

Book Review

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The Spinal Cord:

A Christopher and Dana Reeve Foundation Text and Atlas

by Charles Watson, George Paxinos and Gülgün Kayalıoğlu

Hardcover, 216x279 mm, 408 pages; ISBN: 978-0-12-374247-6; Elsevier Academic Press, 2008

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In 2005, the authors planned to publish a textbook and atlas about spinal cord, in order to make a contribution to the literature about this very important part of the central nervous system. In this connection, this detailed reference book will give some help to the studies about spinal cord. This textbook and atlas is the first publication which describes the development, organization and functions of the spinal cord in details and contains 17 chapters and 387 pages. The organization of the spinal cord, development of the spinal cord, the vertebral column and spinal meninges, the spinal nerves, the spinal cord blood vessels, cytoarchitecture of the spinal cord, localization of motoneurons in the spinal cord, spinal autonomic preganglionic neurons: the visceral afferent system of the spinal cord, central nervous system control of micturition, projections from the spinal cord to the brain, projections from the brain to the spinal cord, the propriospinal system, spinal cord transmitter substances, spinal cord injury: experimental animal models and relation to human therapy, atlas of the rat spinal cord, atlas of the mouse spinal cord, toward a spinal cord ontology are the names of the chapters. The atlases of rat and mouse; give a detailed map of the cellular characteristics of the spinal cords of these animals and it has not been published in an atlas, previously. Therefore, this textbook and atlas is essential for every laboratory who deals with the nervous system.

The language of the text part is simple and well understood. The excess number of references in each chapter shows that a perfect literature examination is done before beginning to write the chapters. The figures are extremely high in number and they have a good quality. PET-scans of humans, photomicrographs showing ChAT reactivity in spinal cord by immuno-staining, fig-

ures of India ink injected vessels, photomicrographs of Rexed's laminae stained with NADPH-diaphorase, figures obtained by autoradiographic tracing methods, photographs of Nissl stained transverse sections from each of the spinal cord segments, photographs of additional sections displaying markers such as acetylcholinesterase (AChE), calbindin, calretinin, choline acetyltransferase, neurofilament protein (SMI 32), enkephalin, calcitonin gene-related peptide (CGRP) and neuronal nuclear protein (NeuN) are present in this excellent work. Additionally; the schematic drawings and diagrams are very helpful to the text parts and the atlas of the rat and mouse spinal cords will be of interest to researchers who are dealing with the spinal cord.

In my opinion, "The Spinal Cord" is an extremely important book for the spinal injury research, pain mechanisms, neuropharmacology, molecular genetics and any other type of researches about the spinal cord. The high number of references and excellent figures in this book make it more valuable in this field.

I wish to congratulate all the authors and I recommend it to spinal cord researchers and to academic staff who are interested in spinal cord.

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