

Report October – December 2023; Smell & Taste

Peer-reviewed Original Publications

- 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 oral sensitivity of healthy subjects and patients with chemosensory loss. Sci Rep (in press)
- Lötsch J, Hummel T, Utsch A (2023) A perspective of randomness in a clinical test of olfactory performance. Sci Rep (in press)
- Whitcroft KL, Alobid I, Altundag A, Andrews P, Carrie S, Fahmy M, Fjældstad AW, Gane S, Hopkins C, Hsieh J, Huart C, Hummel T, Konstantinidis I, Landis BN, Mori E, Mullol J, Philpott C, Poulos A, Vodička J, Ward VM (2023) International Clinical Assessment of Smell: An International, Cross-Sectional Survey of Current Practice in the Assessment of Olfaction. Clin Otolaryngol (in press)
- López-Plaza B, Gil A, Menéndez-Rey A, Bensadon-Naeder L, Hummel T, Batlle JF, Palma-Milla S (2023) Effect of Regular Consumption of TasteCare® on Taste Perception and Nutritional Status in Malnourished Cancer Patients: A Triple-Blind, Randomized, Placebo-Controlled Clinical Trial. CLINMIR Pilot Protocol. Nutrients (in press)
- Mahmut MK, Classen CP, Croy I, Hummel T (2023) Smelling an odor present during PMR does not impact heart rate during a stressful cognitive task. J Sens Studies (in press)
- Schwarzbach JV, Alahäivälä AL, Thaploo D, Wein S, Seidel P, Riebel M, Hummel T (2023) Inhalation-modulated detection of olfactory BOLD responses in the human brain. Frontiers Neuroimaging (in press)
- Ai Y, Hummel T, Lei X, Tingyong Feng T, Yang J, Han P (2023) Reduced neural responses to pleasant odor stimuli after acute psychological stress is associated with cortisol reactivity. Neuroimage (in press)
- Drnovsek E, Rommel M, Bierling AL, Croy A, Croy I, Hummel T (2023) An olfactory perceptual fingerprint in people with olfactory dysfunction due to COVID-19. Chem Senses (in press)
- Juratli JH, Garefis K, Konstantinidis I, Hummel T (2023) Trigeminal function in patients with covid-associated olfactory loss. Eur Arch Oto-Rhino-Laryngol (in press)
- Thaploo D, Akshita Joshi A, Yilmaz E, Yildirim D, Altundag A, Hummel T (2023) Functional connectivity patterns in parosmia. Behav Brain Funct (in press)
- Lotsch J, Brosig O, Slobodova J, Kringel D, Haehner A, Hummel T (2023) Diagnosed and subjectively perceived long-term effects of COVID-19 infection on olfactory function assessed by supervised machine learning. Chem Senses (in press)

Guests / Personnel / Visitors

- [Josh Levy, MD, visits from the NIH; Bethesda, MD, USA](#), from Oct 2nd to Oct 7th
- [Hadi Juratli, medical student from Franklin, Michigan, USA](#), starts his 10 months research stay, funded by the Fulbright foundation
- [Philippe Rombaix](#), prof., Hospital St. Luc, brussels, visits from Oct 2nd to Oct 7th
- Ana Liakopoulou, medical student, Faculty of Medicine, University of Ioannina, Greece, starts her 1 month visit on Oct 2nd
- Martin **Majakovsky**, [Neurochirurgická a neuroonkologická klinika 1. LF UK a ÚVN, Prague](#), and Filip **Trnka**, Department of Fluid Dynamics and Thermodynamics, Faculty of Mechanical Engineering, Czech Technical University in Prague, visit on Oct 10th
- 17.10.2023- 19.10.2023: Dr. **Richard Holy** visits from the Dept. of ORL, [Prague Military Hospital](#)
- 23.10.2023-26.10.2023: [Dr. Emilia Leszkovicz](#) visit from the Department of in Gdansk

- 1.-2.11.2023: Anne Abriat visits from [Smell and Taste Lab in Geneva](#)
- 3.11.2023-31.12.2023: **Marco Tattoni**, medical student, visits from the University of Trieste.
- 21.11.2023: [Dr. Emilia Witkowska Nery](#) visits from the Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw

Thesis

- 17.10.2023: **Yunmeng Zhu** – Dr. med. - Investigations of the gustatory system: from peripheral saliva parameters to central neuroimaging
- 7.11.2023: **Bauer-Armbruster**, Jana - Dr. med.: Einfluss von Nasenfrakturen auf das Riechvermögen
- 12.12.2023: **Hoffmann**, Leonie – Dr. med.: „Verlauf depressiver Symptomatik in Abhängigkeit von der Riechfunktion“
- 19.12.10223: **Verhees**, Marvin – Dr. med.: „Reaktionen der Nasenschleimhaut auf Piper nigrum bei Gesunden“
- 19.12.2023: **Bunzenthal**, Wiebke – Dr. med.: „Die Auswirkungen von Gerüchen auf visuelle Wahrnehmung und Gedächtnis“
- 16.1.2024: **Overbeck**, Clara Luna – Dr. med.: „Vergleich olfaktorischer Parameter bei Patienten mit und ohne Parosmie“

External Presentations:

- 5.10.2023: Meeting of the [EU project 964529 – ROSE project](#)



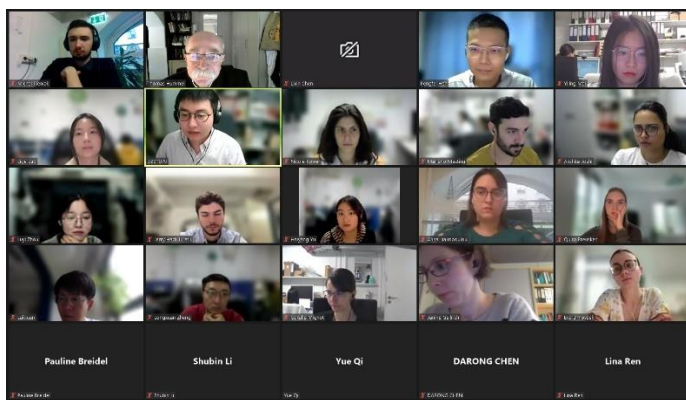
Slots	Content	
9:30-10:00	Installation and welcome	
10:00-10:20	Overview: project's aims, ethics, progress, management	Coordinator
10:20-10:40	WP2 – Sensors / CMUT	CEA
10:40-11:00	WP3 – Stimulation array	EPFL
11:00-11:20	Coffee break	
11:20-11:40	WP4 - Integration	ARYB & POLIMI
11:40-12:00	WP5 – Direct path	TUD
12:00-12:20	WP6 – Indirect path	CNRS & AUTH
12:20-12:40	WP7 – Dissemination-Communication-Exploitation	ARYB & CNRS
12:40-14:00	Lunch	
14:00-15:30	General discussion: ongoing protocols, expectations, next steps, WP interactions, exchanges with the advisory board members	
15:30-17:00	Visit of the Dresden Smell and Taste Clinic – showing <ul style="list-style-type: none"> • Nasal endoscopy • Assessment of event-related potentials • Demonstration of electronic noses in the assessment of body odors 	TUD

- 6./7.10.2023: [Smell and Taste 15: a practical introduction to the physiology and pathophysiology of the chemical senses, October 6th to 7th, 2023](#)

Friday, October 6th		Saturday, October 7th	
		5:30 to 8:30	excursion to the Saxonian Switzerland
08:30 Registration (TBD)		08:30 Registration (TBD)	
08:45 Registration (TBD)		08:45 Registration (TBD)	
09:00 welcome	chair: Hummel	09:00 Witt	chair: Konstantinidis
09:15 welcome		09:15 olfactory anatomy	
09:30 Hummel	chair: Witt	09:30	
09:45 general olfaction		09:45 Georgiopoulos	
10:00 assessment of olfaction		10:00 imaging	
10:15		10:15 Philoott	
10:30 Croy		10:30 postviral olf loss	
10:45 QoL		10:45 parosmia, phantosmia	
11:00 olfactory functions		11:00 break	
11:15 break		11:15	
11:30		11:30 Konstantinidis	chair: Weige-Lüssen
11:45 Manzini	chair: Steenholt	11:45 posttraumatic olf loss	
12:00 plasticity in olfaction		12:00	
12:15		12:15 Boscolo-Rizzo	
12:30 Bensafi		12:30 sinusinal disease	
12:45 epidemiology		12:45	
13:00 spontaneous recovery		13:00 Weise	
13:05 break		13:15 implants and transplants	
13:15		13:30 break	
13:30		13:45	
13:45 Steenholt-Niklassen	chair: Hähner	14:00	
14:00 taste assessment		14:15 Hähner	chair: Hernandez
14:15 dysgeusia		14:30 neurodegeneration, aging	
14:30		14:45	
14:45 Gellrich		15:00 Weige-Lüssen	
15:00 acquired loss in children		15:15 ollopathic olfactory loss	
15:15 transfer		15:30 surgical therapy	
15:30 transfer		15:45 general discussion	
15:45 Practical demonstrations			
16:00 Participants rotate through 6 stations			
16:15 with 20 min per station			
16:30			
16:45 Hernandez - Biopsies, endoscopy			
17:00 Zetian Li/Shubin Li - olf tests, trigeminal			
17:15 Sabiniewicz - QoL, Questionnaires			
17:30 Joshi/Mignot - olfactometry			
17:45 Mastinu - taste test, retronasal			
18:00 Mai - nasal airflow			
18:15			
18:30 transfer			
18:45 transfer			
19:00 transfer			
19:15 transfer			
19:30 dinner (until approximately 22:30 h)			

- 12.10.2023: Online Conference “The chemosensory lab meeting” with presentations from

Zetian Li	Olfactory training from the patients' perspective
Qurina Preusker	Importance of olfaction
Nicole Power	Body odors
Akshita Joshi	Vanilla: Brain activations
Agnieszka Sabiniewicz	Effects of exercise on olfactory function
Shubin Li	A new olfactory test
Mariano Mastinu	Diagnosis of taste disorders: the application of Time-Frequency Analysis for gustatory ERP
Yling Mai	Lateralization task
Hadi Juratli	ACE2 receptors and olfactory function
Eva Drnovsek	Olfactory fingerprint



- 9.10.2023: Nicole Power presents at the [SMELLODI](#) meeting in Jena on “Body odors”



- 25.10.2023: Nicole Power presents at the lab of [Robert Hanus in Prague](#) on “Human body odors”
- 3.11.2023: Thomas Hummel presents on "Änderungen des Riechens in Abhängigkeit von entzündlichen Erkrankungen der Nase" at the Allergologie Aufbaukurs, University Clinic Dresden



- 4.11.2023: Antje Hähner presents at the „Fachtagung des Forum Essenzia“ in Würzburg on "Geruchssinn und Kopfschmerz - Chancen für Diagnostik und Therapie“



- 15.11.2023: Thomas Hummel presents at the Conference of the Federation of European **Nutrition Societies in Belgrade** on “Retronasal olfactory perception and food intake”

- 15.11.2023: Antje Hähner presents on “Olfaction in aging and neurodegeneration”, at the Departments of Otorhinolaryngology and Neurology of the General Hospital Singapore.

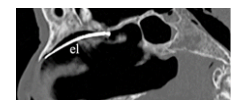


- 21.11.2023: Thomas Hummel presents of “Olfactory dysfunction in patients with Parkinson’s disease” at the Department of Psychology, Karolinska University, Stockholm



- 24.11.2023: Thomas Hummel presents online at Seminar of Prof. Michael Katotomichelakis on “Olfactory dysfunction”

- 30.11./1.12.2023: Meeting on “[Olfactory implants](#)”, Geneva – with the following presentations:



Coralie Mignot	Olfactory brain oscillations in humans
Tin Hernandez	Contraindications for olfactory implants; energy?
Thomas Hummel	Olfactory implants: which patients when?
Susanne Weise	Placement of electrodes for olfactory stimulation inside the nasal cavity or the brain

- 1.12./2.12.2023: [December Meeting on "Smell and Taste"](#) supported by the Working Group on Olfaction and Gustation of the German ENT society, in Geneva – with the following presentations:



Pauline Hanslik	Hot topic: thermal stimulation in the nasal cavity
Tin Hernandez	intranasal trigeminal dysfunction in CRS

Thomas Hummel	A life without smell: Olfactory function in people working in odorless rooms
Kristina Weitkamp	Odor detectives: human ability to detect target odorants in mixtures
Freya Aden	Immersive olfactory training can be an alternative treatment for smell disorder
Can Tutar	Assessment of retronasal olfactory function
Shubin Li	A novel olfactory memory task
Terese Wirtz	Interoceptive abilities of patients with olfactory loss
Coralie Mignot	Chemosensory activations after brain stimulation
Antje Hähner	Sniffing out cognition - smell training impacts hippocampal thickness in MCI patients

Presentations in the lab:

- 11.10.2023: Journal Club: Tin Hernandez presents the paper by **Jang SS** et al, 2023, **Pro-inflammatory markers associated with COVID-19-related persistent olfactory dysfunction:** <https://pubmed.ncbi.nlm.nih.gov/37676246/>
- 10.10.2023: Presentation by **Martin Majakovsky**, [Neurochirurgická a neuroonkologická klinika 1. LF UK a ÚVN, Prague](#), and **Filip Trnka**, Department of Fluid Dynamics and Thermodynamics, Faculty of Mechanical Engineering, Czech Technical University in Prague,: Changes in nasal airflow after endoscopic resection of pituitary adenomas using computational fluid dynamics modelling: Is olfaction affected?
- 26.10.2023: **Anna Liakopoulou** presents on [Ackels et al.](#) , Nature 2021 May;593(7860):558-563. Fast odour dynamics are encoded in the olfactory system and guide behaviour
- 26.10.2023: **Hadi Juratli** presents on [Zhao et al.](#), Appetite-regulating hormones modulate odor perception and odor-evoked activity in hypothalamus and olfactory cortices. Chem Senses. 2023 Jan 1;48:bjad039.
- 30.10.2023: **Zetian Li** presents on [Lee et al.](#) A principal odor map unifies diverse tasks in olfactory perception. Science381, 999–1006 (2023)
- 2.11.2023: **Vanda Faria** presents on [Holland et al. "Smells Like Clean Spirit" Psychol Sci. 2005 Sep;16\(9\):689-93.](#)
- 9.11.2023: **Shubin Li** presents on Vohra V et al., Potential role for diet in mediating the association of olfactory dysfunction and cognitive decline: a nationally representative study
- 9.11.2023: **Michal Pieniak** presents on Gomes, N., Pause, B. M., Smeets, M. A. M., & Semin, G. R. (2023). Comparing fear and anxiety chemosignals: Do they modulate facial muscle activity and facilitate identifying facial expressions?. Chemical senses, 48, bjad016. <https://doi.org/10.1093/chemse/bjad016>
- 23.11.2023: **Marco Tattoni**, presents on [Hsieh et al., 2023, Can MRI predict olfactory loss and improvement in posttraumatic olfactory dysfunction? Rhinology 62](#)
- 16.11.2023: Coralie Mignot presents on ["Adaptive olfactory circuitry restores function despite severe olfactory bulb degeneration.](#) Licht T, Yunerman M, Maor I, Lawabny N, Oz Rokach R, Shiff I, Mizrahi A, Rokni D. Curr Biol. 2023 Oct 13:S0960-9822(23)01310-6"
- 21.11.2023: [Dr. Emilia Witkowska Nery](#) from the Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw, will talk about "Electronic tongues -sensor arrays for complex analytical problems"
- 23.11.2023: **Marco Tattoni**, medical student from Trieste, presents on [Hsieh et al., 2023, Can MRI predict olfactory loss and improvement in posttraumatic olfactory dysfunction? Rhinology 62](#)

media:

- 13.10.2023: Agnieszka Sabiniewicz: „Riechen in der Schwangerschaft“ für Spektrum der Wissenschaft ([Corinna Hartmann](#))
- 17.10.2023: Thomas Hummel – Interview mit dem Hessischen Rundfunk1, Herrn Tim Fruehling, zum Thema „Riechtraining nach Corona“



- 23.10.2023. Thoams Hummel – Interview with Nicola Davis form The Guardian
- 24.10.2023: Thoms Hummel – Interview im Deutschlandfunk mit Herrn Pyritz, „Sprechstunde“

