

PAIN THROUGH THE AGES

1644

René Descartes presents his famous, **enduring dualistic view of pain (the Cartesian model)**, first placing pain in the physical realm.

1804

Friedrich Sertürner **isolates morphine from the opium plant**, naming the substance for Morpheus—the Greek god of dreams.



1816

Capsaicin, a compound producing initial heat and pain followed by analgesia, is first extracted from chili peppers.

1850

First observation of Brown-Séquard syndrome—a spinal cord injury causing loss of pain sensation on the opposite side of the body—reveals that **pain signals cross the spinal cord en route to the brain**.

1864

Civil War army physician Silas Weir Mitchell **observes lasting nerve pain from gunshot wounds** and coins the term “causalgia,” the condition now known as complex regional pain syndrome (CRPS).

1906

Charles Sherrington describes “nociception,” the activation of receptors he calls nociceptors—still theoretical at the time—by “noxious” stimuli.

1912

William Spiller and Edward Martin perform the first surgical cordotomy, severing nerve pathways that transmit pain and temperature signals to the brain.

1950s

John Bonica establishes the **world’s first multidisciplinary pain clinic**.



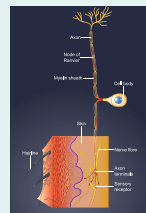
1965

Ronald Melzack and Patrick Wall publish the revolutionary **Gate Control Theory of Pain**.



1967

Edward Perl confirms the **existence of Sherrington’s nociceptors**.



1973

Candace Pert and Solomon Snyder **discover the mu opioid receptor**.

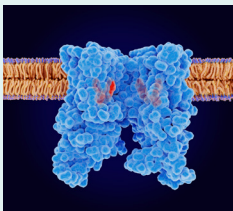
1977

The chili-pepper compound capsaicin is found (aptly, by Hungarian researchers) **to selectively kill nociceptors**.



1997

David Julius **identifies and clones TRPV1**, also known as the capsaicin receptor.



2000

Human Genome Project draft released; **Nav family of sodium channels sequenced**, providing targets for pain management.



2006

A child street performer in Pakistan who shocked tourists by sticking knives into his arms leads to a study of a rare genetic mutation that prevents pain sensation. Loss of function in the Nav1.7 protein is found to play a role, **revealing the sodium channel as a promising target for drug development**.

2018

FDA first approves a class of **migraine medications that block the effects of calcitonin gene-related peptide (CGRP)**, a signaling molecule released by nociceptors.

2025

FDA approves suzetrigine, **which targets voltage-gated sodium channels**, for treatment of moderate-to-severe acute pain.