dosage and Total Intake .....	175
4.2. Types of Drugs .....	175
4.3. Duration of Treatment .....	176
4.4. Current Drug Status .....	177
4.5. Outcome .....	177
5. Severity and Combinations of Symptoms .....	178
6. Disability and Complications .....	179
7. Differential Diagnosis .....	179
8. Pathophysiology .....	180
9. Neuropharmacology .....	181
9.1. Huntington's Disease as a Model for Tardive Dyskinesia .....	182
9.2. Levodopa in Parkinsonism as a Model for Tardive Dyskinesia .....	184
9.3. Other Models for Tardive Dyskinesia .....	185
9.4. Animal Studies .....	186
Therapy .....	186
11. Concluding Remarks .....	189
12. References .....	190

## CHAPTER 6

## Reserpine: Basic and Clinical Pharmacology

PARKHURST A. SHORE and ANTONIO GIACHETTI

1. Introduction .....	197
2. Source, History, and Analogs .....	198
3. Distribution and Metabolism .....	199
4. Pharmacological Effects in Laboratory Animals .....	201
5. Clinical Pharmacology .....	205
6. Biochemical Mechanism of Action .....	207
7. Interaction of Reserpine with Other Centrally Acting Drugs .....	209
8. The Reserpine Receptor .....	211
9. References .....	214

## CHAPTER 7

## Neurotransmitter Theories of Schizophrenia

STEVEN MATTHYSSE and JONATHAN SUGARMAN

1. Introduction .....	221
2. Survey of Neurotransmitter Theories .....	222
2.1. Acetylcholine .....	222
2.2. Noradrenaline .....	223
2.3. Serotonin .....	224
2.4. Gamma-Aminobutyric Acid .....	225
2.5. Dopamine .....	226
3. General Principles Underlying Neurotransmitter Theories in Psychiatry .....	228
3.1. Stereotypy Model .....	231
3.2. Chorea Model .....	231
4. Attention in Schizophrenia and Its Pharmacology .....	232
5. References .....	235

Index .....	243
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