

Johannes Frasnelli

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1. Academic degrees and diplomas

Habilitation	Privat-Dozent, P.D. Experimental Otorhinolaryngology Technical University of Dresden, Germany Thesis: "The intranasal trigeminal system"	2009
Medical license	License to practice medicine Medical association Saxony ("Ärztekammer Sachsen"), Germany	2004
Medical doctorate	Dr. med. univ., M.D. University of Vienna, Austria Thesis: "Smell and taste in chronic renal failure"	2001

2. Academic positions and research experience

Professor	Medical anatomy Université du Québec à Trois-Rivières	2014– present
Regular researcher	Olfactory function as a window to the brain Research Center of the Sacre Coeur Hospital in Montréal "Chercheur regulier"	2013– present
Postdoctoral fellow	Higher order chemosensory processing CERNEC, Université de Montréal, Montréal, QC, Canada fellowships by FRSQ and CIHR functional magnetic resonance imaging (fMRI), behavioral techniques	2010– 2014
Visiting scientist	Brain and pain, multisensory integration Monell Chemical Senses Center, Philadelphia, PA activation likelihood estimation (ALE), fMRI, behavioral techniques	2010
Postdoctoral fellow	Crossmodal plasticity of chemosensory function CERNEC and CHU Ste.-Justine, Université de Montréal, Montréal, QC, Canada fellowship by Fondation des étoiles near infrared spectroscopy (NIRS), fMRI, behavioral techniques	2008– 2009
Academic trainee	Neuroanatomical determinants of chemosensory perception Montreal Neurological Institute, McGill University, Montréal chemosensory fMRI, positron emission tomography (PET), voxel based morphology (VBM), cortical thickness measures, behavioral techniques	2006– 2007
Research associate	Chemosensory systems and interactions in normal and model populations Department. of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany Event related potentials (ERP), negative mucosal potentials (NMP), fMRI, PET, proton transfer reaction mass spectrometry (PTR-MS), behavioral techniques, clinical work	2001– 2005
Predocotrinal trainee	Diagnostics and treatment of chemosensory dysfunction Department. of Otorhinolaryngology, University of Vienna Medical School, Vienna, Austria Behavioral techniques, clinical work	1999– 2001

3. Teaching experience

Professor	Anatomy of the locomotor system Département d'anatomie, Université du Québec à Trois-Rivières, Trois-Rivières, QC, Canada	2014– present
Guest lecturer	Perception Département de psychologie, Université du Québec à Montréal, Montréal, QC, Canada; D. Saint-Amour	2013– present
Guest lecturer	Perception Département de psychologie, Université de Montréal, Montréal, QC, Canada; S. Zahabi	2013
Guest lecturer	Food and Culture Department of sociology and anthropology, Concordia University, Montréal, QC, Canada; A. Detollé	2013
Lecturer	Scientific methods (PSY-1006) "chargé de cours", Université de Montréal, Faculty of Arts and Sciences, Department of Psychology	2013
Lecturer	Quantitative analysis in psychology 1 (PSY-1004) "chargé de cours", Université de Montréal, Faculty of Arts and Sciences, Department of Psychology	2011– 2014
Demonstrator	Travaux pratiques : Respiration, circulation et excrétion (BIO-3674) Département de biologie, Université de Montréal, Montréal, QC, Canada; S.Molotchnikoff	2011– 2012
Guest lecturer	Neuroscience des systèmes (NRL-6051) Département de physiologie, Université de Montréal, Montréal, QC, Canada; B. Stemmer	2010– present
Guest lecturer	Processus perceptifs (PSY-6417) Département de psychologie, Université de Montréal, Montréal, QC, Canada; M. Schoenwiesner	2009– present
Teaching assistant	Problem oriented learning (POL) University of Dresden Medical School, Dresden, Germany; T. Hummel	2003– 2005
Teaching assistant	Clinical internship in Otorhinolaryngology University of Dresden Medical School, Dresden, Germany; T. Hummel	2001– 2003

4. Student supervision

Summer intern	Noémie Mercier "The effects of olfactory training on odor thresholds - a pilot study" UQTR, Trois-Rivières, QC	2014
Summer intern	Florence Lessard-Gingras "Olfactory function in mild traumatic brain injury" Hôpital du Sacré-Coeur de Montréal, Université de Montréal, Montréal, QC	2014
Medical doctor candidate	Jacqueline Lehmann "Structural brain alterations in congenital anosmia" Technical University of Dresden, Germany; Université de Montréal, Montréal, QC co-supervision with T. Hummel (main supervisor)	2012– present
PhD student	Simona Manescu "The effect of labelling on odor perception" Université de Montréal, Montréal, QC co-supervision with F. Lepore (main supervisor)	2011– present
Master student	Renée-Pier Filiou "The effect of mixtures on trigeminal perception" Université de Montréal, Montréal, QC co-supervision with F. Lepore (main supervisor)	2012– present
Summer intern	Jessica Lajeunesse "Crossmodal plasticity in blindness: the sense of smell" Université de Montréal, Montréal, QC	2011

	co-supervision with F. Lepore (main supervisor)	
Summer intern	Kevin Kojok "Multisensory integration with the chemical senses" Université de Montréal, Montréal, QC co-supervision with F. Lepore (main supervisor)	2011
Honors student	Shady Rahayel "Tests of olfactory function in neurodegenerative diseases" Université de Montréal, Montréal, QC co-supervision with S. Joubert (main supervisor)	2010– 2011
Research intern	Sara Galle "The sense of smell in autism" Université de Montréal, Montréal, QC co-supervision with L. Motttron (main supervisor)	2009– 2010
Honors student	Vanessa Charland-Verville "Olfaction in concussed athletes" Université de Montréal, Montréal, QC co-supervision with M. Lassonde (main supervisor)	2009– 2010
Summer intern	Valérie La Buissonniere Ariza "Localisation of unilateral nasal stimuli across sensory systems" Université de Montréal, Montréal, QC co-supervision with F. Lepore (main supervisor)	2009
Summer intern	Genevieve Charbonneau "Odor localization and sniffing" Université de Montréal, Montréal, QC co-supervision with F. Lepore (main supervisor)	2008
Summer intern	Carina Oehrn "The effect of intraoral trigeminal stimulation on smelling" McGill University, Montréal, QC co-supervision with M. Jones-Gotman (main supervisor)	2006
Dental medical doctor candidate	Mary Ungerman "Localization of odorous stimuli applied ortho- and retronasally" University of Dresden Medical School, Dresden, Germany co-supervision with T. Hummel (main supervisor)	2005– 2011
Medical doctor candidate	Benno Schuster "The trigeminal system in olfactory dysfunction" University of Dresden Medical School, Dresden, Germany co-supervision with T. Hummel (main supervisor)	2004– 2012
Medical doctor candidate	Christiane Wohlgemuth "The influence of stimulus duration on odor perception" University of Dresden Medical School, Dresden, Germany co-supervision with T. Hummel (main supervisor)	2004– 2012

5. Awards/ Grants

Installation grant	New Professor Installation Grant Université du Québec à Trois-Rivières \$10,000	2014– 2015
Research grant	Olfactory function in screening for depression in traumatic brain injury Consortium pour le développement de la recherche en traumatologie (AERDPQ, AQESSS, FRQS, MSSS, REPAR, SAAQ). \$19'850	2014– 2015
Installation grant	Olfaction as a window to the brain Centre de Recherche de l'hôpital du Sacré-Cœur de Montréal \$100'000	2013– 2015
Research grant	Olfaction as a window to neurodegeneration and cerebral damage Canadian Institutes of Health Research, Operating Grant Co-Investigators: JY Montplaisir, JF Gagnon, E De Guise \$767'800 (submitted)	subm. 2014

Research grant	Optimisation de la plasticité neuronale et bienfaits neurofonctionnels chez la population vieillissante présentant des antécédents de traumatisme crâniocérébral léger Canadian Institutes of Health Research, Catalyst Grant Co-Investigator (PI: L. De Beaumont) \$99'928	2013- 2014
Postdoctoral fellowship	Higher order chemosensory processing Canadian Institutes of Health Research (CIHR) 2 years \$90'000	2011- 2013
Research grant	Neural Correlates and Measures with Anosmia Fonds für Wissenschaft und Forschung (FWF), Austria Co-Investigator (PI: V. Schoepf) €289'719	2011- 2015
Postdoctoral fellowship	Higher order chemosensory processing Fonds de Recherche en Santé Québec (FRSQ) 2 years \$60'000	2010- 2011
Travel Award	Polak Junior Scientist Travel Award American Chemoreception Society (ACheMS) XXXI, Sarasota, FL US\$600	2009
Postdoctoral fellowship	Olfactory-visual crossmodal and olfactory plasticity in the brain Fondation de Ste.-Justine/Fondation des étoiles 2 years \$64'000	2008- 2009
Research grant	Intranasal Concentrations of Orally Administered Flavors Short Term Scientific Mission COST Action 921, European Union €1'445	2005
Research grant	Interaktion Riechen und Schmecken MeDDrive Program, Technical University of Dresden, Germany €3'500	2003
Travel award	ECRO travel award European Chemoreception Organization (ECRO) ACheMS XXV, Sarasota, FL €1'000	2003
Prize	Förderpreis Chemosensorik Working Group Olfactology/ Gustology in the German ENT-Society €500	2002
Travel award	ACheMS travel award American Chemoreception Society (ACheMS) ACheMS XXIV, Sarasota, FL US\$500	2002
Merit award	"Leistungsstipendium" University of Vienna, Austria ATS15'000	2001
Support grant	"Förderstipendium" University of Vienna, Austria ATS15'000	2001

6. Language skills

German	native
English, French, Italian	fluent
Spanish	basic

7. Computer skills

Microsoft Office Suite (Excel, Word, Power Point), SPSS, MatLab, SPM5/8, EndNote

8. Membership in Scientific Organisations

ACheMS	American Chemoreception Society	2001–
ArGe Olf	Working Group Olfactology/ Gustology in the German ENT–Society	2000–
ECRO	European Chemoreception Society	2000–2006

9. Review Activities

9.1. Reviewer for Scientific Journals

Journal of Neuroscience Methods; Neuroimage; Brain Research; International Journal of Psychophysiology; Acta Oto–Laryngologica; Clinical Neurophysiology; Behavioral Brain Research; Physiology and Behavior; Chemical Senses; Journal of Agricultural and Food Chemistry; Journal of Neurology; Neuroscience; Attention, Perception & Psychophysics; Human Brain Mapping; Journal of Neurology, Neurosurgery and Psychiatry; Experimental Biology; PloS One; Frontiers; European Journal of Neuroscience; Multisensory Research

9.2. Reviewer for National Granting Organizations

Czech Republic	Grantová agentura České republiky Czech Science Foundation	2013
Romania	Unitatea Executiva Pentru Finantarea Invatamantului Superior, a Cercetarii Dezvoltarii si Inovarii – UEFISCDI Executive Agency for Higher Education, Research, Development and Innovation Funding	2011–present
France	Agence Nationale de la Recherche (ANR) National Research Agency	2010

10. Invited presentations

Invited lecture	L'odorat, un sens sensible aux traumatismes crânio–cérébraux Neurotrauma, Centre de recherche, Sacre Coeur Hospital, Montréal, QC	2014
Invited lecture	Size matters. Neuro–anatomie fonctionnelle du système olfactif Centre de recherche en neuropsychologie et cognition (CERNEC), Université de Montréal, Montréal, QC	2014
Invited lecture	L'odorat comme marqueur de l'intégrité cérébrale Centre des études avancées sur le sommeil, Sacre Coeur Hospital, Montréal, QC	2013
Invited lecture	Human pheromones and the VNO: myths and facts Department ENT Medicine, University of Vermont, Burlington, VT	2013
Invited lecture	From the plate to the brain: role of olfaction in flavor perception Department of Life Sciences, University of Vermont, Burlington, VT	2013
Invited lecture	Our chemical environment, our brain and our health Odotech Inc., Montréal, QC	2012
Invited lecture	From the plate to the brain: role of olfaction in flavor perception Université du Québec à Trois–Rivières, Trois–Rivières, QC	2011
Invited lecture	Our chemical environment, our brain and our health Odour workshop, Cumulative Environmental Management Association, Calgary, AB	2011
Invited lecture	Stinging smells: overlaps between olfactory and trigeminal system Bill & Melinda Gates Foundation, Seattle, WA	2011
Invited lecture	The trigeminal system in olfactory dysfunction Monell Chemical Senses Center, Philadelphia, PA	2009

Invited lecture	The sense of smell and flavor perception Centre de recherche en neuropsychologie et cognition (CERNEC), Université de Montréal, Montréal, QC	2009
Invited lecture	More than a feeling - topographical differences in the sensitivity of the intranasal trigeminal system NIZO food research, Ede, The Netherlands	2005

11. Presentations to non academic audiences

Radio interview	Les effets des odeurs mâles sur la douleur chez les rongeurs Les années lumière, Radio Canada, June 8 th , 2014	2014
Invited lecture	Vom Teller ins Gehirn: Riechen, Schmecken und die chemischen Sinne Bildungsausschuss Algund, BZ, I	2012
Radio interview	L'altération de l'odorat et son lien avec les maladies d'Alzheimer et de Parkinson L'après-midi porte conseil, Radio Canada, May 2 nd , 2012	2012
Workshop	The chemical senses McGill Discovery Days in Health Sciences	2011-present

12. Bibliography

12.1. Original Papers

- 58 Sorge RE, Martin LJ, Isbester KA, Sotocinal SG, McPhail M, Delaney A, Wigerblad G, Quinn T, Frasnelli J, Svensson CI, Sternberg WF, Mogil JS (2014) Olfactory exposure to males, including human males, produces stress and stress-induced analgesia in rodents. *Nature Methods* 11(6):629-32
- 57 Hummel T, Olgun S, Gerber J, Huchel U, Frasnelli J (2013) Brain responses to odor mixtures with sub-threshold components. *Front Psychol* 4:786
- 56 Manescu S, Frasnelli J, Lepore F, Djordjevic J (2014) Now you like me now you don't: Impact of labels on odor perception. *Chem Senses* 39:167-75
- 55 Seubert J, Freiherr J, Frasnelli J, Hummel T, Lundstrom JN (2013) Orbitofrontal cortex and olfactory bulb volume predict distinct aspects of olfactory performance in healthy subjects. *Cereb Cortex* 23:2448-56
- 54 Lundstrom JN, Mathe A, Schaal B, Frasnelli J, Nitzsche K, Gerber J, Hummel T (2013) Maternal status regulates cortical responses to the body odor of newborns. *Front Psychol* 4:597
- 53 Frasnelli J, Fark T, Lehmann J, Hummel T (2013) Structural brain alterations in congenital anosmia. *NeuroImage* 83:1074-80
- 52 Frasnelli J, Lundstrom JN, Schopf V, Negoias S, Hummel T, Lepore F (2012) Dual processing streams in chemosensory perception. *Frontiers Hum Neurosci* 6:288
- 51 La Buissonnière-Ariza V, Kojok KM, Lepore F, Frasnelli J (2013) Increased Odor Detection Speed in Highly Anxious Healthy Adults. *Chem Senses* 38(7):577-84
- 50 Galle SA, Courchesne V, Mottron L, Frasnelli J (2013) Olfaction in the autism spectrum. *Perception* 42: 341-55
- 49 Keita L, Frasnelli J, La Buissonnière-Ariza V, Lepore F (2013) Response times and response accuracy for odor localization and identification. *Neurosci* 238:82-6
- 48 Rahayel S, Frasnelli J, Joubert S (2012) The effect of Alzheimer's disease and Parkinson's disease on olfaction: a meta-analysis. *Behav Brain Res* 231(1):60-74
- 47 Charland-Verville V, Lassonde M, Frasnelli J (2012) Olfaction in athletes with concussion. *Am J Rhinol* 26(3):222-6.
- 46 La Buissonnière-Ariza V, Frasnelli J, Collignon O, Lepore F (2012) Olfactory priming leads to faster sound localization. *Neurosci Lett* 506(2):188-92
- 45 Lundström JN, Gordon AR, Wise P, Frasnelli J (2012) Individual differences in the chemical senses: is there a common sensitivity? *Chem Senses* 37(4):371-8

- 44 Frasnelli J, Albrecht A, Bryant B, Lundstrom JN (2011) Perception of specific trigeminal chemosensory agonists. *Neuroscience* 25(189):377–83
- 43 Frasnelli J, Hummel T, Berg J, Huang G, Doty RL (2011) Intranasal localizability of odorants: Influence of stimulus volume. *Chem Senses* 36(4):405–10
- 42 Frasnelli J, La Buissonnière Ariza V, Collignon O, Lepore F (2010) Localisation of unilateral nasal stimuli across sensory systems. *Neurosci Lett* 478(2):102–6
- 41 Boesveldt S, Frasnelli J, Gordon AR, Lundström JN (2010) The fish is bad: negative food odors elicit faster and more accurate reactions than other odors. *Biol Psychol* 84(2):313–317
- 40 Landis BN, Frasnelli J, Croy I, Hummel T (2010) Evaluating the clinical usefulness of structured questions in parosmia assessment. *Laryngoscope* 120(8):1707–13
- 39 Frasnelli J, Lundström JN, Boyle JA, Katsarkas A, Jones–Gotman M (2011) The vomeronasal organ is not involved in the perception of endogenous odors. *Hum Brain Mapp* 32(3):450–460
- 38 Beauchamp J, Frasnelli J, Buettner A, Scheibe M, Hansel A, Hummel T (2009) Characterization of an olfactometer by proton–transfer reaction mass spectrometry. *Measurement Sci Technol* 21(2): Art.Nr. 025801
- 37 Frasnelli J, Schuster B, Hummel T (2009) Olfactory dysfunction affects thresholds to trigeminal chemosensory sensations. *Neurosci Lett* 468(3): 259–263
- 36 Frasnelli J, Lundström JN, Boyle JA, Djordjevic J, Zatorre RJ, Jones–Gotman M (2010) Neuroanatomical correlates of olfactory function. *Exp Brain Res* 201(1):1–11
- 35 Frasnelli J, Charbonneau G, Collignon O, Lepore F (2009): Odor localization and sniffing. *Chem Senses* 34(2):139–44
- 34 Frasnelli J, Oehr, C, Jones–Gotman M (2009): The effect of intraoral trigeminal stimulation on smelling. *Food Chemistry* 113(4):1003–7
- 33 Van Ruth S, Frasnelli J, Carbonell L (2008) Volatile flavour retention in food technology and during consumption: juice and custard examples. *Food Chemistry* 106: 1385–1392
- 32 Frasnelli J, Ungermaun M, Hummel T (2008) Localization of odorous stimuli applied ortho– and retronasally. *Chemosensory Perception* 1:9–15
- 31 Boyle JA, Frasnelli J, Gerber J, Heinke M, Hummel T (2007) Cross–modal integration of intranasal stimuli – a functional magnetic resonance study. *Neurosci* 12:49(1):223–31
- 30 Hummel C, Frasnelli J, Gerber J, Hummel T (2007) Cerebral processing of gustatory stimuli in patients with taste loss. *Behav Brain Res* 11:185(1):59–64
- 29 Iannilli E, Gerber J, Frasnelli J, Hummel T (2007) Intranasal trigeminal function in subjects with and without an intact sense of smell. *Brain Res* 1139: 235–44
- 28 Boyle JA, Gerber J, Heinke M, Frasnelli J, Hummel T (2007) Cerebral activation to intranasal chemo–sensory trigeminal stimulation. *Chem Senses* 32(4): 343–53
- 27 Bensafi M, Frasnelli J, Reden J, Hummel (2007) The neural representation of odor is modulated by the presence of a trigeminal stimulus during odor encoding. *Clin Neurophysiol* 118(3):696–701
- 26 Frasnelli J, Schuster B, Hummel T (2007) Interactions between olfaction and the trigeminal system: what can be learned from olfactory loss? *Cerebral Cortex* 17(10):2268–75
- 25 Frasnelli J, Schuster B, Hummel T (2006) Subjects with congenital anosmia have larger peripheral, but similar central trigeminal responses. *Cerebral Cortex* 17(2):370–377
- 24 Müller A, Landis BN, Platzbecker U, Holthoff V, Frasnelli J, Hummel T (2006) Severe chemotherapy–induced parosmia. *Am J Rhinol* 20(4): 485–486
- 23 Frasnelli J, Schuster B, Zahnert T, Hummel T (2006) Chemosensory specific reduction of trigeminal sensitivity in anosmic subjects. *Neurosci* 142: 541–546
- 22 Visschers RW, Jacobs MA, Frasnelli J, Hummel T, Burgering M, Boelrijk AM (2006) Cross–modality of texture and aroma perception is independent of orthonasal or retronasal stimulation. *J Agricultural Food Chemistry* 54: 5509–15

- 21 Husner A, Frasnelli J, Welge-Lüssen A, Reiss G, Hummel T (2006) Loss of trigeminal sensitivity reduces olfactory function. *Laryngoscope* 116: 1520–2
- 20 Krüger S, Frasnelli J, Bräunig P, Hummel T (2006) Increased olfactory sensitivity in euthymic bipolar patients with external event-related episodes. *J Psychiatry Neurosci* 31(4): 263–70
- 19 Reden J, Mueller A, Mueller C, Konstantinidis I, Frasnelli J, Landis BN, Hummel T (2006) Recovery of olfactory function following closed head injury or infections of upper respiratory tract. *Arch Otolaryngol Head Neck Surg* 132:265–269.
- 18 Konstantinidis I, Mueller A., Frasnelli J, Reden J, Quante G, Damm M, Hummel T (2006) Seasonality of post-infectious olfactory dysfunction: Retrospective study of 457 patients. *Rhinology* 44:135–9.
- 17 Frasnelli J, Wohlgemuth C, Hummel T (2006) The influence of stimulus duration on odor perception. *Int J Psychophysiol* 62 (1):24–29.
- 16 Landis BN, Frasnelli J, Hummel T (2006) Euosmia: A rare form of parosmia. *Acta Otolaryngol* 126(1):101–3.
- 15 Pfaar O, Landis BN, Frasnelli J, Hüttenbrink KB, Hummel T (2006) Mechanical obstruction of the olfactory cleft reveals differences between orthonasal and retronasal olfactory function. *Chem Senses* 31(1):27–31
- 14 Landis BN, Frasnelli J, Reden J, Lacroix S, Hummel T (2005) Differences between orthonasal and retronasal olfaction in patients with loss of the sense of smell. *Arch Otolaryngol Head Neck Surg* 131: 977–981
- 13 Frasnelli J, van Ruth S, Kriukova I, Hummel T (2005) Intranasal concentrations of orally administered flavors. *Chem Senses* 30(7):575–82.
- 12 Lundström JN, Frasnelli J, Larsson M, Hummel T (2005) Sex differentiated responses to intranasal trigeminal stimuli. *Int J Psychophysiol* 57(3):181–6
- 11 Frasnelli J, Hummel T (2005) Intranasal trigeminal threshold in healthy subjects. *Env Toxicol Pharmacol* 19: 575–580
- 10 Landis BN, Beutner D, Frasnelli J, Huettenbrink KB, Hummel T (2005) Gustatory function in chronic inflammatory middle ear diseases. *Laryngoscope* 115:1124–1127.
- 9 Frasnelli J, Hummel T (2005) Olfactory dysfunction and daily life. *Eur Arch Otolaryngol* 262(3):231–5
- 8 Sommer U, Hummel T, Cormann K, Mueller A, Frasnelli J, Kropp J, Reichmann H (2004) Detection of presymptomatic Parkinson's disease: combination of olfactory tests, transcranial sonography, and 123 I-FP-CIT-SPECT. *Mov Disorders* Oct;19(10):1196–202
- 7 Frasnelli J, Heilmann S, Hummel T (2004) Responsiveness of the human nasal mucosa to trigeminal stimuli depends on the site of stimulation. *Neurosci Lett* 362: 65–69
- 6 Frasnelli J, Landis BN, Heilmann S, Hauswald B, Hüttenbrink KB, Lacroix JS, Leopold DA, Hummel T (2004) Clinical presentation of qualitative olfactory dysfunction. *Eur Arch Otorhinolaryngol* 261:411–5
- 5 Frasnelli J, Hummel T (2003) Age related decline of intranasal trigeminal sensitivity: Is it a peripheral event? *Brain Res* 987: 201–206
- 4 Frasnelli J, Lötsch J, Hummel T (2003) Event-related potentials to intranasal trigeminal stimuli change in relation to stimulus concentration and stimulus duration. *J Clin Neurophysiol* 20:80–86
- 3 Hummel T, Futschik T, Frasnelli J, Hüttenbrink KB (2003) Effects of olfactory function, age, and gender on trigeminally mediated sensations: A study based on the lateralization of chemosensory stimuli. *Toxicol Letters* 140–141:273–280
- 2 Frasnelli JA, Temmel AFP, Quint C, Oberbauer R, Hummel T (2002) Olfactory function in chronic renal failure. *Am J Rhinol* 16:275–279
- 1 Frasnelli J, Livermore A, Soiffer A, Hummel T (2002) Comparison of lateralized and binasal olfactory thresholds. *Rhinology* 40:129–134

12.2. Reviews

- 8 Croy, I, Frasnelli J, Manzini I (2014) Wie wir riechen und was es für uns bedeutet – Grundlagen des Geruchsinns. *HNO* (in press)

- 7 Frasnelli J, Rahayel, S (2013) L'olfaction, sur la piste de la neurodégénération. *Médecine Sciences Amérique* 2:52-65
- 6 Frasnelli J, Collignon O, Voss P, Lepore F (2011) Crossmodal plasticity in sensory loss. *Prog Brain Res* 191:233-49
- 5 Albrecht J, Kopietz R, Frasnelli J, Wiesmann M, Hummel T, Lundstrom JN (2009) The neuronal correlates of intranasal trigeminal function – An ALE meta-analysis of human functional brain imaging data. *Brain Res Rev* 62(2):183-96
- 4 Hummel T, Iannilli E, Frasnelli J, Boyle J, and Gerber J (2009) Central processing of trigeminal activation in humans. *Ann New York Acad Sci* 1170: 190-195
- 3 Frasnelli J, Hummel T (2007) Eine neue Technik zur ortho- und retronasalen Duftstoffdarbietung. *Ernährung/nutrition* 32 (12)
- 2 Frasnelli J, Hummel T (2007) Interactions between the chemical senses: Trigeminal function in patients with olfactory loss. *Int J Psychophysiol* 65(3):177-81
- 1 Hummel T, Heilmann S, Landis BN, Reden J, Frasnelli J, Small DM, Gerber J (2006) Perceptual differences between chemical stimuli presented through the ortho- or retronasal route. *Flavor Fragr J* 21:42-47

12.3. Chapters

- 7 Florence Gingras-Lessard, Frasnelli J (2014) The intranasal trigeminal system. In: Guichard E, Salles C, Morzel M, Le Bon AM (eds) *Flavor – from Food to Perceptions*. John Wiley & Sons, Chichester (submitted)
- 6 Frasnelli J, Manescu S (2014) The intranasal trigeminal system. In: Buettner A (eds) *Springer Handbook of Odors*. Springer, Berlin (in press)
- 5 Frasnelli J, Hummel T, Shusterman D (2013) Clinical Disorders of the Trigeminal System. In: Hummel T, Welge-Luessen A (eds) *Management of Smell and Taste Disorders: A Practical Guide for Clinicians*. Thieme, Stuttgart, pp 138-148
- 4 Hummel T, Reden J, Frasnelli J (2010) Riechen und Schmecken. Die chemischen Sinne. In: Linneweber V, Lantermann ED, Kals E (eds.) *Spezifische Umwelten und umweltbezogenes Handeln*, Hogrefe Verlag, Göttingen pp 79-96.
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- 2 S. Van Ruth, J. Frasnelli, I. Koscelkovskiene, T. Hummel (2006). Aroma concentrations at various intranasal positions during consumption of custard deserts. In: Pittia P, Cayot N (eds), Luxembourg: Office for Official Publications of the European Union; EUR 22256 – COST Action 921., p. 61 – 66. Office for Official Publications of the European Union
- 1 Hummel T, Landis BN, Frasnelli JA, Heilmann S, Hüttenbrink KB (2004) Ursachen, Diagnostik und Therapie von Riechstörungen. In: Biesinger E, Iro H: *HNO-Praxis heute* 24

12.4. Letters

- 1 Frasnelli J, Reden J, Landis BN, Lundström JN (2010) Comment on "Olfactory hallucinations as a manifestation of hidden rhinosinusitis". *J Clin Neurosci* 17:543

12.5. Bibliometric measures (as of January 2014)

h-index	18
total impact factor	162
total impact factor as first author	70

13. Lay media impact

Male odors influence pain in rodents (Jun 2014)	Radio Canada
Context influences odor perception (Feb 2014)	Forum Université de Montréal
Odor pollution (Dec 2013)	La Presse+

Newborns' body odor is a mean of chemical communication between the child and its mother (Sep 2013)	Forum Université de Montréal, CBS News, USA Today, La Presse, CTV news, Global news, NBC, Fox, New York Daily News, San Francisco Chronicle, CBC, Smithsonian Institute, Daily Mail, Houston Chronicle, La Stampa, The Scientist, Herald Sun, Science Daily, The Globe and Mail, Public Radio, The Washington Times, Star Tribune
The sense of smell is affected in neurodegenerative diseases (May 2012)	Forum Université de Montréal, Radio Canada, Canoe.ca
A putative human pheromones is perceived via the olfactory system (Mar 2011)	Forum Université de Montréal
Smell of rotten fish is detected faster than roses (Sep 2010)	Forum Université de Montréal, Mumbai Mirror,

14. Media

Télé Québec	http://zonevideo.telequebec.tv/media/15852/notre-odorat-sous-influence/le-code-chastenay	Sep 2014
NPR	http://www.npr.org/templates/story/story.php?storyId=227431388	Sep 2013
Radio Canada	http://ici.radio-canada.ca/emissions/lapres-midi_porte_conseil/2011-2012/chronique.asp?idChronique=218400	May 2012