Mechanisms of nociceptive transduction and transmission: a machinery for pain sensation and tools for selective analgesia

By abinshtok
Created 1/9/2013
By abinshtok January 9, 2013

Binshtok, AM. 2011.

Abstract:

Many surgical and dental procedures depend on use of local anesthetics to reversibly eliminate pain. By the blockade of voltage-gated sodium channels, local anesthetics prevent the transmission of nociceptive information. However, since all local anesthetics act non-selectively on all types of axons they also cause a loss of innocuous sensation, motor paralysis and autonomic block. Thus, approaches that produce only a selective blockade of pain fibers are of great potential clinical importance. In this chapter we will review the recent findings describing mechanisms of pain transduction and transmission and introduce novel therapeutic approaches to produce pain-selective analgesia.

Journal:
International review of neurobiology

Volume:
97

Pagination:
143?177

Notes:

{PMID:} 21708310
It is now widely accepted that deciphering the enigma of the brain is the most challenging intellectual endeavor of the 21st century, "The Century of the Brain" - Join our quest and become a friend of ELSC.

**ELSC Friends**

Studying at ELSC

Our Int'l Ph.D. program provides outstanding students with top-notch courses in computational neuroscience.

**Studying at ELSC**

The Building

The Jerusalem Brain Sciences Building will provide a state-of-the-art research and teaching facility for the Edmond and Lily Safra Center for Brain Sciences.

**The Building**

ELSC Media Channel

Get into our media channel and investigate ELSC's latest videos: seminars, public lectures, courses and video articles.

**ELSC Media Channel**

Source URL: http://elsc.huji.ac.il/binshtok/publications/mechanisms-nociceptive-transduction-and-transmission-machinery-pain-sensation-