

Axonal regeneration in the central nervous system

NICHOLAS A. INGOGLIA, MARION MURRAY. 711 pp. **Price:** \$225. **Publisher:** Marcel Dekker, Inc. **Date of Publication:** 2001. **Place of Publication:** USA. **ISBN:** 0-8247-0410-x

Neurons in the central nervous system do not regenerate their transected axons, due to the presence of growth inhibitory proteins. For the last half-century, various experimental methods have been used to stimulate regeneration in the injured spinal cord as directed to overcome this growth inhibitory environment of the central nervous system (CNS). Antibodies that bind inhibitory proteins in myelin, modulation of intra-cellular signaling and transplantation of cells to the lesioned spinal cord promote regeneration. The physiological basis of this natural inhibition of the growth cones is probably to maintain the sanctity of the individual neural circuit of our highly sophisticated brain. This book leads us to an initial "Bench to Bedside" translational research experience in the field of nerve regeneration in CNS. It has 5 parts written by multi-authors. The contributors used different research techniques to promote axon regeneration in order to achieve functional life following the CNS lesions. The authors have dedicated their studies in the following fields: axonal regeneration in the visual system of the lower vertebrates, glial cells as axon growth inhibitors, path finding protein molecules, regeneration of mammalian nerves, glial cell response to injury, gene expression in degeneration and regeneration of nerves and factors that influence axonal outgrowth. The CNS growth factors are Neuro-protection from cell apoptosis following axotomy, transplantation of Schwann cells, ensheathing glia and fetal CNS tissue and treatment of degenerative disorders of CNS.

This book could be beneficial for physicians of a larger sphere if the following points are carefully considered: An explanation of study methodology using schematic diagrams, colorful illustrations and experimental findings, simplifying complex and busy tables, summarizing the different experimental outcome in steps or using cartoon pictures, putting more emphasis on the bright future for CNS injured patients rather than monotonous negation. A separate chapter on "Clinico-pathophysiology of spinal cord injury in human and treatments modalities" is also advisable. However, this book serves the requirements of all basic Neuroscientists who are interested in research relating to axon regeneration in CNS. It is an excellent reference book for Clinical Neurologists, Neurophysiologists, Neurosurgeons

Spinal and Orthopedic Surgeons. It is a treasure for molecular and cellular Biologists. I therefore, highly recommend that this book should be available in all libraries in the Kingdom of Saudi Arabia; although, the book is slightly costly.

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The Nobel Prize in Medicine and the Karolinska Institute

BENGT LJUNGGREN, GEORGE W. BRUYN. 232 pp. **Price:** \$119.25. **Publisher:** S. Karger AG. **Place of Publication:** Switzerland. **Date of Publications:** 2002. **ISBN:** 3-8055-7297-2.

This book, written by Bengt Ljunggren and George W. Bruyn is essential not only for Neuroscientists and Historians but also for physicians throughout the world interested in the history of medicine. It is a very nicely written book by 2 authors on the history of medicine in the mid to late 19th century including the very interesting history of Axel Key and Alfred Nobel, among other prominent scientists. It is fascinating to learn of the efforts of the prominent scientist of the century. The book gives insights on the struggle for recognition by Axel for the Karolinska Institute and describes the intimate relationships of academia in promoting their dreams to fruition. This book provides enjoyable and informative reading, with a large number of portraits, and the appendix provides biographies of all the scientists mentioned in this book.

I was honored to review this book, and I read it with tears in my eyes, as George Bruyn is one of my best friends whom I lost 3 months ago and I believe this book is one of his last works. I know he likes the history of medicine and one of our dreams was to write a book about history in the Islamic and Arabic area.

Again, I emphasize that this book is for all scientists and historians. The price is acceptable for such an excellent work.

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