

Report July – September 2020; Smell & Taste

Peer-reviewed Original Publications

- Liu DT, Pellegrino R, Sabha M, Altundag A, Damm M, Poletti SC, Croy I, Hähner A, Oleszkiewicz A, Cuevas M, Hummel T (2020) Factors Associated with Relevant Olfactory Recovery After Olfactory Training: A retrospective study including 601 participants. *Rhinology* (in press)
- Negoias S, Meves B, Zang Y, Haehner A, Hummel T (2020) Some patients with olfactory loss report flavor loss, others do not: Clinical characteristics of these two groups. *Laryngoscope* (in press)
- Huart C, Philpott C, Konstantinidis I, Altundag A, Whitcroft K, Trecca EMC, Cassano M, Rombaux Ph, Hummel T (2020) Comparison of COVID-19 and Common Cold Chemosensory Dysfunction. *Rhinology* (in press)
- Zang Y, Han P, Joshi A, Hummel T (2020) Individual variability of olfactory fMRI in normosmia and olfactory dysfunction. *Eur Arch ORL* (in press)
- Le Bon SD, Pisarski N, Verbeke J, Prunier L, Cavelier G, Thill MP, Rodriguez A, Dequanter D, Lechien JR, Le Bon O, Hummel T, Horoi M (2020) Psychophysical evaluation of chemosensory functions five weeks after olfactory loss due to COVID-19: a prospective cohort study on 72 patients. *Eur Arch ORL* (in press)
- Joshi A, Han P, Faria V Larsson M, Hummel T (2020) Neural processing of olfactory-related words in subjects with congenital and acquired olfactory dysfunction. *Sci Rep* (in press)
- Chen B, Pfister A, Nahrath P, Hummel T (2020) Odor perception depends on airflow, odor solubility and intranasal application site. *Rhinology* (in press)
- Lötsch J, Oertel BG, Felden L, Nöth U, Deichmann R, Hummel T, Walter C (2020) Central encoding of the strength of intranasal chemosensory trigeminal stimuli in a human experimental pain setting. *Hum Brain Mapp* (in press)
- Han P, Chen H, Hummel T (2020) Brain responses to high-fat food odors associated with BMI change after two years. *Front Hum Neurosci* (in press)
- Biswas K, Wagner Mackenzie B, Ballauf C, Draf J, Douglas R, Hummel T (2020) Loss of bacterial diversity in the sinuses is associated with lower smell discrimination scores. *Sci Reports* (in press)
- Croy I, Ritschel G, Kreßner-Kiel D, Schäfer L, Hummel T, Havlíček J, Sauter J, Ehninger G, Schmidt A (2020) Marriage does not relate to MHC – a genetic analysis based on 3,691 couples. *Proc Royal Soc B* (in press)
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Other publications (Chapters, peer-reviewed reviews, letters)

- Alberi L, Hummel T, Brai E (2020) Smell, an underrated early biomarker for brain aging. *Frontiers Neurosci* (in press)
- Han P, Su T, Qin M, Chen H, Hummel T (2020) A systematic review of olfactory related questionnaires and scales. *Rhinology* (in press)
- Chen B, Wang Q, Zhong X, Heyne L, Ning Y, Hummel T (2020) Can we assess the sense of smell through a face mask? *Int Forum Allergy Rhinol*. 2020 Aug 10. doi: 10.1002/alr.22682.
- Taylor AJ, Beauchamp JD, Briand L, Heer M, Hummel T, Margot C, McGrane S, Pieters S, Pittia P, Spence C (2020) Factors affecting flavor perception in space: Does the spacecraft environment influence food intake by astronauts? *Compr Rev Food Sci Food Safety* (in press)
- Zang Y, Hähner A, Negoias S, Lakner T, Hummel T (2020) Apparently minor head-trauma leads to anosmia: a case report. *ORL* (in press)

- Croy I, Hummel T (2020) Involvement of nasal trigeminal function in human stereo smelling. Proc Nat Acad Sci (in press)

Guests / Personnel

- Dr. Serge Le Bon, from the [Department of Otorhinolaryngology at the St. Peter's Hospital, Brussels](#), visits from August 2 to 3, 2020
- Oshin Behl, M.D., from Pune, Maharashtra, India, starts her one-year visit as Kosing-fellow on the 1st of August 2020
- Dr. Lavinia Alberi, Lead of Neurology Research, Swiss Integrative Center for Human Health SA, CH-1700 Fribourg, Switzerland, <https://www.sichh.ch/about-us/team/lavinia-alberi-auber>, visits from September 1st to September 30th
- Dr. Andreas Steenholt-Niklassen from the [Department of Otorhinolaryngology at Aarhus University](#), Denmark, visits from the 15th of September to the 15th of October
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Grants/Awards

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Thesis

- 18.8.2020: Baronesse Dorothee Renata von Koskull (Dr. med.): Verlaufsbeobachtung von Patienten mit idiopathischen Schmeckstörungen
- 18.8.2020: Lisa-Marie Sparing-Paschke (Dr. med.): Einfluss kognitiver Parameter auf die Geruchstestung im Kindes- und Jugendalter
- 1.9.2020: Patrick Fuchß (Dr. med.), Einfluss einer perioperativen Heparin-Gabe auf das Riechvermögen
- 8.9.2020: Elisa Lippmann (Dr. med.): Verbesserung und Erweiterung bereits vorhandener Riech- und Schmecktests
- 08.09.2020: Dorothea Kretschmann (Dr. med.): Wirkung der Akupunktur bei der nichtallergischen Rhinitis
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Courses, Presentations etc.:

- **Antje Hähner**: 24th of June 2020: Klinische Weiterbildung in der Klinischen Infektiologie, TU Dresden: „Postinfektiöse Riechstörungen“.
- **Antje Hähner**: 8th of July 2020: Schmerzzambulanz der TU Dresden: Dresdner Kinderkopfschmerzprogramm – „Riechen und Schmerz“.
- **Antje Hähner**: 10th of July, "Riech- & Schmeckstörungen bei COVID-19", Neurologie (Continued Medical Education for Neurologists).
- **Thomas Hummel**, 10th of September: Mumbai, India, NBE Webinar in speciality of Otorhinolaryngology: "Diagnosis and Therapy of Olfactory Loss"



Journals Clubs April to June 2020!

Presenter	Topic	Date
Akshita Joshi	Trigeminal endonasal perception- an Outcome predictor for septoplasty	09.04.2020
Yunpeng Zang	The perception of odor is not surrogate marker for chemical exposure: a review of factors influencing human odor perception	09.04.2020
Coralie Mignot	Chemical fingerprints of emotional body odors	14.04.2020
Divesh Thaploo	Single cell analysis of olfactory neurogenesis and differentiation in adult humans	14.04.2020
Yunmeng Zhu	A catalog of biases in Questionnaires	16.04.2020
Xiaoguang Yan	Cognitive dysfunction associated to pain and quality of life in chronic rhinosinusitis	16.04.2020
Hanani Abdul Manan	Morphological changes in the brain due to olfactory loss: a voxel-based morphometry study on etiology and duration of olfactory dysfunction	20.04.2020
Agnieszka Sabiniewicz	Odor perception by dogs: Evaluating two training approaches for odor learning of sniffer dogs	21.04.2020
Yunpeng Zang	Assessment of odor perception related to stimulation modes in a mock MRI scanner	21.04.2020
Xiaoguang Yan	A nicotinic hypothesis for Covid-19 with preventive and therapeutic implications	05.05.2020
Xiaoguang Yan	The molecular basis of loss of smell in 2019-nCoV infected individuals	05.05.2020
Oshin Behl	Correlation of Mother and Child's Taste Perception and their Caries Experience	05.05.2020
Akshita Joshi	α - synuclein inclusions are abundant in non-neuronal cells in the anterior olfactory nucleus of the Parkinson's disease olfactory bulb	07.05.2020
Yunpeng Zang	The Dynamics of Hyposmia and Results of Treatment with Intranasal Theophylline	07.05.2020
Yunmeng Zhu	Comparison of the hedonic general labeled magnitude scale with the hedonic 9-point scale	12.05.2020
Hanani Abdul Manan	Dietary intakes of fats, fish and nuts and olfactory impairment in older adults	12.05.2020
Divesh Thaploo	Olfactory bulb magnetic resonance imaging in SARS-CoV-2-induced anosmia: The first report	14.05.2020
Coralie Mignot	Non-invasive recording from the human olfactory bulb	14.05.2020
Dmitriy Desser	Severity of olfactory deficits is reflected in functional brain networks - An fMRI study	19.05.2020
Agnieszka Sabiniewicz	Expressing fear enhances sensory acquisition	19.05.2020
Akshita Joshi	Anterior olfactory nucleus	28.05.2020
Oshin Behl	Induction of smell through transthemoid electrical stimulation of the olfactory bulb	28.05.2020
Xiaoguang Yan	Associations Between Inflammatory Endotypes and Clinical Presentations in Chronic Rhinosinusitis	28.05.2020

Coralie Mignot	Electrophysiological correlates of top-down attentional modulation in olfaction	02.06.2020
Yunpeng Zang	Nasal obstruction and smell impairment in nasal polyp disease: correlation between objective and subjective parameters	02.06.2020
Divesh Thaploo	Alteration of diffusion-tensor MRI measures in brain regions involved in early stages of Parkinson's disease	04.06.2020
Hanani Abdul Manan	Unusual olfactory perception during radiation sessions for primary brain tumors: a retrospective study	09.06.2020
Yunmeng Zhu	How cognition modulates affective responses to taste and flavor: top-down influences on the orbitofrontal and pregenual cingulate cortices	09.06.2020
Agnieszka Sabiniewicz	Interspecies transmission of emotional information via chemosignals: from humans to dogs (<i>Canis lupus familiaris</i>)	09.06.2020
Akshita Joshi	Plasticity in olfactory bulb circuits	11.06.2020
Yunmeng Zhu	How cognition modulates affective responses to taste and flavor: top-down influences on the orbitofrontal and pregenual cingulate cortices	11.06.2020
Yunpeng Zang	Evaluation of Olfactory sensation, acoustic rhinometry and quality of life of the patients with nasal septal deviation	16.06.2020
Nunzia Papotto	Modulation of trigeminal activity by olfactory stimuli	25.06.2020
Agnieszka Sabiniewicz	Inter- and intra-species communication of emotion: chemosignals as the neglected medium	30.06.2020
Akshita Joshi	Verbal suggestions of nicotine content modulate ventral tegmental neural activity during the presentation of nicotine free odor in cigarette smokers	02.07.2020
Yunmeng Zhu	Age differences in the brain mechanisms of good taste	02.07.2020
Yan Xiaoguang	MR findings in COVID 19 associated olfactory loss	14.07.2020

- **Moa Peter** from Karolinska, Stockholm, presents on the 290th of September on her paper on "Normal Olfactory Functional Connectivity Despite Lifelong Absence of Olfactory Experiences", *Cerebral Cortex*, 2020.

Presentations at [ISOT 2020](#), August 4-7 2020

- **DECREASED TASTE THRESHOLDS IN THE PRESENCE OF LOW CONCENTRATIONS OF CAPSAICIN**
Thomas Hummel¹, Lea Mueller¹, Pengfei Han^{1,2}. ¹*Smell & Taste Clinic, Dept of ORL, TU Dresden, Dresden Germany* ²*Faculty of Psychology, Southwest University, Chongqing China*
- **GREATER HIPPOCAMPAL GRAY MATTER VOLUME IN SUBJECTIVE HYPEROSMIA: A VOXEL - BASED MORPHOMETRY STUDY**
Pengfei Han^{1,2,3}, Franz Stiller-Stut¹, Alexander Fjaeldstad^{4,5}, Thomas Hummel¹. ¹*Interdisciplinary Center Smell and Taste, Department of Otorhinolaryngology, Dresden Germany* ²*Faculty of Psychology, Southwest University, Chongqing China* ³*Key Laboratory of Cognition and Personality (Southwest University), Ministry of Education, Chongqing China* ⁴*Flavour Institute, Aarhus University, Aarhus Denmark* ⁵*Flavour Clinic, Department of Otorhinolaryngology, Holstebro Denmark*
- **TASTE LOSS AFFECTS LINGUAL MECHANOSENSITIVITY**
Jule/A Reinhard¹, Antje Haehner¹, Chris/T Simons², Thomas Hummel¹. ¹*smell and taste clinic, department of otorhinolaryngology, TU Dresden, Dresden Germany* ²*CFAES Department of Food Science & Technology, Columbus United States*

- **WHITE MATTER NETWORK ABNORMALITIES IN PATIENTS WITH ANOSMIA**
Divesh Thaploo¹, Ben Chen^{1,2}, Akshita Joshi¹, Thomas Hummel¹. ¹*Smell & Taste Clinic, Department of Otorhinolaryngology, TU, Dresden Germany* ²*Department of Psychiatry, The Affiliated Brain Hospital of Guangzhou Medical University (Guangzhou Huiai Hospital), Guangzhou China*
- **BRAIN-BEHAVIOR ASSOCIATIONS OF POST-TRAUMATIC OLFACTORY LOSS**
Michael C. Farruggia^{1,2}, Maria G. Veldhuizen², Robert Pellegrino^{3,6}, Dana M. Small^{1,2,4,5}, Thomas Hummel³. ¹*Interdepartmental Neuroscience Program, Yale University, New Haven United States* ²*Department of Psychiatry, Yale University School of Medicine, New Haven United States* ³*Smell & Taste Clinic, Department of Otorhinolaryngology, TU Dresden, Dresden Germany* ⁴*Department of Psychology, Yale University, New Haven United States* ⁵*fMEG Center, University of Tübingen, Tübingen Germany* ⁶*Department of Food Science, Institute of Agriculture, University of Tennessee, Knoxville United States*
- **SELF-ASSESSMENT OF OLFACTORY FUNCTION USING THE "SNIFFIN' STICKS"**
Marie Klockow, Theresa Lakner, Philipp Nahrath, Mandy Cuevas, Antje Haehner, Thomas Hummel. *Smell & Taste Clinic, Dept. of ORL, TU Dresden, Dresden Germany*
- **VERBAL SUGGESTIONS OF NICOTINE CONTENT MODULATE VENTRAL TEGMENTAL NEURAL ACTIVITY DURING A NICOTINE-FREE ODOR PRESENTATION IN CIGARETTE SMOKERS**
Akshita Joshi¹, Vanda Faria^{1,2,3}, Pengfei Han^{1,4,5}, Paul Enck⁶, Thomas Hummel¹. ¹*Smell & Taste Clinic, Department of Otorhinolaryngology TU Dresden, Dresden Germany* ²*Department of Psychology, Uppsala University, Uppsala Sweden* ³*Center for pain and the brain, Department of Anesthesiology, Perioperative and Pain Medicine, Boston Children's Hospital, Harvard Medical School, Boston United States* ⁴*Key Laboratory of Cognition and Personality (Ministry of Education), Southwest University, Chongqing China* ⁵*Faculty of psychology, Southwest University Chongqing China* ⁶*Department of Internal Medicine VI: Psychosomatic Medicine and Psychotherapy, Tuebingen Germany*

Presentations at the [Annual conference of the European Chemoreception Research Organization](#) (online) on September 17 and 18

- **Coralie Mignot**, Older and younger people experience similar long-term olfactory habituation.
- **Laiquan Zou**, Association between olfactory function and quality of life in patients with olfactory disorders: a multicenter study.
- **Akshita Joshi**, A novel technique for olfactory bulb measurements.
- **Xiaoguang Yan**, The shape of the olfactory bulb is related to olfactory function.
- **Marylou Mantel**, Modeling the subjectivity of human olfaction: An integrated approach.
- **Antonia Gillmeister**, Olfactory training in specific anosmia: association with genetic variations of OR7D4.
- **Michal Pieniak**, Olfactory training with Aromastics – olfactory and cognitive effects.
- **Yunpeng Zang**, Brain response to odor stimulus in different delivery conditions: an fMRI study.
- **Divesh Thaploo**, Progression of PD is reflected by white matter changes in olfactory areas – a pilot study.
- **Anna Oleszkiewicz**, Beyond olfaction: beneficial effects of olfactory training in older subjects extend to dementia and cognitive assessment.
- **Oshin Behl**, Olfaction in children in different age groups
- **Ayaho Yoshino**, A Novel Approach for Assessment of Retronasal Odor thresholds

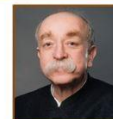
Conferences

- Thomas Hummel: Online presentation on the 4th of August at Mahidol University, Malaysia



Role of Taste and Smell for Better Nutrition

By Prof. Thomas Hummel
Head of Interdisciplinary Center
"Smell and Taste", Faculty of Medicine
Carl Gustav Carus, TU Dresden, Germany

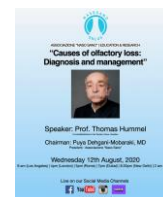


On Tuesday 4th August 2020, 13:00-15:00 (UTC+7:00)
At Aree Vallyasevi Conference Room, Institute of Nutrition, Mahidol University,
Salaya, also available as a webinar via Zoom Cloud Meetings

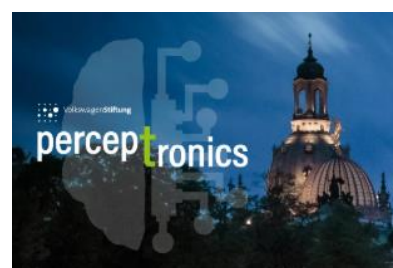
Reserve your seat and register Via



- Thomas Hummel: Online presentation on the 4th of August at [ABSCENT, UK](#)
- Thomas Hummel: Online presentation on the 12th of August at Nasano, Italy



- [ECRO Satellite symposium Perceptronic](#) (in person and online), organized together with Gianaurelio Cuniberti, Alexander Croy, Ilona Croy, on the 15th and 16th of September 2020
- [Annual conference of the European Chemoreception Research Organization](#) (online), with Ivan Manizini, Silke Sachse, Veronica Egger, Moustafa Bensafi, Stefan Fuss (program chair: Thomas Hummel), September 17th and 18th
- Thomas Hummel presents on the 30th of September at "[Naso Sano](#)" (Puya Dehgani-Mobaraki, MD) Department of Otorhinolaryngology and Head & Neck Surgery, Regional Center for Cystic Fibrosis, Gubbio-Gualdo Tadino Hospital (Italy) on "intranasal trigeminal function"
- Thomas Hummel presents on the 30th of September at "WEIL NASEN RIECHEN WOLLEN!" organized by Novartis, Nürnberg, Germany, on „Wenn die Nase versagt – Auswirkungen auf das Leben der Patienten“
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What else:

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- Thomas Hummel, 2.7.2020: Interview mit Klara Fröhlich, mdr Wissen: „Ich werde Feinschmeckerin“
<https://www.mdr.de/wissen/audios/index.html>

mdr WISSEN
DIE GROSSEN FRAGEN UNSERER ZEIT

Stark durch
VIELFALT



- Thomas Hummel: Interview with EUFORA - Video on “Smell-related issues in relation to COVID-19” https://www.youtube.com/watch?v=1tw_bhCSNME
- Tagesspiegel-Interview mit Gerlinde Felix am 10.8.2020: **SARS CoV2 lässt Geruchsvermögen vorzeitig altern**

DER TAGESSPIEGEL
VERUM COGNOSCERE CAUSAS

- Thomas Hummel, 19th of Aug 2020 - Interview with Sally Abrahams, from [BBC: The Compass](#)

BBC

[– The Senses: Smell and taste](#)

- Thomas Hummel, 19th of Aug 2020 – Interview mit Bild der Wissenschaft zum Thema Riechverlust

bild der
wissenschaft

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