第一图书网, tushu007.com

<<从分子到网络>>

图书基本信息

书名：<<从分子到网络>>

13位ISBN编号：9787030273932

10位ISBN编号：7030273931

出版时间：2010-6

出版时间：科学

作者：(美)伯恩

页数：643

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：http://www.tushu007.com

前言

The second edition contains substantial improvements over the first edition. All chapters have been updated to include recent developments in the field, and major revisions have been done on the chapter son Energy Metabolism in the Brain, Molecular Properties of Ion Channels, Gap Junctions, and Learning and Memory. In addition, this edition features two new chapters, Information Processing in Neural Networks and Molecular and Cellular Mechanisms of Neurodegenerative Disease. Although the first edition covered biochemical and gene networks in significant detail, little was included on neural networks. It is the neural net-works in the brain that collect and process information about the external world and about the internal state of the body and generate motor commands. There fore, an understanding of these networks is essential to understanding the brain and also helps to put the cellular and molecular processes in perspective. However, discussing all of the brain systems is beyond the scope of a text book on cellular and molecular neuroscience. Rather, our goal is to describe the principles of operation of neural net-works and the key circuit motifs that are common to many networks. The second new chapter reports on the progress in the last 20 years on elucidating the cellular and molecular mechanisms underlying braindisorders This chapter focuses specifically on amyotrophic lateral sclerosis （ALS）, Parkinson disease, and Alzheimers disease, and the progress that has been made and the strategies that have been used to study and treat the disorders. The fact that all three diseases are associated with neuronal loss, albeit indifferent brain regions and with different neurotransmitter groups, suggests that there may be commonaspects to the degenerative process. We are once again extremely grateful to JohannesMenzel at Elsevier for his unfading support and encouragement throughout the project. Thanks also to Clare Caruana, Meg Day, Kristi Gomez, Kirsten Funk, Megan Wickline, and members of the production staff. Special thanks to Lorenzo Morales, thegraphic artist on the project, who did an out standing job of creating many of the illustrations in the secondedition and restyling all the illustrations for consistency among chapters. He also designed the coverillustration.

内容概要

过去二十年，人们对神经系统各个层面的理解突飞猛进，其中最为突出的进展，恐怕就是对于神经元的细胞与分子生物学的理解。
神经元不再是个黑匣子，它的功能涉及一系列生物化学及生物物理学过程，其协同作用，最终达到加工、传输并存储信息的目的。
本书是唯一一本对已知的神经细胞形态学．生物化学及生物物理学性质进行全面概括的教科书．
第二版基于第一版的成功经验，更新了最近五年的学科进展。
新版本扩充了细胞神经生物学网络方面的内容，还阐述了细胞生物学过程与多种神经疾病的相互、作用关系。
事可配合分子生物学、神经科学、生物化学及相关专业研究生和高年级本科生课程使用　　导读版每章前均附国内相关领域专家所作的详尽导读一篇　　被专家誉为”神经科学家书架上的必备书”
附光盘，内含原书全部插图

书籍目录

编辑推荐

目录、索引已译成中文，正文保留英文原版。
中文导读主编为第四军医大学疼痛生物医学研究所所长陈军教授和首都医科大学神经生物学系主任王晓民教授。

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:http://www.tushu007.com