

## Report October – December 2020; Smell & Taste

### Peer-reviewed Original Publications

- Colle R, Lazarini F, Verstuyft C, Asmar KE, Lledo PM, Duron E, Rotenberg S, Costemale-Lacoste JF, David DJ, Gressier F, Gardier A, Hummel T, Becquemont L, Corruble E (2020) The olfactory deficits of depressed patients are restored after remission with venlafaxine treatment. *Psychol Med* (in press)
- Pellegrino B, Hummel T, Oleszkiewicz A (2020) Improvements and degradation to spatial tactile acuity among blind and deaf individuals. *Neuroscience* (in press)
- Oleszkiewicz, A. (in press) Blindness enhances interpersonal trust but deafness impedes social exchange balance. *Personality and Individual Differences*
- Sorokowski, P., Sorokowska, A., Karwowski, M., Groyecka, A., Aavik, T., ... Oleszkiewicz, A., ... , Zupančič, M., Sternberg, R. (2020) Universality of the Triangular Theory of Love: Adaptation and Psychometric Properties of the Triangular Love Scale in 25 Countries. *Journal of Sex Research*, 1–10. Doi: 10.1080/00224499.2020.1787318
- Frackowiak, T., Groyecka-Bernard, A., Oleszkiewicz, A., Butovskaya, M., Żelaźniewicz, A., Sorokowski, P. (2020) Difference in Perception of Onset of Old Age in Traditional (Hadza) and Modern (Polish) Societies. *International Journal of Environmental Research and Public Health*. 17(19), 7079. Doi: 10.3390/ijerph17197079
- Frackowiak, T., Oleszkiewicz, A., Butovskaya, M., Groyecka, A., Sorokowski, P. (2020) Subjective happiness among Polish and Hadza people. *Frontiers in Psychology*, 11, 1137. Doi: 10.3389/fpsyg.2020.01173
- Kowal, M., Sorokowski, P., Sorokowska, A., Dobrowolska, M., Pisanski, K., Oleszkiewicz, A. ... Zupančič, M. (2020) Reasons for Facebook usage: data from 46 countries. *Frontiers in Psychology*, 11, 711. Doi: 10.3389/fpsyg.2020.00711
- Oleszkiewicz, A., Kupczyk, T. (2020) Sensory impairment reduces money sharing in the Dictator Game regardless of the recipient's sensory status. *PLoS ONE*, 15(3): e0230637. Doi: 10.1371/journal.pone.0230637
- Sorokowski, P., Kowal, M., Zdybek, P., Oleszkiewicz, A. (2020) Are online haters psychopaths? Psychological predictors of online hating behavior. *Frontiers in Psychology*, 11, 553. Doi: 10.3389/fpsyg.2020.00553
- Han P, Stiller-Stut FP, Fjaeldstad A, Hummel T (2020) Greater hippocampal gray matter volume in subjective hyperosmia: a voxel - based morphometry study. *Sci Reports* (in press)
- Drews T, Nehring M, Werner A, Hummel T (2020) The sense of smell is not strongly affected by ambient temperature and humidity – a prospective study in a controlled environment. *Eur Arch ORL*
- Stevenson RJ, Mahmut MK, Horstmann A, Hummel T (2020) The aetiology of olfactory dysfunction and its relationship to diet quality. *Brain Sci* (in press)
- Gellrich J, Sparing-Paschke LM, Hummel T, Schriever VA (2020) The influence of cognitive parameters on olfactory assessment in healthy children and adolescents. *Chem Senses* (in press)
- Ladel S, Maigler F, Flamm J, Schlossbauer P, Handl A, Hermann R, Herzog H, Hummel T, Mizaikoff B, Schindowski K (2020) Impact of glycosylation and species-origin on the uptake and permeation of IgGs through the nasal airway mucosa. *Pharmaceuticals* (in press)
- Wang Q, Chen B, Zhong X, Zhou H, Zhang M, Mai N, Wu Z, Haehner A, Chen X, Alberi L, Peng Q, Hummel T, Ning Y (2020) Olfactory dysfunction is already present with subjective cognitive decline and deepens with disease severity in the Alzheimer's disease spectrum. *J Alzh Dis* (in press)
- Sabiniewicz A, Heyne F, Hummel T (2020) Odors modify emotional responses. *Flav Fragr J* (in press)
- Liu DT, Sabha M, Damm M, Philpott C, Oleszkiewicz A, Hähner A, Hummel T (2020) Parosmia is associated with relevant olfactory recovery after olfactory training in postinfectious smell loss. *Laryngoscope* (in press)

- Mahmut MK, Fitzek J, Bittrich K, Oleszkiewicz A, Hummel T (2020) Can mindfulness-based training increase olfactory perception? A novel method and approach for quantifying olfactory perception. *J Sens Studies* (in press)
- Zang Y, Han P, Chen B, Hähner A, Hummel T (2020) Brain response to odors presented inside the nose, directly in front of the nose or with ambient air. *Eur Arch ORL* (in press)
- Joshi A, Thaploo D, Yan X, Khabour H, Herrmann T, Desser D, Hummel T (2020) A Novel Technique for Olfactory Bulb Measurements. *PLoS One* (in press)
- Kjelvik G, Evensmoen H, Hummel T, Engedal K, Selbæk G, Saltvedt I, Håberg AK (2020) The human brain representation of odor identification in amnesic mild cognitive impairment and Alzheimer's dementia of mild degree. *Frontiers Neurol* (in press)
- Zou LQ, Hummel T, Otte MS, Bitter T, Besser G, Mueller CA, Welge-Lüssen A, Bulut Olcay C, Göktas Ö, Negoias S, Li SB, Haehner A (2020) Association between olfactory function and quality of life in patients with olfactory disorders: a multicenter study. *Rhinology* (in press)
- Whitcroft KL, Gunder N, Cuevas M, Andrews P, Menzel S, Haehner A, Hummel T (2020) Intranasal sodium citrate in quantitative and qualitative olfactory dysfunction: results from a prospective, controlled trial of prolonged use in 60 patients. *Eur Arch ORL* (in press)
- Sucker K, Zschiesche W, Aziz M, Drews T, Hummel T, Raulf M, Weiss T, Bury D, Breuer D, Werner S, Friedrich C, Bünger J, Pallapies D, Brüning T (2020) Naphthalene – Irritative and inflammatory effects on the airways. *Int Arch Occ Env Health* (in press)
- Chen B, Benzien C, Faria V, Ning Y, Cuevas M, Linke J, Croy I, Haehner A, Hummel T (2020) Symptoms of depression in patients with chemosensory disorders. *ORI Karger* (in press)
- Zhu Y, Feron G, von Koskull D, Neiers F, Brignot H, Hummel T (2020) The association between changes of gustatory function and changes of salivary parameters: a pilot study. *Clin Otolaryngol* (in press)
- Mignot C, Nahrath P, Sinding C, Hummel T (2020) Older and young adults experience similar long-term olfactory habituation. *Chem Senses* (in press)
- Sinding C, Hummel T, Béno N, Prescott J, Bensafi M, Coureaud G, Thomas-Danguin T (2020) Configural memory of a blending aromatic mixture reflected in activation of the left orbital part of the inferior frontal gyrus. *Behav Brain Res* (in press)
- Gerkin C, Ohla K, Veldhuizen MG, Hummel T, Hayes JE, Reed DR, Niv MY, Munger SD, Parma V (2020) Recent smell loss is the best predictor of COVID-19 among individuals with recent respiratory symptoms. *Chem senses* (in press)
- Poessel M, Breuer N, Joshi A, Pampel A, Villringer A, Hummel T, Horstmann A (2020) Reduced Olfactory Bulb Volume in Obesity and Its Relation to Metabolic Health Status. *Front Hum Neurosci*, 14, 586998.
- Gerkin RC, Ohla K, Veldhuizen MG, Joseph PV, Kelly CE, Bakke AJ, Steele KE, Farruggia MC, Pellegrino R, Pepino MY, Bouysset C, Soler GM, Pereda-Loth V, Dibattista M, Cooper KW, Croijmans I, Di Pizio A, Ozdener MH, Fjaeldstad AW, Lin C, Sandell MA, Singh PB, Brindha VE, Olsson SB, Saraiva LR, Ahuja G, Alwashahi MK, Bhutani S, D'Errico A, Fornazieri MA, Golebiowski J, Hwang LD, Öztürk L, Roura E, Spinelli S, Whitcroft KL, Faraji F, Fischmeister FPS, Heinbockel T, Hsieh JW, Huart C, Konstantinidis I, Menini A, Morini G, Olofsson JK, Philpott CM, Pierron D, Shields VDC, Voznessenskaya VV, Albayay J, Altundag A, Bensafi M, Bock MA, Calcinoni O, Fredborg W, Laudamiel C, Lim J, Lundström JN, Macchi A, Meyer P, Moein ST, Santamaría E, Sengupta D, Dominguez PP, Yanik H, Boesveldt S, de Groot JHB, Dinnella C, Freiherr J, Laktionova T, Mariño S, Monteleone E, Nunez-Parra A, Abdulrahman O, Ritchie M, Thomas-Danguin T, Walsh-Messinger J, Al Abri R, Alizadeh R, Bignon E, Cantone E, Cecchini MP, Chen J, Guàrdia MD, Hoover KC, Karni N, Navarro M, Nolden AA, Mazal PP, Rowan NR, Sarabi-Jamab A, Archer NS, Chen B, Di Valerio EA, Feeney EL, Frasnelli J, Hannum M, Hopkins C, Klein H, Mignot C, Mucignat C, Ning Y, Ozturk EE, Peng M, Saatci O, Sell EA, Yan CH, Alfaro R, Cecchetto C, Coureaud G, Herriman RD, Justice JM, Kaushik PK, Koyama S, Overdeest JB, Pirastu N, Ramirez VA, Roberts SC, Smith BC, Cao H, Wang H, Balungwe P, Baguma M, Hummel T, Hayes JE, Reed DR, Niv MY, Munger SD, Parma V. Recent smell loss is the best predictor of COVID-19: a preregistered, cross-sectional study. *Chem Senses* (in press): 2020.

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

- Croy I, Hummel T (2020) Involvement of nasal trigeminal function in human stereo smelling. *Proc Nat Acad Sci Oct 6:202016043*. doi: 10.1073/pnas.2016043117.
- Hähner A, Hummel T (2020) Klassische Phantosmie. *Dtsch Arztebl Int 2020; 117: 689*; DOI: 10.3238/arztebl.2020.0689a
- Yan X, Whitcroft KL, Hummel T (2020) Olfaction: sensitive indicator of inflammatory burden in chronic rhinosinusitis. *Lar Inv Otol* (in press)
- Berlit P, Bösel J, Gahn G, Isenmann S, Meuth SG, Nolte C, Pawlitzki M, Rosenow F, Schoser B, Thomalla G, Hummel T (2020) Neurologische Manifestationen bei COVID-19, S1-Leitlinie, 2020, in: Deutsche Gesellschaft für Neurologie (Hrsg.), Leitlinien für Diagnostik und Therapie in der Neurologie
- Sinding C, Thibault H, Hummel T, Thomas-Danguin T (2020) Odor-induced saltiness enhancement: Insights into the brain chronometry of flavor perception. *Neuroscience* (in press)
- Völter C, Thomas JP, Wirth R, Guthoff R, Grunwald M, Hummel T (2020) Sinnesstörungen im Alter. *Z Gerontol Geriat* (in press) <https://doi.org/10.1007/s00391-020-01814-2>
- Lyu Z, Zheng S, Zhang X, Mai Y, Pan J, Hummel T, Hähner A, Zou L (2020) Olfactory impairment as an early marker of Parkinson's disease in REM sleep behavior disorder: A systematic review and meta-analysis. *J Neurol Neurosurg Psychiatry* (in press)
- Berlit P, Bösel J, Gahn G, Isenmann S, Meuth SG, Nolte CH, Pawlitzki M, Rosenow F, Schoser B, Thomalla G, Hummel T (2020) "Neurological manifestations of COVID-19" - guideline of the German society of neurology. *Neurol Res Pract 2:51*
- Clinical Olfactory Working Group Consensus Statement on the Treatment of Post Infectious Olfactory Dysfunction. *J Clin Allerg Immunol* (in press)
- Addison AB, Wong B, Ahmed T, Macchi A, Konstantinidis I, Huart C, Frasnelli J, Fjaeldstad AW, Ramakrishnan VR, Rombaux P, Whitcroft KL, Holbrook EH, Poletti SC, Hsieh JW, Landis BN, Boardman J, Welge-Lüssen A, Maru D, Hummel T, Philpott CM (2020) *J Allerg Clin Immunol* (in press)
- Hähner A, Hummel T (2020), Classic Phantosmia. *Dtsch Arztebl Int 117:689*.

## Abstracts

- Hummel T, Mueller L, Pengfei Han P (2020) Decreased taste thresholds in the presence of low concentrations of capsaicin. *Chem Senses 45: 737*
- Han P, Stiller-Stut F, Fjaeldstad A, Hummel T (2020) Greater hippocampal gray matter volume in subjective hyperosmia: a voxel - based morphometry study. *Chem Senses 45: 740*
- Reinhard J, Haehner A, Simons CT, Hummel T (2020) Taste loss affects lingual mechanosensitivity. *Chem Senses 45: 755*
- Abriat A, Doelz G, Azema E, Hummel T (2020) How Olfactory training can help older people to better ageing. *Chem Senses 45: 757*
- Thaploo D, Chen B, Joshi A, Hummel T (2020) White matter network abnormalities in patients with anosmia. *Chem Senses 45: 764*
- Farruggia MC, Veldhuizen MG, Pellegrino R, Small DM, Hummel T (2020) Brain-behavior associations of post-traumatic olfactory loss. *Chem Senses 45: 775*
- Klockow M, Lakner T, Nahrath P, Cuevas M, Haehner A, Hummel T (2020) Self-assessment of olfactory function using the "Sniffin' Sticks". *Chem Senses 45: 777*
- Joshi A, Faria V, Han P, Enck P, Hummel T (2020) Verbal suggestions of nicotine content modulate ventral tegmental neural activity during a nicotine-free odor presentation in cigarette smokers. *Chem Senses 45: 791*

## Grants/Awards

- Laura Zaranek („Riechtraining bei Kindern und Jugendlichen mit Migräne“) hat den Preis für den besten Vortrag beim [Deutschen Schmerzkongress 2020](#) erhalten.
- Thomas Hummel and Masha Niv (Jerusalem): transCelerator seed funding call 2021 “Tele-Taste: Development of a taste test for clinical practice”: 50.000 €
- 2021-2025: Thomas Hummel (together with Moustafa Bensafi and others): „Rose - Restoring Odorant detection and recognition in Smell dEficits“ EU project Horizon 2020 964529 (total volume 3.000.000 €)  
596. 906 Euro



**Bester Vortrag 2020**

Laura Zaranek, Adrian Roesner

## Thesis

- Frau Anna Dorottya **Tóth** – Dissertation defense, Dr. med. - 27.10.2020 um 15:30 Uhr: Der Einfluss von ortho- und retronasaler Duftdarbietung auf die Schmeckwahrnehmung
- Frau Friederike **Kunkel** - Dissertation defense, Dr. med. - 17.11.2020 um 16:00 Uhr: Einfluss eines nicht-detektierten Geruchsdefizites auf die psychische, physische und kognitive Verfassung
- Frau Stephanie **Mann** - Dissertation defense, Dr. med. - 17.11.2020 um 15:00 Uhr: Wahrnehmung der trigeminalen Komponenten von Zingber officinale und Piper nigrum – eine fMRT Studie
- Frau Amelie **Betz** - Dissertation defense, Dr. med. - 24.11.2020 um 15:30 Uhr: Veränderung der Hirnstruktur im Laufe der Zeit bei Patienten mit Riechstörungen
- Herr Alexander **Pfister** - Dissertation defense, Dr. med. - 15.12.2020 um 15:30 Uhr: Unterschiedliche Wahrnehmung von Düften in Abhängigkeit von intranasalem Luftfluss und Ort der Reizdarbietung
- Frau Anne **Junghanns** - Dissertation defense, Dr. med. - 8.12.2020 at 15:30 Uhr: Cortical Thickness Analyse nach olfaktorischem Training bei postinfektiöser Dysosmie
- Herr Christopher Markus **Knauer** - Dissertation defense, Dr. med. dent. - 8.12.2020 at 15:00 Uhr: Untersuchung des Schmeckvermögens bei Patienten vor und nach Cochlea Implant-Operationen
- Herr Alexander **Pfister** - Dissertation defense, Dr. med. - 15.12.2020 at 15:30 Uhr: Unterschiedliche Wahrnehmung von Düften in Abhängigkeit von intranasalem Luftfluss und Ort der Reizdarbietung

## Courses, Presentations etc.:

- Presentations at the „[Deutscher Schmerzkongress](#)“ Oct. 21-24, 2020 by
  - Laura Zaranek: „Einfluss eines Riechtrainings auf das Riechvermögen und die Schmerz Wahrnehmung bei Kindern und Jugendlichen mit Kopfschmerzen“

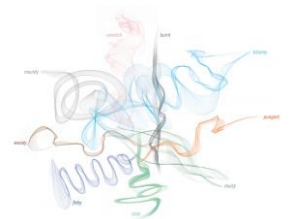
- Marie Frost: „Bewertung des Riechvermögens bei Migränepatienten mit und ohne Aura“
- **Antje Haehner** presents on the 2<sup>nd</sup> of October on “**Idiopathic olfactory disorders**” at the **annual conference of the European Chemoreception Research Organization (ECRO)**
- Thomas Hummel: Latest lab based research in olfaction – online lecture at “**Rhinology Mega Master Class**” on the 9<sup>th</sup> of October 2020
- Thomas Hummel: Postviral olfactory loss, Wednesday 21<sup>st</sup> of October 2020, at the annual conference of the **Japanese Association of Smell and Taste (JASTS)**

<b>Moderator</b>  Dr. Soumya (Bangalore) MBBS, MS (ENT) Associate Professor, Dept. of Otorhinolaryngology, Head and Neck Surgery St. John's Medical College Hospital	<b>International Speaker</b>  Mr. Thomas Hummel (Germany) Medical researcher in Chemosensory systems Smell and taste clinic Dept. of Otorhinolaryngology University Dresden Medical School								
<b>Lecture I</b> <b>Latest lab based research in olfaction - 45 Mins</b> <b>LEARNING OBJECTIVES</b> 1. Understanding Olfaction – intricacies of the neural pathways, signaling cascade and the molecular mechanisms behind olfaction. 2. Olfactory 3. Understar 4. Sentinel r 5. Updates 6. Olfactory									
<table border="0"> <tr> <td style="vertical-align: top;">           Thema            Beschreibung         </td> <td style="vertical-align: top;">           日本味と匂学会 第54回大会 (大会3日目) 参加登録            〈ログインのお願い〉         </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <b>【演者】</b>            名 演題番号 P01、P15など            姓 お名前 (苗字、漢字5文字以内)         </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <b>【座長】</b>            名 座長            姓 お名前 (苗字、漢字5文字以内)         </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <b>【視聴のみの皆さま】</b>            名姓の箇所、お名前をご入力ください。(名姓の2つで漢字5文字以内)         </td> </tr> </table>		Thema Beschreibung	日本味と匂学会 第54回大会 (大会3日目) 参加登録 〈ログインのお願い〉	<b>【演者】</b> 名 演題番号 P01、P15など 姓 お名前 (苗字、漢字5文字以内)		<b>【座長】</b> 名 座長 姓 お名前 (苗字、漢字5文字以内)		<b>【視聴のみの皆さま】</b> 名姓の箇所、お名前をご入力ください。(名姓の2つで漢字5文字以内)	
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Zeit	21.Okt.2020 08:00 AM in Osaka, Sapporo, Tokio								

- Thomas Hummel – Vortrag am 26.10.2020 zum Thema „Riechstörungen bei COVID-19“ Oktobertreffen des Wissenschaftlichen Kuratorium der Firma [Primavera Life GmbH](#), Wigginsbach, DE.
- Thomas Hummel – Vortrag am 29.10.2020 zum Thema „Riechstörungen“ im Rahmen des [SEPAWA Kongresses, Berlin](#) („European detergents conference“).
- Thomas Hummel – presentation at the [annual conference of the Swiss ORL society](#), on the 11<sup>th</sup> of November 2020: „The sense of smell is useless “
- Thomas Hummel – presentation at the 37. Kursus Allergologie in der HNO-Heilkunde - Aufbaukurs -Online-Kurs-, on the 6<sup>th</sup> of November 2020: „Änderung des Riechens in Abhängigkeit von entzündlichen Erkrankungen der Nase “
- Thomas Hummel – presentation on “Clinical aspects of olfaction” the 14<sup>th</sup> of November 2020, within the frame of the “ZiF Workshop: Video Conference - What the Nose tells the Brain: Olfaction and Mental Representation”, Universität Bielfeld, Zentrum für Interdisziplinäre Forschung
- Thomas Hummel – presentation on “Olfactory function and dysfunction” on the 7<sup>th</sup> of Dec 2020 within the frame of the Residents Learning Meetings at the [Pediatric Hospital of the Herzliya Medical Center in Israel](#)
- Antje Hähner presents at the 4th „[Dresdner Forum für HNO-Heilkunde](#)“, on 5.12.20, title: “Riechstörungen bei COVID-19“



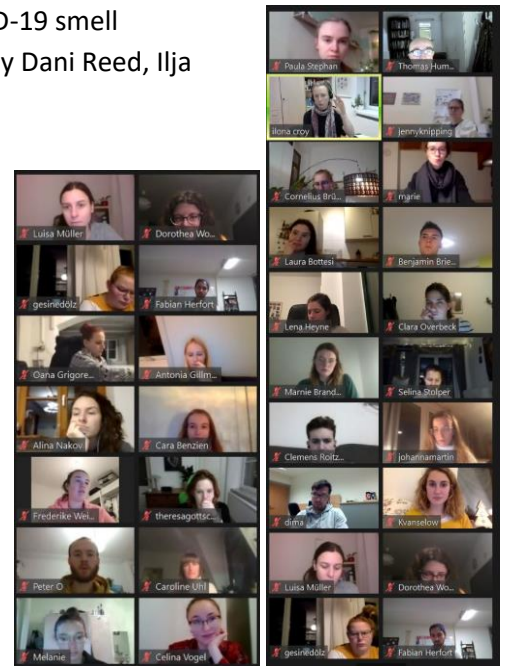
PRIMAVERA®



- Thomas Hummel presents on „Postviral olfactory loss” at the 16th of Dec 2020, at 17:00 CET, at the online symposium “Identifying treatments for COVID-19 smell dysfunction: research gaps and opportunities” organized by Dani Reed, Ilja Croijmans, Caroline Huart

- Courses on Office for students



C. Hummel	Word	15.12.2020
C. Hummel	Tabellenkalkulation mit Excel	16.12.2020
C. Hummel	Wissenschaftliche Graphik / Powerpoint	17.12.2020
I. Croy / T. Hummel	Basale Statistik / Doktorarbeitsgestaltung	18.12.2020





## Conferences

- Oct 2./3., [Smell and Taste 12 - a practical introduction to the physiology and pathophysiology of the chemical senses](#)

### Smell and Taste 12

a practical introduction to the physiology and pathophysiology of the chemical senses– in Collaboration with  the Japanese Rhinologic Society  The Japanese Rhinologic Society

Sponsored by the European Chemoreception Research Organisation,  ECRO 



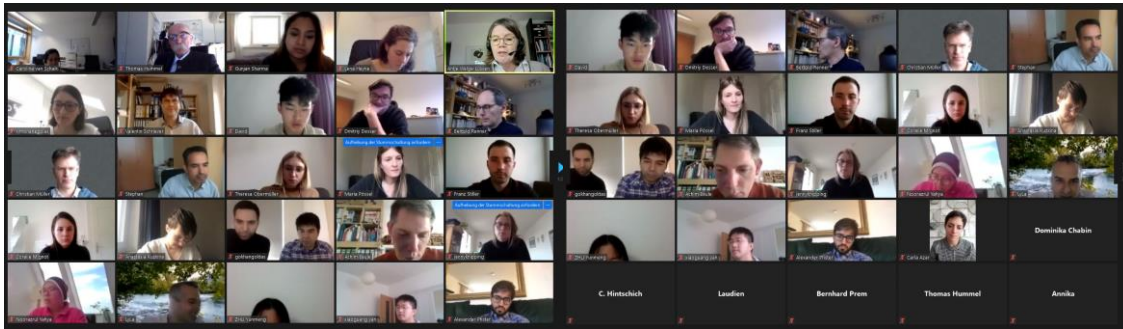
**Where:** Lecture hall (“Hörsaal”) in house number 19, Fetscherstrasse 74, 01307 Dresden, Germany

**Start:** Friday, 2<sup>nd</sup> of October, 2020, 9:00 h

**End:** Saturday, 3<sup>rd</sup> of October, 2020, 15:00 h







## What else:

- Thomas Hummel - Interview on “Der Geruchssinn” on the 23<sup>rd</sup> of Oct 2020: [Hauptsache gesund](#) life TV
- Thomas Hummel – 13.11.2020: Interview mit “Pharmazeutische Zeitung” (Carolin Lang): „Covid-19 - Therapie von Geruchs- und Geschmacksstörungen“
- Thomas Hummel - Interview on FOCUS ONLINE , 22<sup>nd</sup> of November 2020: “Coronavirus stört den Geruchssinn - doch dieses Riechtraining hilft Covid-Patienten“



Nachrichten > Gesundheit > Coronavirus > Geruchssinnverlust nach Sars-CoV-2-Infektion: Riechtraining hilft Patienten

**Zentrum für Riechen und Schmecken**

## Coronavirus stört den Geruchssinn - doch dieses Riechtraining hilft Covid-Patienten

- Thomas Hummel: Interview bei T-Online, Melanie Weiner (7.12.2020): [Wie kann man Riech- und Geschmacksstörungen loswerden?](#)

Häufige Symptome bei Covid-19

## Wie kann man Riech- und Geschmacksstörungen loswerden?



Von *Melanie Weiner*  
07.12.2020, 10:41 Uhr

- 12.12.2020: Thomas Hummel - Interview with Sally Abrahams from BBC Radio 4, on [“The Senses: Smell and Taste”](#), 2100 GMT, **Wednesday 30 December.**
- Thomas Hummel gives an Interview on Dec 16 for “Harvard Men's Health Watch” with Matthew Solan





- Thomas Hummel gives an Interview on Dec 21 for the Austrian Broadcasting Service (ORF), on "[olfactory training](#)", with Anna Mansoner