

## ■ 原著(Original papers: 26 編) ○ : 責任著者

1. Watanuki Y, Yajima S, Sashide Y, ○Takeda M, Effect of theanine on the hyperexcitability of trigeminal secondary nociceptive neurons following orofacial inflammation in rats. *Eur J Oral Sci*, e12961
2. Sashide Y, Toyota R, ○Takeda M "Local administration of the phytochemical, quercetin, attenuates the hyperexcitability of rat nociceptive primary sensory neurons following inflammation comparable to lidocaine" *Journal of Pain* 25:755-765
3. Uchino M, Sashide Y, ○Takeda M (2023) Suppression of the Excitability of Rat Nociceptive Secondary Sensory Neurons following Local Administration of the Phytochemical, (-)-Epigallocatechin-3-gallate. *Brain Res* 1813:148426
4. Osaki H, Mori M, Ohima K, Shimazu Y, ○Takeda M, (2023) Effect of local administration of eicosapentaenoic acid on the jaw-opening reflex in rats. *Eur J Oral Sci*, 131(2) e12917
5. Toyota R, Ito H, Sashide Y, ○Takeda M., (2022) Suppression of the excitability of rat nociceptive primary sensory neurons following local administration of the phytochemical quercetin. *Journal of Pain* 24:540-549
6. Ito H, Toyota R, ○Takeda M., (2022) Phytochemical quercetin alleviates hyperexcitability of trigeminal nociceptive neurons associated with inflammatory hyperalgesia comparable to NSAIDs. *Mol Pain*, 18, 17448069221108971
7. Yamaguchi M, Kinouchi R, Morizumi S, Shimazu Y, ○Takeda M. (2021) Local administration of genistein as a local anesthetic agent inhibits the trigeminal nociceptive neuronal activity in rats. *Brain Res Bull* 172: 120-128.
8. Hirata K, Nishiki Y, Goto R, Inagaki M, Oshima K, Shimazu-Y, ○Takeda M, (2020) Resveratrol suppress nociceptive jaw-opening reflex via 5HT<sub>3</sub> receptor-mediated GABAergic inhibition. *Neurosci Res* 160,25-31,
9. Okubo N, Ishikawa H, Sano R, Shimazu Y, ○Takeda M, (2020) Effect of resveratrol on the hyperexcitability of nociceptive neurons associated with ectopic hyperalgesia induced by experimental tooth movement. *Eur J Oral Biosci* 128:275-283
10. Ikeda A, Muroki A, Suzuki C, Shimazu Y, ○Takeda M, (2020) Resolvin D1 suppress inflammation-induced hyperexcitability of nociceptive trigeminal neurons associated with mechanical hyperalgesia. *Brain Res Bull* 154:61-67.
11. Arakawa S, Inoue M, Kinouchi R, Morizumi S, Yamaguchi M, ShimazuY, ○Takeda M. (2019) Dietary constituents genistein inhibits the hyperexcitability of trigeminal nociceptive neurons associated with mechanical hyperalgesia following orofacial inflammation. *J Oral Biosci* 61:215-220
12. ○Shimazu Y, Kobayashi, Endo S, Takemura J, Takeda M.(2019) Dietary constituent, lutein inhibits acute inflammation-induced c-fos expression of rat trigeminal spinal nucleus caudalis and C1 dorsal horn neurons. *Eur J Oral Sci* 127:379-385

13. Hidaka S, Kanai Y, Takehana S, Syoji Y, Kubota Y, Uotsu N, Yui K, Shimazu Y, ○**Takeda M**. (2019) Systemic administration of  $\alpha$ -lipoic acid suppresses excitability of nociceptive wide-dynamic range neurons in rat spinal trigeminal nucleus caudalis **Neurosci Res** 144,14-20
14. Syoji Y, Kobayashi R, Miyamura N, Hirohara T, Kubota Y, Uotsu N, Yui K, Shimazu Y, ○**Takeda M**. (2018) Suppression of hyperexcitability of trigeminal nociceptive neurons associated with inflammatory hyperalgesia following systemic administration lutein via inhibition of cyclooxygenase-2 cascade signaling. **J Inflamm**15:24
15. Nakajima R, Uehara A, Takehana S, Akama Y, Shimazu Y and ○**Takeda M** (2018) Decanoic acid attenuates the excitability of nociceptive trigeminal primary and secondary neuron associated with hypoalgesia. **J Pain Res** 11:2867-2876
16. Nakazaki S, Tadokoro K, Takehana S, Syoji S, Shimazu Y, ○**Takeda M** (2018) Docosahexaenoic acid attenuates inflammation-induced hyperexcitability of trigeminal spinal nucleus caudalis neurons associated with hyperalgesia in rats. **Eur J Oral Sci** 126: 458-465
17. Mitome K, Takehana S, Oshima K, Shimazu Y, ○**Takeda M** (2018) local anesthetic effect of docosahexaenoic acid on the nociceptive jaw-opening reflex in rats. **Neurosci Res** 137:30-35
18. Kakita K, Tsubouchi H, Adachi M, Takehana S, Shimazu Y, ○**Takeda M** (2018) Local subcutaneous injection of chlorogenic acid inhibits the nociceptive trigeminal spinal nucleus caudalis neurons in rats. **Neurosci Res** 134:49-55
19. Matsumoto Y, Komatsu K, Takehana S, Syoji Y, Kobayashi A, Shimazu Y, ○**Takeda M** (2017) Effect of resveratrol on *c-fos* expression of rat trigeminal spinal nucleus caudalis and C1 dorsal horn neurons following mustard oil-induced acute inflammation **Eur J Oral Sci** 125:338-344.
20. Noguchi Y, Matsuzawa N, Akama Y, Sekiguchi K, Takehana S, Shimazu Y, ○**Takeda M** (2017) Dietary constituents, decanoic acid suppresses the excitability of nociceptive trigeminal neuronal activity associated with hypoalgesia via muscarinic M<sub>2</sub> receptor signaling. **Mol Pain**, 13:1744806917710779
21. Kokuba S, Takehana S, Oshima K, Shimazu Y, ○**Takeda M** (2017) Systemic administration of the dietary constituent resveratrol inhibits the nociceptive jaw-opening reflex in rats via the endogenous opioid system. **Neurosci Res** 119:1-6
22. Takehana S, Kubota Y, Uotsu N, Yui K, Shimazu Y, ○**Takeda M** (2017) Acute intravenous administration of dietary constituent theanine suppresses noxious neuronal synaptic transmission of trigeminal spinal nucleus caudalis in rats. **Brain Res Bull** 131:70-77.
23. Takehana S, Kubota Y, Uotsu N, Yui K, Iwata K, Shimazu Y, ○**Takeda M** (2017) The dietary constituent resveratrol suppresses nociceptive transmission via NMDA receptor. **Mol Pain** 13:1744806917697010
24. Shimazu Y, Shibuya E, Takehana S, Sekiguchi K, Oshima K, Kamata H, Karibe H, ○**Takeda M** (2016) Local administration of resveratrol inhibits excitability of nociceptive wide-dynamic range neurons in rat trigeminal spinal nucleus caudalis. **Brain Res Bull** 124:262-268.

25. Takehana S, Sekiguchi K, Inoue M, Kubota Y, Ito Y, Yui K, Shimazu Y, ○**Takeda M** (2016) Systemic administration of resveratrol suppress the nociceptive neuronal activity of spinal trigeminal nucleus caudalis in rats. **Brain Res Bull** 120:117-122.

26. Sekiguchi K, Takehana S, Shibuya E, Matsuzawa N, Hidaka H, Kanai Y, Inoue M, Kubota Y, Shimazu Y, ○ **Takeda M** (2016) Resveratrol attenuates inflammation-induced hyperexcitability of trigeminal spinal nucleus caudalis neurons associated with hyperalgesia in rats. **Mol Pain** 12:1744806916643082

#### ■ 総説 (Reviews: 4 編)

1. ○**Takeda M.**(2024) Neurophysiological mechanisms underlying the attenuation of nociceptive and pathological pain by phytochemicals: Clinical application as therapeutic agents. **Prog Neurobiol** 11:1-13.

2. ○**Takeda M and Shimazu Y** (2020) Modulatory mechanism underlying how dietary constituents attenuate orofacial pain. **J Oral Sci** 62: 140-143

3. ○**Takeda M, Takehana S, Sekiguchi K,** Kubota Y and **Shimazu Y** (2016) Modulatory mechanism of nociceptive neuronal activity by dietary constituents resveratrol. **Int J Mol Sci** 17:1702.

4. ○**武田 守、竹鼻志織、島津徳人** 食品成分による疼痛緩和のメカニズム：レスベラトロール、(2017) 日本運動器疼痛学雑誌 9:192-197

#### ■ 著書 (3 編)

1. ○**武田 守**、9章；ポリフェノールの疼痛緩和のメカニズムと臨床応用の可能性、ポリフェノールの多角的応用と機能、(監修：田中隆)、2022,シーエムシー出版、pp101-113

2. ○**Takeda M, Takehana S, Shimazu Y,** The polyphenolic Compound Resveratrol attenuates Pain :Neurophysiological mechanisms. **Polyphenol: mechanisms of action in Human Health and Disease**, Academic Press, 2<sup>nd</sup> Ed., pp 237-247. Eds. Ronald Watson Victor Preedy Sherma Zibadi, Academic Press, 2018.

3. ○ **Takeda M, Shimazu Y** Dietary constituents act as local anesthetic agents: neurophysiological mechanism of nociceptive pain. Book 2. Chapter 40: The Neuroscience of Anesthetics and analgesics, 2.4.Noel and non-pharmacological aspects and treatments. **Pain, Anesthetics and Analgesics**. Elsevier, 2021, pp473-485