### Report July – September 2024; Smell & Taste

## Peer-reviewed Original Publications

- Gunder N, Hummel T (2024) Parosmia in patients with post-infectious olfactory dysfunction in the era of COVID-19-associated olfactory impairment. HNO. 2024 Jun 27. doi: 10.1007/s00106-024-01470-7.
- Bleumer T, Abel J, Böhmerle W, Schröder S, Yap SA, Schaeper NDE, Hummel T, Stintzing S, Stephan LU, Pelzer U (2024) Smell and taste alterations in patients receiving curative or palliative chemotherapy – The CONKO 021 - ChemTox Trial. Cancers (in press)
- Pieniak M, Höfer B, Knipping J, Faria V, Richter M, Schriever VA, Haehner A, Gossrau G.
   Children and adolescents with primary headaches exhibit altered sensory profiles a multi-modal investigation. J Headache Pain. 2024 Jul 9;25(1):111. doi: 10.1186/s10194-024-01819-x. PMID: 38982389.
- Boscolo-Rizzo P, Hummel T, Menini A, Maniaci A, Uderzo F, Bigolin L, Tirelli G (2024)
   Adherence to Olfactory Training Improves Orthonasal and Retronasal Olfaction in post-COVID-19 Olfactory Loss. Rhinology (in press)
- Sabiniewicz A, Wittig S, Hähner A, Galvao C, Nakanishi M, Hummel T (2024) The DSD20 an automated, self-administered odor identification test. Eur Arch ORL (in press)
- Drnovsek E, Parichenko A, Power Guerra N, Pabst J, Wunderlich K, Falkenburger B, Huang S, Cuniberti G, Haehner A, Hummel T (2024) Human perception of Parkinson's disease body odor in comparison to the volatile organic compounds of Parkinson's disease. Park Rel Dis (in press)
- Hernandez AK, Käb I, Hummel T (2024) The olfactory test established by Henkin: Is it reliable
  and does it correlate to established psychophysical tests? Eur Arch ORL (in press)
- Mastinu M, Püschner A, Gerlach S, Hummel T (2024) Test-retest reliability and normative data for 'Seven-iTT', a test for the assessment of taste and oral trigeminal function. J Neurosci Meth (in press)
- Li Z, Pellegrino R, Kelly C, Hummel T (2024) Olfactory training: perspective from people who were disturbed by their smell problems. Eur Arch ORL (in press).
- Power Guerra N, Kruschwitz E, Krautwurst D, Hummel T (2024) Four odorants for olfactory training are enough: A pilot study. Eur Arch ORL (in press).
- Zucco GM, Andretta E, Hummel T (2024) Strategies to Improve Bladder Control: A Preliminary Case Study. Healthcare 12: 1855
- Juratli JH, High B, Joshi A, Yilmaz E, Yildirim D, Altundag A, Hummel T (2024) Cribriform plate foramina count in patients with acquired and congenital anosmia. Am J Rhinol Allergol (in press)
- Haehner A, Nagai MH, Matsunami H, Reuner U, Hummel T (2024) Patients with Wilson's disease are insensitive to sulfur odors. Mov Dis Clin Pract (in press)
- Boscolo-Rizzo P, Hopkins C, Hummel T, Menini A, Uderzo F, Provenza G, Spinato G, Emanuelli E, Tirelli G (2024) Orthonasal and retronasal olfactory function in patients with chronic rhinosinusitis without nasal polyps undergoing endoscopic sinonasal surgery. Int For Allerg Rhinol (in press)
- Mai Y, Brieke B, Hummel T (2024) The odor lateralization test is a conservative measure of trigeminal activation. Eur Arch ORL (in press)

.

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

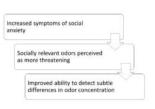
• Xu X, Hummel T (2024) <u>Food for thought: taste, smell and flavour</u>. SmartSense!

The Scottish Sensory Centre, Moray House School of Education and Sport, University of Edinburgh (https://blogs.ed.ac.uk/smartsense/2024/08/29/food-forthought-taste-smell-and-flavour/)

 Pieniak M, Hummel T (2024) How anxious individuals perceive odours!

The Scottish Sensory Centre, Moray House School of Education and Sport, University of Edinburgh <a href="https://blogs.ed.ac.uk/smartsense/2024/09/15/how-anxious-individuals-perceive-odours/">https://blogs.ed.ac.uk/smartsense/2024/09/15/how-anxious-individuals-perceive-odours/</a>





#### Guests / Personnel / Visitors

- Luc Ruijs and Marieke Braam (students from <u>Dominicus College at Nijmegen</u>) visit on July 1<sup>st</sup> and 2<sup>nd</sup>
- 1.7.2024: Xinni Xu, M.D., from Singapore starts her 3 months visit
- 8.-12.7.2024: Irene Zanettin from the <u>Perception Neuroscience group</u>, Dept. of Clinical Neuroscience, Karolinska Institutet visits
- 5.7.2024 to 38.8.2024: Rafaela Alexandra Mussa de Jesus, medical student from Porto starts her 2 months visit.
- 15.7.2024: Frans Norden from the from the <u>Perception Neuroscience group</u>, Dept. of Clinical Neuroscience, Karolinska Institutet visits and presents on "The human Electrobulbogram"
- 29.7.-2.8.2024: Dr. <u>Emilia lannilli from the Dept. of Psychology at the University of</u>
  Graz
- 5.8.2024: Yoana <u>Cholakova</u>, medical student from the <u>University of Sofia</u>, begins her 4 week internship
- 15.8.2024: Yanin Bovonkitcharoennon, medical student from the <u>University of Nottingham</u>, begins her 4 week internship

•

•

#### **Thesis**

 16.07.2024, 15:30: Mona Rosbach - Korrelation von Riechvermögen und zirkadianer Rhythmik

•

#### **Awards**

 Travel grant (500 Euro) for Dr. Agnieszka Sabiniewicz to join the Conference "Chemical Signals in Vertebrates 2024" in Frankfurt, July 22-26



#### Conference in Dresden

27./28.9.2024: Smell and Taste 16 - a practical introduction to the physiology and pathophysiology of the chemical senses

Among others presentations by:

Croy, Ilona (Jena) - The social dimension of olfactory loss

Giorgiopoulos, Harris (Lund) - Imaging of olfactory function in olfactory loss

Kelly, Christine (London) - implications of smell loss

Manzini, Ivan - olfactory physiology

Philpott, Carl (Norwich) - Postviral olfactory loss

Konstantinidis, lordanis (Thessaloniki) -posttraumatic olfactory loss

Landis, Basile (Geneve) - Taste dysfunction

Gellrich, Janine (Dresden) - olfactory loss in children

Welge-Lüssen, Antje (Basel) - surgical therapy

Witt, Martin (Rostock) - Anatomy of the human olfactory system

Rombaux, Philippe (Brussels) and Hernandez, Kristina (Dresden) - trigeminal function

**Schwob**, Jim (Boston) – neuroregeneration

Whitcroft, Katie – epidemiology, spontaneous recovery

Gane, Simon - Olfactory function in sinunasal disease

Rowan, Nick - frailty and olfactory loss

Haehner, Antje (Dresden) - Neurodegenerative olfactory loss, aging, spontaneous recovery

Hummel, Thomas (Dresden) - General aspects, olfactory testing

Weise, Susanne (Dresden) and Mignot, Coralie (Dresden) - implants and transplants

Hernandez, Kristina (Dresden) - trigeminal function

Kim, Kwangsu; Mignot, Coralie: chemosensory event-related potentials

Sabiniewicz, Agnieszka; Pieniak, Michal: QoL

Mastinu, Mariano: electrogustometry, taste testing

Li, Zetian; Li, Shubin: retronasal olfactory testing, olfactory testing

Mai, Yling: investigations of trigeminal sensitivity

**Hernandez**, Kristina: biopsies from the olfactory epithelium; nasal endoscopy and intranasal volumetry



#### Conference:

 9.7.2024: Thomas Hummel presents a keynote at the <u>National Smell & Taste</u> <u>Center Inaugural Seminar</u>, NIH Main Campus; Building 35, Room 620/630, Bethesda, MD, USA, on "Clinical olfaction"



https://videocast.nih.gov/watch=54861



 17.7.2024: Thomas Hummel presents at the ISCE conference, Prague, on "How does the human sense of smell compare to other mammals? And what can we learn about human olfactory function from people with smell loss?"

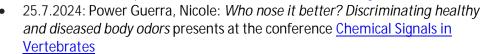


 20.7.2024: British Society of Flavorists: Flavour Talks Podcast with Thomas Hummel <a href="https://www.bsf.org.uk/blog/news-archive/524-flavour-talks-podcast-with-thomas-hummel">https://www.bsf.org.uk/blog/news-archive/524-flavour-talks-podcast-with-thomas-hummel</a>





 23.7.2024: Sabiniewicz, Agnieszka: Behavioral responses of horses (Equus ferus caballus) vary in response to potentially threatening odor condition and aversive social odor stimuli presents at the conference <u>Chemical Signals in Vertebrates</u>



- 23.8.2024: Thomas Hummel presents at the Opening Conference of the Smell and Taste Clinic at the Faculty of Medicine, Chulalongkorn Hospital, Bangkok: "Understanding Smell: Meaning of smells, Diagnostic and Therapeutic Approaches to Smell Loss in Medical Practice"
- 24.8.2024: Thomas Hummel presents at the Faculty of Medicine,
   Chulalongkorn Hospital, Bangkok on "Olfactory Function and Disorders: Clinical Insights for Otolaryngologist"
- 4.9.2024: Antje Hähner presents at Dresden-Leipziger Kopfschmerzsymposium, on "Riechen & Therapie mit Düften"
- 13.9.2024: : Thomas Hummel presents at the "5th Investigative Rhinology Course", Dept. of ORL, Aristotle University Thessaloniki on Olfaction: how to measure"
- Chistopher Aveline presents the poster on "Time-frequency stability of olfactoryevent-related potential across the time" at the 2ND EEG MICROSTATE CONFERENCE, Geneva, Switzerland, JULY 9 - 12, 2024



•

#### Presentations in the lab:

- 18.7.2024: <a href="Prof. Florian Mormann">Prof. Florian Mormann</a> (cognitive and clinical neurophysiology; Dept. of Epileptology, University Clinic Bonn) presents on Intracranial recordings to olfactory stimulation responses from single neurons
- 11.7.2024: <u>Irene Zanettin</u> from Karolinska Institute, Stockholm, presents on "Towards Olfactory Brain-Computer Interfaces: A Feasibility Study"

- 15.7.2024: Frans Norden from Karolinska Institute, Stockholm, presents on "The Human Electrobulbogram"
- 1.8.2024: Emilia lannilli from the Dept. of Psychology at the Univ. of Graz presents on A Survey on the Evaluation of Monosodium Glutamate Taste in Austria
- 6.8.2024: Michael Pieniak presents on "Tau propagation in the brain olfactory circuits is associated with smell perception changes in aging" https://pubmed.ncbi.nlm.nih.gov/38844444/
- 8.8.2024: Xinni Xu presents on "Early results of transnasal endoscopic nerve transfer for olfactory neuroepithelium stimulation" by Carvalho Santos et al. 2024
- 9.8.2024: Eva Drnovsek presents on "Human scent as a first-line defense against disease" by Gordon et al. 2023
- 13.8.2024: Kwangsu Kim presents on "The connectivity-based architecture of the human piriform cortex", by Zahnert F et al., Neuroimage (2024) 297:120747
- 27.8.2024: Yling Mai presents on Karunanayaka et al., 2024, Olfactory–trigeminal integration in the primary olfactory cortex, <a href="https://pubmed.ncbi.nlm.nih.gov/38962966/">https://pubmed.ncbi.nlm.nih.gov/38962966/</a>
- 29.8.2024: Zetian Li presents on: Quian et al., Predictors of Improvement after Cognitive
  Training in Mild Cognitive Impairment: Insights from the Cognitive Training and
  Neuroplasticity in Mild Cognitive Impairment Trial,
  <a href="https://pubmed.ncbi.nlm.nih.gov/39099327/">https://pubmed.ncbi.nlm.nih.gov/39099327/</a>
- 3.9.2024: Vittoria Avaro presents on <u>An in vitro model of acute horizontal basal cell activation reveals gene regulatory networks underlying the nascent activation phase CM Barrios-Camacho, MJ Zunitch, JD Louie, W Jang... Stem Cell Reports, 2024
  </u>
- 4.9.2024: Agnieszka Sabiniewicz presents on "The association between parameters of physical activity and olfactory function-the importance of frequency and moderate intensity" by Khoosheh Namiranian, Alexandre-Charles Gauthier, Jo-Anne Gilbert, Marie-Eve Mathieu <a href="https://pubmed.ncbi.nlm.nih.gov/38903386/">https://pubmed.ncbi.nlm.nih.gov/38903386/</a>
- 17.9.24: <u>Vittoria Avaro</u>, <u>CRTD</u>, Fetscherstraße 105, 01307 Dresden, gives a 1 hour tour on olfactory regeneration at a molecular/cellular level
- 24.9.2024: ...<u>PD Dr. Jan Buellesbach</u>, Scientific assisstant, Institute for Evolution & Biodiversity, <u>University of Muenster</u>, presents on "sex pheromones in insects"

•

#### What else:

#### media:

• 29.6.2024: Interview of Thomas Hummel with Grant Harder (New York Times): The surprising link between your sense of smell and brain health

## The New York Times Magazine

• 14.6.2024: Interview of Thomas Hummel with Sebastian Nevols (New York Times): The woman who could smell Parkinson's

# The New York Times Magazine

- 30.8.2024: Interview mit Barbara Russ, FAZ: "Düfte und Emotionen"
- 20.9.2024: Interview mit BR1: "Änderungen des Schmeckens im Laufe des Lebens"

**BR1**