

Ackerman, B.H. and Kasbekar N. (1997) Disturbances of taste and smell induced by drugs *Pharmacotherapy*. 17:482-496

Ahlskog, K.E, Waring, S.C., Petersen, R.C., Esteban-Santillan, C., Craig, U.K., O'brien, P.C.(1998) Olfactory dysfunction in Guamanian ALS, parkinsonism, and dementia. *Neurology*, 51: 1672-1677.

Akerlund A., Bende M and Murphy C. (1995) Olfactory threshold and nasal mucosal changes in experimentally induced common cold. *Acta Otolaryngol*, 115:88-92.

Alavi, A. and Hirsch, L.J. (1991) studies of central nervous system disorders with single photon emission computed tomography and positron emission tomography: evolution over the past 2 decades. *Semin. Nucl. Med.* 21: 58-81

Alexander TH, Davidson TM. (2006). Intranasal zinc and anosmia: the zinc-induced anosmia syndrome. 116:217-20.

Amoore, K.E. (1986) Effects of chemical exposure on olfaction in humans. In *Toxicology of the Nasal passages*. Barrow, C.S. (Ed.) Hemisphere publishing. Washington, DC, pp. 155-190.

Amoore, J.E. and Oliman, B.G (1983) practical test kits for quantitatively evaluating the sense of smell. *Rhinology*. 21,49-54

Ansari, K.A. (1976) Olfactory in multiple sclerosis. With a note on the discrepancy between optic and olfactory involvement. *Eur. Neurol.* 14:138-145.

Byayley, T.M., Dye, L., Jones, S., Debono, M. and Hill, A.J. (2002) Food cravings and aversions during pregnancy: relationships with nausea and vomiting. *Appetite*, 38, 45-51.

Bende, M. (1983) Blood flow with ¹³³Xe in human nasal mucosa in relation to age, sex, and body position. *Acta Otolaryngol* 96: 175-179.

Benninger, M.S., Ferguson, B.J, Handley, J.A., Hamilos, D.L., Jasobs, M., Kennedy, D.E., Lanza, D.C., Marple, B.F., Osguthorpe, J.D., stankiewicz, J.A., Anon, K., Denny J, Emanuel and Levine H. (2003) Adult chronic rhinosinusitis: definitions, diagnosis, epidemiology, and pathophysiology. *Otolaryngol Head Neck Surg.* 129 (3 supply): S1-S32.

Barebdse, H.W.B (2001) Subclinical dopaminergic dysfunction in asymptomatic parkinson's relatives with decreased sense of smell. *Ann. Neurol.* 50 : 34-41.

Bhatnagar, K.P., Kennedy, R.C., Baron, G. and Greenberg, R.A.(1987) Number of mitral cells and the bulb volume in aging human olfactory bulb: A quantitative morphological study. *Anat Rec* 218: 73-87

Brandt, I., Brittebo, E.B., Feil, V.J. and Bakke, J.K. (1990) irreversible binding and toxicity of the herbicide dichlobenil (2,6- dicchlorovenzonitr le) in the olfactory mucosa if mice. *Toxicol. Appl. Pharmacol.* 103:491-501.

Briner, H.R. and Simmen, D. (1999) smell diskettes as screening test of olfactory. *Rhinology* 37, 145-148.

Brodal, A. (1981) *Neurological Anatomy in Relation to Clinical Medicine.* 3rd Edition. New York: Oxford university press

Brody, D., Serby, M.L., Etienne, N. and Kalkstein, D.S. (1991) Olfactory identification deficits in HIV infection. *Am. J. psychiatry* 148:248-250.

Buck, L. (2000) The molecular architecture of odor and pheromone sensing in mammals. *Cell*, 611-618.

Buck, L. and Axel, R. (1991) A novel multigene family may encode odorant receptors: a molecular basis for odor recognition. *Cell*, 65,175-187.

Buee, L., Perez-Tur, J., Leveugle, B., Buee-Scherrer, V., Mufson, E.J., Loerzel, A.J. (1996) Apolipoprotein E in Guamanian amyotrophic lateral sclerosis/parkinsonism-dementia complex: genotype analysis and relationships to neuropathological changes. *Acta Neuropathol.* 91: 247-253.

Cain, W.S., Cometto-Muniz, J.E. and De Wijk, R.A. (1992) Techniques in the quantitative stude of human olfaction. In : Serby MJ, Chobor KL, eds. *Science of Olfaction.* New York: Springer-Verlag, 279-308.

Cambier, J., Masson, M., Viader, F. (1985) Le syndrome frontal de la maladie de Steele-Richardson-OlszemH *Rev. Neural.* 48: 1234-1239.

Cantoni, P., Hudson, R., Distel, H. and Laska, M. (1999) Changes in olfactory perception and dietary habits in the course of pregnancy : a questionnaire study. *Chem. Senses*, 24, 58.

Carter, B.L. and Runge, V.S. (1988) Imaging modalities for the study of paranasal sinuses and nasophaiynx. *Otolaryngol. Clin. North Am.* 21: 395-420.

Chalke, H.D. and Dewhurst, I.R. (1957) Accidental coal-gas poisoning *Brit Med* 12:915-917.

Cheesman, G.H. and Townsend, M.J. (1956) Further experiments on the olfactory thresholds of pure chemical substances, using the " sniff-bottie method " *Q.J Exp psychol*, 8,8-14.

Choudhury, E.S., Moberg, P. and Dory, R.L. (2003) influences of age and sex on a microencapsulated odor memory test. *Chem senses.* 38:799-805.

Chuah, M.X and Zheng, D.R. (1987) Olfactory marker protein is present in olfactory receptor cells of human fetuses. *Nuroscience* 23: 363-370.

Constantinescu, C.S., Raps, B.C., Cohen, J.A., West, S.E. and Doty R.L. (1994) olfactory disturbances as the initial or most prominent symptom of multiple sclerosis. *J. Neurol. Neurosurg. Psychiatry* 57: 1011-1012.

Cornsweet, T.N. (1962) The staircase-method in psychophysics. *Am.J psychol* 75: 485-491.

Costanzo, R.M. and Becker, D.P. (1986) smell and taste disorders in head injury and neurosurgery patients. In *clinical measurements of Taste and Smell*, H.L. Meiselman and R.S. Rivlin (Eds.), Mackmillian publishing company, New York, pp. 565-578.

Costanzo, R.M. and Zasler, N.O. (1991) Head trauma. In *Smell and taste in health and disease*, T.V. Getchell, R.L. Doty, L.M Bartoshuk, and J.B. Snow Jr. (Eds.), Raven press, New York, pp. 711-730.

Costanzo, R.M. and Zasler, N.O. (1992) E[pidemiology and pathophysiology of olfactory and gustatory dysfunction in head trauma. *K. Head Truma Rehabil.* 7: 15-24.

Constanzo, R.M., DiNardo, L.J. and Reiter, E.R (2003) Head injury and Olfaction. In: Doty, R.L. (Ed): *Handbook of olfaction and Gustation*. 2nd Edition. Ny: Marcel Dekker, pp. 628-637.

Crespo-Facorro, B., Paradiso, S., Andreasen, N.C., O'Leary. D.S., Watkins, G.L., poato, L.L. and Hiehwa, R.D. (2001) Neural mechanisms of anhedonia in schizophrenia : a PET study of response to unpleasant and pleasant odors. *KAMA* 286: 427-435.

Damm, M., Vent, J., Schmidt, Theissen, P., Eckel, H., Lotsch, K. and Hummel, T. (2002) Intranasal volume and olfactory/unction, *chem.. senses*, 27, 830-839.

Damm, M., Eckel, H.F., Jungehielsing, M. and Hummel, T. (2003) Olfactory changes at threshold and suprathreshold levels following septoplasty with partial inferior turbinectomy. *Ann Otol Rhinol Laryngol*, 115: 91-97

Daniel W. Wesson, Efrat Levy, Ralph A. Nixon, and Donald A. Wilson (2010). Olfactory Dysfunction Correlates with Amyloid- β Burden in an Alzheimer's Disease Mouse Model. 30(2):505-514

Danuser, B. (2001) Candidate physiological Measures of Annoyance from Airborne Chemicals. *Chem. Senses* 26 : 333-337.

Davis, L. (1992) Practical aspects of nutrition of the elderly at home. In : Munro H, Schlierf G, eds *Nutrition in the Elderly*. New York, NY: Raven press: 203-209. Nestle Nutrition Workshop Series, Vol 29.

Deetas, D.A. and Doty, R.L. (1987) The nature of age-reOated olfactory detection threshold changes in man. *Trans penn Acad Ophthalmol Otolayngol* 39: 646-650.

Dhong, H.J., Chung, S.K., and Doty, R.L. (1999) Estrogen protects against 3-methylindole-induced olfactory loss. *Brain Res.* 824:312-315.

Ditraglia, G.M., press, D.S., Butters, N., Jernigan, T.L. Cermak, L.S., Velin, R.A. (1991) Assessment of olfactory deficits in detoxified alcoholics. *Alcohol* 8: 109-115.

Doty, R.L. (1976) Reproductive endocrine influences upon human nasal chemoreception: A review. In: Doty, R.L. (ed) *Mammalian olfaction, reproductive processes and behavior.* Academic press, New York, p 295.

Doty R.L. (1979): A review of olfactory dysfunction in man . *Am J Otolaryngol* : 1:57-79

Doty, E.L. (1986) Gender and endocrine-related influences on human olfactory perception. In Meiselman HL, Rivlin RS (eds): " *Clinical Measurement of Taste and Smell.*" New York: Macmillan, pp 377-413.

Doty, R.L. (1989a) The Smell Identification Test™ administration manual (2nd edn). Haddonfield, NJ: Sensonics, Inc.

Doty, R.L. (1989b) Endocrine influences upon human olfactory function. In J.M. Lakoski, J.R. Perez-Polo & D.K. Rassin (Eds.), *Neural control of Reproductive Function.* N.Y.: Alan Liss, pp. 567-581.

Doty, R.L. (1990) olfaction. In F. Goller & J. Grafman (Eds.), *Handbook of Neuropsychology.* Amsterdam : Elsevier, pp. 211-226.

Doty, R.L. (1991a) Influences of aging on human olfactory function. In D.G. Laing, R.L. Doty & W. Breipohl (Eds), *The Human Sense of Smell.* Amsterdam: Springer-Verlag, pp. 181-195.

Doty, R.L. (2003b) Olfactory psychophysics. In Given, P. and Paredes D.(eds), *Chemistry of Taste: Mechanisms, Behaviors, and Mimics.* American Chemical Society, Washington, DC, pp. 123-139.

Doty, R.L. (2005) Clinical Studies of Olfaction. *Chem. Senses*, 30 (Supplement I): i207-i209.

Doty, R.L and Frye, R.E (1989) Nasal obstruction and chemosensation. *Otolaryngol Clin North Am* 22: 381-384.

Doty, R.L. and Hastings. L. (2001) Neurotoxic exposure and olfactory impairment. *Clinic Occupat. Environ. Med. Neurotoxicology* 1: 547-575

Doty, R.L. and Laing, D.G. (2003) Psychophysical measurement of human olfactory function, including odorant mixture assessment. In Doty, R.L. (ed.), *Handbook of Olfaction and Gustation*, 2nd Edition, Marcel Dekker, New York, pp. 203-228.

Doty, R.L. and Snow, J.B. Jr. (1988) age-related changes in olfactory function. In : Margolis R.L, Getcheli TV(eds) *Molecular neurobiology of the Olfactory*

Doty, R.L., Applebaum, S.L., Zusho, H. and Settle, R.G. (1985) A cross cultural study of sex differences in odor identification ability. *Neuropsychologia* 23:667-672.

Doty, R.L., Bromley, S.M. and Stern, M.B. (1995a) Olfactory testing as an aid in the diagnosis of Parkinson's disease: development of optimal discrimination criteria. *Neurodegeneration* 493-97.

Doty, R.L., Brugger, W.E., Jurs, P.C., Orndorff, M.A., Snyder, P.J., and Lowry, L.D. (1978) Intranasal trigeminal stimulation from odorants volatiles: Psychometric responses from anosmic and normal humans. *Physiol Behav* 20: 175-185.

Doty, R.L., Deems, D. and Stellar, S. (1988) Olfactory dysfunction in Parkinson's disease: a general deficit unrelated to neurologic signs, disease stage, or disease duration *Neurology*, 38, 1237-1244.

Doty, R.L., Gregor, T. and Settle, R.G. (1986) Influences of intertribal interval and sniff-bottle volume on the phenyl ethyl alcohol olfactory detection threshold. *Chem Sens.* 11, 259-264.

Doty, R.L., Hall, J.W., Flickinger, G.L. and Sondheimer, S.J. (1982) Cyclical changes in olfactory and auditory sensitivity during the menstrual cycle: no attenuation by oral contraceptive medication. In Breipohl W (ed): " Olfaction and Endocrine Regulation," London: IRL press, pp 35-42.

Doty, R.L., Shaman, P., Applebaum, S.L., Giberson, R., Sikorcki, L. and Rosenberg, L., (1984a) smell identification ability : Changes with age *Science* 226: 1441-1443.

Doty, R.L., Shaman, P. and Dann, M. (1984b) Development of the University of Pennsylvania Smell identification Test: a standardized microencapsulated test of olfactory function. *Physiol Behav* 32(3) 489-502.

Doty, R.L., Singh, A., Tetrude, J. and Jaugston, J.W. (1992a) Lack of olfactory dysfunction in MPTP-induced Parkinsonism. *Ann Neurol.*, 32, 97-100.

Doty, R.L., Singh, A., Tetrude, J. and Jaugston, J.W. (1992b) Lack of olfactory dysfunction in MPTP-induced parkinsonism. *Ann. Neurol.* 32:97-100.

Doty, R.L., Smith, R., McKwown, D.A and Raj, J. (1994) Tests of human olfactory function: principal components analysis suggests that most measure a common source of variance. *Perception & Psychophysics.* 56(6):701-707.

Doty, R.L., Snyder, p., Huggins, G. and Lowry, L.D. (1981) Endocrine, cardiovascular, and psychological correlates of olfactory sensitivity changes during the human menstrual cycle. *J Comp Physiol psychol* 95:45-60.

Doty, R.L., Stern, M.B., Pfeiffer, C., Gollomp, S.M. and Hurtin, H.I. (1992b) Bilateral olfactory dysfunction in early stage treated and untreated idiopathic Parkinson's disease. *J. Neuroj. Neurosurg. Psychiatry*, 55,138-142.

Duara, R., London, E.D. and Rapoport, S. (1985) Changes in Structure and energy metabolism of the metabolism of the aging brain. In : Finch CE, Schneider EL (eds) Handbook of the Biology of aging, Van Nostrand Reinhold, New York, p 595.

Duff, K., McCaffrey, R.J. and Solomon, G.S. (2002) The pocket smell test, successfully discriminating probable Alzheimer's dementia from Vascular dementia and major, J Neuropsychiatry Clin Neurosci 14:197-201.

Dulac, C. and Axel, R. (1995) A novel family of genes encoding putative pheromone receptors in mammals. Cell, 83,195-206.

Duncan, H.J. and Seiden, A.M. (1995) Long-term follow-up of olfactory loss secondary to head trauma and upper respiratory tract infection. Arch Otolaryngol Head Neck Surg 123:367-372.

Dzaman K, Jadczyk M, Rapiejko P. (2006).). Estimating of correlation between taste and smell functioning. 19:280-2.

Eibenstein, A., Fioretti, A.B., Lena, C., Rosati, N., Ottaviano, I. and Fusetti, M. (2005) Olfactory screening test: experience in 102 Italian subjects. Acta Otorhinolaryngol Ital 25, 18-22.

Eibenstein A, Fioretti AB, Lena C. (2006). Modern psychophysical tests to assess olfactory function. 26:147-55.

Elsberg, C.A. and Levy, I. (1935) The sense of smell: I. A new and simple method of quantitative olfactometry. Bull Neurol Inst NY. 4, 5-19.

Engen, T. (1982) The perception of Odors. Academic Press, New York.

Engen, T. (1986) Perception of odor and irritation. Environ. Int., 12, 177-187.

Feron, F., Perry, C., McGrath, J.J. and Mackay-Sim, A. (1998) New techniques for biopsy and culture of human olfactory epithelial neurons. Arch Otolaryngol. Head Neck Surg. 24:861-866

Ferris, A.M. and Duffy, V.B. (1989) Effect of olfactory deficits on nutritional status. Ann NY Acad Sci 561:113-123

Firestein, S. (2001) How the olfactory system makes sense of scents. Nature 413: 211-218.

Flaxman, S.M. and Sherman, P.W. (2000). Morning sickness: a mechanism for protecting mother and embryo. Q. Rev. Biol., 75, 113-148.

Frijters, I.E.R. (1980) Three-stimulus procedures in olfactory Ipsychophysics : An experimental comparison of Thurston-Ura and three-alternative forced-choice models of signal detection theory. Theory percept psychophys 28: 390-397.

Frye, R.E., Schwartz, B. and Doty, R.L. (1990). Dose related effects of cigarette smoking on olfactory function. *Journal of the American Medical Association*; 263: 1233-1236.

Fujii, M., Fukazawa, K., Hatta, C., Yasuno, H. and Sakagami, M. (2002b) Olfactory Acuity after Total Laryngectomy. *Chem. Senses* 27: 117-121.

Fujii, M., Fukazawa, K., Takayasu, S. and Sakagami, M. (2002c) Olfactory dysfunction in patients with head trauma. *Auris Nasus Larynx*, 29, 35-40.

Fukazawa, K. (2005) A local Steroid Injection Method for olfactory Loss due to Upper Respiratory Infection. *Chem. Senses* 30 (suppl i): i212-i213.

Fukazawa, K., Fujii, M., Tomofuji, S., Ogasawara, H., Seo, W. and Sakagami, M.(1999) Local injection of dexamethasone acetate suspension into the nasal mucosa in cases of olfactory disturbance. *J. Otolaryngol. Jpn.*, 102, 1175-1183 (in Japanese).

Fukushima, N., Oikawa, S., Yokouchi, K., Kawagishi, K. and Morizumi, T. (2002). The Minimum Number of Neurons in the Central Olfactory Pathway in Relation to its Function. *Chem. Senses*, 27, 1-6.

Furukawa, M., Kamide, M., Miwa, T. and Umeda, R. (1988). Significance of intravenous olfaction test using thiamine prophyldisulphide (Alinamin) in olfactometry. *Auris Nasus Larynx*. 15, 25-31.

Gansier, D.A., fucetola, r., Kregel, M., Stetson, S., Zimering, R. and Makary, C. (1998). Are there cognitive subtypes in adult attention deficit/hyperactivity disorder? *J. Nery. Ment. Dis* 186: 77-781.

Gasserm R.F. and Hendrickx, A.G. (1969). The development of the trigeminal nerve n baboon embryos (papio sp.). *J Comp Neurol* 136: 159-182.

Getchell, T.V. Margolis, F.L. and Getchell, M.L. (1984) perireceptor and receptor events in vertebrate olfaction. *Prog. Neurobiol*: 23, 317-345.

Gilbert, A.N. and Wysocki, C.J. (1987) The smell survey, *Nat GeogrMag* 172 :514

Gillbert, A.N. and Wysocki, c.J. (1991) Quantitative assessment of olfactory experience during pregnancy. *Psychosom. Med.*, 53, 693-700.

Gottfried, J.A., Deichmann, R., Winston, J.S and Dolan, R.j. (2002) Functional heterogeneity in human Olfactory Cortex : An Event-Related Functional Magnetic Resonance Imaging Study. *The Journal of Neuroscience*, 22(24) : 10819-10828.

Grazuadeim P.P.C. and Menti Graziadei, G.A (1978) Continuo nerve cell renewal in the olfactory system. In : Jacobson M (ed) *Handbook of sensory physiology*, Vol IX. Springer, New York, p55

Greer, C.A. (1991). “ Structural organization of the olfactory system.” In: Smell and Taste in Health and Disease (T.V. Getchell, R.L. Doty, L.M. Bartoshuk, and J.B. Snow, Jr., eds). Raven press, N,Y. pp. 65-81.

Haberly, L.B and Price, J.L. (1977) The axonal projection patterns of the mitral and tufted cells of the olfactory bulb in therat. Brain Res : 129, 152-157.

Hahn, I., Scherer, P.W. and Mozell, M.M. (1993) Velocity profiles measured for airflow through a large-scale model of the human nasal cavity . Modeling phyiol., 75,2273-2287.

Hardy, J.G., Lee, S.W. and Wilson, C.G. (1985) Intranasal drug delivery by sprav and drops. J. Pharmacy Pharmacol., 37, 294-297.

Hartmann, H., Eckert, A. and Muller, W.E. (1994) Disturbances of the neuronal calcium homeostasis in the aging nervous system. Life Sci. 55 (25/26) : 2011-2018.

Hashimoto, Y., Fukazawa, K., Fujii, M., Takayasu, S., Muto, T., Saito, S., Takashima, Y. and Sakagami, M. (2004) Usefulness of Odor Stick Identification Test for Japanese Patients with Olfactory Dysfunction. Chemical Senses, 29 (7) : 565-571.

Hawkes, C.H. and Shephard, B.C. (1998) Olfactory evoked' responses and identification tests in neurological disease. Ann. NY Acad. Sci. 855: 608-615.

Henkin R.J. (1994): Drug-induced taste and smell disorders. Incidence, mechanisms and management related primarily to treatment of sensory receptor dysfunction. Drug Saf. 11: 318-377.

Herberhold, C. and Rodel, R. (1992) Olfaktometrie. In: H.H Naumann (Ed)Oto-Rhino Larvngologie in Klinik und Praxis. Bd. 2. Thieme. Stuttgart, pp. 82-87.

Heywood, P.G., Zaslei, N.D. and Costanzo, R.M (1990) Olfactory screening test for assessment of smell loss following traumatic brain injury. Processdings of the 14th Annual Conference on Rehabilitation of the Brain Injured Williamsburg. Virginia.

Hinds, J.W., Hinds, P.L. and McNelly N.A. (1984) An avtoradiographic study of the mouse olfactory epithelium: Evidence of long lived receptors. Anatomical Record; 210:275-383.

Hoffman, H.J., Ishii, E.K. and Macturk, R.H. (1998) Age-related changes in the prevalence of smell\taste problems among the United States adult population results of the 1994 disability supplement to the National Health Interview Survey (NH7S), AnnNYAcadSci. 855:716-722.

Hornung, D.E. and Mozell, M.M. (1981) Accessibility of odorant molecules to the receptors. In Cagan, R.H. and Kare, M.R. (eds), Biochemistry of taste and Olfaction. Academic Press, New York, pp 33-45.

Homung, D.E., Kurtz, D.B., Bradshaw, C.B., Seipe, D.M., Kent, P.F., Blair, D.C and Emko, P. (1998) The Olfactory loss that accompanies an HIV Infection. *Physiol. Behav.*, 15, 549-556.

Homung, D.E. Smith, D.J., Kurtz, D.B., White, T. and Leopold, D.A. (2001) Effect of nasal dilators on nasal structures, sniffing strategies, and olfactory ability, *Rhinology*, 39. 84-87.

Hummel, T. (2000) Perspectives in olfactory loss following viral infections of the upper respiratory tract. *Arch Otolaryngol Head Neck Surg*; 126: 802-803.

Hummel, T. and Welge-Lussen, A. (2006b)(eds): Taste and Smell. An Update *adv Otorhinolaryngol. Basel, Karger, Vol 63* , pp 108-124.

Hummel, T. and Welge-Lussen, A. (2006c) (eds): Taste and Smell. An Update *adv Otorhinolaryngol Basel, Karger, Vol 63*, pp 125-132.

Hummel, T., Konnerth, C.G., Rosenheim, K. and Kobal, G. (2001) Screening of olfactory function with a four-minute odor identification test: reliability, normative data, and investigations in patients with olfactory loss. *Ann Otol Rhinol Laryngol.* 110(10): 976-81.

Hummel, T., Mohammadian, P. and Kobal, G. (1998) Handedness is a determining factor in lateralized olfactory discrimination, *Chem. Senses*, 23, 541-544.

Hummel T, Heilmann S, Hüttenbriuk KB. (2006). Lipoic acid in the treatment of smell dysfunction following viral infection of the upper respiratory tract. 17: 23-31.

Ikeda, K., Sakurada, T., Suzaki. Y. and Takasaka, T. (1995) Efficacy of systemic corticosteroid treatment for anosmia with nasal and parana sinus disease. *Rhinology.* 33,162-165.

Ikeda, K., Tabata, K., Oshima, T., Nishikawa, H., Hidaka, H. and Takasaka, T. (1999) Unilateral examination of olfactory threshold using the Jet Stream Olfactometer. *Auris Nasus Karynx* 26:435-139.

Inamitsu, M., Nakashima, T., and Uemura, T. (1990) Immunopathology of olfactory mucosa following injury to the olfactory bulb. *J. Laryngol. Otol.* 104: 959-964.

Jackman, A.H. and Doty, R.L. (2005) Utility of a 3-item smell identification test in detecting olfactory dysfunction. *Laryngoscope*, 115: 2209-2212.

Jackson, J.H. (1864) Illustrations of diseases of the nervous system. London Hospital Report, 1 : 470-471.

Jackson, J.A., Jankovic, J., and Ford, J. (1983) Progressive supranuclear palsy: clinical features and response to treatment in 16 patients. *Ann. Neurol.* 13: 273-278.

Jefek, B.W., Murrow, B., Michaels, R., Restrepo, D., and Linschoten, M. (2002) Biopsies of Human Olfactory Epithelium. *Chem. Senses* 27: 623-628.

Jagust, W.I and Eberling, J.L. (1991) MR1, CT, SPECT, PET: Their use in diagnosing dementia . *Geriatrics* 46: 28-35.

Jacnkovic, L. (1989) Parkinsonism-plus syndromes. *Movement Dis.* 4: S95-119.

Jermoe, E.A. (1942) Olfactory thresholds measured in terms of stimulus pressure and volume. *Arch Psychol* 274, 1-44.

Jolles, P.R., Chapman, P.R. and Alavi, A. (1989) PET, CT, and MFI in the evaluation of neuropsychiatric disorders: current applications *J. Nucl. Med* 30: 1589-16.

Jones, F.N (1953) A test of the Elsberg technique of olfactometry . *Am. J Psychol* 66, 81-85.

Kallmann, F.J., Schoenfeld, W. A. and Barrera, S.E. (1944) The genetic aspects of primary eunuchoidism. *Am. J. Merit. Dofic.* 48: 203-221.

Kelly, J.T. Prasad, A.K. and Wexler, A.S. (2000) Detailed flow patients in the nasal cavity. *J. . Appl. Physiol.* 89.323-337.

Kern RC, Conley DB, Haines GK 3rd, Robinson AM. (2005). Treatment of olfactory dysfunction. *114:2200-4.*

Kesslak, J.P., Cotman, C.W., Chui, H.C, van den Noort, S., Fang, H., Pfeffer, R. and Lynch, G. (1988) Olfactory tests as possible probes for detecting and monitoring Alzheimer's disease. *Neurobiol. Aging* *:399-403.

Kjaer, I. and Fischer-Hansen, B. (1996) The human vomeronasal organ: Prenatal developmental stages and distribution of luteinizing hormone-releasing hormone. *Eur. J. Oral Sci,* 104:34-40.

Kobal, G. and Hummel, C. (1988) Cerebral chemosensory evoked potentials elicited by chemical stimulation of the human olfactory and respiratory nasal mucosa. *Electroencephaloger Clin Neuropsychiol.* 71,241-250.

Kobal, G., Klimek, L., Wolfensberger, M., Guziol, H., Temmel, A., Owen, C.M., Seeber, H., Pauli, E. and Hummel, T. (2000) Multi-center investigation of 1036 subjects using a standardized method for the assessment of olfactory function combining tests of odor identification, odor discrimination, and olfactory threshold. *Eur. Arch. Otothinoiaryngol.,* 257,205-211.

Kobayashi, M. (2005): The Odor Stick Identification Test for the Japanese (OSIT-J): Clinical Suitability for patients suffering from olfactory disturbance. *Chemical Senses.* 30(Supplement I): i216-i217.

Kondo, H., Matsuda T., Hashiba. M. and Baba, S. (1998) A study of the relationship between the T & T olfactometer aiul the University of Pennsylvania Smell Identification Test in a Japanese population. *Am. J. Rhinol* 12: 353-358.

Kbopmann, C.F.Jr. (1989) Effects of aging on nasal structure and function. *Am J Rhinol* 3: 59-62.

Kopala, L.C and Good, K.M. (1996) Odor identification ability in patients with panic disorder. *J. Psychiatr. Neurosu.* 21: 430-342.

Korsching, S. (2002) Olfactory maps and odor images. *Cuur Opin Neurobiol* 12: 387-392.

Kratskin, I.L. (1995) Functional anatomy, central connection, and neurochemistry of the mammalian olfactory bulb. In Doty, R.L. (ed), *Handbook of olfaction and Gustation.* Dekker, New York. Pp. 103-126.

Kraus, W., Fife, D. and Ramstein, K. (1986) The relationship of family income to the incidence, external causes, and outcomes of serious brain injury, San Diego County, California. *Am. J. Public Healm,* 76: 1345-1347.

Krmpotic-Nemanic, J. (1969) Presbycusis presbystasis, and presbyomia as consequences of the analogous biological process. *Acta Otolaryngol* 67: 217-223.

Kuga, M., Ikeda, M., Suzuki, K. and Takeuchi, S. (2002)Changes in gustatory sense during pregnancy. *A eta Otolaryngol.,* 546(Suppl.), 146-153.

Kurland, L.T. (1988) Amyotrophic lateral sclerosis and Parkinson's disease complex on Guam linked to an environmental neurotoxin. *Trends Neurosci.* 11: 51-54.

Lancet, D. and Ben-Arie, N. (1993) Olfactory receptors. *Curr. Bio.* 3: 668-674.

Landis, B.N., Frasnelli, J. and Hummel, T. (2004) Euosmia: A rare form of parosmia. *Acta Otolaryngol,* 126(1), 101-103.

Landis BN, Frasnelli J, Reden J. (2006). Differences between orthonasal and retronasal olfactory functions in patients with loss of the sense of smell. *131:977-81.*

Lane, A.P. Gomez, G., Dankulich, T., Wang, H., Bolger, W.E. and Rawson, N.E. (2002). The Superior Turbinate as a Source of Functional Human Olfactory Receptor Neurons. *Laryngoscope.* 112(7): 1183-1189.

Lee JS, Choi JC, Kang SY, Kang JH, Lee SH, Kim JH, Kim S. (oct. 2010). Olfactory identification deficits in cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy. *64(5):280-5.*

Leopold, D.A. (1988) The relationship between nasal anatomy and human olfaction. *Laryngoscope.* 98, 1232: 1238.

Leopold, D.A. (1995) Distorted olfactory perception. In Doty, R.L. (ed). Handbook of olfaction and Gustation. Marcel Dekker, New York.

Leopold, D.A. and Holbrook, E.H. (2005) Physiology of olfaction in. Cummings, C.W., Flint, P.W., Harker, L.A., et al., eds. Cummings Otolaryngology Head and Neck Surgery, 4th ed. Philadelphia: Elsevier Mosby, 865:897.

Leopold, D.A. and Myerrose, G. (1994) Diagnosis and treatment of distorted olfactory perception. In Kurihara, K., Suzuki, N. and Ogawa. H. (eds), Olfaction and Taste XI. Springer-Verlag, Tokyo, Japan, pp. 618-622.

Leopold, D.A., Hummel, T., Schwob, J.E., Hong, S.C., Knecht., M. and Kobal, G. (2000) Anterior distribution of human olfactory epithelium. Laryngoscope, 110: 417-421.

Leopold, D.A., Lochrl T.A. and Schwob, J.E. (2002) Long-term follow-up of surgically treated phantosmia. Arch. Otolaryngol. Head Neck Surg., 128: 642-647.

Leopold, D.A., Preti, G., Mozell, M.M., Youngentob,S.L. and Wright, H.N. (1990) Fish-odor syndrome presenting as dysosmia. Arch. Otolaryngol. Head Neck Surg., 116: 345-355.

Levin, H. S., High, W.M. and Elsenberg, H.M. (1985) Impairment of olfactory recognition after closed head injury. Brain, 108, 579-583.

Lewis, J.L. and Dahl, A.R. (1995) Olfactory mucosa: Composition, enzymatic localization and metabolism. In Doty, R.L., (ed): Handbook of Olfaction and Gustation. New York , Marcel Dekker, pp 33-52.

Li, C., Youse, D.M., Doty, R.L. and Kennedy, D.W. (1995) Evaluation of olfactory deficits by medical imaging. In : Doty, R.L. (Ed.): Handbook of olfaction and Gustation. N.Y.: Marcel Dekker, pp.395-419.

Lieblich, J.M., Rogoi, A.D., White, B.J. (1982) Syndrome of anosmia with hypogonadism (Kallmann's syndrome). Am. J. Med. 73: 506-519.

Lotesch, J., Darimont, J., Skarke , C., Zimmermann, M., Hummel, T. and Geisslingerj G. (2001) Effects of the opioid remtfentanil on olfactory function in healthy volunteers. Life Sci., 69, 2279-2285.

Lotech, J., Lange, C. and Hummel, T. (2004) A Simple and Reliable method for Clinical Assesment of Odor Thresholds. Chem. Senses 29: 311-317.

Lowe, G. (2003) Electrical signaling in the olfactory oulb. Curr Opin Neurobiol 13: 476-481.

Mair, R.G., McEntee, W.J. and Doty, R.L. (1983) Olfactory perception in Korsakoffs psychosis: correlation with brain noradrenergic activity Neurology 33: 64-65.

Mair, R.G., Doty R.L., Kelly, K.V., Wilson, C.S., Langlais P.J., McEnlee, W.J, W.J. and Vollmecke, T.A (1986) Multimodal sensory discrimination deficits in Korsakoffs psychosis. *Neuropsychologia* 24: 831-839.

Malakoff, D. (1999) Following the scent of avain olfaction. *Science*, 286, 704-705.

Malaspina, D., Perera, G.M., Lignelli, A., Marshall, R.S., Esser, P.D., Storer, S. (1998) SPECT imaging of odor identification in schizophrenia psychiatr. *Res.* 82: 53-61.

Maruniak, J.A., Silver, W.L. and Moulton, D.G. (1983) Olfactory receptors respond to blood-borne odorants . *Brain Res* 265: 312-316.

Murchison, G. and Griffith, W.H. (1996) Low Voltage-activate Calcium currents increase in basal for brain neurons from aged rats. *J. Neurophysiol* 74(2): 876-887.

Murphy, C. and Jinich, S. (1996) Olfactory dysfunction in Down's syndrome. *Neurobiol. Aging* 17: 631-637.

Murphy, C., Sehubert, C.R., Cruickshanks, K.J., Klein, B.E.K., Klein, R. and Nodahl, D.M.(2002) prevalence of olfactory impairment in older adults: Results of an epidemiological study. *JAMA* 288(18), 2307-2312.

Nauta, W.J.H. and Haymaker, W. (1969) Hypothalamic nuclei and fiber connections . In: Haymaker, W., Anderson, E. and Nauta, W.J.H. (eds) *The Hypothalamus*. Thomas: Springfield, Illinois: pp 136-209.

Neumann, P., Schleidt, M. and Morishita, H. (1988) pleasure and disgust: memories and associations of pleasant and unpleasant odurs in Germany and Japan. *Chem Senses* 13: 279-293.

Newman. S.P., Moren, F. and Clarke, S.W. (1987) Deposition pattern from a nasal pump spray. *Rhinology*, 25, 77-82.

Nordin, S., Broman, D.A., Olfsson, J.K. and Wulff, M. (2004) A Longitudinal Descriptive Study of self-reported abnormal smell and taste perception in pregnant woman. *Chem. Senses* 29: 391-402.

Ogawa, T. and Rutka, J. (1999) Olfactory dysfunction in head injured workers. *Acta Otolaryngol. Suppl.* 540: 50-57.

Oliver, C. and Holland, A.J. (1986) Down's syndrome and Alzheimer's disease: a review. *Psychol. Med.* 16: 307-322.

Patriarca G. Romano A., Schiavino D., Venuti A., Di Rienzo V., Eais G. and Nucera E. (1986): ASA disease: the clinical relationship of nasal polyposis to ASA intolerance. *Arch Otorhinolaryngol*; 243: 16-19.

Paul Christian Baier, Sara Lena Weinhold, , Birgit Gottwald, Roman Ferstl, Dunja Hinze-Selch (2008). Olfactory dysfunction in patients with narcolepsy with cataplexy is restored by intranasal Orexin A (Hypocretin-1). 57: 650-698.

Pause, B., Sojka, B., Krauel, K. (1996) Olfactory information processing during the course of the menstrual cycle. *Biol. Psvehol.*, 44, 31-54.

Poran, N.S. (1995) Cyclic attractivity of human female odors. In Apfelbach, R., Muller-Schwarze, G., Reutter, k., Weiler, E (eds.) *Chemical signals in Vertebrates VII.* Elsevier Science Ltd, Oxford, England, pp 561-569.

Postolache, T.T., Dory, K.L., Wehr, R.A., Jimma, L.A, Han, L., Tuner, E.H. (1999) Monorhinal odor identification and depression scores in patients with seasonal affective disorder. *J. Affect. Dis.* 56: 27-35.

Pribitkin, E.A., Getz, A., Roberge, E.A., Krein, H., Rawson, N.E., Andrews, D.W., Simeone, F.A., Maus, M. Bilyk, J.R., Keasne, W.M. and Cowart, B.J.(2003) olfactory function following Transorbital Craniotomy through a suprabrow Approach. *The internet Journal of Otorhinolaryngology.* Volume 2 Number 2.

Price, J.L. (1987) The central olfactory and accessory olfactory systems. In finger TE, Silver WL (Editors), *Neurobiology of Taste and Smell.* Ney York: Jchn Wiley & Sons, pp. 179-203.

Price, J.L. and Slotuick, B.M (1983). Dual olfactory representation in the rat thalamus: an anatomical and electrophysiological study. *Jornal of Comparative*

Proctor, D.F. (1982) The upper airway. In proctor, D.F. and Andersen, I.B. (eds.), *The Nose.* Elsevier Biomedical, New York, pp. 23-43.

Proetz, A.W. (1924) Exact olfactometry. *Ann Otol Rhinol Laryngol.* 33, 275-278.

Profet, M. (1992) Pregnancy sickness as adaptation: a deterrent to maternal ingestion offeratognes. In Barkow, J.H., Cosmides, L. and Tooby, J. (eds), *The adapted mind: Evolutionary psychology and the Generation of Culture.* Oxford University Press, New York, pp. 327-365.

Pyatkina, G.A. (1982) Development of the olfactory rphelium in man. *Z Mikrosk Anal Forsch* 96: 361-372.

Quinn, N.P., Rosser, M.N. and Marsden, C.D. (1987) Olfactory threshold in Parkinson's disease. *J. Neurol. Neurosurg. Psychiatry,* 50, 88-89.

Quint C., Temmel A.F.P., Hummel T., Ehrenberger K. (2002) The quinoxaline derivative caroverine in the treatment of sensorineural smell disorders: a proof-of-concept study. *Acta Otolaryngol;* 122: 877-881.

Rawson, N.F., Gomez, G., Cowart, B. and Restrepo, D. (1998) The use of olfactory receptor neurons (ORNs) from biopsies to study changes in aging and neurodegenerative diseases. *Ann NY Acad Sci.,* 855: 701-7.

Raichle, M.E. (1994) Images of mind: studies with modern imaging techniques. *Annual Review of Psychology*, 45, 333-356.

Reed, R.R. (2003) The contribution of signaling pathways to olfactory organization and development. *Curr Opin Neurobiol* 13: 482-486.

Reed, D.M. and Brody, J.A. (1975) Amyotrophic lateral sclerosis and parkinsonism-dementia on Guam 1945-1972. I. Descriptive epidemiology. *Am. J. Epidemiol* 101: 287-301.

Rehn, B., Breipohl, W., Mendoza, A.S. and Apfelbach, R. (1986) Changes in granule cells of the Ferret olfactory bulb associated with imprinting on prey odours. *Brain Res* 373: 114-125.

Rombaux P, Huart C, Collet S, Eloy P, Negoias S, Hummel T. (oct. 2010). Presence of olfactory event-related potentials predicts recovery in patients with olfactory loss following upper respiratory tract infection. *120(10):2115-8.*

Rombaux, Ph., Collet, S., Eloy, Ph., Ledeghen, S. and Bertrand, B. (2005) Smell disorders in ENT clinic. *B-ENT, suppl. 1, 97-109.*

Rotch, T.M (1878) A case of traumatic anosmia and ageusia, with partial loss of hearing and sight. *Bost. Med. Surg. J.* 99: 130-132.

Roth, J., Raddi, T., Ruzicka, E., Jech, R. and Tichy, J. (1998) Apomorphine does not influence olfactory thresholds in Parkinson's disease. *Funct. Neurol.*, 13, 99-103.

Rousseaux, M., Muller, P., Gahide, I., Mottin, Y. and Romon, M. (1996) Disorders of smell, taste, and food intake in a patients with a dorsomedial thalamic infarct. *Stroke* 27: 2328-2330.

Schoppa, N.E. and Urban, N.N (2003) Dendritic processing within olfactory bulb circuits. *Trends Neurosci* 26: 501-506.

Schwob J.E., (2002) Neural regeneration and the peripheral olfactory system *Anat Rec* 269: 33-49.

Scott, J.W. and Harrison, T.A. (1986) " The Olfactory bulb: Anatomy and physiology." In: *Neurobiology of Taste and Smell* (T.E. Finger and W.L. Silver, eds,). Wiley and Sons, New York. Pp. 151-u8.

Seiden A.M. and Duncn H.J. (2001) The diagnosis of a conductive olfactory loss. *Laryngoscope*; 111: 9-14.

Semb, G. (1968) The detectability of the odor of butanol. *Percept psychophys.* 4, 335-340.