

FOREWORD**Relief of pain and suffering endured by millions of people**To MD    To neuroscientist    To patient    To therapist   **Ronald MELZACK, OC, OQ, FRSC, PhD¹**

The recognition that pain is a multidimensional experience determined by psychological as well as physical factors has broadened the scope of pain therapies. Patients with chronic pain need every possible therapy to battle the pain. Chronic pain is not a symptom but a syndrome in its own right, and requires therapists from a wide range of disciplines.

Psychological therapies, which were once used as a last resort when drugs or neurosurgery failed to control pain, are now an integral part of pain management strategies. The recognition that pain is the result of multiple contributions gave rise to a variety of psychological approaches such as relaxation, hypnosis and cognitive therapies. So too, transcutaneous electrical nerve stimulation and other physical therapy procedures emerged rapidly, bringing substantial pain relief to large numbers of people.

The field of pain continues to develop and there are reasons to be optimistic about its future. First, imaging techniques have confirmed pain-related activity in widely distributed, highly interconnected areas of the brain. An implication of the concept is that neural programs that evolved in the brain to generate acute pain as a result of injury or disease may sometimes go awry and produce destructive chronic pain. Future imaging research may reveal the sites of abnormally prolonged activity in chronic pain patients. Second, the detailed knowledge and technical skills developed by scientists for research on the spinal cord can be used to explore brain mechanisms in humans and animals, especially in the brainstem reticular formation, which is known to play a major role on chronic pain. Third, our knowledge of the genetic basis of pain as well as the development of the brain is growing rapidly. Genetic factors are known to contribute to a large number of chronic pain syndromes and future research will highlight their brain mechanisms. The inevitable convergence of these three approaches will hopefully lead to the relief of pain and suffering now endured by millions of people.

¹ Professor Emeritus Department of Psychology, McGill University, Montreal, Quebec, Canada ronald.melzack@mcgill.ca