

## 6 Literatur:

Advenier C., Naline E., Toty L., Baledach H., Emonds-Alt X., Vilain P., Breliere J.C., Lefur G.

Effects on the isolated human bronchus of SR 48968, a potent and selective nonpeptide antagonist of the neurokinin A (NK2) receptors.

*Am. Rev. Resp. Dis.* 146: 1177-1181. (1992)

Ahmed M., Bjurholm A., Schultzberg M., Theodorsson E., Kreicbergs A.

Increased levels of substance P and calcitonin gene-related peptide in rat adjuvant arthritis. *Arthritis Rheum.* 38: 699-709. (1995)

Aimi Y., Fujimura M., Vincent S.R., Kimura H.

Localization of NADPH-diaphorase-containing neurons in sensory ganglia of the rat.

*J. Comp. Neurol.* 306 (3):382-92. (1991)

Anderson R.G. and Grunström N.

Innervation of airway smooth muscle. Efferent mechanisms.

*Pharmacol. Ther.;* 32:107-30. (1987)

Baluk P. and Gabella G.

Tracheal parasympathetic neurons of rat, mouse and guinea-pig: partial expression of noradrenergic phenotype and lack of innervation from noradrenergic fibres.

*Neurosci. Lett.* 102: 191-196. (1989)

Baluk P., Nadel J.A. and McDonald D.M.

Substance P-immunoreactive sensory axons in the rat respiratory tract: a quantitative study of their distribution and role in neurogenic inflammation. *J. Comp. Neurol.*

319(4):586-98. (1992)

Baluk P. and McDonald D.M.

Proinflammatory peptides in sensory nerves of airways.

In: Said SJ (Ed.), Proinflammatory and Anti-Inflammatory Peptides. *Dekker,*

*New York,* p. 45. (1998)

Baraniuk J.N., Silver P.B., Kaliner M.A., Barnes P.J.

Neuropeptide Y is a vasoconstrictor in human nasal mucosa.

*J. Appl. Physiol.*; 73: 1867-72. (1992)

Barnes P.J.

Adrenergic and non-adrenergic, non-cholinergic control of airways.

*Respiration*;50 (2): 9-16. (1986a)

Barnes P.J.

Neural Control of human airways in health and disease.

*Am. Rev. Respir. Dis.* 134: 1289-1314. (1986b)

Barnes P.J.

Asthma as an axon reflex. *Lancet*; 1: 242-245. (1986c)

Barnes P.J. and Belvisi M.G.

Nitric oxide and lung disease. *Thorax*; 48: 1034-1043. (1993)

Barnes P.J. and Liew F.Y.

Nitric oxide and asthmatic inflammation. *Immunol. Today*; 16: 128-130. (1995)

Barnes P.J.

NO or no NO in asthma? *Thorax*; 51: 218-220. (1996)

Barnes P. J. and Kharitonov S.A.

Exhaled nitric oxide: a new lung function test [editorial]. *Thorax*; 51: 233-237. (1996)

Barnes P.J.

Neurogenic inflammation in the airways. *Respir. Physiol.* 125:145-154. (2001)

Beauvais F., Michel L., Dubertret L.

The nitric oxide donors, azide and hydroxylamine, inhibit the programmed cell death of cytokine – deprived human eosinophils. *FEBS Lett.*; 361: 229-232. (1995)

Bedoni S., Kawamura N., Straub R.H., Pabst R., Yamamura T., von Horsten S.  
Relevance of neuropeptide Y for the neuroimmune crosstalk.  
*J. Neuroimmunol.*; 134: 1-11. (2003)

Belvisi M.G., Stretton C.D., Barnes P.J.  
Nitric oxide as an endogenous modulator of cholinergic neurotransmission in guinea pig airways. *Eur. J. Pharmacol.*; 198: 219-21. (1991)

Belvisi M.G., Stretton C.D., Miura M., Verleden G.M., Tadjami S., Yacoub M.H.  
Inhibitory NANC nerves in human tracheal smooth muscle: a quest for the neurotransmitter. *J. Appl. Physiol.*; 73: 2505-10. (1992a)

Belvisi, M. G., Stretton C. D., Yacoub M, Barnes P. J.  
Nitric oxide is the endogenous neurotransmitter of bronchodilator nerves in humans.  
*Eur. J. Pharmacol.*; 210(2): 221-2. (1992b)

Belvisi M. G. and Bai T.R.  
Inhibitory nonadrenergic, noncholinergic innervation of airways smooth muscle: role of nitric oxide. In D. Raeburn and M.A. Giembycz, editors. *Airways Smooth Muscle: Structure, Innervation and Neurotransmission. Birkhauser Verlag, Basel.* 157-188. (1994)

Belvisi M.G.  
Overview of the innervation of the lung.  
*Current opinion in Pharmacology*; 2: 211-215. (2002)

Belvisi M.G.  
Airway sensory innervation as a target for novel therapies: an outdated concept?  
*Current opinion in Pharmacology*; 3: 239-243. (2003)

Benckhekrone T.M., Fournier A., St. Pierre S., Cadieux A.  
Inhibitory action of neuropeptide Y on agonist-induced responses in isolated guinea pig trachea. *Eur. J. Pharmacol.*; 216: 421-428. (1992)

Berglund M.M., Hipskind P.A., Gehlert D.R.

Recent developments in our understanding of the physiological role of PP-fold peptide receptor subtypes. *Exp. Biol. Med. (Maywood)*; 228: 217-244. (2003)

Berlyne G. and Barnes N.

No role for NO in asthma? *Lancet*; 355: 1029-1030. (2000)

Bernareggi M., Mitchell J. A., Barnes P. J., Belvisi M. G. Dual action of nitric oxide on airway plasma leakage. *Am. J. Respir. Crit. Care Med.*; 155: 869-874. (1997)

Borson D.B., Brokaw J.J., Sekizawa K., McDonald D.M., Nadel J.A.

Neutral endopeptidase and neurogenic inflammation in rats with respiratory infections. *J. Appl. Physiol.*; 66 : 2653-2658. (1989)

Bowden J.J. and Gibbins I.L.

Vasoactive intestinal peptide and neuropeptide Y coexists in non-noradrenergic sympathetic neurons to guinea-pig trachea. *J. Auton. Nerv. Syst.*; 38(1): 1-19 (1992)

Bredt, D.S., Hwang P.M., Snyder S.H.

Localization of nitric oxide synthase indicating a neural role for nitric oxide. *Nature*; 347(6295): 768-70. (1990)

Bredt D.S. and Snyder S.H.

Nitric oxide, a novel neuronal messenger. *Neuron*; 8: 3-11, Review (1992)

Brunelleschi S., Vanui L., Ledda F., Giotti A., Maggi C. A., Fantozzi R.

Tachykinins activate guinea-pig alveolar macrophages: involvement of NK-2 and NK-1 receptors. *Br. J. Pharmacol.*; 100: 417-420. (1990)

Brunelleschi S., Ceni E., Fantozzi R., Maggi C.A.

Evidence for Tachykinin NK-2B-like receptors in guinea-pig alveolar macrophages. *Life Science*; S1: PL177-PL181. (1992)

Buschauer A., Bernhardt G., Dove S. NPY-Rezeptoren als Zielstrukturen für neue Arzneistoffe. *Pharm. Ztg.* 24: 11-18. (2000)

Callsen-Cencic P. and Mense S.

Expression of neuropeptides and nitric oxide synthase in neurones innervating the inflamed rat urinary bladder. *J. Auton. Nerv. Syst.*; 65: 33-44. (1997)

Canning B.J. and Fischer A.

Neural regulation of airway smooth muscle tone. *Respiration Physiologie*; 125: 113-127. (2001)

Canning B.J. and Fischer A.

Localization of cholinergic nerves in lower airways of guinea pigs using antisera to choline acetyltransferase. *Am. J. Physiol.*; 272: L731-738.

Chang M. M., Leeman S.E., Niall H.D.

Amino-acid sequence of substance P. *Nat. New. Biol.*; 232(29): 86-7. (1971)

Chondry N.B., Fuller R.W., Pride N.B.

Sensitivity of the human cough reflex: effect of inflammatory mediators prostaglandin E<sub>2</sub>, bradykinin and histamine. *Am. Rev. Resp. Dis.*; 140: 137-141. (1989)

Coburn R. F. and Tomita T.

Evidence for nonadrenergic inhibitory nerves in the guinea pig trachealis muscle. *Am. J. Physiol.*; 224(5):1072-80. (1973)

Coleman R.A. and Levy G.P.

A non-adrenergic inhibitory nervous pathway in guinea-pig trachea. *Br. J. Pharmacol.*; 52(2):167-74. (1974)

Coleridge J.C. and Coleridge H.M.

Afferent vagal C fibre innervation of the lungs and airways and its functional significance. *Rev. Physiol. Biochem. Pharmacol.*; 99:1-110. (1984)

- Coleridge H.M. and Coleridge J.C.  
Pulmonary reflexes: Neural mechanism of pulmonary defense.  
*Annual Review of Physiology*; 56: 69-91. (1994)
- Cunha F.Q., Poole S., Lorenzetti B.B., Ferreira S.H.  
The pivotal role of tumor necrosis factor  $\alpha$  in the development of inflammatory hyperalgesia. *Br. J. Pharmacol*; 107: 660-664. (1992)
- Dahlof C., Dahlof P., Lundberg J.M., Strombom H.  
Elevant plasma concentration of neuropeptide Y and low level of circulating adrenaline in elderly asthmatics during rest and acute severe asthma.  
*Pulm. Pharmacol.*; 1: 3-6. (1988)
- Dalsgaard C. J. and Lundberg J.M.  
Evidence for a spinal afferent Innervation of the guinea pig lower respiratory tract as studied by the horseradish peroxidase technique. *Neurosci. Lett.*; 45(2):117-22. (1984)
- Dalsgaard C.J.  
The sensory system. In: Björklund A., Hökfelt T., Owman C (Hrsg) Handbook of chemical neuroanatomie, *Elsevier Amsterdam* Bd.6: 599-636. (1988)
- Daniel E.E., Kannan M., Davis C., Posey-Daniel V.  
Ultrastructural studies on the neuromuscular control of human tracheal and broncheal muscle. *Resp. Physiol.*; 63: 109 – 128. (1986)
- Davis B., Robers A.M., Coleridge H.M., Coleridge J.C.  
Reflex tracheal gland secretion evoked by stimulation of bronchial c-fibres in dogs.  
*J. Appl. Physiol. Respir. Environ. Exercise Physiol.*; 53: 985-991. (1982)
- Davis C., Kaunan M.S., Jones T.R. Daniel E.E.  
Control of human airway smooth muscle: In vitro studies. *J. Appl. Physiol.*; 53: 1080-1087. (1982)

De la Fuente M., Del Rio M., Medina S.

Changes with aging in the modulation by neuropeptide Y of murine peritoneal macrophage functions. *J. Neuroimmunol.*; 116: 156-67. (2001)

Dey R.D., Mayer B., Said S.I.

Colocalization of vasoactive intestinal peptide and nitric oxide synthase in neurons of the ferret trachea. *Neuroscience*; 54(4):839-43. (1993)

Dey R. D., Altemus J.B., Zervos I., Hoffpauir J.

Origin and colocalization of CGRP- and SP-reactive nerves in cat airway epithelium. *J. Appl. Physiol.*; 68(2):770-8. (1990)

Di Maria G.U., Bellofiore S., Grepetti P.

Regulation of airway neurogenic inflammation by neutral endopeptidase. *Eur. Respir. J.*; 12: 1454-1462. (1998)

Dimitrijevic M., Stanojevic S., Vujic V., Kovacevic-Jovanovic V., Beck-Sickinger A., Demuth H.-K., Horsten S.V.

Effect of neuropeptide Y on inflammatory paw edema in the rat: involvement of peripheral NPY Y1 and Y2 receptors and interaction with dipeptidyl-peptidase IV (CD26). *J. Neuroimmunol.*; 129: 35-42. (2002)

Dinh QT, Groneberg DA, Witt C, Peiser C, Cifuentes LB, Frossard N, Klapp BF, Fischer A.

Expression of tyrosine hydroxylase and neuropeptide tyrosine in mouse sympathetic airway-specific neurons under normal situation and allergic airway inflammation. *Clin Exp Allergy*; 34 (12): 1934-1941. (2004)

Dinh QT, Groneberg DA, Peiser C, Joachim RA, Frossard N, Arck PC, Klapp BF, Fischer A.

Expression of substance P and nitric oxide synthase in vagal sensory neurons innervating the mouse airways. *Regul Pept.*; 126(3): 189-194. (2005)

DiSebastiano P., Fink R., di Mola F.F., Weihe E., Innocenti P., Friess H.,  
Büchler M.W.

Neuroimmune appendicitis. *Lancet*; 354: 461-466. (1999)

Doidge, J. M. and Satchell D.G.

Adrenergic and non-adrenergic inhibitory nerves in mammalian airways.

*J. Auton. Nerv. Syst.*; 5(2): 83-99. (1982)

Donnerer J., Schuligoi R., Stein C.

Increased content and transport of substance P and calcitonin gene-related peptide in sensory nerves innervating inflamed tissue. Evidence for a regulatory function of nerve growth factor in vivo. *Neuroscience*; 49: 693-698. (1992)

Dusser D.J., Djokic T.D., Borson D.B., Nadel J.A.

Cigarette smoke induces bronchoconstrictor hyperresponsiveness to substance P and inactivates airway neutral endopeptidase in guinea-pig.

*J.Clin. Invest.*; 84:900-906. (1989)

Ekblad E., Edvinsson L., Wahlstedt C., Uddman R., Hakanson R., Sundler F.

Neuropeptide Y co-exits and co-operates with noradrenalin in perivascular nerve fibres. *Regul. Pept.*; 8: 225-235. (1984)

Elwood W., Lotvall J.O., Barnes P.J., Chung K.F.

Characterisation of allergen-induced bronchial hyperresponsiveness and airway inflammation in actively sensitized brown-Norway rats.

*J. Allergy Clin. Immunol.*; 88: 951-60. (1991)

Elwood W., Barnes P.J., Chung K.F.

Airway hyperresponsiveness is associated with inflammatory cell infiltration in allergic brown-Norway rats. *Int. Arch. Allergy Immunol.*; 99:91-7. (1992)



Emadi-Khiav B., Mousli M., Bronner C., Landry Y.

Human and rat cutaneous mast cells: involvement of c G protein in the response to peptidergic stimuli. *Eur. J. Pharmacol.*; 272: 97-102. (1995)

Erspamer V.

The tachykinin peptide family. *Trends in Neuroscience*; 4:267-269. (1981)

Falck B., Hillarp N.-A., Thieme G., Torp A.

Fluorescence of catecholamines and related compounds condensed with formaldehyde. *J. Histochem. Cytochem.*; 10: 346-354. (1962)

Ferreira H.H., Medeiros M.V., Lima C.S., Flores C.A., Sannomiya P., Autunes E., De Nucci G.

Inhibition of eosinophil chemotaxis by chronic blockade of nitric oxide biosynthesis. *Eur. J. Pharmacol.*; 310: 201-207. (1996)

Fischer A., Mundel P., Mayer B., Preissler U., Philippin B., Kummer W.

Nitric oxide synthase in guinea pig lower airway innervation. *Neurosci. Lett.*; 149(2):157-60. (1993)

Fischer A. and Hoffmann B.

Nitric oxide synthase in neurons and nerve fibers of lower airways and in vagal sensory ganglia of man. Correlation with neuropeptides. *Am. J. Respir. Crit. Care Med.*; 154(1):209-16. (1996)

Fischer A., McGregor G.P., Saria A., Philippin B., Kummer W.

Induction of tachykinin gene and peptide expression in guinea pig nodose primary afferent neurons by allergic airway inflammation. *J. Clin. Invest.*; 98 (10); 2284-2291. (1996a)

Fischer A., Mayer B., Kummer W.

Nitric oxide synthase in vagal sensory and sympathetic neurons innervating the guinea-pig trachea. *J. Auton. Nerv. Syst.*; 56: 157-160. (1996b)

Fischer A. Die Nervenversorgung der Atemwege: Einflüsse der allergischen Entzündungsreaktion. *Allergologie* 20: 115-120. (1997)

Fischer A., Folkerts G., Geppetti P., Groneberg D.A.  
Mediators of Asthma: Nitric oxide. *Pulm. Pharmacol. Ther.*; 15: 73-81. (2002) Review

Fontan J.J., Diec C.T., Velloff C.R.  
Bilateral distribution of vagal motor and sensory nerve fibers in the rat's lungs and airways. *Am. J. Physiol. Regul. Integr. Comp. Physiol.*; 279(2): R713-28. (2000)

Franco-Cereceda A., Matran R., Alving K., Lundberg J.M.  
Sympathetic vascular control of the laryngo-tracheal, bronchial and pulmonary circulation in the pig: evidence for non-adrenergic mechanisms involving neuropeptide Y. *Acta Physiol. Scand.*; 155: 193-204. (1995)

Freedman J.E., Sauter R., Battinelli E.M., Ault K., Knowles C., Huang P.L., Loscalzo J.  
Deficient platelet-derived nitric oxide and enhanced hemostasis in mice lacking the NOSIII gene. *Circ. Res.*; 84(12): 1416-21. (1999)

Fried G., Terenins L., Hokfelt T., Goldstein M.  
Evidence for differential localization of noradrenalin and neuropeptide Y in neuronal storage residues isolated from rat vas deferens. *J. Neurosci.: Offic. J. Soc. Neurosci.*; 5: 450-458. (1985)

Frossard N., Rhoden K.J., Barnes P.J.  
Influence of epithelium on guinea pig airway responses to tachykinins: role of endopeptidase and cyclooxygenase. *J. Pharmacol. Exp. Ther.*; 248: 292-298. (1989)

Goldie R.G., Paterson J.W., Lulich K.M.  
Adrenoceptors in airway smooth muscle. *Pharmacol. Ther.*; 48: 295-322. (1990)

Gotti C., Fornasari D., Clementi F.  
Human neuronal nicotinic receptors.  
*Prog. Neurobiol.*; 53: 199-237. (1997) Review

Groneberg D.A., Folkerts G., Peiser C., Chung K.F., Fischer A. Mediators in asthma:  
Neuropeptide Y (NPY). *Pulm. Pharmacol. Ther.*; 17(4): 173-180. (2004) Review

Grundemar L. and Hogestratt E.D.  
Unmasking the vasoconstrictor response to neuropeptide Y and its interaction with  
vasodilating agents in vitro. *Eur. J. Pharmacol.*; 221: 71-76. (1992)

Grundemar L., Jonas S.E., Morner N., Hogestratt E.D., Wahlestedt C., Hakanson R.  
Characterization of vascular neuropeptide Y receptors.  
*Br. J. Pharmacol.*; 05: 45-50. (1992)

Grundström N., Andersson R.G., Wikberg J.E.S.  
Pharmacological characterization of the autonomous innervation of the guinea pig  
tracheobronchial smooth muscle. *Acta Pharmacol Toxicol.*; 49: 150-157. (1981)

Grundström N. and Andersson R.G.  
In vivo demonstration of alpha-2-adrenoceptor-mediated inhibition of the excitatory  
non-cholinergic neurotransmission in guinea pig airways.  
*Naunyn. Schmiedebergs Arch Pharmacol.*; 328:236-240. (1985)

Guz A. and Treuchard D.W.  
Pulmonary stretch receptor activity in man: A comparison with dog and cat.  
*J. Physiol. (Lond)*; 213: 329-343. (1971)

Haczku A., Moqbel R., Jacobson M., Kay A.B., Barnes P.J., Chung K.F.  
T-cells subsets and activation in bronchial mucosa of sensitized Brown-Norway rats  
after single allergen exposure. *Immunology*; 85:591-7. (1995)

Hall A.K., Barnes P.J., Meldrum L.A., Maclagan J.

Facilitation by tachykinins of neurotransmission in guinea-pig pulmonary parasympathetic nerves. *Br. J. Pharmacol.*; 97: 274-280. (1989)

Hamid Q.A., Mak J.C., Sheppard M.N., Corrin B., Venter J.C., Barnes P.J.

Localization of beta2-adrenoceptor messenger RNA in human and rat lung using in situ hybridization: correlation with receptor autoradiography.

*Eur. J. Pharmacol.*; 206: 133-138. (1991)

Hamid Q., Springall D.R., Riveros-Moreno V., Chanez P., Howarth P., Redington A., Busquet J., Godard P., Holgate S., Pollack J. M.

Induction of nitric oxide synthase in asthma. *Lancet*; 342: 1510-1513. (1993)

Harrison N.K., Dawes K.E., Barnes P.J., Laurent G.J., Chung K.F.

1992. Effects of neurokinin A, substance P and vasoactive intestinal peptide on human lung fibroblast proliferation and chemotaxis. *Am. Rev. Resp. Dis.* 145: A681

Hebestreit H, Dibbert B, Balatti I, Braun D, Schapowal A, Blaser K, Simon H U.

Disruption of fas receptor signaling by nitric oxide in eosinophils. *J Exp Med*; 187: 415-425. (1998)

Helke C.J. and Hill K.M.

Immunohistochemical study of neuropeptides in vagal and glossopharyngeal afferent neurons in the rat. *Neuroscience*; 26: 539-551. (1988)

Helke C.J., Niederer A.J.

Studies on the coexistence of substance P with other putative transmitters in the nodose and petrosal ganglia. *Synapse*; 5: 144-151. (1990)

Ho W.Z., Lai J.P., Zhu X.H., Levaydova M., Douglas S.D.

Human monocytes and macrophages express substance P and neurokinin-1 receptor. *J. Immunol.*; 159: 5654-5660. (1997)

Howarth P.H., Springall D.R., Redington A.E., Djukanovic R., Holgate S.T., Polak J.M.

Neuropeptide-containing nerves in endobronchial biopsies from asthmatic and non asthmatic subjects. *Am. J. Respir. Cell. Mol. Biol.*; 13: 288-96. (1995)

Hua X.Y., Lundberg J.M., Theodorsson-Nordheim E., Brodin E.

Comparison of cardiovascular and bronchoconstrictor effects of substance P, substance K and other tachykinins.

*Naunyn-Schmiedeberg's Arch. Pharmacol.*; 328: 196-201. (1984)

Hunter D.D. and Udem B.J.

Identification and Substance P content of vagal afferent neurons innervating the epithelium of the guinea pig trachea.

*Am. Respir. Crit. Care Med.*; 159(6): 1943-1948. (1999)

Hunter D., Meyers A., Udem B.J.

Nerve growth factor-induced phenotypic switch in guinea pig airway sensory neurons.

*Am. Respir. Crit. Care Med.*; 161: 1985-1990. (2000)

Hyman A.L., Kadowitz P.J.

Enhancement of alpha- and beta-adrenoceptor responses by elevations in vascular tone in pulmonary circulation. *Am. J. Physiol.*; 250: H1109-1116. (1986)

Ignarro L.J., Buga G.M., Woods K.S., Byrns R.E., Chandhuri G.

Endothelium-derived relaxing factor produced and released from artery and vein is nitric oxide. *Proc. Natl. Acad. Sci. USA*; 84: 9265-9. (1987)

Ingehoven N. and Beck-Sickinger A.G.

Molecular characterization of the ligand-receptor interaction of neuropeptide Y.

*Current Med. Chem.*; 6: 1055-1066. (1999)

Jacobsson L., Grundström N., Andersson R.G.

Influence of some alpha 2-receptor agonists and antagonists on the excitatory non-adrenergic, non-cholinergic neurotransmission in the airways of guinea-pigs in vivo. *Acta Physiol. Scand. May*; 142 (1): 91-6. (1991)

Jancsó N.

Role of the nerve terminals in the mechanism of inflammatory reactions. *Bull Millard Fillmore Hosp., Buffalo, NY*7: 53-77. (1960)

Jancsó N., Jancsó-Gábor A., Szolcsányi J.

Direct evidence for neurogenic inflammation and its prevention by denervation and pretreatment with capsaicin. *Br. J. Pharmacol Chemother.*; 31: 138-151. (1967)

Jarvi R., Helen P., Pelto-Huikko M., Hervonen A.

Neuropeptide Y (NPY)-like immunoreactivity in rat sympathetic neurons and small granule-containing cells. *Neurosci. Lett.*; 67:223-227. (1986)

Joad J.P., Kott K.S., Bonham A.C

Nitric oxide contributes to substance P-induced increases in lung rapidly adapting receptor activity in guinea-pigs. *J. Physiol. (Lond)* 503(Pt 3):635-43. (1997)

Karlsson J.A., Zachrisson C., Lundberg J.M.

Hyperresponsiveness to tussive stimuli in cigarette smoke-exposed guinea-pigs: a role for capsaicin-sensitive, calcitonin gene-related peptide-containing nerves. *Acta Physiol. Scand.*; 141: 445-454. (1991)

Kawamura N., Tamura H., Obana S., Wenner M., Ishikawa T., Nakata A., Yamamoto H.

Differential effects of neuropeptides on cytokine production by mouse helper T cell subset. *Neuroimmunomodulation*; 5: 9-15. (1998)

- Keränen U., Kiviluoto T., Järvinen H., Bäck N., Kivilaakso E., Soinila S.  
Changes in substance P-immunoreactive innervation of human colon associated with ulcerative colitis. *Dig. Dis. Sci.*; 40:2250-2258. (1995)
- Kimura S., Okada M., Sugita Y., Kanazawa J., Munekata E.  
Novel neuropeptides, neurokinin  $\alpha$  and  $\beta$  isolated from porcine spinal cord.  
*Proc. Jpn. Acad.*; 59B: 101-104. (1983)
- Klimaschewski L., Kummer W., Heym C.  
Localisation, Regulation and Functions of Neurotransmitters and Neuromodulators in Cervical Sympathetic Ganglia. *Microscopy research and technique*; 35: 44-68. (1996)
- Kneussl M. P. and Richardson J.P.  
Alpha-adrenergic receptors in human and canine tracheal and bronchial smooth muscle. *J. Appl. Physiol.*; 39:37-40. (1978)
- Kobzik L., Brecht D.S., Lowenstein C.J., Drazen J., Gaston B., Sugarbaker D., Stamler J.S.  
Nitric oxide synthase in human and rat lung: immunocytochemical and histochemical localization. *Am. J. Respir. Cell. Mol. Biol.*; 9(4):371-7. (1993)
- Kroegel C, Giembycz M.A., Barnes P.J.  
Characterization of eosinophil activation by peptides: Differential effects of substance P, melittin and f-Met-Leu-Phe. *J. Immunol.*; 145: 2581-2587. (1990)
- Kummer W., Fischer A., Kurkowski R., Heym C.  
The sensory and sympathetic innervation of guinea-pig lung and trachea as studied by retrograde neuronal tracing and double-labelling immunohistochemistry.  
*Neuroscience*; 49(3):715-37. (1992)
- Kummer W., Oberst P.  
Neuronal projections to the guinea pig stellate ganglion investigated by retrograde tracing. *J. Auton. Nerv. Syst.* 42: 71-80. (1993)

Kuo H.P., Liu S., Barnes P.J.

The effect of endogenous nitric oxide on neurogenic plasma exudation in guinea-pig airways. *Eur. J. Pharmacol.*; 221: 385-388. (1992)

Kuo H.P., Barnes P.J., Rogers D.F.

Cigarette smoke-induced airway goblet cell secretion: dose dependent differential nerve activation. *Am. J. Physiol.*; 7: L161. (1992)

Lacroix J.S.

Adrenergic and non-adrenergic mechanisms in sympathetic control of the nasal mucosa. *Acta Physiol. Suppl.*; 581: 1-63. (1989)

Lacroix J.S. and Mosimann B.L.

Attenuation of allergen-evoked nasal responses by local pretreatment with exogenous neuropeptide Y in atopic patients. *J. Allergy Clin. Immunol.*; 98: 611-6. (1996)

Lacroix J.S., Ricchetti A.P., Morel D., Mosimann B., Waeber B., Gronzmann E.

Intranasal administration of neuropeptide Y in man: systemic absorption and functional effects. *Br. J. Pharmacol.*; 118: 2079-84. (1996)

Laitinen L.A., Laitinen A., Salonen R.O., Widdicombe J.G.

Vascular actions of airway neuropeptides. *Am. Rev. Respir. Dis.*; 136: S59-S64. (1987)

Laubach V.E., Shesley E.G., Smithies O., Sherman P.A.

Mice lacking inducible nitric oxide synthase are not resistant to lipopolysaccharide – induced death. *Proc. Natl. Acad. Sci. USA*; 92: 10688-10692. (1995)

Li C.G. and Rand M.J.

Evidence that part of the NANC relaxant response of the guinea-pig trachea to EFS is mediated by nitric oxide. *Br. J. Pharmacol.*; 102: 91-94. (1991)



Liu S.F., Crawley D.E., Rohde J.A., Evans T.W., Barnes P.J.

Role of nitric oxide and guanosine 3',5'-cyclic monophosphate in mediating nonadrenergic, noncholinergic relaxation in guinea-pig pulmonary arteries.

*Br. J. Pharmacol.*; 107: 861-866. (1992)

Liu S. F., Haddad E.B., Adcock I., Salmon M., Koto H., Gilbey T., Barnes P.J., Chung K.F.

Inducible nitric oxide synthase after sensitization and allergen challenge of Brown Norway rat lung. *Br. J. Pharmacol.*; 121(7):1241-6. (1997)

Lou Y.P., Delay-Goyet P., Lundberg J.M.

Selective inhibition by dactinomycin of NANC sensory bronchoconstriction and <sup>125</sup>J-NKA binding due to NK-2 receptor antagonism.

*Acta Physiol. Scand.*; 144: 221-231. (1992)

Lou Y.P.

Regulation of neuropeptide release from pulmonary capsaicin-sensitive afferents in relation to bronchoconstriction. *Acta Physiol. Scand.*; 612:1-88. (1993)

Lou Y.P., Lee L.Y., Satoh H., Lundberg J.M.

Postjunctional inhibitory effect of the NK-2 receptor antagonist, SR-48968, on sensory NANC bronchoconstriction in the guinea pig. *Br. J. Pharmacol.*; 109: 765-773. (1993)

Lotz M., Vaughan J.H., Carson D.A.

Effect of neuropeptides on production of inflammatory cytokines by human monocytes. *Science (Washington D.C.)*; 241: 1218-1221. (1988)

Lundberg J.M.

Tachykinins, sensory nerves, and asthma-an overview.

*Can. J. Physiol. Pharmacol.*; 73: 908-914. (1995)

Lundberg J.M. and Saria A.

Vagal substance P nerves involved in control of vascular permeability and smooth muscle tone in the trachea and bronchi. *Br. J. Pharmacol.*; 77: 441. (1982a)

Lundberg J.M. and Saria A.

Capsaicin-sensitive vagal neurons involved in control of vascular permeability and smooth muscle tone in rat trachea. *Acta Physiol. Scand.*; 115: 521-523. (1982b)

Lundberg J.M. and Saria A.

Capsaicin-induced desensitization of airway mucosa to cigarette smoke, mechanical and chemical irritants. *Nature*; 302: 251-253. (1983)

Lundberg J.M., Martling C.R., Saria A., Folkers K., Rosell S.

Cigarette smoke-induced airway oedema due to activation of capsaicin-sensitive vagal afferents and substance P release. *Neuroscience*; 10(4): 1361-8. (1983a)

Lundberg, J.M., Terenius L., Hokfelt T., Goldstein M.

High levels of neuropeptide Y in peripheral noradrenergic neurons in various mammals including man. *Neurosci. Lett.*; 42(2):167-72. (1983b)

Lundberg J.M., Hokfelt T., Martling C.R., Sara A., Cuello C.

Substance P-immunoreactive sensory nerves in the lower respiratory tract of various mammals including man. *Cell Tissue Res.*; 235, 251-261. (1984)

Luts A., Uddman R., Alm P., Basterra J., Sundler F.

Peptide containing nerve fibres in human airways: distribution and coexistence pattern. *Int. Arch Allergy Immunol.*; 101: 52-60. (1993)

Malis D.D., Gronzmann E., Morel D.R., Mutter M., Lacroix J.S.

Influence of TASP-V, a novel neuropeptide Y (NPY) Y2 agonist, on nasal and bronchial responses evoked by histamine in anaesthetized pigs and in humans. *Br. J. Pharmacol.*; 126: 989-996. (1999)

Mantyh P.W., Maggio J.E.

Substance P and the response to tissue injury. *Regul. Pept.*; (Suppl 1): S19. (1992)

Mapp, P.I., Terenghi G., Walsh D.A., Chen S.T., Cruwys S.C., Garrett N., Kidd B.L., Polak J.M., Blake D.R.

Monoarthritis in the rat knee induces bilateral and time-dependent changes in substance P and calcitonin gene-related peptide immunoreactivity in the spinal cord.

*Neuroscience*; 57(4): 1091-6. (1993)

Martling C.R., Matran R., Alving K., Hokfelt T., Lundberg J.M.

Innervation of lower airways and neuropeptide effects on bronchial and vascular tone in the pig. *Cell Tissue Res.*; 260(2): 223-233. (1990)

McDonald D.M.

Neurogenic inflammation in the rat trachea. I. Changes in venules, leucocytes and epithelial cells. *J. Neurocytol.*; 17: 583-603. (1988)

McDonald D.M., Mitchell R.A., Gabella G., Haskell A.

Neurogenic inflammation in the rat trachea. II. Identity and distribution of nerves mediating the increase in vascular permeability. *J. Neurocytol.*; 17: 605-628. (1988)

McGillis J.P., Organist M.L., Payan D.G.

Substance P and immunoregulation. *Fed. Proc.*; 46(1): 196-199. (1987)

Menkes CJ, Renoux M, Laoussadi S, Mauborgne A, Bruxelle J, Cesselin F.

Substance P levels in the synovium and synovial fluid from patients with rheumatoid arthritis and osteoarthritis. *J. Rheumatol.* 20: 714-717.

Minette P.A. and Barnes P.J.

Muscarinic receptor subtypes in lung. Clinical implications.

*Am. Rev. Respir. Dis.*; 141: S162-165. (1990) Review

Moncada S., Palmer R.M., Higgs E.A.

Biosynthesis of nitric oxide from L-arginine. A pathway for the regulation of cell function and communication. *Biochem. Pharmacol.*; 38 (11): 1709-15. (1989)

Mousli M., Trifilieff A., Pelton J.T., Gies J.-P., Landry Y.

Structural requirements for neuropeptide Y in mast cell and G protein activation. *Eur. J. Pharmacol.*; 289: 125-33. (1995)

Mullal J., Rieves R.D., Baraniuk J.N., Lundgren J.D., Merida M., Hansfeld J.H., Shelhamer J.H., Kaliner M.A.

The effects of neuropeptides on mucos glycoprotein secretion from human nasal mucosa in vitro. *Neuropeptides*; 21: 231-8. (1992)

Myers A.C., Kajekar R., Udem B.J.

Allergic inflammation-induced neuropeptide production in rapidly adapting afferent nerves in guinea pig airways.

*Am. J. Physiol. Lung Cell. Mol. Physiol.*; 282: L775-L781. (2002)

Naukkarinen A., Nickoloff B.J., Farber E.M.

Quantification of cutaneous sensory nerves and their substance P content in psoriasis.

*J. Invest. Dermatol.*; 92: 126-129. (1989)

Nieber K., Baumgarten C.R., Rathsack R., Furkert J., Oehme P., Kunkel G.

Substance P and beta-endorphin-like immunoreactivity in lavage fluids of subjects with and without allergic asthma. *J. Allergy Clin. Immunol.*; 90: 646-652. (1992)

Noguchi K., Morita Y., Kiyama H., Ono K., Tohyama M.

A noxious stimulus induces the preprotachykinin-A gene expression in the rat dorsal root ganglion cells following peripheral axotomy. *Brain Res.*; 464:31-35. (1988)

O'Donnell S.R. and Saar N.

Histochemical localization of adrenergic nerves in the guinea-pig trachea.

*Br. J. Pharmacol.*; 47: 707-710. (1973)

- O'Donnell S.R., Saar N., Wood L.J.  
The density of adrenergic nerves at various levels in the guinea-pig lung.  
*Clin. Exp. Pharmac. Physiol.*; 5: 325-332. (1978)
- Palmer R.M., Ferrige A.G., Moncada S.  
Nitric oxide release accounts for the biological activity of endothelium-derived relaxing factor. *Nature*; 327: 524-526. (1987)
- Partanen M., Laitinen A., Herronen A, Toivanen M., Laitinen L.A.  
Catecholamine- and acetylcholinesterase-containing nerves in the human lower respiratory tract. *Histochemistry*; 76: 175-188. (1982)
- Pauwels R.A., Joos G.F., van der Straeten M.E.  
The effect of different tachykinins on airway calibre and histamine release.  
*J. Allergy Clin Immunol.*; 83: A299
- Payan D.G., Brewster D.R., Goetzl E.J.  
Specific stimulation of human T lymphocytes by substance P.  
*J. Immunol.*; 131: 1613-1615. (1983)
- Riccio M.M., Kummer W., Biglari B., Myers A.C., Udem B.J.  
Interganglionic segregation of distinct vagal afferent fibre phenotypes in guinea-pig airways. *J. Physiol. (Lond)*; 496(Pt 2):521-30. (1996)
- Richardson J.B.  
Nerve supply to the lungs. *Am. Rev. Resp. Dis.*; 119: 785-802. (1979)
- Rogers D.F., Aursudkij B., Barnes P.J.  
Effects of tachykinins on mucus secretion in human bronchi in vitro.  
*Eur. J. Pharmacol.*; 174: 283-286. (1989)
- Saleh D., Barnes P.J., Giaid A.  
Increased production of the potent oxidant peroxynitrite in the lungs of patients with idiopathic pulmonary fibrosis. *Am. J. Respir. Crit. Care Med.*; 155: 1763-1769. (1997)

Sant' Ambrogio G. and Widdicombe J.G.

Reflexes from airway rapidly adapting receptors.

*Respir. Physiol.*; 125(1-2): 33-45. (2001)

Saria A., Martling C.R., Yan Z., Theodorsson-Nordheim E., Gamse R.,  
Lundberg J.M.

Release of multiple tachykinins from capsaicin-sensitive nerves in the lung by  
bradykinin, histamine, dimethylphenyl piperzinium and vagal nerve stimulation.

*Am. Rev. Resp. Dis.*; 137: 1330-1335. (1988)

Saria A., Lundberg J.M., Skofitsch G., Lembeck F.

Vascular protein leakage in various tissues induced by substance P, capsaicin,  
bradykinin, serotonin, histamine and by antigen challenge.

*Naunyn-Schmiedeberg's Arch. Pharmacol.*; 324: 212-218. (1983)

Saria A., Martling C.R., Dalsgaard, C.J., Lundberg J.M.

Evidence for substance P-immunoreactive spinal afferents that mediate  
bronchoconstriction. *Acta Physiol. Scand.* 125 :407-414. (1985)

Schneider T., van Velzen D., Moqbel R., Issekutz A.C.

Kinetics and quantitation of eosinophil and neutrophil recruitment to allergic lung  
inflammation in a brown Norway rat model.

*Am. J. Respir. Cell Mol. Biol.*; 17 :702-12. (1997)

Scott J.A., Craig I., McCormack D.G.

Nonadrenergic, noncholinergic relaxation of human pulmonary arteries is partially  
mediated by nitric oxide. *Am. J. Respir. Crit. Care Med.*; 154: 629-632. (1996)

Sekizawa K., Tamaoki J., Nadel A. J., Borson D.B.

Enkephalinase inhibitor potentiates substance P- and electrically-induced contraction  
in ferret trachea. *J.Appl. Physiol.*; 63:1401-1405. (1987)

Sheldrick R.L., Rabe K. F., Fischer A., Magnussen H., Coleman R.A.

Further evidence that tachykinin-induced contraction of human isolated bronchus is mediated only by NK2-receptors. *Neuropeptides*; 29(5): 281-92. (1995)

Shen G.H., Grundemar L., Zukowska-Grojec Z., Hakanson R., Wahlstedt C.C.

Terminal neuropeptide Y fragments are mast cell dependent vasodepressor agents. *Eur. J. Pharmacol.*; 204: 249-56. (1991)

Sheppard M.N., Polak J.M., Allen J.M., Bloom S.R.

Neuropeptide tyrosine (NPY): a newly discovered peptide is present in the mammalian respiratory tract. *Thorax*; 39: 326-330. (1984)

Silkoff P.E., Robbins R.A., Gaston B., Lundberg J.O., Townley R.G.

Endogenous nitric oxide in allergic airway disease. *J. Allergy Clin. Immunol.*; 105(3): 438-48. (2000)

Smith R.V. and Satchell D.G.

Extrinsic pathways of the adrenergic innervation of the guinea-pig trachealis muscle. *J. Auton. Nerv. Syst.*; 14: 61-73. (1985)

Spina D., Rigby P.J., Paterson J.W., Goldie R.G.

Alpha-Adrenoceptor function and autoradiographic distribution in human asthmatic lung. *Br. J. Pharmacol.*; 97: 701-708. (1989a)

Spina D., Rigby P.J., Paterson J.W., Goldie R.G.

Autoradiographic localization of beta-adrenoceptors in asthmatic human lung. *Am. Rev. Resp. Dis.*; 140(5): 1410-1415. (1989b)

Springall, D.R., Cadieux A., Oliveira H., Su H., Royston D., Polak J.M.

Retrograde tracing shows that CGRP-immunoreactive nerves of rat trachea and lung originate from vagal and dorsal root ganglia.

*J. Auton. Nerv Syst.*; 20(2): 155-66. (1987)

Stauss, H. M., Godecke A., Mrowka R., Schrader J., Persson P.B.

Enhanced blood pressure variability in eNOS knockout mice.

*Hypertension*; 33(6): 1359-63. (1999)

Stimler-Gerard N.P.

Neural endopeptidase-like enzyme controls the contractile activity of substance P in guinea-pig lung. *J. Clin. Invest.*; 79:1819-1825. (1987)

Straub R.H., Schaller T., Miller L.E., van Horsten S., Jessop D.S., Falk W., Scholmerich J.

Neuropeptide Y cotransmission with norepinephrine in the sympathetic nerve-macrophage interplay. *J. Neurochem.*; 75: 2464-71. (2000)

Stretton C.D. and Barnes P.J.

Modulation of cholinergic neurotransmission in guinea-pig trachea by neuropeptide Y.

*Br. J. Pharmacol.*; 93: 672-680. (1988)

Stretton C.D., Belvisi M.G., Barnes P.J.

Neuropeptide Y modulates non-adrenergic, non-cholinergic neural bronchoconstriction in vivo and in vitro. *Neuropeptides* ; 17: 163-170. (1990)

Tarayre J.P., Aliaga M., Barbara M., Tisseyre N., Vieu S., Tisne-Versailles J.

Model of bronchial allergic inflammation in the brown Norway rat. Pharmacological modulation. *Int. J. Immunopharmacol.*;14: 847-55. (1992)

Tatemoto K., Carlquist M., Mutt V.

Neuropeptide Y – a novel brain peptide with structural similarities to peptide YY and pancreatic polypeptide. *Nature* 296(5858):659-60. (1982)

Taylor-Robinson A.W., Phillips R.S., Severn A., Moncada S., Liew F.Y.

The role of TH 1 and TH 2 cells in a rodent malaria infection. *Science*; 260: 1931-1934. (1993)



Thomassen M.J., Buhrow L.T., Connors M.J., Kaneko F.T., Erzurum S.C., Kavuru M.S.

Nitric oxide inhibits inflammatory cytokine production by human alveolar macrophages. *Am. J. Respir. Cell Mol. Biol.*; 17(3):279-83. (1997)

Tomaki M., Ichinose M., Miura M., Hirayama Y., Yamauchi H., Nakayima N., Shirato K.

Elevated substance P content in induced sputum from patients with asthma and patients with chronic bronchitis. *Am. J. Respir. Crit. Care Med.*; 151: 613-617. (1995)

Trifilieff A., Fujitani Y., Mentz F., Dugas B., Fuentes M., Bertrand C.

Inducible nitric oxide synthase inhibitors suppress airway inflammation in mice through down-regulation of chemokine expression.

*J. Immunol.*; 165(3): 1526-33. (2000)

Tucker J.F., Brave S.R., Charalambous L., Hobbs A.J., Gibson A.

L-NG-nitro arginine inhibits non-adrenergic, non-cholinergic relaxations of guinea-pig isolated tracheal smooth muscle. *Br. J. Pharmacol.*; 100(4): 663-4. (1990)

Uddman R., Hakanson R., Luts A., Sundler F.

Distribution of neuropeptides in airways. In: Barnes PJ (Ed.), *Autonomic Innervation of the Respiratory Tract. Harwood Academic, London*; pp. 21-37. (1997)

Uddman R., Sundler F., Emson P.

Occurrence and distribution of neuropeptide-Y immunoreactive nerves in the respiratory tract and middle ear. *Cell Tissue Res.*; 237(2): 321-327 (1984)

Undem B.J., Myers A.C., Barthlow H., Weinreich D.

Vagal innervation of guinea pig bronchial smooth muscle.

*J. Appl. Physiol.*; 69: 1336 – 1346. (1990)

Undem B.J., Carr M.J., Kollarik M.

Physiologie and plasticity of putative cough fibres in the guinea pig.

*Pulm. Pharmacol. Therap.*; 15:193-198. (2002)

Verastegui C., Fernandez-Vivero J., Prada A., Rodriguez F., Romero A., Gonzalez-Moreno M., de Castro J.M.

Presence and distribution of 5HT-, VIP-, NPY-, and SP-immunoreactive structures in adult mouse lung. *Histol. Histopathol.*; 12(4): 909-18. (1997)

Ward J.K., Belvisi M.G., Fox A.J., Miura M., Tadjkarimi S., Yacoub M.H.

Modulation of cholinergic neural bronchoconstriction by endogenous nitric oxide and vasoactive intestinal peptide in human airways in vitro.

*J. Clin. Invest.*; 92: 736-43. (1993)

Ward J.K., Barnes P.J., Springall D.R., Abelli L., Tadjkarimi S., Yacoub M.H., Polak J.M., Belvisi M.G.

Distribution of human i-NANC bronchodilator and nitric oxide-immunoreactive nerves. *Am. J. Respir. Cell Mol. Biol.* 13(2): 175-84. (1995)

Watson N., Maclagan J., Barnes PJ.

Endogenous tachykinins facilitate transmission through parasympathetic ganglia in guinea-pig trachea. *Br. J. Pharmacol.*; 109: 751-759. (1993)

Wei X.Q., Charles I.G., Smith A., Ure J., Feng G.J., Huan F.P., Xu D., Muller W., Moncarsa S., Liew F.Y.

Altered immune responses in mice lacking inducible nitric oxide synthase.

*Nature*; 375: 408-411. (1995)

Weihe E., Nohr D., Millan M.J., Stein C., Muller S., Gramsch C., Herz A.

Peptide neuroanatomy of adjuvant-induced arthritic inflammation in rat.

*Agents Actions*; 25(3-4): 255-9. (1988)

Widdicombe J.G.

The site of pulmonary stretch receptors in the cat.

*J. Physiol.*; 125: 336-351. (1954)

Widdicombe J.G. and Wells U.M.

Vagal reflexes. In: *Airway Smooth Muscle: Innervation and Neurotransmission*, ed. Raeburn D. and Giembycz M., pp.270-307. *Birkhauser Verlag Basel*. (1994)

Widdicombe J.G.

Airway receptors. *Respir. Physiol.*; 125:3-15. (2001)

Widdicombe J.G.

Functional morphology and physiology of pulmonary rapidly adapting receptors (RARs). *Anat. Rec. A. Discov. Mol. Cell Evol. Bibl.*; 270(1): 2-10. (2003)

Yamamoto H., Morise K., Kusugami K., Furusawa A., Konagaya T., Nishio Y., Kaneko H., Uchida K., Nagai H., Mitsuma T., Nagura H.

Abnormal neuropeptide concentration in rectal mucosa of patients with inflammatory bowel disease. *J. Gastroenterol.*; 31: 525-532. (1996)