

<sup>2</sup> Name of Journal: *World Journal of Gastroenterology*

Manuscript NO: 50316

Manuscript Type: ORIGINAL ARTICLE

### Basic Study

Nucleus tractus solitarius mediates hyperalgesia induced by chronic pancreatitis in rats

Bai Y *et al.* Rat model of chronic pancreatitis

Yang Bai, Ying-Biao Chen, Xin-Tong Qiu, Yan-Bing Chen, Li-Tian Ma, Ying-Qi Li, Hong-Ke Sun, Ming-Ming Zhang, Ting Zhang, Tao Chen, Bo-Yuan Fan, Hui Li, Yun-Qing Li

### Abstract

#### BACKGROUND

Central sensitization plays a pivotal role in the maintenance of chronic pain induced by chronic pancreatitis (CP). We hypothesized that the nucleus tractus solitarius (NTS), a primary central site that integrates pancreatic afferents apart from the thoracic spinal dorsal horn, plays a key role in the pathogenesis of visceral hypersensitivity in a rat model of CP.

#### AIM

To investigate the role of the NTS in the visceral hypersensitivity induced by chronic pancreatitis.

#### METHODS

CP was induced by the intraductal injection of trinitrobenzene sulfonic acid

## Match Overview

1	Crossref 245 words Yang Bai, Li-Tian Ma, Yan-Bing Chen, Dan Ren et al. "Ante... r insular cortex mediates hyperalgesia induced by chronic pa	4%
2	Internet 33 words crawled on 02-Apr-2019 f6publishing.blob.core.windows.net	1%
3	Internet 20 words crawled on 24-Dec-2017 link.springer.com	<1%
4	Internet 13 words crawled on 15-Feb-2017 www.wjgnet.com	<1%
5	Crossref 12 words Phillip Bokinić, Shila Shahbazian, Stuart J. McDougall, Britt A. Berning et al. "Polysialic Acid Regulates Sympathetic O...	<1%
6	Internet 12 words crawled on 14-Dec-2016 molecularbrain.biomedcentral.com	<1%



All

Images

Videos

翻译成中文

关闭取词

15,000 Results

Any time ▼

## The nucleus of the solitary tract and the coordination of ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4070480>

In this scenario, the neurons of the **nucleus of the solitary tract** (NTS) may play a relevant role for the coordination of the respiratory and sympathetic activities, especially in conditions of metabolic challenges, probably by acting as an integrative center to promote the activation of specific pathways due to the combination of neurochemical ...

Cited by: 64

Author: Daniel B. Zoccal, Werner I. Furuya, Miria...

Publish Year: 2014

## Expression and Function of Transient Receptor Potential ...

<https://www.mdpi.com/1422-0067/20/9/2065/htm> ▼

The **brainstem nucleus** of the **solitary tract** (NTS) is the key integrating relay in the central processing of sensory information from the **thoracic** and most **subdiaphragmatic viscera** [1,2,3]. The solitary tract (ST) is a bundle of sensory nerve fibers that extends longitudinally and bilaterally through the **brainstem medulla**.

Author: Lin Feng, Victor V. Uteshev, Louis S. ...

Publish Year: 2019

## Nucleus of solitary tract mediates cardiac sympathetic ...

<https://link.springer.com/article/10.1007/s00424-009-0699-2> ▼

Jul 25, 2009 · Abstract. This study is to determine whether the **nucleus of solitary tract** (NTS) is an important component of the central neurocircuitry of the cardiac sympathetic afferent reflex (CSAR) and whether the  $\gamma$ -aminobutyric acid (GABA) in the NTS modulates the CSAR.

Cited by: 16

Author: Yang-Can Duan, Bo Xu, Zhen Shi, Juan G...

Publish Year: 2009

## hypothalamus Flashcards | Quizlet

<https://quizlet.com/16667399/hypothalamus-flash-cards> ▼

visceral pathway to hypothalamus. **nucleus of solitary tract** → parabrachial **nucleus** → hypothalamus & amygdala. ... the posterior hypothalamus **mediates** heat conservation; lesions cause hypothermia, stimulation causes shivering and constriction of skin blood vessels.

## Brainstem Nutrient Sensing in the Nucleus of the Solitary ...

[https://www.cell.com/cell-metabolism/fulltext/S1550-4131\(12\)00403-2?script=true](https://www.cell.com/cell-metabolism/fulltext/S1550-4131(12)00403-2?script=true)

Direct detection of circulating nutrients by the central nervous system has been implicated in the



 전체 이미지 뉴스 쇼핑 동영상

: 더보기

설정

도구

검색결과 약 31,700개 (0.54초)

## Nucleus tractus solitarius mediates hyperalgesia induced by chronic pancreatitis in rats에 대한 학술자료

Sensory nerves and **pancreatitis** - Li - 9회 인용

Neurotransmitter functions of mammalian tachykinins. - Otsuka - 1239회 인용

 <https://molecularbrain.biomedcentral.com/articles> ▾ 이 페이지 번역하기

### Anterior insular cortex mediates hyperalgesia induced by ...

Y Bai 저술 - 2019

5일 전 - The regulatory roles of aIC in **hyperalgesia** and pain-related anxiety ... cortex **mediates hyperalgesia induced by chronic pancreatitis in rats.**

누락된 검색어: Nucleus tractus solitarius

#### 관련 질문

Can pancreatitis cause nerve damage?



Does pancreatitis cause nerve pain?



What nerves control the pancreas?



What is visceral nociceptive pain?





All

Images

Videos

翻译成中文

关闭取词

12,900 Results

Any time ▾

## Endogenous Opiates in the Nucleus Tractus Solitarius ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094708>

Endogenous Opiates in the **Nucleus Tractus Solitarius** Mediate Electroacupuncture-Induced Sleep Activities in Rats Chiung-Hsiang Cheng , 1 Pei-Lu Yi , 2 Jaung-Geng Lin , 3 and Fang-Chia Chang 1, 3 , \*

Cited by: 25

Author: Chiung-Hsiang Cheng, Pei-Lu Yi, Jaung-Gen...

Publish Year: 2011

## Kappa-Opioid Receptors in the Caudal Nucleus Tractus ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3290910>

Kappa-Opioid Receptors in the Caudal **Nucleus Tractus Solitarius** Mediate 100 Hz Electroacupuncture-Induced Sleep Activities in Rats Chiung-Hsiang Cheng , 1 Pei-Lu Yi , 1 , 2 Han-Han Chang , 1 Yi-Fong Tsai , 1 and Fang-Chia Chang 1 , 3 , 4 , \*

Cited by: 9

Author: Chiung-Hsiang Cheng, Pei-Lu Yi, Han-Han C...

Publish Year: 2012

Academic Editor: Andreas Sandner-Kiesling

## Neurons in the nucleus tractus solitarius mediate the ...

[https://www.researchgate.net/publication/265338058\\_Neurons\\_in\\_the\\_nucleus\\_tractus...](https://www.researchgate.net/publication/265338058_Neurons_in_the_nucleus_tractus...)

Neurons in the **nucleus tractus solitarius** mediate the acupuncture analgesia in visceral pain rats Article in Autonomic Neuroscience 186 · August 2014 with 41 Reads DOI: 10.1016/j.autneu.2014.08.004

## Nucleus of solitary tract mediates cardiac sympathetic ...

<https://link.springer.com/article/10.1007/s00424-009-0699-2> ▾

**Nucleus** of solitary tract **mediates** cardiac sympathetic afferent reflex in rats. ... Giakas WJ, Sved AF (1987) GABAergic mechanisms in **nucleus tractus solitarius** alter blood pressure and vasopressin release. ... (2005) AT 1 receptor in paraventricular **nucleus mediates** the enhanced cardiac sympathetic afferent reflex in rats with **chronic** heart ...

Cited by: 16

Author: Yang-Can Duan, Bo Xu, Zhen Shi, Juan Gao,...

Publish Year: 2009

## Neurons in the nucleus tractus solitarius mediate the ...

<https://www.sciencedirect.com/science/article/pii/S1566070214001192>

**Nucleus tractus solitarius** (NTS) Colorectal distension (CRD) Visceral hypersensitivity is the presence of sensitization of the neural pathways (including primary sensory afferents and spinal ascending neurons) involved in the transmission of visceral sensation to the supraspinal level and the dysregulation of descending pathways that modulate ...

Cited by: 16

Author: Kun Liu, Xin-Yan Gao, Liang Li, Hui Ben, Qin...