Abstract

Progress in molecular biology during the second half of last century made way to the development of methods to study neurotransmitter substances of the brain and the relationship of these substances with the neurons via the receptors. In the last thirty years a body of knowledge has been generated that examines the way in which neuronal receptors generate changes in the cells. For twenty years strategies have been developed to evaluate modifications in genetic transcription and the relationship between the stimulation of receptors and the genetic expression of neurons. The systematizing of the information arising from these investigations permitted the profiling of a sequence of events in which it is observed that intracellular transmission of information is made step by step. Each one of these steps presents a certain biochemical or physiological peculiarity that rebounds in the following step. Because of the sequential translation of information from cellular surface to cellular nucleus to the unchaining of the definitive cellular expression, the substances implied in these processes have been named messengers. The present article examines the cellular and molecular processes that underlie antidepressant mechanisms and the possible role of these mechanisms in the physiopathology of depression.

Keywords
Antidepressants, depression, physiopathology, cellular receptor, intracellular messenger.