Mood Disorders and Antidepressants

With the fully revised fourth edition of *Essential Psychopharmacology*, Dr Stahl returns to the essential roots of what it means to become a neurobiologically empowered psychopharmacologist, expertly guided in the selection and combination of treatments for individual patients in practice.

This remains the essential text for all students and professionals in mental health seeking to understand and utilize current therapeutics, and to anticipate the future for novel medications.

This special edition, featuring the extracted chapters on mood disorders and antidepressants, provides a readable digest on these specific issues for experts and novices alike.

Stephen M. Stahl is Adjunct Professor of Psychiatry at the University of California, San Diego and Honorary Visiting Senior Fellow in Psychiatry at the University of Cambridge, UK. He has conducted various research projects awarded by the National Institute of Mental Health, Veterans Affairs, and the pharmaceutical industry. Author of more than 500 articles and chapters, Dr Stahl is also the author of the bestsellers *Stahl’s Essential Psychopharmacology* and *The Prescriber’s Guide.*
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For further information: www.cambridge.org/9781107025981
In memory of Daniel X. Freedman, mentor, colleague, and scientific father.

To Cindy, Jennifer and Victoria
Preface

For this Mood and Antidepressants edition from the new fourth edition of *Stahl’s Essential Psychopharmacology* you will notice there is a new look and feel. With a new layout, displayed over two columns, and an increased page size we have eliminated redundancies across chapters, been able to add significant new material and yet decrease the overall size of the book.

**Highlights** of what has been added or changed since the third edition of the textbook and the coverage of mood and antidepressants include:

- The **mood chapter** has expanded coverage of:
  - stress
  - neurocircuitry
  - genetics

- The **antidepressant chapter** has:
  - new discussion and illustrations on circadian rhythms
  - discussion of the roles of neurotransmitter receptors in the mechanisms of actions of some antidepressants
    - melatonin receptors
    - 5HT1A receptors
    - 5HT2C receptors
    - 5HT3 receptors
    - 5HT7 receptors
    - NMDA glutamate receptors
  - inclusion of several new antidepressants
    - agomelatine/Valdoxan
    - vilazodone/Viibryd
    - vortioxetine (LuAA21004)
    - ketamine (rapid onset for treatment resistance)

One of the major themes emphasized in this new fourth edition is the notion of **symptom endophenotypes**, or dimensions of psychopathology that cut across numerous syndromes. This is the future of psychiatry, namely the matching of symptom endophenotypes to hypothetically malfunctioning brain circuits, regulated by genes, the environment and neurotransmitters. Hypothetically, inefficiency of information processing in these brain circuits creates symptom expression in various psychiatric disorders that can be changed with psychopharmacologic agents. Even the new DSM 5 [1] recognizes this concept and calls it Research Domain Criteria (or RDoC).

Each chapter in this fourth edition discusses “symptoms and circuits” and how to exploit domains of psychopathology both to become a neurobiologically empowered psychopharmacologist, and to select and combine treatments for individual patients in psychopharmacology practice.

What has not changed in this new fourth edition is the **didactic style** of the first three editions: namely, this text attempts to present the fundamentals of psychopharmacology in a **simplified and readily readable form**. We emphasize current formulations of disease mechanisms and also drug mechanisms. As in previous editions, the text is not extensively referenced to original papers, but rather to textbooks and reviews and a few selected original papers, with only a limited reading list for each chapter, but preparing the reader to consult more sophisticated textbooks as well as the professional literature.

The organization of information continues to apply the principles of **programmed learning** for the reader, namely repetition and interaction, which has been shown to enhance retention. Therefore, it is suggested that novices first approach this text by going through it from beginning to end by reviewing only the color graphics and the legends for these graphics. Virtually everything covered in the text is also covered in the graphics and icons. Once having gone through all the color graphics in these chapters, it is recommended that the reader then go back to the beginning of the book, and read the entire text, reviewing the graphics at the same time. After the
text has been read, the entire book can be rapidly reviewed again merely by referring to the various color graphics in the book. This mechanism of using the materials will create a certain amount of programmed learning by incorporating the elements of repetition, as well as interaction with visual learning through graphics. Hopefully, the visual concepts learned via graphics will reinforce abstract concepts learned from the written text, especially for those of you who are primarily “visual learners,” (i.e., those who retain information better from visualizing concepts than from reading about them). For those of you who are already familiar with psychopharmacology, this book should provide easy reading from beginning to end. Going back and forth between the text and the graphics should provide interaction. Following review of the complete text, it should be simple to review the entire book by going through the graphics once again.

Expansion of Essential Psychopharmacology Books

The fourth edition of Essential Psychopharmacology is the flagship, but not the entire fleet, as the Essential Psychopharmacology series has expanded now to an entire suite of products for the interested reader. For those of you interested in specific prescribing information, there are now three prescriber’s guides:

– For psychotropic drugs, Essential Psychopharmacology: The Prescriber’s Guide
– For pain drugs: Essential Pain Pharmacology: The Prescriber’s Guide

For those interested in how the textbook and prescriber’s guides get applied in clinical practice there is a book covering 40 cases from my own clinical practice
– Case Studies: Stahl’s Essential Psychopharmacology

For those teachers and students wanting to assess objectively their state of expertise, to pursue maintenance of certification credits for board recertification in psychiatry in the US, and for background on instructional design and how to teach there are two books:

– Stahl’s Self Assessment Examination in Psychiatry: Multiple Choice Questions forClinicians
– Best Practices in Medical Teaching

For those interested in expanded visual coverage of specialty topics in psychopharmacology, there is the Stahl’s Illustrated series:

– Antidepressants
– Antipsychotics 2nd edition: Treating Psychosis, Mania and Depression
– Mood Stabilizers
– Anxiety, Stress and PTSD
– Attention Deficit Hyperactivity Disorder
– Chronic Pain and Fibromyalgia
– Substance Abuse and Impulsive Disorders

Finally, there is an ever-growing edited series of sub-specialty topics:

– Next Generation Antidepressants
– Essential Evidence-Based Psychopharmacology 2nd edition
– Essential CNS Drug Development.

Essential Psychopharmacology Online

Now, you also have the option of accessing all these books plus additional features online by going to Essential Psychopharmacology Online at www.stahlonline.org. We are proud to announce the continuing update of this new Website which allows you to search online within the entire Essential Psychopharmacology suite of products. With publication of the fourth edition, two new features will become available on the website:

– downloadable slides of all the figures in the book
– narrated, animations of several figures in the textbook, hyperlinked to the online version of the book, playable with a click

In addition, www.stahlonline.org is now linked to:
– our new journal CNS Spectrums, www.journals.Cambridge.org/CNS, of which I am the new editor-in-chief, and which is now the official journal of the Neuroscience Education Institute (NEI), free online to NEI members. This journal now features readable and illustrated reviews of current topics in psychiatry, mental health, neurology and the neurosciences as well as psychopharmacology
– the NEI website, www.neiglobal.com
for CME credits for reading the books, the journal and for completing numerous additional programs both online and live
- for access to the live course and playback encore features from the annual NEI Psychopharmacology Congress
- for access to the CME accredited NEI Master Psychopharmacology Program, an online fellowship with certification
- plans for expansion to a Cambridge University Health Partners co-accredited online Masterclass and Certificate in Psychopharmacology, based upon live programs held on campus in Cambridge and taught by University of Cambridge faculty, including myself having joined the faculty there as an Honorary Visiting Senior Fellow

Hopefully the reader can appreciate that this is an incredibly exciting time for the fields of neuroscience and mental health, creating fascinating opportunities for clinicians to utilize current therapeutics and to anticipate future medications that are likely to transform the field of psychopharmacology. Best wishes for your first step on this fascinating journey.

Stephen M. Stahl M.D, Ph.D.