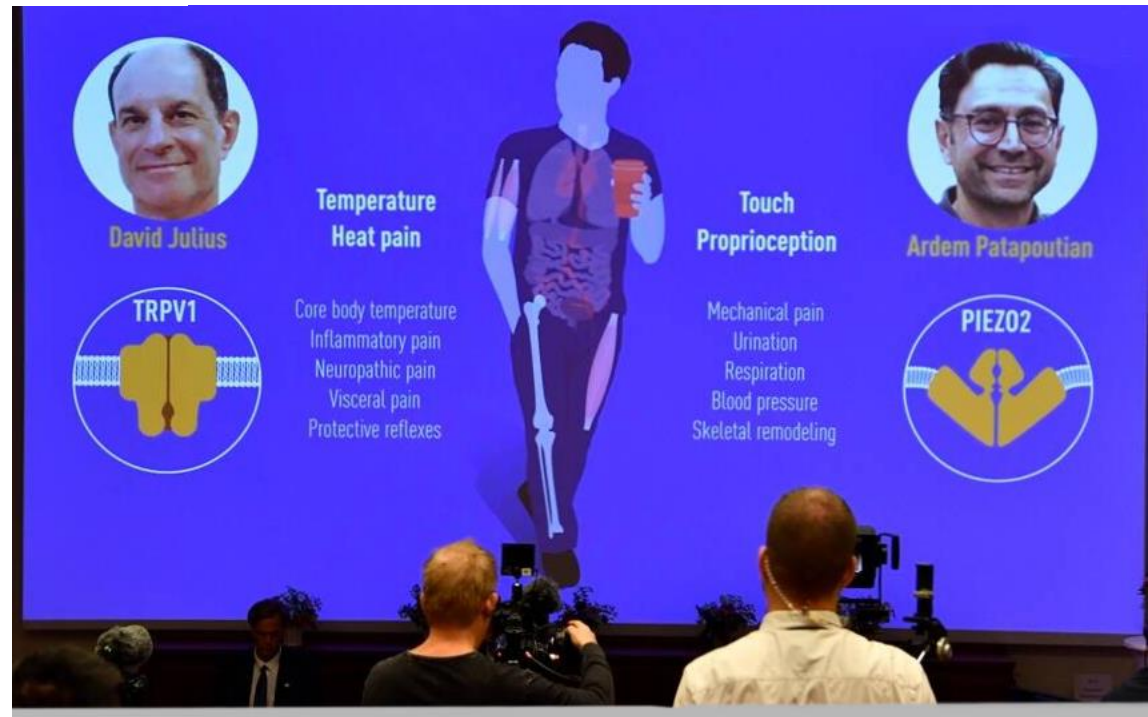


NEWS HEALTH & MEDICINE

## Discovering how we sense temperature and touch wins the 2021 medicine Nobel Prize





## TRPV1 Ionen-Kanal reagiert auf

- Hitzereize ab 42 °C
- Capsaicin und andere Vanillamine



de Souza Nascimento S, et al. 2013

Efficacy and safety of medicinal plants or related natural products for fibromyalgia: a systematic review.

Evid Based Complement Alternat Med 2013: 149468.

## TRPV1 Ionenkanal reagiert auf

- Hitzereize ab 42 °C
- Capsaicin und andere Vanillamine
- Saures pH Milieu in der Grundsubstanz
- Cannabinoide



Review > [J Complement Integr Med. 2020 Jun 18;18\(1\):1-7. doi: 10.1515/jcim-2020-0013.](#)

## Endocannabinoids release after Osteopathic Manipulative Treatment. A brief review

[Andrea Buscemi](#)<sup>1</sup>, [Simona Martino](#)<sup>1</sup>, [Santi Scirè Campisi](#)<sup>1</sup>, [Alessandro Rapisarda](#)<sup>1</sup>,  
[Marinella Coco](#)<sup>2</sup>

Palazzo E, et al. 2008  
Role of TRPV1 receptors in descending modulation of pain.  
Mol Cell Endocrinol. 2008 Apr 16;286(1-2 Suppl 1):S79-83.

Muller C, et al. 2020  
A Closer Look at Anandamide Interaction With TRPV1.  
Front Mol Biosci 21;7:144.



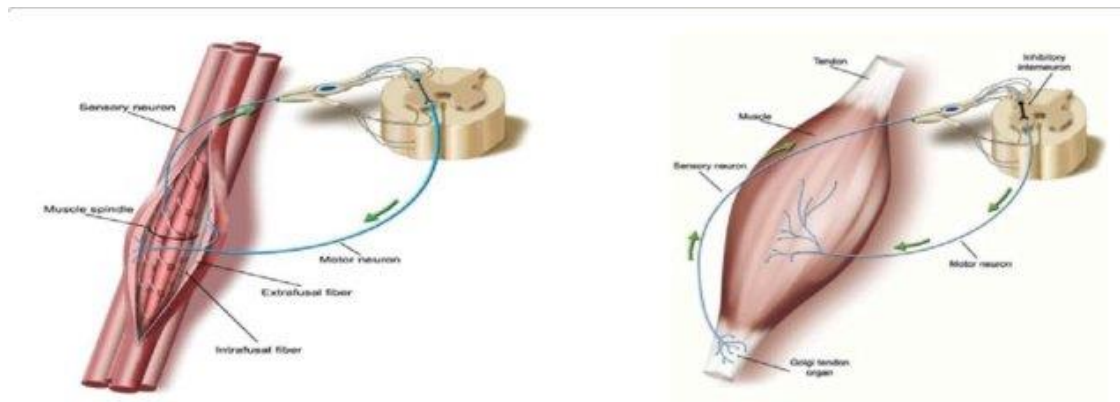
Ardem Patapoutian



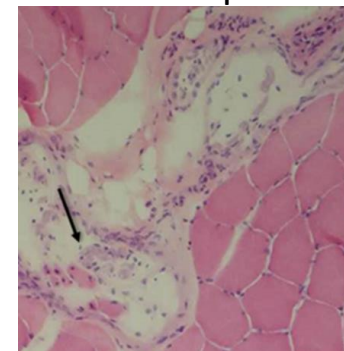
# nature

Article | Published: 21 August 2019

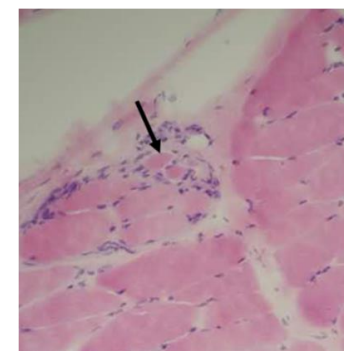
## Structure and mechanogating of the mammalian tactile channel PIEZO2



Normale Spindel



Skoliose-Patient



Touch  
Proprioception

Mechanical pain  
Urination  
Respiration  
Blood pressure  
Skeletal remodeling

## PIEZO2: A Novel Molecule Involved in the Development of AIS

Wu, Zhichong PhD<sup>a</sup>; Wang, Yuwen MS<sup>a</sup>; Xia, Chao PhD<sup>a</sup>; Feng, Zhenhua MS<sup>a</sup>; Qiu, Yong MD<sup>a,b</sup>; Cheng, Jack Chun-Yiu MD<sup>b,c</sup>; Xu, Leilei PhD<sup>a,b</sup>; Zhu, Zezhang MD<sup>a,b</sup> [Author Information](#)

SPINE: February 1, 2020 - Volume 45 - Issue 3 - p E120-E125





Chesler AT et al. (2016) The Role of PIEZO2 in Human Mechanosensation.

N Engl J Med. 375: 1355-64

ORIGINAL ARTICLE

# Myofascial Tissue and Depression

Johannes Michalak<sup>1</sup>  · Lanre Aranmolate<sup>1</sup> · Antonia Bonn<sup>1</sup> · Karen Grandin<sup>1</sup> · Robert Schleip<sup>2,3</sup>



**Table 1** Descriptive statistics (Study 1)

	Depressed patients ( <i>n</i> = 40)	Never-depressed control participants ( <i>n</i> = 40)
Stiffness: <i>M</i> ( <i>SD</i> )	2.55 (1.02)	1.96 (0.82)
Elasticity: <i>M</i> ( <i>SD</i> )	0.56 (0.42)	0.33 (0.25)

- Depressive patients (*n*=40) displayed **heightened stiffness and reduced elasticity** of the myofascial tissue
- Patients (*n*=69) showed a **reduced negative memory bias** and more positive affect after foam rolling self-application compared to patients in the placebo condition.



Pain 117 (2005) 97–103

**PAIN**

[www.elsevier.com/locate/pain](http://www.elsevier.com/locate/pain)



Prof. K-H Bär  
University of Jena

## Pain perception in major depression depends on pain modality

Karl-Jürgen Bär\*, Stanislaw Brehm, Michael Karl Boettger, Silke Boettger,  
Gerd Wagner, Heinrich Sauer

- Investigated 30 patients suffering from a major depressive disorder and 30 matched controls
- The study found these difference in depressive patients compared with controls
  - hyperalgesia to ischemic muscle pain (from deeper muscular tissues)
  - **hypoalgesia** to heat and electrical pain on body surface