Spinal cord cytoarchitecture

The spinal cord cytoarchitecture refers to the cellular and molecular organization of the spinal cord, including the arrangement and distribution of different types of nerve cells and supportive cells.

The spinal cord has multiple layers of cells, including neurons and glial cells, arranged in specific patterns and organized into functional regions. These regions include the:

Dorsal horn, responsible for receiving sensory information

Ventral horn, is responsible for controlling muscle movement

Intermediate zone, contains interneurons that process sensory and motor information

Dorsal root ganglion, containing sensory neurons that receive information from the periphery.

The specific arrangement and distribution of these cells are crucial for the proper functioning of the spinal cord, allowing for the rapid transmission of sensory and motor signals between the brain and the rest of the body.

Swedish neuroscientist Bror Anders Rexed lived between 1914 and 2002. He was a renowned neuroscientist and a politician who packed a lot into his 88-year life. Bror Rexed is best known for his works on the description of the cytoarchitectonic organization of the cat's spinal cord. Rexed laminae as an eponym is a historical landmark for the spinal cord cytoarchitecture. Rexed's name (particularly his surname) has also been linked to the du-reform in Swedish. In this article, we focus on his works on the central and peripheral nervous systems and translational approaches for neurosurgery, as well as his influence on health policies in Sweden [1)]

1)
Candar E, Demircubuk I, Sengul G. Bror Rexed (1914-2002) and His Pioneer Works on Spinal Cord Cytoarchitecture. Neuroscientist. 2023 Feb 2:10738584221149664. doi: 10.1177/10738584221149664. Epub ahead of print. PMID: 36727593.