

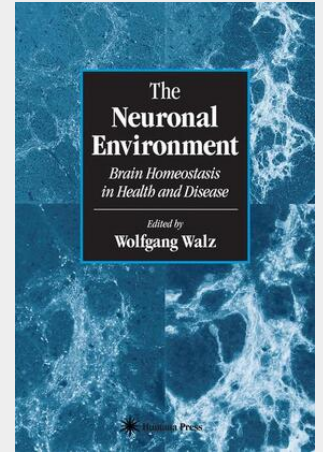
Walz

The Neuronal Environment

Brain Homeostasis in Health and Disease

Leading neuroscience researchers offer a fresh perspective on neuronal function by examining all its many components-including their perturbation during major disease states-and relate each element to neuronal demands. Topics range from the dependency of neurons on metabolic supply, as well as on both ion and transmitter homeostasis, to their close interaction with the myelin sheath. Also addressed are the astrocytic signaling system that controls synaptic transmission, the extracellular matrix and space as communication systems, the role of blood flow regulation in neuronal demand and in blood-brain barrier function, and inflammation and the neuroimmune system. Insightful and integrative, *The Neuronal Environment: Brain Homeostasis in Health and Disease* demonstrates a clear new understanding that neurons do not work in isolation, that they need constant interactions with other brain components to process information, and that they are not the only information processing system in the brain.

To function properly, neurons must interact with other constituent elements of the brain (e.g., blood supply and myelin), and in fact most diseases of the nervous system involve these nonneuronal components. In *The Neuronal Environment: Brain Homeostasis in Health and Disease*, leading neuroscience researchers offer a fresh perspective on neuronal function by examining all its many components-including their perturbation during major disease states-and relate each element to neuronal demands. Topics range from the dependency of neurons on metabolic supply, ion homeostasis, and transmitter homeostasis, to their close interaction with the myelin sheath. Also addressed are the astrocytic signaling system, which controls synaptic transmission, the extracellular matrix and space as communication systems, the role of blood flow regulation in blood-brain barrier function, and inflammation and the neuroimmune system. All these elements are treated in the context of their importance for neurons and the major diseases affecting them. Insightful and integrative, *The Neuronal Environment: Brain Homeostasis in Health and Disease* demonstrates for today's neuroscientists, cell biologists, and pharmacologists a clear new understanding that neurons do not work in isolation, that they need constant interactions with other brain components to process information, and that they are not the brain's sole information processing system.



213,99 €

199,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781617372353

Medium: Buch

ISBN: 978-1-61737-235-3

Verlag: Humana Press

Erscheinungstermin: 19.11.2010

Sprache(n): Englisch

Auflage: 1. Auflage. Softcover version of original hardcover Auflage 2002

Serie: Contemporary Neuroscience

Produktform: Kartoniert

Gewicht: 930 g

Seiten: 432

Format (B x H): 178 x 254 mm

