Tricyclic and certain other antidepressants are widely used to treat chronic and neuropathic pain states. The first report of such activity appeared 40 years ago, soon after the introduction of tricyclic antidepressants into clinical medicine.1 Their efficacy in this regard is now well established through both clinical trials, as well as systematic and meta-analysis approaches.2,3 Although the mechanistic basis of antidepressant action has been actively investigated since their introduction as psychotropic agents, a particular focus on mechanisms involved in analgesia is more recent. The mechanisms involved appear to differ — analgesic properties occur independently of antidepressant actions, with a faster onset of action, in lower doses, and with a differing profile of effective agents.4 Despite these distinctions, the relationship between affective state and the pain experience is well recognized, and this component of activity needs to be considered as well. Initial studies on the mechanisms of analgesia examined activity in traditional nociceptive tests in which antidepressants exhibit variable actions. With the introduction of tests specific for nerve injury states in the past decade, mechanisms specifically relevant to chronic pain and neuropathic conditions have received particular attention.

The following articles arise from a symposium held at a meeting of the Canadian College of Neuropsychopharmacology in Halifax, NS, in June 1999. They review the analgesic effects of tricyclic and other classes of antidepressants in clinical studies (see Lynch5), present recent insights into the mechanism by which antidepressants produce analgesia, both centrally and peripherally (see Sawynok et al.), and consider the multiple mechanisms by which antidepressants produce analgesia, both centrally and peripherally (see Sawynok et al.). The articles are not meant to be exhaustive reviews of these aspects of antidepressant actions; the reader is referred to recent reviews4,8,9 for further considerations of these dimensions of action.

References