

In some cases, one can beat insomnia without pills, and use cognitive behavioral therapy or other modalities instead. As the author notes, sleep problems can occur at any stage of life. Indeed, insomnia has many forms, many symptoms, many causes, and many treatments! For more knowledge and ways to solve your sleep problems, I invite you to read the book.

Ermal Bojdani, MD  
PGY-2, Harvard South Shore/  
VA Boston General Psychiatry Residency  
Harvard Medical School

***Appetite and Food Intake: Central Control, Second Edition.*** By Ruth Harris. Boca Raton, FL: CRC Press; 2017. US \$139.95 (Hardcover). 310 p. ISBN: 978-1498723169

Obesity is a global health issue that people outside the field may have outdated perspectives on. Research has shown us that many factors beyond keeping a balance between energy intake and expenditure, regulates weight gain; but there is still a lot left to understand. Ruth Harris gives us a comprehensive look at two factors that are related to this broad topic: appetite and food intake. This book does a great job at showing its readers current research from a systems level down to the genetic level across basic and clinical labs as well as different models of study. Each chapter will not only present you what is current in the different research topics outlined, but they also provide a historic background on the topic for better understanding. Additionally, some chapters also focus on the new tools or therapies being developed because of current basic and clinical work.

Since professionals in the topic write each chapter, the book is very easy to follow; it also helps that the prose used is not highly specialized, meaning that readers that are less familiar with the topic will still be able to understand. The target audience of *Appetite and Food Intake* can be broad because of this as well. For example, this book can serve as a thorough review for students emerging into the field of obesity, appetite control, and energy balance for their own research and thesis. Furthermore, this book should cater to health professionals interested in the topic as well, it will give them a much broader sense of the different mechanisms and systems at play in these specific behaviors.

In summary, this book is well organized; it serves as a thorough review that looks at different forms of research tackling the same topic, giving the reader a holistic view on what is current in appetite and food intake. Because of this, the book is a must for those interested in studying these topics more deeply in their own research, or health-related field of work.

Gabriela Bosque Ortiz  
Interdepartmental Neuroscience Program  
Yale University

***Foundations of Neural Development.*** By S. Marc Breedlove. Sunderland, Massachusetts: Sinauer Associates, Inc. Publishers; 2017. US \$99.95 (Hardcover). 378 p. ISBN: 978-1605355795

*Foundations of Neural Development* was created out of need for an updated developmental neuroscience text aimed at an undergraduate audience. Similar to other textbooks of this nature, the material is presented with developmental events in chronological order, beginning with cell differentiation and embryonic development in the very first chapter and ending with social behaviors in the final chapter. Uniquely, Breedlove offers both evolutionary and philosophical perspectives that contextualize these wide-ranging topics.

The provided evolutionary perspective consists of four critical events giving rise to the evolution of the human brain. The first is the shift to cell-cell communication for cues directing cell differentiation. Whether this entails direct contact or diffusible signals, cell-cell communication drives the establishment of a body plan (Chapters 1-2), cell division and migration (Chapter 3), differentiation of neurons and glia (Chapter 4), path of axonal growth cones (Chapter 5), initiation and maturation of synapses (Chapter 6), and apoptosis (Chapter 7). An extension of cell-cell communication mechanisms to electrical activity leads to the second critical event, activity-guided synaptic plasticity through which neurons can affect their connections with other cells (Chapter 8). Together with the development of activity-guided synaptic plasticity is the third event, the development of sensory experience-dependent guidance of development (Chapter 9). Lastly, the cumulative effect of the previously stated events is the shaping of brain development by behavior and social experience (Chapter 10). With the chapters in this text organized around these four events, the evolutionary perspective is useful for understanding and consolidating the material.

In contrast, the philosophical perspective that attempts to discuss the complementary relationship between developmental neuroscience and epistemology may seem superfluous. Parallels drawn between scientists and philosophers in the study of knowledge existing before birth can be interesting but also distracting and unnecessary for understanding the scientific mechanisms discussed.

Vignettes at the beginning of each chapter relate to a relevant human condition, and inserts with classical or ongoing studies appear in boxes throughout. The figures

are exceptionally presented and informative. As a whole, there is a focus on neuronal developmental mechanisms and some behavior, but lack of detailed information on glial populations. This text serves as a broad introduction to neural development.

Chelsea Xu  
Interdepartmental Neuroscience Program  
Yale Graduate School of Arts and Sciences