As the abuse of and addiction to prescription opioids has increasingly become a public health crisis, scientists are looking for new ways to treat chronic pain. In a very preliminary study in rats, scientists at the University of Texas at Arlington have shown that deep brain stimulation of the ventral tegmental area can significantly reduce pain. Work published in Experimental Brain Research shows that stimulation of this brain region blocks pain signals at the spinal cord level without drug intervention. The process also triggers the release of beneficial dopamine, which may reduce the emotional distress associated with long-term pain.

Read more: http://bit.ly/1MOmvDI

Journal article: Stimulation of the ventral tegmental area increased noiceptive thresholds and decreased spinal dorsal horn neuronal activity in rat. Experimental Brain Research, 2016. doi: 10.1007/s00221-016-4558-z

Image credit: Sarah Grice, Wellcome Images
Part of what makes a scene, like a room or a busy city street, different from a face or an object is the fact that the scene has boundaries, which can help us navigate. Using a combination of transcranial magnetic stimulation (TMS) and fMRI, researchers at the University of Pennsylvania have identified the brain region that helps with this process. The occipital place area was suspected to be involved with this process, and after locating this brain region in each individual...
New research from the Monell Center reveals that olfactory marker protein (OMP), a molecule found in the cells that detect odor molecules, plays a key role in regulating the speed and transmission of odor information to the brain. The findings solve a 30-year-old mystery regarding the function of OMP and increases understanding of how the olfactory system integrates information to transmit accurate data about odors and the messages they contain.

Read more: bit.ly/25Bxru

Monell cellular physiologist & the study's senior author, Johannes Reisert, is pictured here.
A new University of California, Los Angeles study provides insights into how the brain combines sound and vision. The research suggests that there is not one sole mechanism in the brain that governs how much our senses work together to process information.
Among the implications of the study: It might not be as easy as many people had assumed to categorize the way in which we perceive and learn.
Read more: bit.ly/1MHzBma

Brain appears to have different mechanisms for reconciling sight and sound
Image credit: Freimages.com / gorgon
NEUROSCIENTISTNEWS.COM

https://www.facebook.com/NeuroScientistNews/
senses are interconnected in ways that... See More

Like · Reply · 1 · April 2 at 12:07pm

Rich Unger We have a holistic brain. Multiple sensory input refines the internal switching mechanism for processing information. Which is why later, a single sensory input may trigger a cascade of wholly thought separate memories.

Like · Reply · 3 · April 2 at 10:13am

View 11 more comments