Reference

1. Texas Department of State Health Services: http://www.dshs.state.tx.us/mhquality/ECTReports.shtm (Accessed January 16, 2011)

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Book review accepted for publication February 2011 (doi: 10.1176/appi.ajp.2011.11010100).

GABA and Sleep: Molecular, Functional and Clinical Aspects, *edited by Jaime M. Monti, Seithikurippu Ratnas Pandi-Perumal, and Hanns Möhler. New York, Springer, 2010, 486 pp., $209.00.*

This is a timely, comprehensive, and relevant book detailing the role of gamma-aminobutyric acid (GABA) in the regulation of sleep—timely in that disorders of sleep have been increasingly recognized as major issues in health maintenance, human performance at many levels, and psychiatric well-being. Additionally, for the first time, we have sleep medications available that, compared with those of the past, are effective, safe, and compatible with longer-term use. These medications are thought to work primarily through their effect on the GABA inhibitory system. A basic knowledge of this system is highly useful to those who are involved in sleep-related research or who practice in sleep medicine, especially regarding insomnia.

This volume is divided into three broad topical areas. The first four chapters, Part I, focus on basic sleep physiology and pharmacology. The next 10 chapters deal with a general area titled Sleep Science and Circuitry, and the final five chapters, Part III (titled Hypnotics), encompass several clinical sections as well as provide discussion of newer hypnotic agents.

Möhler's introductory chapter provides a nice review of the structure of several GABA receptors and their putative function in a number of domains, including sleep and arousal, cognition, anxiety, and pain. Relevant animal experiments are reviewed, suggesting areas that will likely be of future clinical interest in the modulation of these activities.

Atack reviews the increasing knowledge of GABA receptor subtypes and their agonists and antagonists, including a number of pharmacological agents that modulate specific subtypes that have been studied for their potential hypnotic and anxiolytic properties. There is an interesting and informational section describing many compounds that have been studied for their potential clinical utility but not followed up or that have been discarded for various reasons. Clinicians may have heard of some of these agents, and this section discusses why they were never available on the market.

Waldvogel et al. focus on $GABA_A$ receptor subunit distribution in the human brain, and the chapter by Greenblatt contains an interesting review of the use of GABA active hypnotics in clinical settings, including evidence that "common knowledge" about some drugs is often actually opinion based on little data and not supported by careful reading of the literature. The basic pharmacology involved in predicting hypnotic effects is presented in considerable detail for interested readers. The reader can come away with a good understanding of why some drugs behave as they do in terms of onset and duration of action and residual next-day effects.

The chapter by Lawrence on emerging knowledge of subtypes of interneuronal systems and their relationship to GABAergic mechanisms provides a background for the increasing interest in systems controlling variations in neuronal oscillatory patterns as they relate to wake and sleep mechanisms.

Gottesmann provides a review of emerging evidence of the important role of $GABA_B$ and $GABA_C$ receptors in wake-sleep regulation and includes intriguing early data on the role of hypocretin/orexin neuronal function in sleep-wake state control, an area of likely future importance in the clinical management of sleep disorders.

Monte emphasizes awake/REM state control, and the next five chapters call attention to the neurophysiology and neurochemistry of REM sleep predominantly. Attention devoted to slow-wave sleep is sparse, which is unfortunate considering the increasing evidence that slow-wave sleep, especially delta sleep, may be central to restoration and maintenance of proper brain function. The last two chapters of Part II are devoted to circadian aspects of sleep as modulated by GABA mechanisms, including possible GABA/melatonin interactions.

Part III begins with several chapters on more clinically related issues. Wetter et al. provide an in-depth discussion of the pathophysiology of insomnia and hypersomnia (narcolepsy) as well as a nice review of restless legs syndrome and periodic limb movement syndrome. Pagel and Kram discuss the differential diagnosis and treatment of insomnia. The final four chapters of Part III review the more recent nonbenzodiazepine alpha-1 (omega-1) receptor agonists zolpidem, eszopiclone, indiplon, and zaleplon.

While we have come a long way in terms of the development and utilization of safer and effective GABA-related hypnotic agents, the gap between the rather extensive basic science database reviewed in this volume and the clinic remains large. This text, however, is an excellent assessment of the basic science relating to GABA and sleep to date.

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The author reports no financial relationships with commercial interests.

Book review accepted for publication February 2011 (doi: 10.1176/appi.ajp.2011.11010133).

Psychotherapy for the Treatment of Substance Abuse, *edited by Marc Galanter, M.D., and Herbert D. Kleber, M.D. Washington, DC, American Psychiatric Publishing, 2011, 427 pp., $65.00.*

Over the past 20 years, the psychotherapeutic treatment of patients with substance use disorders has been revolutionized as a result of rigorous research studies in which manualized psychotherapies that were developed specifically for this patient population have been tested for efficacy in randomized controlled trials. *Psychotherapy for the Treatment of Substance Abuse*, edited by two preeminent addiction psychiatrists, Marc Galanter, M.D., and Herbert D. Kleber, M.D., provides a review of many of these therapies in a compact volume adapted from the editors' superb textbook *The Ameri-*

can Psychiatric Publishing Textbook of Substance Abuse Treatment, Fourth Edition.

In this book, most of the key psychotherapies and other behavioral therapies that have been studied for the treatment of addicted patients are reviewed: motivational enhancement therapy, cognitive-behavioral therapy, contingency management, psychodynamic psychotherapy, network therapy, 12-step facilitation, family therapy, and group therapy. A separate chapter discusses Alcoholics Anonymous. The authorship list encompasses leaders in the field, including those who were critical in the genesis and study of the treatments they discuss.

Several introductory chapters precede the discussion of the different psychotherapies, reviewing topics such as assessment of the patient, testing to identify recent drug use, cross-cultural aspects of addiction therapy, and patient placement criteria. While these chapters do not discuss psychotherapy per se, they round out the book to make it a more broadly encompassing review of evaluation and treatment of individuals with substance use disorders.

One of the strengths of this book is its inclusion of case examples and practical tips within the context of a review of the empirical evidence establishing the efficacy of the treatment modality being discussed. This helps to make this volume appropriate for both clinicians and researchers. The book is also designed both for those who specialize in addiction and for general psychiatrists who, by virtue of the high prevalence rate of substance use disorders, see many of these patients in their practices.

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Dr. Weiss has served as a consultant to Titan Pharmaceuticals and has received research support from Eli Lilly.

Book review accepted for publication February 2011 (doi: 10.1176/appi.ajp.2011.11010156).

Correction

Table 2 in the article "Pharmacogenetic Approach at the Serotonin Transporter Gene as a Method of Reducing the Severity of Alcohol Drinking" by Bankole A. Johnson, D.Sc., M.D., et al. (Am J Psychiatry 2011;168:265-275) contained errors in the clinical data. With respect to baseline self-reported percentage of days abstinent, the numbers should have read as follows (from left to right): 18.0, 22.5, 15.0, 18.2, 22.3, 22.6, 13.7, 18.1, 11.2, 12.3, 19.8, 22.3, 13.6, 13.7, 18.1, and 22.1.

Also, the mean (SD) revised Clinical Institute Withdrawal Assessment for Alcohol scale score values in the placebo TT column were transposed with the mean (SD) values in the placebo TG/GG column. The mean (SD) Alcohol Use Disorders Identification Test score values in the ondansetron TT column were transposed with the mean (SD) values in the ondansetron TG/GG column. The mean value for age at alcoholism onset in the ondansetron TT column should have read 28.8 instead of 38.8. Finally, the mean values for social class in the placebo TT column should have read 21, 20, and 2 for social classes 1–3, 4–6, and 7–9, respectively, instead of 41, 36, and 4. A reproduction of the table as it should have appeared is presented below (changes denoted in red).

TABLE 2. Baseline Demographic and Psychopathological Characteristics of Alcohol-Dependent Participants in a Randomized Controlled Trial of Ondansetron, by Genotype[a]

Measure[b]	Treatment Group and Genotype															
	Ondansetron (N=140)								Placebo (N=143)							
	LL (N=49)		LS/SS (N=91)		TT (N=42)		TG/GG (N=95)		LL (N=44)		LS/SS (N=99)		TT (N=48)		TG/GG (N=92)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age (years)	43.8	13.0	44.9	13.0	44.2	13.9	44.6	11.8	45.6	12.6	44.7	12.3	43.4	11.3	46.1	12.7
Self-reported drinks per drinking day[c]	9.6	4.0	9.5	4.8	10.7	4.1	9.0	4.7	8.9	5.1	9.8	4.5	10.2	6.0	9.2	3.8
Self-reported percentage of days abstinent[c]	*18.0*	*22.5*	*15.0*	*18.2*	*22.3*	*22.6*	*13.7*	*18.1*	*11.2*	*12.3*	*19.8*	*22.3*	*13.6*	*13.7*	*18.1*	*22.1*
Breath alcohol concentration (%)	0.002	0.005	0.002	0.004	0.003	0.006	0.001	0.001	0.002	0.004	0.002	0.004	0.001	0.003	0.002	0.005
Revised Clinical Institute Withdrawal Assessment for Alcohol scale score	1.4	1.7	1.7	2.2	1.5	2.0	1.9	2.2	1.7	2.0	1.8	2.0	*2.5*	*2.4*	*1.4*	*1.7*
Age at alcoholism onset (years)	30.8	12.0	30.8	13.9	*28.8*	12.7	31.6	13.6	32.0	12.1	30.7	12.7	31.2	12.7	31.3	12.6
Alcohol Use Disorders Identification Test score	25.0	5.7	23.6	5.7	*25.7*	*5.6*	*23.2*	*5.5*	23.7	6.2	23.2	5.8	23.3	6.0	23.2	5.9
Weight (kg)	83.4	19.0	79.5	17.0	81.8	17.6	80.5	18.3	82.5	18.2	83.8	16.4	81.1	16.4	84.9	16.9
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male	35	71.4	67	71.3	31	73.8	67	71.3	31	70.5	74	74.8	40	83.3	63	68.5
Race/ethnicity																
White	45	91.8	77	81.9	37	88.1	81	86.2	37	84.1	81	82.8	37	77.1	78	84.8
Hispanic	4	8.2	14	14.9	5	11.9	13	13.8	7	15.9	18	18.2	11	22.9	14	15.2
Social class[d]																
1–3	21	48.8	33	38.8	21	56.8	32	36.8	19	47.5	43	49.4	*21*	50.6	41	51.0
4–6	21	48.8	45	52.9	15	40.5	48	55.2	18	45.0	39	44.8	*20*	44.4	36	44.0
7–9	1	2.3	7	8.2	1	2.7	7	8.1	3	7.5	5	5.8	*2*	4.9	4	5.0

[a] Participants were randomized by genotype in the 5′-regulatory region of the serotonin transporter gene (LL/LS/SS), with additional genotyping for another functional single-nucleotide polymorphism (T/G), rs1042173, in the 3′-untranslated region.
[b] All values were collected at the screening visit.
[c] Reflects mean values during the 90-day period preceding the screening visit.
[d] As defined by Hollingshead and Redlich (46).