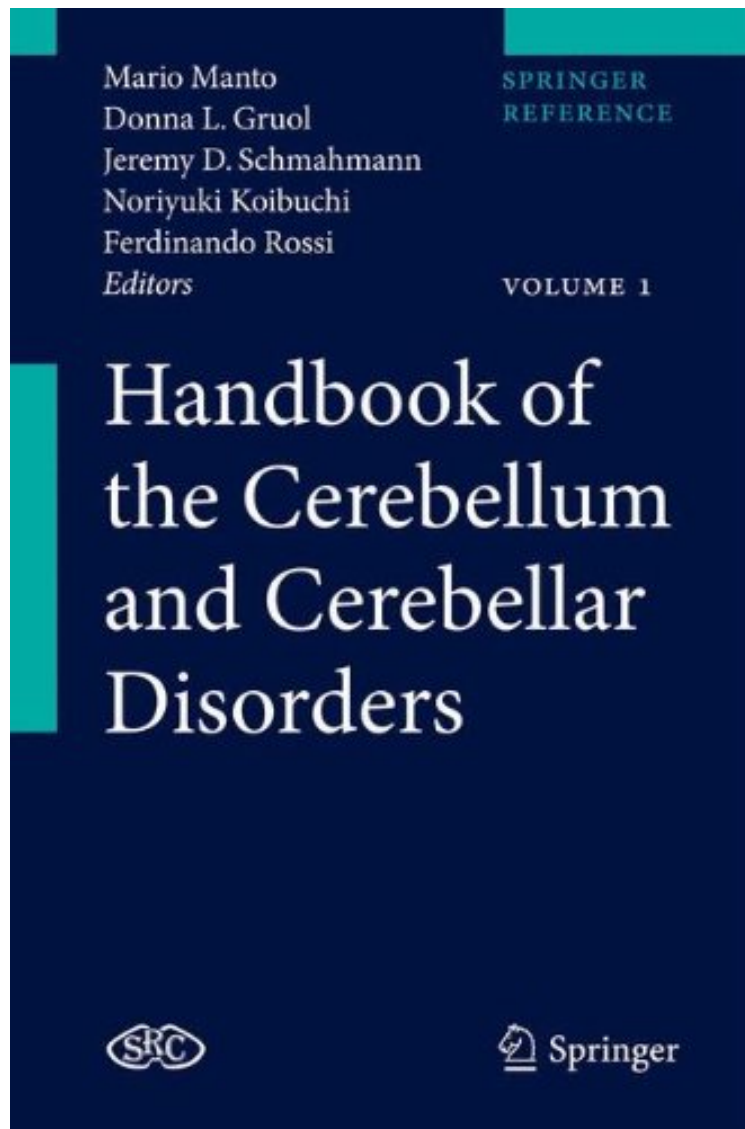


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## Handbook of the Cerebellum and Cerebellar Disorders(4 Volume set)

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**From Brand: Springer : Handbook of the Cerebellum and Cerebellar Disorders(4 Volume set)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Handbook of the Cerebellum and Cerebellar Disorders(4 Volume set):

0 of 0 people found the following review helpful. The CerebellumBy Joseph J GrenierHandbook of Cerebellum and Cerebellum DisordersSpringer International PublishersJoseph Grenier MD PhDThis is an atlas, textbook, and

encyclopedia reference on the mammalian cerebellum including the following topics: 1) Anatomy, Physiology, Development, Embryogenesis 2) Pathology, Genetics, Human and Animal Models 3) Physiological classifications Mutagenesis 4) Neurological Symptoms Neurosurgical Pathology 5) Neuron Classification Morphology 6) Purkinje, Stellate, Ganglion, Climbing Fibers, Granule Cell, Afferent and Efferent Descriptions and Connections. There is extensive cross referencing end chapter and end volume collaborators. International experts in each research branch contribute the 100s of sections throughout this enormous effort which makes it a top research tool. Computational and mathematical aspects of the cerebellum are also covered. This book will benefit physiologists, anatomists, neurologists, neurosurgeons, and researchers in a very complex field. If you have a question regarding A-Z on the cerebellum, you will find it here.

Our knowledge of cerebellar functions and cerebellar disorders, called ataxias, is increasing considerably. Studies of the cerebellum are now a central focus in neuroscience. During the last four decades, many laboratories worldwide have dedicated their research activities to understanding the roles of the cerebellum in motor control, cognitive processes and biology of mental processes, behavioral symptoms, and emotion. It is now accepted that the cerebellum acts as a cognitive operator in learning, perception, and attention. Moreover, major improvements in our assessment of in vivo cerebellar architecture using imaging techniques have occurred. A typical example is the accurate description of cerebellar anatomy during fetal development with MRI, a progress which has direct impacts on patient care. These advances have been associated with discoveries of new clinical disorders, in particular in the field of genetic ataxias. More than 20 new genes have been identified these last 10 years. Only for dominant ataxias, more than 30 diseases have now been unravelled. The number of ataxic disorders will increase with aging, the cerebellum being the structure of the brain with the most important loss of neurons with age. More than 300 different cerebellar disorders are encountered during daily practice, but we are missing a single source of information explaining their pathogenesis. Despite the immense amount of knowledge acquired about the cerebellar circuitry these last years, a large book covering the neuroscience of the cerebellum is missing. The goal of this endeavour is to bring up to date information relevant for basic science and also for clinical activities. To reach this goal, the most renowned authors are gathered in a unique and in-depth book with a format of a handbook. We emphasize the connections between molecular findings, imaging features, behavioural/neuropsychological aspects, and clinical implications.

From the reviews: The Handbook of the Cerebellum and Cerebellar Disorders represents a monumental effort on the part of the editors and the contributors of the individual chapters to bring to fruition a single set of books that covers almost any aspect of the cerebellum that one can imagine. It is a reference source that should be found in the library of the serious contemporary neurobiologist, especially those with interest in the cerebellum and its myriad of related brainstem nuclei. (Duane E. Haines, *The Cerebellum*, Vol. 13, 2014) The editors sought to provide a thorough summary of the current understanding of the cerebellum and its disorders. It is intended for all audiences who may have an interest in the cerebellum, its function, and its disorders. It can be used by literally all healthcare professionals and neuroscientists. This is a must have for any university, medical center, or healthcare facility. It is an important addition to the literature and the content is appropriate for all audiences. (Joseph I. Sirven, *Doodys Books*, October, 2012) From the Back Cover Our knowledge of cerebellar functions and cerebellar disorders, called ataxias, is increasing considerably. Studies of the cerebellum are now a central focus in neuroscience. During the last four decades, many laboratories worldwide have dedicated their research activities to understanding the roles of the cerebellum in motor control, cognitive processes and biology of mental processes, behavioral symptoms, and emotion. It is now accepted that the cerebellum acts as a cognitive operator in learning, perception, and attention. Moreover, major improvements in our assessment of in vivo cerebellar architecture using imaging techniques have occurred. A typical example is the accurate description of cerebellar anatomy during fetal development with MRI, a progress which has direct impacts on patient care. These advances have been associated with discoveries of new clinical disorders, in particular in the field of genetic ataxias. More than 20 new genes have been identified these last 10 years. Only for dominant ataxias, more than 30 diseases have now been unravelled. The number of ataxic disorders will increase with aging, the cerebellum being the structure of the brain with the most important loss of neurons with age. More than 300 different cerebellar disorders are encountered during daily practice, but we are missing a single source of information explaining their pathogenesis. Despite the immense amount of knowledge acquired about the cerebellar circuitry these last years, a large book covering the neuroscience of the cerebellum is missing. The goal of this endeavour is to bring up to date information relevant for basic science and also for clinical activities. To reach this goal, the most renowned authors are gathered in a unique and in-depth book with a format of a handbook. We emphasize the connections between molecular findings, imaging features, behavioural/neuropsychological aspects, and clinical implications. About the Author M. Manto is neurologist. He is researcher at the FNRS-Belgium. He is the founding and current editor of the international journal *The Cerebellum* (Springer). He is the President of the Medical Board of Euro-Ataxia. He has founded the Society for Research on the Cerebellum ([www.socrecer.org](http://www.socrecer.org)). Our laboratory is funded by national and international research organisations: -FNRS, Belgium-Brussels Region-European Commission (FP5, FP6)-NIH-

USAWorks carried out so far have been published in international peer-reviewed journals.