
BIOGRAPHICAL SKETCH

NAME Hummel, Thomas	POSITION TITLE Senior registrar (“Oberarzt”), Professor, at the Department of Otorhinolaryngology, Technical University of Dresden, Germany
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INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Erlangen-Nürnberg, Germany	medical registration, M.D., “Habilitation”	1980-96	Medicine, Pharmacology
University of Iowa, Iowa City, USA	Fellow	1992-93	Pharmacology
University of Pennsylvania, Philadelphia, USA	Ass. Professor	1996-98	Otorhinolaryngology
Technical University of Dresden, Germany	Professor	1998-pres.	Otorhinolaryngology

A. Personal Statement

Olfactory dysfunction is frequent; approximately 5% of the general population are without functioning sense of smell. However, despite this large number the society does not exhibit a great effort to help these people although the loss of olfactory function often results in an enormous change in quality of life. During the last years the human sense of smell has become accessible at various levels of the processing of olfactory information. Based on information from electrophysiological (e.g., olfactory event-related potentials, recordings from the mucosa of the nasal cavity), psychophysical, and imaging techniques (e.g., PET, fMRI) patients with olfactory dysfunction can be diagnosed thoroughly, which in turn also allows to monitor effects of therapeutic interventions, such as “smell training”. One goal is to better understand the physiology and pathophysiology of the chemical senses, the other goal is to improve the diagnostics of patients with olfactory dysfunction and to ultimately develop effective therapeutic regimens for these patients.

B. Honors and Awards

1992 Feodor-Lynen Fellowship Award
1996 Takasago Award for excellence in Chemoreception Sciences
2009 Alexander von Humboldt prize from the FNRS Fonds de la Recherche Scientifique, Brussels, B

Memberships

European Chemoreception Research Organization, since 1990
Association for Chemoreception Sciences, since 1990
International Association for the Study of Pain, since 1992
American Society for Neuroscience, since 1992
Deutsche Gesellschaft für Hals-Nasen-Ohren-Heilkunde, since 1996

Editorial Activity

Since 1995 Member Editorial Board of “Chemical Senses”
Since 2007 Member Editorial Board of the “European Archives of Otorhinolaryngology”
Since 2007 Member Editorial Board of “Chemosensory Perception”
Since 2009 Member Editorial Board of “Frontiers in Integrative Neuroscience”
Since 2010 Member Editorial Board of “Allergy & Rhinology”
Since 2011 Member Editorial Board of “PLoS One”

C. Selected Refereed Articles (10 out of ~500)

1. Hummel T., Sekinger B., Wolf S.R., Pauli E., Kobal G (1997) "Sniffin' Sticks": Olfactory Performance Assessed by the Combined Testing of Odor Identification, Odor Discrimination, and Olfactory Thresholds. *Chem Senses* 22: 39-52
2. Small DM, Gerber JC, Mak YE, Hummel T (2005) Differential neural responses evoked by orthonasal versus retronasal odorant perception in humans. *Neuron* 47:593-605
3. Landis BN, Hummel T (2006) New evidence for high occurrence of olfactory dysfunctions within the population. *Am J Med* 119: 91-92
4. Haehner A, Hummel T, Hummel C, Sommer U, Junghanns S, Reichmann H (2007) Olfactory loss may be a first sign of idiopathic Parkinson's disease. *Movement Disorders* 22: 839-842
5. Hummel T, Oehme L, van den Hoff J, Gerber J, Heinke M, Boyle JA, Beuthien-Baumann B (2009) PET-based investigation of cerebral activation following intranasal trigeminal stimulation. *Human Brain Mapping* 30:1100-1104
6. Hummel T, Rissom K, Hähner A, Reden J, Weidenbecher M, Hüttenbrink KB (2009) Effects of olfactory training in patients with olfactory loss. *Laryngoscope* 119:496-499
7. Gudziol V, Buschhüter D, Abolmaali N, Gerber J, Rombaux P, Hummel T (2009) Increasing olfactory bulb volume due to treatment of chronic rhinosinusitis--a longitudinal study. *Brain* 132(Pt 11):3096-3101
8. Lascano AM, Hummel T, Lacroix JS, Landis BN, Michel CM (2010) Spatio-temporal dynamics of olfactory processing in the human brain: an event-related source imaging study. *Neuroscience* 167:700-708
9. Lapid H, Shushan S, Plotkin A, Roth Y, Hummel T, Schniedman E, Sobel N (2011) Activity in the Human Olfactory Epithelium Reflects Olfactory Perception. *Nature Neurosci* 14(11):1455-61
10. Stuck BA, Hummel T (2015) Olfaction in Allergic Rhinitis – A Systematic Review. *J All Clin Immunol* (in press)