

## Report July – September 2023; Smell & Taste

### Peer-reviewed Original Publications

- Amini E, Rohani M, Azad Z, Habibi M, Emami K, Yazdi N, Hummel T, Jalessi M (2023) Odor Threshold, Discrimination, and Identification in Patients with Huntington's Disease. *J Laryngol Otol* (in press)
- Sabiniewicz A, Bunzenthal W, Cagdas G, Behl O, Krasteva N, Nelles G, Hummel T (2023) Odors in a visual virtual environment: effects of congruency. *Behav Inf Technol* (in press) <https://doi.org/10.1080/0144929X.2023.2235017>
- Yan X, Benkhatat H, Chao YT, Georgiopoulos C, Hummel T (2023) Anterior skull base abnormalities in congenital anosmia. *ORL (Karger)* (in press)
- Yan X, Menzel S, Zhao K, Kim K, Hummel T (2023) Intranasal trigeminal sensitivity to mechanical stimuli is associated with the perception of nasal patency. *Eur Arch ORL* (in press)
- Sorokowska A, Trzciniński M, Cieśla R, Skubisz-Ślusarczyk SA, Zieniewicz I, Hummel T, Sorokowski P (2023) Odor exposure and recall of a virtual reality crime scene: A preliminary study. *Sci Justice*, 63(4):537-541.
- Mai Y, Rosbach M, Hummel T (2023) Variations of Olfactory Function with Circadian Timing and Chronotype. *Rhinology* (in press)
- Resler K, Oleszkiewicz A, Frączek M, Morawska-Kochman M, Zatoński T, Hummel T (2023) Olfaction-Associated Quality of Life: Polish Adaptation and Validation of a Questionnaire of Olfactory Disorders QOD-PL in patients with chronic rhinosinusitis. *Adv Clin Exp Med* (in press)
- Amini E, Rohani M, Habibi SAH, Azad Z, Yazdi N, Cubo E, Hummel T, Jalessi M (2023) Underestimated Olfactory Domains in Huntington's Disease: Odor Discrimination and Threshold. *J Laryngol Otol*: 1-21.
- Naciri LC, Mastinu M, Melis M, Green T, Wolf A, Hummel T, Tomassini Barbarossa I (2023) A supervised learning regression method for the analysis of taste function of healthy controls (HC) and patients with chemosensory loss. *Biomedicine* (in press)
- Sabiniewicz A, Borowicz H, Geminiani G, Trawiński J, Hummel T, Laska M Behavioral responses of horses (*Equus ferus caballus*) vary in response to presumably threatening odor condition and aversive social odor stimuli. *Appl Anim Behav Sci* (in press)
- Pieniak M, Seidel K, Oleszkiewicz A, Gellrich J, Karpinski C, Fitze G, Schriever VA. 2023. Olfactory training effects in children after mild traumatic brain injury. *Brain Injury*: 1-13.
- Hänsel M, Schmitz-Peiffer H, Hähner A, Reichmann H, Schneider H (2023) Olfactory dysfunction after autoimmune encephalitis depending on the antibody type and limbic MRI pathologies. *Front Neurol (sct. Mult Scler Neuroimmunol)* (in press)
- Whitcroft K, ..., Hummel T, ... (2023) International Clinical Assessment of Smell: An International, Cross-Sectional Survey of Current Practice in the Assessment of Olfaction. *ClinOtolaryngol* (in press)
- Li Z, Mignot C, Sinding C, Hummel T (2023) Effects of desensitization on odors varying in concentration and pleasantness. *J Sens Studies* (in press)
- Chen B, Boesen A, Olesch FT, Hummel T (2023) A life without smell: Olfactory function in people working in odorless rooms. *Laryngoscope* (in press)
- Tei M, Sekine R, Mori E, Portillo Mazal P, Gupta N, Berioso Encicilla ML, Hummel T (2023) Cross-Modal and Cross-Cultural Perceptions of Parosmia. *J Sens Studies* (in press)
- Li Z, Abriat A, Hummel T (2023) Olfactory training: Effects of multisensory integration, attention towards odors and physical activity. *Chem Senses* (in press)
- Hänsel M, Schmitz-Peiffer H, Hähner A, Reichmann H, Schneider H (2023) Olfactory dysfunction after autoimmune encephalitis depending on the antibody type and limbic MRI pathologies. *Front Neurol* 14:1225975.

- Torvik Heian I, Thorstensen WM, Myklebust TA, Hummel T, Nordgård S, Bratt M, Helvik AS (2023) Does olfactory training influence olfaction in a population with a normal sense of smell? – A randomized, controlled trial. *Rhinology* (in press)
- Joshi A, Hornstein H, Thaploo D, Faria V, Warr J, Caho YT, Hummel T (2023) Functional connectivity differences in healthy individuals with different well-being states. *Neurosci Inform* (in press)
- Olcay BO, Onay F, Öztürk GA, Öniz A, Özgören M, Hummel T, Güdücü C (2024) Characterization of Chemosensory-Induced EEG Signals to Classify Patients with Parkinson's Disease. *Biomed Signal Proc Contr* 87: 105438
- Boscolo-Rizzo P, Hummel T, Spinato G, Vaira LA, Menini A, Hopkins C, Tirelli G (2023) Olfactory and Gustatory Function 3 Years after mild COVID-19: A Case-Control Psychophysical Study. *JAMA ORL* (in press)
- Faria V, Joshi A, Mignot C, Thaploo D, Weise S, Hummel T (2023) Neuroimaging the development of olfactory function in a woman with no olfactory bulbs. *JAMA Otolaryngol* (in press)
- Kumaresan KR, Bengtsson S, Sami S, Clark A, Hummel T, Boardman J, High J, Sobhan R, Philpott C (2023) A DOUBLE BLINDED RANDOMISED CONTROLLED TRIAL OF VITAMIN A DROPS TO TREAT POST-VIRAL OLFACTORY LOSS: STUDY PROTOCOL FOR A PROOF- OF- CONCEPT STUDY FOR VITAMIN A NASAL DROPS IN POST-VIRAL OLFACTORY LOSS (APOLLO). *J Pilot Feasib Studies* (in press)

### Other publications (Chapters, peer-reviewed reviews, letters)

- Sienkiewicz-Oleszkiewicz B, Oleszkiewicz A, Hummel T (2023) Intranasal insulin – effects on the sense of smell and pathologic conditions. *Rhinology* doi: 10.4193/Rhin23.036.
- Schönherr M, Hummel T (2023) Erfassung von Störungen der chemischen Sinne - Einschätzung des Gesundheitszustands durch Betroffene. *HNO* (in press)
- Faria V, Dulheuer J, Joshi A, Wahl H, Klimova A, Haehner A, Gossrau G. Impact of a 12-week olfactory training programme in women with migraine with aura: protocol for a double-blind, randomised, placebo-controlled trial. *BMJ Open*. 2023 Jul 7;13(7):e071443
- Lohrer EC, Hummel T, Schriever VA, Gellrich J (2023) Transient olfactory disturbance in Varizella Zoster reactivation – A case report. *Laryngoscope* (in press)
- Landis BN, Hsieh JW, Konstantinidis I, Holbrook EH, Huart C, Mori E, Hummel T (2023) What is different in COVID-19 associated olfactory loss from classical postinfectious olfactory impairment? *ORL* (in press)
- Boscolo-Rizzo P, Hummel T, Invitto S, Spinato G, Vaira LA, Lechien JR, Menini A, Hopkins C, Tirelli G (2023) Reply to: It is necessary to assess olfactory and gustatory functions in post-COVID-19 patients due to the omicron variant infection. *Int For Allerg Rhinol* (in press)
- Pieniak M, Hummel T (2023) Utility of the modified Morisky scale in the assessment of olfactory training adherence. *Rhinology* (in press)
- Damm M, Hummel T, Hähner A, Müller CA, Göktas Ö, Stuck BA, Welge-Lüssen A, Isenmann S, Vent J, Kraus T, Probst M, Blankenburg M, Langner S, Carl B (2023) Riech- und Schmeckstörungen (AWMF Leitlinie 0 17/0 50 ; August 1st 2023) <https://register.awmf.org/de/leitlinien/detail/017-050>
- Sabiniewicz A, Hummel T (2023) Mood impairment in patients with olfactory loss predicts a more pronounced recovery of olfactory function. *ORL* (in press)
- Aden F, Hummel T (2023) Riechtraining mit dem Smeller 2.0. In : Zimmermann-Törne S, Knüvener P (eds) « Tausend & Deine Sicht », Sanstein Verlag, Dresden, p. 242-245
- Hintschich C, Welge-Lüssen A, Göktas Ö, Stuck BA, Müller CA, Hummel T (2023) Persistierende Riechminderung nach COVID-19 – Empfehlungen der Arbeitsgemeinschaft Olfaktologie und Gustologie

der Deutschen Gesellschaft für Hals-Nasen-Ohren-Heilkunde, Kopf- und Hals-Chirurgie e.V.. HNO (. doi: 10.1007/s00106-023-01368-w.)

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## Guests / Personnel / Visitors

- 3.7.2023: Adelka Ragova, medical student, Jessenius Faculty of Medicine, Comenius University, Slovakia, visits for 4 weeks
- 3.7.2023: Angela Chen, medical student, Université de Montréal — Campus de la Mauricie, Montreal, Canada, visits for 3 weeks
- 4.7.-31.8.2023: Edanur Gurbuz, medical Student, Mugla Sitki Kocman University, Mugla, Turkey
- 5.7.2023: Can Tutar, dentist, Düsseldorf, starts his 6 months stay
- 17.7.2023: Omer Polak visits: <https://www.omerpolak.com/works>
- 27.7.2023: [Nixon Abraham, PhD](#), from Pune, India, visits
- 7.8.-11.8.2023: Dr. Narin Carmel-Neiderman visits from the [Department of Otolaryngology, Head and Neck Surgery](#), Tel Aviv Sourasky Medical Center, affiliated to Tel Aviv University, Tel Aviv, Israel.
- 7.8.-9.8.2023: Judith Grabmeier, medical student, visits from Regensburg University.
- 2.8.-31.8.2023: Rafaela de Jesus, medical student, visits from Faculdade de Medicina da Universidade do Porto.
- 4.9.-13.9.2023: Dr. Tzechoong Charn, [Dept. of ORL, Singapore General Hospital and Sengkang General Hospital](#), Singapore
- 4.9.-30.9.2023: Tianyi Zhang, PhD student from Oxford, Dept. of Experimental Psychology, <https://www.psy.ox.ac.uk/research/crossmodal-research-laboratory>
- 12.9.2023: Lydia Dietze, MTA-Schülerin



## Thesis

- 11.7.2023: Lea Maria Müller (Dr. med.) - Trigeminal Effekte auf die gustatorische Wahrnehmung
- 19.7.2023: Xiaoguang Yan (Dr. med.) - Clinical Predictors of Olfactory Function: Insights from Inflammation and Imaging
- 5.9.2023: Akshita Joshi (PhD) - Investigation of olfactory function and its plasticity
- 5.9.2023: Divesh Thaploo (PhD) - Novel methods to assess olfactory processing

## External Presentations:

- 2.7.2023: Thomas Hummel, speaks about “Why is smell important? How does it work? What happens when we lose our sense of smell? How can it be restored?”, [Second International Conference on Oral Malodour \(ICOM2\)](#), Bristol, UK

- 24.-26.8.2023: Thomas Hummel speaks at the 22<sup>nd</sup> congress of the Otorhinolaryngology Foundation (Prof. Richard Voegels) in Sao Paulo on
  - “Assessment and Diagnostics of intranasal trigeminal function”
  - “Assessment and Diagnostics of olfactory function”
  - “Treatment of olfactory dysfunction”
  - “Cases: olfactory dysfunction”
- 30.8.2023: Thomas Hummel speaks about “Effects of odor exposure on human olfactory function” at the Department of Neurosurgery (Brain Modulation Lab) of the Massachusetts General Hospital, Boston
- 1.9.2023: Thomas Hummel speaks about “Assessment of human olfactory function in health and disease” at the Department of Molecular and Cellular Biology, [Center for Brain Sciences](#), Harvard Medical School, Cambridge, MA.
- 16.9.2023: Thomas Hummel - Keynote lecture at the Research Showcase Meeting on “Research in Olfactology – what we now know and what we still need to know” at the Royal Society of Medicine, London
- ECRO Conference in Wageningen, Sept 18-21, 2023
 

People with olfactory dysfunction due to COVID-19 have a fundamentally different olfactory perceptual fingerprint compared to healthy controls. **Eva Drnovšek**, Maria Rommel, Antonie Louise Bierling, Alexander Croy, Ilona Croy, Thomas Hummel

Multisensory integration and attention towards odors enhance the efficacy of olfactory training, in relation to molecule complexity and physical activity. **Zetian Li**, Abriat Anne, Thomas Hummel

Exploring the Mechanism of Phantosmia: Induction of odor phantoms through brain stimulation during radiotherapy. Yiling Mai, Celina Vogel, Julia Thiele, Tobias Hölscher, Thomas Hummel

Impact of olfactory training on odor dilutions sorting ability in adult and elderly population. **Michal Pieniak**, Marta Rokosz, Anna Oleszkiewicz

The effect of olfactory training on verbal fluency: insights from a study on healthy adults and elders. Marta Rokosz, **Michal Pieniak**, Anna Oleszkiewicz

Olfactory and trigeminal event-related potentials in pregnant and non-pregnant women – an exploratory study. **Agnieszka Sabiniewicz**, Michał Pieniak, Thomas Hummel

Examination of chemosensory perceptions using DTI. Divesh Thaploo

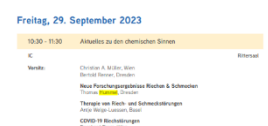
Decoding Parosmia: Central contributions. Divesh Thaploo

Treatment of postviral olfactory loss. **Melanie Dietz**, Antje Haehner, Carl Philpott, Thomas Hummel

Time-Frequency Analysis for gustatory Event Related Potentials can be used as a diagnostic tool in taste disorders. **Mariano Mastinu**, Vasyl Bogdanov, Lisa Sophie Grzeschuchna, Thomas Hummel

Differences in trigeminal function, olfaction, and nasal airflow measurements in patients with and without chronic rhinosinusitis. **Anna Kristina Hernandez**, Caroline Uhl, Antje Haehner, Mandy Cuevas, Thomas Hummel

Mapping of intranasal mucosal thermal sensitivity. **Pauline Hanslik**, Susanne Menzel, Coralie Mignot, Evgenii Gluskov, Roman Dubreuil, Moustafa Bensafi, Susanne Füssel, Thomas Hummel
- [Annual conference of the Austrian ENT Society in Vienna](#) – presentation by Thomas Hummel on the 29<sup>th</sup> of September 2023, on “News from the Sens of Smell”



## Presentations in the lab:

- 13.7.2023: Edanur Gurbuz, medical student, Mugla Sitki Kocman University, Mugla, Turkey: Obstructive sleep apnea, olfactory function, and polyamines
- 13.7.2023: Angela Chen, medical Student, Université de Montréal — Campus de la Mauricie, Montreal, Canada: Olfactory Training Impacts Olfactory Dysfunction Induced by COVID-19: A Pilot Study
- 17.7.2023: Omer Polak presents on: The Smell of Suffering
- 27.7.2023: Today Nixon Abraham from Pune/India presents at 13:30h on his research, among others, in [Persistent olfactory learning deficits during and post-COVID-19 infection](#).
- 11.8.2023: Rafaela de Jesus, from Faculdade de Medicina da Universidade do Porto, presents on The Impact of Xerostomia on Food Choices—A Review with Clinical Recommendations by Müller F et al., J Clin Med, 2023
- 9.8.2023: Yling Mai presents on “Chemosignalling effects of human tears revisited: Does exposure to female tears decrease males' perception of female sexual attractiveness?” by Gracianion A et al., and “Chemosignalling effects of human tears revisited: Does exposure to female tears decrease males' perception of female sexual attractiveness?” by Sobel N
- 9.8.2023: Coralie Mignot presents on “Deep brain stimulation for refractory obsessive-compulsive disorder (OCD): emerging or established therapy?” Wu H et al. Mol Psychiatry. 2021 Jan;26(1):60-65.
- 1.9.2023: Edanur Gurbuz, medical student, Mugla Sitki Kocman University, Mugla, Turkey: [Overnight olfactory enrichment using an odorant diffuser improves memory and modifies the uncinatus fasciculus in older adults](#). Front. Neurosci. 17:1200448. DOI 10.3389/fnins.2023.1200448
- 6.9.2023: Agnieszka Sabiniewicz: Journal Club on Xi, J., Si, X. A., & Malvè, M. (2023). Nasal anatomy and sniffing in respiration and olfaction of wild and domestic animals. *Frontiers in Veterinary Science*, 10.
- 11.9.2023: Eva Drnovsek - Journal Club on [A principal odor map unifies diverse tasks in olfactory perception](#). Lee BK, Mayhew EJ, Sanchez-Lengeling B, Wei JN, Qian WW, Little KA, Andres M, Nguyen BB, Moloy T, Yasonik J, Parker JK, Gerkin RC, Mainland JD, Wiltschko AB. *Science*. 2023 Sep;381(6661):999-1006. doi: 10.1126/science.ade4401.
- 8.9.2023: Tze Choong Charn – presentation on: Functional Anatomy of the ear, nose and throat
- 12.9.2023: Tianyi Zhang presents on “[Orthonasal olfactory influences on consumer food behaviour](#)”, *Appetite*, . 2023 Sep 4;107023.

## What else:

- 31.7.2023: 17:00h-23:00h: Lange Nacht der Wissenschaft – mit Riech- und Schmecktests und Nasenendoskopie. Zusammen mit Lotte Bargholz, Chhemata Sherpa, Annika Sachs, Theresa Gottschall, Oskar Brosig, Emely Kruschwitz, Friederike Mai, Nicolas Leon Mayer, Susanne Weise, Thomas Hummel
- 8.7.2023: 17:30h-23:30h: Lange Museumsnacht - mit Riech- und Schmecktests für Erwachsene und Kinder. Zusammen mit Henriette Zimmeck, Johanna Flechsig, Can Tutar, Jean-Christopher Gerami-Manesch, Annika Sachs, Karoline Lantzsch, Celina Vogel, Tim Grahl, Cristina Ressel, Pauline Hanslik, Thomas Hummel



- [Summerschool Human Olfaction](#), July 30 to August 4, 2023



## media:

- Interview with mdr, 2.8.2023: „[Kanadischer Geruchspapst zu Gast in Dresden!](#)“

MDR-Fernsehen

MDR DEU + FROU



Video  
Kanadischer Geruchspapst zu Gast in Dresden

- 5.8.2023: Thomas Hummel - Interview mit Sabine Josse von Mein AllergiePortal zu dem Thema „[Geschmacksverlust durch Allergie: Was tun?](#)“
- 27.9.2023: Thomas Hummel in Interview with Hannah Docter Loeb, <https://undark.org/2023/09/27/smell-loss-research/> (The Study of Smell Loss Still Struggles for Support)