Even if pain is the one of the most common human experience, it is still difficult to describe it accurately and this fact represents a major challenge for researchers and clinicians. The IASP (International Association for the Study of Pain) defines pain as *unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage*, emphasizing at the same time its emotional aspect and the fact that in many case it is difficult to demonstrate a reliable damage. Nevertheless, as prof. Szallasi underlined in his introduction, pain, and especially chronic pain, still remains undertreated even though it is affecting even more people than that entailed by pain's description: this fact has important social and economical implications.

In the last years there has been a huge growing of researches trying to investigate the pathophysiology of pain evaluating new animal models, genetic/molecular aspects, neurophysiologic aspects, human pain models and clinical settings. In this detailed and exhaustive book prof. Szallasi tried to summarize all these different types of researches in order to give a picture on how we can study pain to achieve a better understanding of this complex phenomenon, so that we can ameliorate our present capacity to successfully treat it.

In the first part of the book are presented several animal models to study different pain states, as acute/inflammatory, orofacial, visceral and chronic pain. Although very heterogeneous, the methods presented are updated and described in such details that the reader could set up his specific model. Among these models, the chapter about *assessment of pain-depressed behavior in preclinical assays of pain and analgesia* appears very interesting and promising for *pain research* and translational efficiency of preclinical studies. In fact, it presents strategies useful to investigate not only the *active* behaviors followed by an injury but also all those *negative* responses that are very common in chronic pain in humans and that have to be prevented by analgesic drugs. Another very interesting chapter is dedicated to experimental models of visceral pain where the AA present several accurate models to recreate neurophysiology of visceral pain. The main

focus is basic research, thus it is not debated how these models can help to better understand the clinical settings: in the very near future it will be necessary to set up the translational aspects of these researches into the clinical practice.

After this initial part, the classical human experimental pain models (UV-B pain, cold pressor, capsaicin and dental) are analyzed and discussed critically to show their reproducibility, sensitivity and possible bias linked to the experimental methods. These models represent the basis for every clinician and researchers in order to choose the proper model for evaluating a specific analgesic activity of new drugs in human and in experimental settings (inflammatory pain, acute pain, pain due to peripheral or central sensitization, or facial pain). While there are chapters illustrating *in vitro* and *in vivo* models useful to dissect the genetic bases of pain, the vast majority of chapters are devoted to opioid receptors and the genetic determinants of sensitivity to pain (for example COMT polymorphisms); this is due to the fact that nowadays there is a great number of trials that are trying to correlate these determinants to the proper use of opioids in clinical settings. There is also a short mention to proteomics/metabolomics and pain, a topic that will surely become the main stream in pain's clinical research (see Niedeberger E, Geisslinger G. *Proteomics in neuropathic pain research*. Anesthesiology 2008;108:314-23). Clinicians hope that the genetic analysis and future clinical trails will succeed in tailoring the genetic - pharmacokinetic clinical features useful to specifically treat every patient thus optimizing efficacy and minimizing side effects.

Finally, there are chapters depicting some of the most debated challenges in clinical trials, like how we can correctly study pre-emptive analgesia and how we can perform procedural sedation and analgesia research. Clearly it comes out how relevant is to strictly follow both validated procedures and standardized measures as for who is measuring pain in clinical trials.

By going throughout the book, the reader will get an overview about all of the different pain's facets helping us in unraveling the *jungle* of the thousands of articles that are currently published and to translate the results from *the bench to bedside* to control and to relieve pain.

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