basic principles of the technique being discussed in the chapter. Two very detailed sections follow that list the materials needed to perform the technique and then an in-depth step by step methods section. These two sections form the bulk of the information for each of the chapters and give the reader all the information necessary to perform the experiments. The final section in most chapters is a "notes" section where the authors provide helpful hints as well as pitfalls that they personally ran into in trying to perform the experiments. This information ranges from why they choose to batch certain multiplex PCR reactions to emphasizing the importance of labelling reactions tubes properly.

These chapters cover a wide variety of neurologic conditions emphasizing current techniques being used to explore them. For example: semiquantitative PCR for the detection of exon rearrangement in the parkin gene in Parkinson's disease; denaturing high-performance liquid chromatography (DHPLC) to identify MECP2 mutations in Rett syndrome; and fluorescence in situ hybridization (FISH) to study genomic rearrangements in Charcot-Marie-Tooth disease. Seven chapters are dedicated to detail techniques used for studying trinucleotide repeat diseases and include "RED", "RAPID" and "DIRECT". The advantages and disadvantages of each technique are discussed and why one might choose one over the other. Classic techniques like "SSCP" and Southern blots are discussed in some of the chapters and why they are still commonly used.

This book is primarily aimed at researchers and clinical laboratory diagnosticians who are interested in learning new techniques. It gives them all the necessary information required to actually perform the experiments with a brief overview of a condition that is being studied. The editor suggests that clinicians with an interest in disease diagnosis would also find this useful. I think that, because the bulk of the chapters are dedicated to details about the materials and methods, most clinicians would be better served looking up the techniques in a molecular genetic review type textbook.

David A. Grimes
Ottawa, Ontario

PAIN, CURRENT UNDERSTANDING, EMERGING THERAPIES, AND NOVEL APPROACHES TO DRUG DISCOVERY. 2003. Edited by Chas Bountra, Rajesh Munglani, William K. Schmidt. Published by Marcel Dekker, Inc., New York, Basel. 968 pages. C$302 approx.

This book deserves high recommendation. Three editors, and over 140 contributors, have combined to produce a definitive volume concerning pain: its basic and clinical aspects, new approaches to drug discovery and new and emerging therapies.

The editors have successfully addressed several important questions and issues.

What is the latest thinking in terms of pathological mechanisms underlying acute and chronic pain? What is the role of the immune system or peripheral nervous system in maintaining chronic pain? If one dampens or attenuates these peripheral changes, will they also reverse cerebral pathological changes, resulting in chronic pain?

As the editors state, there is a hungry quest for treating intractable pain, spurred on by the pharmaceutical industry and clinicians. What analgesics are currently available or in development? How do we hunt for new drugs and where are the next generation of pharmaceutical agents likely to emerge?

These are formidable and important questions, and the authors have provided cogent, frank and thought-provoking answers.

This book deserves to be purchased, perused and studied, and then revisited five to ten years from now. I particularly recommend the sections on opioids, cannabinoids, vallinoids, and new local anaesthetic analgesics.

Finally, Peter Goadsby's chapter on headache, which discusses the trigeminovascular system and the basic neurobiology of migraine should be read by researchers, clinicians and patients alike.

J. Gary Ashby
Toronto, Ontario

SPINAL STABILIZATION PROCEDURES, DIAGNOSTIC AND THERAPEUTIC ASPECTS OF INTERVERTEBRAL FUSION CAGES, ARTIFICIAL DISCS AND MOBILE IMPLANTS. 2002. Edited by Denis L Kaech & J Randy Jinkins. Published by Elsevier Science. 408 Pages. C$180 approx.

This book provides an elegant overview of the current trend away from traditional spinal stabilization by arthrodesis with autograft/allograft/instrumented/noninstrumented constructs towards fusion with intervertebral fusion cages, and arthroplasty and/or dynamic posterior stabilization techniques as alternatives to arthrodesis.

The first part is introductory and begins with a good, albeit superficial, overview of the pathophysiology of degenerative spinal instability. Accompanying diagrams that illustrate the evolution of instability are not sophisticated but adequate. Subsequent chapters describe the clinicoradiographic evaluation of degenerative instability including axial loaded CT, cine-axial loaded CT and dynamic-kinetic MRI. The representative radiographs that accompanied these chapters are not convincing. There is a thorough description of sagittal lumbar spinal balance, cage design parameters and their impact on spinal stability; and, an excellent discussion with illustrations of static and dynamic testing and stability testing of various implant constructs. The controversial issues of indications and contraindications for the use of intervertebral cages are addressed only superficially. A more in depth discussion with more references would have improved this section.

The next two sections cover lumbar cages and cervical cages with descriptions of the rationale and design parameters of various cages as well as details pertaining to technique, pitfalls, results and complications. The cervical cages section concludes with a review of the difficulties and criteria for arthrodesis following cage insertion.

Part IV describes the partial and complete lumbar and cervical prosthetic disc implants with the largest clinical experience. These chapters include informative detail about the design of each of the implants by those who actually conceived and developed them as well as clinical results.

Part V includes two short chapters that describe two posterior dynamic intersegmental restabilization technologies. Each chapter could benefit from more discussion about the biomechanical rationale and evidence in support of this approach to restabilization.

The last part of the book contains an excellent overview of the current trend towards a stepwise progressive intervention approach to spinal restabilization, starting with conservative treatment such as physical reconditioning, and concluding with intervertebral arthrodesis if satisfactory clinical results are not achieved by these earlier less invasive interventions.

The editors emphasize intervertebral arthrodesis with implants as opposed to traditional arthrodesis with autograft/allograft/