

Contents

Preface (v)

Chapter 1

Introduction of Neuropharmacology 1

Chapter 2

Neurohumoral Transmission in Autonomic Nervous System

- 2.1 Major Mediators, Neurotransmitters and their Functions in ANS 4
- 2.2 Types and Functions of Neuroreceptors in ANS 5

Chapter 3

Neuropharmacology of Drugs Acting on Autonomic Nervous System (ANS)

- 3.1 Adrenergic and Antiadrenergic Drugs Adrenergic Drugs 8
- 3.2 Cholinergic and Anticholinergic Drugs 22
- 3.3 Neuromuscular Blocking Agents 25
- 3.4 Drugs used in Myasthenia Gravis 31

Chapter 4

Neurohumoral Transmission in CNS

- 4.1 Major Neurotransmitters in CNS and their Functions 34
- 4.2 Types of Neuroreceptors and their Functions 36

Chapter 5

Drug Targets in the Central Nervous System (CNS)

- 5.1 Ion Channels and Neuronal Excitability 45
- 5.2 G-protein-Coupled Receptors (GPCRs) 48
- 5.3 Enzymes as Drug Targets in CNS 50
- 5.4 Transporters and Reuptake Inhibition 52

Chapter 6

Antidepressants

6.1 Anti-Manic Drugs.....	61
6.2 Anxiolytic and Hypnotic Drugs.....	65
6.3 Antipsychotics	68
6.4 Addiction (Alcohol and Methyl Alcohol) and Disulfiram	74

Chapter 7

Drugs used in Pain Management

7.1 Sedatives, Hypnotics, and Central Acting Muscle Relaxants.....	78
7.2 General Anaesthetics	84
7.3 Local Anesthetics	90

Chapter 8

Neurological Disorders

8.1 Neurodegenerative Diseases (Parkinsonism and Alzheimer's Disease).....	96
8.2 Antiepileptic Drugs	102

Chapter 9

Cognitive and Memory Enhancement

9.1 Cognitive Enhancers or Nootropics.....	119
9.2 CNS Stimulants	120

Chapter 10

Future Directions and Challenges of Neuropharmacology

10.1 Future of Neuropharmacology Research.....	125
10.2 Gene Therapy for Neurological Disorders	128