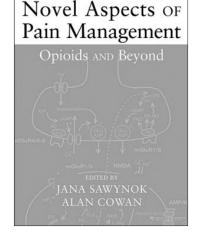
## **BOOK REVIEW**



## Novel Aspects of Pain Management: Opioids and Beyond. Edited by Jana Sawynok and Alan Cowan. Published by Wiley-Liss Inc., New York, 1999; 373 pp.

Over the past four decades, significant changes have occurred in our understanding of pain signaling and pain suppression. After the development of endogenous opioid peptide discoveries, receptor-

binding technologies, and the role of central sensitization in inflammatory and neuropathic pain states, additional awareness now surfaces with the multimodal multiplicity of neurochemical mediators that mediate pain signaling. This phenomenon occurs at peripheral sites and at the dorsal spinal cord sites where pain information initially enters the central nervous system and initiates supraspinal site activity where pain is processed.

This unique text develops the properties of many new and novel chemicals that mediate pain processing and reviews in a comprehensive scientific and systematic manner the involved technology, which helps us negotiate pain in a more effective and efficient manner. The recognized authors of this text are international scientists and clinicians who are experienced in pain research and educational and clinical endeavors. Each author provides a historical perspective for a class of agents and assesses their potential for therapeutic development. Professionals that may benefit from this text include academicians, scholars, pain fellows, clinicians that negotiate pain management/medicine, educators, and neuropsychopharmacologists that are involved in developing new technologies to mediate pain. A clinician whose goal is to increase functionality and activities of daily living for their patients who are victimized by pain will also find this text very valuable.

This text is organized into 17 chapters, as follows: neurophysiology of acute and chronic pain, animal models of pain, advances in pharmacology of opioids, new insights into the pharmacology of nonsteroidal anti-inflammatory drugs (NSAIDs), peripherally acting analgesics, vanilloids as analgesics (i.e., capsaicin), neurokinin antagonists, excitatory amino acid antagonists and their potential analgesics for persistent pain,  $\alpha$ -2 adrenergic agonists that are used as analgesics, serotonin and its receptors in pain control, the value of purines as potential for development as analgesic agents, gamma amino butyric acid and pain, cholinergic agonists as analgesics, dopaminergic drugs as analgesics, tricyclics and other antidepressants as analgesics, voltage-gated ion channel modulators and superb channel, and spinal drug interactions.

Each chapter culminates in a very extensive bibliography, and each page is footnoted precisely within the article. Each chapter may stand independently as a peer-reviewed article. All tables and figures are easy to read and excellently referenced, with good legends under each. Many of the subjects are presented in different chapters, projecting a different point of view. A list of these include the following: acute pain, adenosine, analgesics, antidepressants, antinociception, calcitonin gene-related peptide, dorsal root ganglion, excitatory amino acid antagonist, glutamate, 5-hydroxy tryptamine, morphine, neuropathic pain, N-methyl-D-aspartate, NSAIDs, opioids, spinal cord, substance P, and voltage-gated ion channels.

This text is extremely well written. It is a must for any clinician who wishes to examine the past and project themselves into the future of pain medicine. The size of the print is very appropriate and provides us all with a glimpse into the future based on significant scientific principles.

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