

Determination of human brain area activated following olfactory stimulation using near-infrared

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2007 Fiscal Year Final Research Report Summary

Determination of human brain area activated following olfactory stimulation using near-infrared

Research Project

Project/Area Number

18591860

Research Category

Grant-in-Aid for Scientific Research (C)

Allocation Type

Single-year Grants

Section

一般

Research Field

Otorhinolaryngology

Research Institution

Kanazawa University

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Project Period (FY)

2006 – 2007

Keywords

Near Infrared Spectroscopy / sense of smell / trigeminal nerve / olfactory disorder / 嗅覚障害

Research Abstract

Recently, near-infrared spectroscopy (NIRS) has been used to measure activation of brain cortex. Change of both oxygenated and deoxygenated haemoglobin concentration were measured by optical topography systems (ETG-4000, Hitachi Medical Corporation, Tokyo) under the condition of olfactory or trigeminal stimulations. Although, the oxihemoglobin level with the frontal area of cerebrum accepted a tendency to be elevated by odor stimulation, but oxihemoglobin level from temporal to parietal area was elevated by trigeminal stimulation. However, there were some differences among the subjects.

Research Products (78 results)

All	2008	2007	2006	2005	
All	Journal Article (36 results) (of which Peer Reviewed: 15 results)			Presentation (37 results)	Book (5 results)
[Journal Article]	Thallium transport and the evaluation of olfactory nerve connectivity between the nasal cavity and olfactory bulb.				2008 ▾
[Journal Article]	Odor detection ability and thallium-201 transport in the olfactory nerve of traumatic olfactory-impaired mice				2008 ▾
[Journal Article]	嗅覚研究・臨床の進歩 嗅覚検査の現状と展開				2008 ▾
[Journal Article]	High-speed gas concentration measurement using ultrasound				2008 ▾
[Journal Article]	Thallium transport and the evaluation of olfactory nerve connectivity between the nasal cavity and olfactory bulb.				2008 ▾
[Journal Article]	Odor detection ability and thallium-201 transport in the olfactory nerve of traumatic olfactory-impaired mice.				2008 ▾
[Journal Article]	High-speed gas concentration measurement using ultrasound				2008 ▾
[Journal Article]	異嗅症				2007 ▾
[Journal Article]	嗅覚障害に対する手術				2007 ▾
[Journal Article]	鼻に関する不定愁訴 嗅覚異常				2007 ▾
[Journal Article]	人間ドックにおけるスティック型嗅覚検査法による嗅覚障害スクリーニングの検討				2007 ▾
[Journal Article]	前頭洞病変に対する当科の取り組み				2007 ▾
[Journal Article]	カレー1臭による嗅覚スクリーニングの可能性				2007 ▾
[Journal Article]	近赤外線分光法を用いたニオイ刺激時の脳表面の血流変化				2007 ▾
[Journal Article]	放射性アイソトープによるマウス嗅神経障害の検討				2007 ▾
[Journal Article]	Lipopolysaccharide-induced apoptosis of olfactory receptor neurons in rats.				2007 ▾
[Journal Article]	Expression and localization of the cell adhesion molecule SgIGSF during regeneration of the olfactory epithelium in mice.				2007 ▾
[Journal Article]	Effects of direct cedrol inhalation into the lower airway on autonomic nervous activity in totally laryngectomized subjects.				2007 ▾
[Journal Article]	超音波高速気体濃度センサ				2007 ▾
[Journal Article]	スティック型嗅覚同定検査				2007 ▾

[Journal Article] Lipopolysaccharide-induced apoptosis of olfactory receptor neurons in rats.	2007 ▾
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[Journal Article] Effects of direct cedrol inhalation into the lower airway on autonomic nervous activity in totally laryngectomized subjects.	2007 ▾
[Journal Article] 嗅覚障害の診断と治療 課題と今後の展望	2006 ▾
[Journal Article] 嗅覚障害の病因・病態	2006 ▾
[Journal Article] 嗅覚検査の有用性と信頼度 におい識別検査	2006 ▾
[Journal Article] 高齢者の嗅覚障害	2006 ▾
[Journal Article] 質的嗅覚障害	2006 ▾
[Journal Article] 嗅覚の発達	2006 ▾
[Journal Article] スティック型嗅覚同定能力検査法の簡易版における臭素選択法と3臭選択への適用	2006 ▾
[Journal Article] 超音波を利用した高速呼吸センサの開発	2006 ▾
[Journal Article] Development of a smell identification test using a novel stick-type odorpresentation kit	2006 ▾
[Journal Article] Cross-cultural comparison of data using the odor stick identification test for Japanese (OSIT-J)	2006 ▾
[Journal Article] Posttraumatic olfactory loss.	2006 ▾
[Journal Article] Development of a smell identification test using a novel stick-type odor presentation kit.	2006 ▾
[Journal Article] Cross-cultural comparison of data using the odor stick identification test for Japanese (OSITJ).	2006 ▾
[Presentation] Thallium-201 imaging in olfactory nerve transaction model	2007 ▾
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[Presentation] 嗅覚検査に関するアンケート調査結果	2007 ▾
[Presentation] 嗅覚スクリーニングにおけるカレーのニオイの有用性	2007 ▾
[Presentation] 近赤外線分光法を用いたニオイ刺激時の脳表面の血流変化	2007 ▾
[Presentation] カレー1臭による嗅覚スクリーニングの可能性	2007 ▾
[Presentation] 放射性アイソトープによるマウス嗅神経障害の検討	2007 ▾
[Presentation] 脳波・脳磁場の同時計測による嗅覚誘発応答の短潜時成分の検討	2007 ▾
[Presentation] 最適な1臭の提案とその嗅覚同定能力測定法OSITへの応用	2007 ▾
[Presentation] 嗅覚検査の現状と展開	2007 ▾
[Presentation] 外傷性嗅覚障害モデルにおける嗅覚行動とタリウム鼻腔嗅球移行度の相関	2007 ▾
[Presentation] Olfactory discrimination acuity and thallium transport in the olfactory nerve of traumatic olfactory disturbance mice model	2007 ▾

[Presentation] Optimal one odorant choice method and its application to the simple version of the odor stick identification test (OSIT)	2007	▼
[Presentation] More precise analyses (measurement) of olfactory event related potential and magnetic fields	2007	▼
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[Presentation] More precise analyses (measurement) of olfactory event related potential and magnetic fields.	2007	▼
[Presentation] 副鼻腔炎による嗅覚障害に対する嗅覚改善手術の治療成績	2007	▼
[Presentation] 嗅覚識別能力検査法の開発	2007	▼
[Presentation] 味嗅覚の認知機構の解明(心理物理学手法と脳機能計測)	2007	▼
[Presentation] 嗅覚検査に関する全国アンケート調査結果	2007	▼
[Presentation] スティック型嗅覚検査の有用性	2007	▼
[Presentation] スティック型嗅覚識別能力検査による嗅覚スクリーニングの検討	2006	▼
[Presentation] 副鼻腔炎による嗅覚障害に対する中鼻甲介開窓術の治療成績	2006	▼
[Presentation] Gas detecting mechanism of new ultrasonic real-time gas molecule sensor.	2006	▼
[Presentation] The clinical picture of olfactory distortion	2006	▼
[Presentation] Operative and postoperative care for olfactory diturbance	2006	▼
[Presentation] The clinical characteristics and pathogenesis of dysosmia	2006	▼
[Presentation] Toki-Shakuyaku-San in the treatment of sensorineural smell dysfunction	2006	▼
[Presentation] The clinical characteristics and pathogenesis of dysosmia.	2006	▼
[Presentation] Toki-Shakuyaku-San in the treatment of sensorineural smell dysfunction.	2006	▼
[Presentation] 気体刺激のリアルタイムモニタリングによる嗅覚誘発電位・脳磁場の同時計測(2)	2006	▼
[Presentation] 味嗅覚の刺激提示法、脳活動計測法の特徴	2006	▼
[Presentation] Gas detecting mechanism of new ultrasonic real-time gas molecule sensor	2006	▼
[Presentation] 超音波を利用した高速気体濃度センサ	2006	▼
[Presentation] The clinical picture of olfactory distortion.	2005	▼
[Presentation] Operative and postoperative care for olfactory disturbance.	2005	▼
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[Book] 医療文書の正しい書き方と医療保障の実際 改定第5版	2007	▼
[Book] 匂いと香りの科学	2007	▼

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2006 ▾

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