Bernd Nilius – List of publications

Bibliometric data: 459 entries registered in ISI Web of Knowledge 2010, total citations >13.950; h-index 62; rank 6th worldwide as for overall citation score in the Ion Channel Citation Ranking System (see **http://www.ionchannels.org/labs.php**).

Selected publications on cardiac electrophysiology, endothelium, TRP channels:

Nilius, B, Hess P, Lansman JB, Tsien RW. A novel type of cardiac calcium channel in ventricular cells. ***Nature*** 316, 443-446,1985 (accompanied by a *News and Views* in *Nature*)

Nilius, B. Calcium block of guinea-pig heart sodium channels with and without modification by the piperazinylindol DPI 201-106. ***J.Physiol.(Lond.)*** 399, 537-558, 1988

Nilius, B, Wohlrab, W. Potassium channels are involved in control of proliferation of human melanoma cells. ***J. Physiol. (Lond),* 445,** 537-548, 1991

Nilius, B, Oike M, Zahradnik I, Droogmans G. (1994) Activation of Cl^- channels by hypotonic stress in human endothelial cells. ***J General Physiol.*** 103, 787-805, 1994

Nilius, B, Viana, F, Droogmans, G. (1997). Ion Channels In Vascular Endothelium. ***Annual Review of Physiology*** 59, 145-170

Nilius, B, Prenen, J, Voets, T, Eggermont, J, Droogmans, G. Reduction of intracellular ionic strength activates the volume-regulated chloride current in cultured bovine pulmonary endothelial cells. ***J. Physiol. (Lond.)*** **506**, 353-361, 1998

Nilius B, Voets T, Prenen J, Barth H, Aktories K, Kaibuchi, K, Droogmans G, Eggermont, J. Role of RhoA and Rho Kinase in the activation of volume-regulated anion channels in bovine endothelial cells. ***J. Physiol. (Lond.)*** **516**, 67-74, 1999

Voets, T, Droogmans, G, Raskin, Eggermont, J, **Nilius, B.** Reduced ionic strength as the initial trigger for activation of endothelial volume-regulated anion channels. ***Proc. Natl. Acad. Sci. USA (PNAS)*** **96,** 5298-5303, 1999

Nilius, B., Droogmans, G. "Functional role of ion channels in vascular endothelium" ***Physiological Reviews*** , 81: 1429-1477, 2001

Freichel, M, Suh HS, Pfeifer, A, Schweig, U, Trost, C, Weißgerber, P, Biel, M, Philipp, S, Freise, D, Droogmans G, Hofmann F, Flockerzi, V and **B.Nilius**. Lack of an endothelial store-operated Ca^{2+}-current impairs agonist-dependent Ca^{2+} entry and vasorelaxation in TRP4 (CCE1) -/- mice. ***Nature Cell Biology*** **3**, 121-127, 2001

Nilius, B., Vennekens, R., Prenen, J., Hoenderop, J.G.J., Bindels, R.J.M., Droogmans, G. The single pore residue Asp^{542} determines Ca^{2+} permeation and Mg^{2+} block of the epithelial Ca^{2+} channel. ***J. Biol. Chemistry***, **276,** 1020-1025, 2001

Van de Graaf, S.F.J., Hoenderop, , J.G., Gkika1, D., Lamers, D., Prenen, J. Rescher, U., Gerke, V., Staub, O., **Nilius, B**., Bindels R.J.M. Functional expression of the epithelial Ca^{2+} channels (TRPV5 and TRPV6) requires association of the S100A10-annexin 2 complex. ***EMBO J***., **22:** 1478-1487, 2003

Voets, T., Janssens, A., Prenen, J., Droogmans, G. **Nilius, B.** Mg^{2+}-dependent gating and strong inward rectification of the cation channel TRPV6. ***J General. Physiol***., **121:** 245-260, 2003

Hoenderop, J.G.J. , Voets, T. , Hoefs, S. , Weidema, F. , Prenen, J. , **Nilius, B. ,** Bindels, R.J.M. Homo- and heterotetrameric architecture of the epithelial Ca^{2+} channels TRPV5 and TRPV6 ***EMBO J***. **22:** 776-785, 2003

Watanabe, H., Vriens, J., Prenen, J., Droogmans, G., Voets, T., **Nilius, B.** Anandamide and arachidonic acid use epoxyeicosatrienoic acids to activate TRPV4 channels, ***Nature*** **424:** 434-438, 2003

Vriens, J. Watanabe, H., Janssens, A., Droogmans, G., Voets, T., **Nilius, B**. Cell swelling, heat and chemical agonists use distinct pathways for the activation of the cation channel TRPV4. ***Proc Natl Acad Sci USA*** **101:** 396 – 401, 2004

Voets, T., Droogmans, G., Wissenbach, U., Janssens, A., Flockerzi, V., **Nilius, B.** The principle of temperature-dependent gating in cold- and heat-sensitve TRP channels, ***Nature***, **430:** 748-754, 2004 (accompanied *News and Views* in *Nature Reviews Neurosciences*)

Hoenderop, J.G.H., **Nilius, B.**, Bindels, R.J.M.: Calcium transport across absorbing epithelia. ***Physiological Reviews*** , **85:** 373-422, 2005

Voets, T., Talavera, K., Owsianik, G., **Nilius, B.** Sensing with TRP channels. ***Nature Chemical Biol*** , **2:** 85-92, 2005

Talavera, K., Voets, T., Droogmans G., Nilius, B. Heat-activation of TRPM5 underlies thermal sensitivity of sweet taste. *Nature*, **438:** 1022-1025, 2005

Voets, T., Talavera, K., Owsianik, G., **Nilius, B.** Sensing with TRP channels. *Nature Chemical Biol* , **2:** 85-92, 2005

Nilius, B., Mahieu, F., Prenen, J. Janssens, A., Owsianik, G., Voets, T. The Ca^{2+}-activated cation channel TRPM4 is regulated by phosphatidylinositol 4,5-biphosphate. *EMBO Journal*, **25:** 467-478, 2006

Nilius, B., Owsianik, G., Voets, T., Peters, J.A. Transient receptor potential (TRP) cation channels in disease. *Physiol Reviews*, 87:165-217, 2007

Voets, T, Owsianik, G., Janssens, A., Talavera, K., **Nilius, B**. Voltage sensor mutations in TRPM8 reveal a mechanism for integration of thermal and chemical stimuli. *Nature Chem Biol*, **3:** 174-182, 2007

Gevaert ,T., Vriens, J., Segal, A., Everaerts., W, Roskams, T., Talavera, K., Owsianik, G., Liedtke, W., Daelemans, D., Dewachter, I., Van Leuven, F., Voets, T., De Ridder, D., **Nilius, B**. Deletion of the transient receptor potential cation channel TRPV4 impairs murine bladder voiding. *Journal Clinical Investigations*, **117:** 3453-62, 2007

Rock, M.J., Prenen, J., Funari, V.A., Funari, T.L., Merriman, B., Lachman, R.S., Wilcox, W.R., Reyno, S., Quadrelli, R., Vaglio, A., Owsianik,G., Janssens, A., Voets, T., Ikegawa, S., Nagai, T., Rimoin, D.L., **Nilius, B.**, Cohn, D. H. A mutation in the gene encoding the calcium-permeable cation channel TRPV4 causes autosomal dominant brachyolmia: a novel mechanism in the pathogenesis of the skeletal dysplasias, *Nature Genetics,* **40:** 999-1003, 2008

I. International journals

1. **Nilius, B.** Die Abhängigkeit der elektrotropen und inotropen Vaguswirkung von der äußeren Ca und Na Konzentration. *Nova Acta Leopoldina* **211**, 67-90, 1973

2. **Nilius, B.** Elektro- und inotrope Vaguswirkungen auf den Kaninchenvorhof bei Ca- und Mn-Konzentrationsvariation. *Nova Acta Leopoldina* **217,** 397-419, 1975

3. **Nilius, B,** Koester, G. Die Adaptation der elektro- und inotropen Vaguswirkung am isolierten Kaninchenvorhof. *Acta biol.med.germ.* **34**, 1227-1237, 1975

4. **Nilius, B**, Koester, G. Quantitative Beschreibung der Adaptation der Vaguswirkung am Vorhof des Kaninchenherzens mit einem Modell für die elektromechanische Ankoppelung. *Acta biol.med.germ*. **34,** 1377-1386, 1975

5. **Nilius, B**, Koester, G. Quantitative description of vagal-escape in isolated rabbit atria. *Aggressology* (Paris) **16**, 1-8, 1975

6. **Nilius, B**, Boldt, W, Fechner, G. Auswirkungen der Hypertrophie auf das Potentiationsverhalten isolierter Ventrikelstreifen der Ratte. *Acta biol.med.germ.* **35,** 1657-1664, 1976

7. **Nilius, B.** Der Einfluss von Mn-Ionen auf elektro-und inotrope Vaguswirkungen. *Acta biol.med.germ.* **36,** 65-72, 1977

8. **Nilius, B**, August, C, Fritzsch, F. Beeinflussung efferenter Vaguswirkungen am isolierten Vorhof durch erhöhte K^+ - Konzentration. *Acta biol.med.germ.* **36,** 1067-1075, 1977

9. **Nilius, B.** Die Abhängigkeit inotroper Vaguswirkungen von der Dehnung. *Acta biol.med.germ.* **36,** 1347-1350, 1977

10. **Nilius, B.** Action potentials in excitable systems.A model for investigating cardiac muscle repolarization. *Studia biophysica* **69,** 157-158, M1/38-51, 1978

11. **Nilius, B.** Eigenschaften der vagalen Erregungsübertragung auf das Vorhofmyokard. *Acta biol.med.germ.* **37**, 453-462, 1978

12. **Nilius, B.** Modelling of hypertrophic heart potentiation with reference to morphological measurements. *Exper.Pathol*. **15,** 74-84, 1978

13. **Nilius, B**, Mest, HJ. The influence of the prostaglandin E_2 and $F_{2\alpha}$ on electric and inotropic vagal effects on the isolated rabbit atrium. *Acta biol.med.germ*. **38**, 627-633, 1979

14. **Nilius, B.** Veränderungen inotroper Vaguswirkungen durch Dehnung des Vorhofmyokards *Acta biol.med.germ.* **39**, 403-414, 1980

15. **Nilius, B**, Boldt, W. Untersuchungen elektrotroper Acetylcholinwirkungen mit Hilfe der "phase plane" Darstellung von Aktionspotentialen des Vorhofmyokards. *Acta biol.med.germ.* **38**, 987-998, 1979

16. **Nilius, B**, Boldt, W. Acetylcholinwirkungen auf das Vorhofmyokard unter dem Einfluss von Verapamil. *Acta biol.med.germ.* **38,** 975-986, 1979

17. **Nilius, B**, Boldt, W. Elektrotrope Acetylcholinwirkungen auf das Vorhofmyokard unter dem Einfluß von Caesium-Ionen. *Acta biol.med.germ*. **38**, 1175-1182, 1979

18. **Nilius, B.** Membranströme and Ca-Transport während des Vorhof-Aktionspotentials und deren Beeinflussung durch Acetylcholin und Ca^{2+}. *Acta biol.med.germ.* **38**, 1159-1173, 1979

19. **Nilius, B.** Beeinflussung der Kaliumleitfähigkeit des Vorhofmyokards durch Ca^{2+}-Konzentrationvariation. *Acta biol.med.germ.* **38**, 999-1005, 1979

20. **Nilius, B.** Die Quantifizierung der elektromechanischen Ankoppelung am Vorhofmyokard. *Zool.Jb.Physiol*. **83**, 430-441, 1979

21. **Nilius, B**, Boldt, W. Wirkungen intrazellulärer 4-Aminopyridin- und Tetraaethylammonium-Beladung auf das Aktionspotential des Vorhofmyokards des Kaninchens. *Acta biol.med.germ.* **39**, 547-559, 1980

22. **Nilius, B.** Existenz und Eigenschaften eines Acetylcholin-induzierten Auswärtsstromes am Vorhofmyokard des Kaninchens. *Zool.Jb.Physiol.* **84,** 263-287, 1980

23. **Nilius, B**, Boldt, W. Rate-related changes of the transmembrane potential in the rabbit atrial myocardium. *Acta biol.med.germ.* **39**, 643-647, 1980

24. **Nilius, B**, Boldt, W. Treibintervall-abhängige Veränderungen von Aktionpotentialen des Warmblüter-Vorhofmyokards. *Acta biol.med.germ.* **39**, 525-534, 1980

25. **Nilius, B**, Boldt, W. Existenz und Eigenschaften einer Cl^--sensitiven Leitfähigkeit am Vorhofmyokard. *Acta biol.med.germ.* **39**, 535-545, 1980

26. **Nilius, B.** Ein Verfahren zur Analyse von Herzmuskel-Aktionspotentialen. *Acta biol.med.germ.* **39**, 535-545, 1980

27. **Nilius, B**, Boldt W. Stretching-induced changes in the action potential of the atrial myocardium. *Acta biol.med.germ.* **39,** 255-265, 1980

28. **Nilius, B**, Schüttler, K, Boldt, W. Mechanismen extrasystolischer Aktionpotentialveränderungen am Vorhofmyokard des Kaninchens. *Zool.Jb.Physiol.* **84**, 521-537, 1980

29. Koester G, **Nilius, B** Potentiations-und Treppenphaenomene am Vorhof des Kaninchens und ihr Zusammenhang mit inotropen Vaguswirkungen. *Acta biol.med.germ.* **39**, 513-523, 1980

30. **Nilius B**, Schüttler K, Boldt W. Eigenschaften extrasystolisch ausgelöster Aktionpotentiale am Vorhofmyokard des Kaninchens. **Acta biol.med.germ. 40**, 275-286, 1981

31. **Nilius, B.** Properties of an acetylcholine-induced conductance in the rabbit atrial myocardium. *Acta biol.med.germ.* **40**, 1031-1042, 1981

32. **Nilius, B**, Schüttler, K, Boldt, W. Parasympathetic influence on electrical vulnerability in the rabbit atrial myocardium. *Acta biol.med.germ.* **40**, 821-829, 1981

33. **Nilius, B**, Schüttler K., Boldt W. Pacing-interval dependent properties of the repolarization phase in the atrial myocardium. *Gen.Physiol.Biopys*.**1,** 117-134, 1982

34. **Nilius, B**, Boldt W, Schüttler K. Does a Ca^{2+} - mediated outward current exist in the atrial myocardium? *Acta biol.med.germ.* **41**, 553-563, 1982

35. **Nilius, B**, Benndorf K. Analysis of voltage fluctuation in the ventricular myocardium. *Gen.Physiol.Biopys.***1,** 199-207, 1982

36. **Nilius, B**, Schüttler K, Boldt, W. Properties of premature action potentials in atrial myocardium. *Acta biol.med.germ.* **40**, 275-286, 1981

37. **Nilius, B**, Hencek M. Pacing-dependent properties of the slow inward current in frog atrial myocardium. *Gen.Physiol.Biopys.* **1**,307-318,1982

38. Benndorf, K., **Nilius, B** Changes of electrophysiological properties of myocardial membrane under temperature ramp conditions. *Studia biophysica* **90**, 67-68, 1982

39. **Nilius, B**, Benndorf, K. Analysis of voltage-noise in the mammalian ventricular myocardium. *Studia biophysica* **90**, 65-66, 1982

40. **Nilius, B.** The existence of electrogenic Na^+/Ca^{2+} exchange in mammalian heart muscle. *Gen.Physiol.Biophys.* **2,** 57-62, 1983

41. **Nilius, B**, Hencek, M. Current-dependent slow channel inactivation in heart muscle. *Gen.Physiol.Biophys.* **2**, 217-224, 1983

42. **Nilius, B**, Benndorf, K, Schenk, W. Evaluation of the fast inward current in atrial myocardium. *Biomed.Biochim.Acta* **42**, 195-201, 1983

43. **Nilius, B**, Boldt, W, Scheufler, K, Hermann, V. Pacing-induced properties of transmembrane potential in plateau-fibres of the mammalian atrial myocardium. *Biomed.Biochim.Acta* **42**, 203-213, 1983

44. **Nilius, B.** Desensitization of muscarinic receptor in the mammalian atrial myocardium. *Biomed.Biochim.Acta* **42**, 519-526, 1983

45. **Nilius, B.** Dependence of muscarinic effects of acetylcholine in mammalian atrial myocardium on the external Ca^{2+} and K^+ concentration. *Biomed.Biochim.Acta* **42**, 511-518, 1983

46. Schüttler, K, **Nilius, B**, Boldt, W. Rabbit atrial myocardium in hypoxic conditions:rate dependent variation of action potential. *Biomed.Biochim.Acta* **42**, 85-94, 1983

47. Schüttler, K, **Nilius, B**, Boldt, W. Rabbit atrial myocardium in hypoxic conditions:rate dependent variation of contraction. *Biomed.Biochim.Acta* **43**, 473-484, 1984

48. **Nilius, B**, Boldt, W. Pacing-induced transient depolarization in rabbit atrial myocardium. *Gen.Physiol.Biophys.* **3**, 163-173, 1984

49. **Nilius, B**, Boldt, W, Scheufler, K. Analysis of hyperpolarizing afterpotentials in the atrial myocardium. *Biomed.Biochim.Acta* **43**, 101-110, 1984

50. **Nilius, B.** Electrophysiological effects of the tricyclic antidepressant desipramine on the mammalium myocardium. *Biomed.Biochim.Acta* **43**, 1005-1016, 1984

51. Benndorf, K, **Nilius, B.** Temperature dependent properties of the sodium inward current of frog atrial trabeculae. *Pflügers Arch.* **400**, 329-331, 1984

52. **Nilius, B.** Activation of Ca^{2+} channels in heart muscle by dihydropyridines. *Gen.Physiol.Biophys.* **3**, 437-440, 1984

53. **Nilius, B.** Stimulation of Ca-dependent action potentials in mammalian ventricular myocardium by a novel dihydropyridine. *Biomed.Biochim.Acta* **43**, 1385-1397, 1984

54. **Nilius, B**, Röder, A. Direct evidence of a Ca^{2+}-sensitive inactivation of the slow inward current in heart muscle. *Biomed.Biochim.Acta* **44**, 1151-1161, 1985

55. Benndorf, K, Boldt, W, **Nilius, B** Sodium current in single myocardial mouse cells. *Pflügers Arch. Europ. J. Physiol.* **404,** 190-196, 1985

56. **Nilius, B**, Hess, P, Lansman, JB, Tsien, RW. A novel type of cardiac calcium channel in ventricular cells. *Nature* **316**, 443-446, 1985 . Published together with a *"News and Views"*

57. **Nilius, B**, Neubert, K, Zett L, Barth, A. ß-Casomorphin affects fast and slow action potentials in ventricular myocardium. *Pharmazie* **40**, 428-429, 1985

58. **Nilius, B.** Electrical effects of the new antiarrhythmic compound Bonnecor^R under arrhythmogenic conditions. *Pharmazie* **40**, 855-856, 1985

59. **Nilius, B**, Schüttler, K., Benndorf, K.,Boldt, W. Electrophysiological effects of the new antiarrhythmogenic substance Bonnecor^R on mammalian myocardium. *Pharmazie* **40**, 847-851, 1985

60. **Nilius, B**, Benndorf, K., Schüttler, K., Boldt, W. Use-dependent depression of the fast sodium channel in heart muscle by Bonnecor^R. *Pharmazie* **40**, 852-854, 1985

61. **Nilius, B**, Schumann, M. Inotropic effects of the antiarrhythmogenic compound Bonnecor^R. *Pharmazie* **40**, 854-856, 1985

62. **Nilius, B**, Benndorf, K. Joint voltage- and Ca dependent inactivation of Ca channels in frog atrial myocardium. *Biomed.Biochim.Acta* **45**, 795-811, 1986

63. **Nilius, B**, Boldt, W, Benndorf, K. Properties of aconitine-modified Na channels in single cells of ventricular mouse myocardium. *Gen.Physiol.Biophys.***5,** 473-482, 1986

64. **Nilius, B.** Possible functional significance of a novel type of cardiac Ca^{2+} channel. *Biomed.Biochim.Acta* **45,** K37-K45, 1986

65. **Nilius, B**, Benndorf, K, Markwardt, F. Modified gating behaviour of aconitine-treated single sodium channels from adult cardiac myocytes. *Pflügers Arch. Europ. J.Physiol*. **407**, 640-643, 1986

66. **Nilius, B**, Hess, P, Lansman, JB, Tsien, RW. A novel type of cardiac Ca^{2+} channel in ventricular cells. *Biomed.Biochim.Acta* **45**, 167-170, 1986

67. Reichenbach A, **Nilius, B.** Eberhardt, W. Potassium accumulation by the glial membrane pump as revealed by membrane potential recordings from isolated rabbit retinal Müller cells. *Neurosci.Letters* **63**, 280-284, 1986

68. Wiederhold, KF, **Nilius, B.** Increased sensitivity of ventricular myocardium to intracellular Ca^{2+} overload in Syrian cardiomyopathic hamsters. *Biomed.Biochim.Acta* **45**, 1333-1337, 1986

69. Schüttler, K, **Nilius, B**, Boldt, W. Effects of K channel blockers on the restitution of Ca^{2+} mediated action potentials in the ventricular myocardium. *Biomed.Biochim.Acta* **45,** 171-174, 1986

70. Tsien, RW, Bean, BP, Hess, P, Lansman, JB, **Nilius, B,** Nowicky, MC. Mechanisms of Ca channel modulation by ß-adrenergic agents and dihydropyridine Ca agonists. *J.Mol.Cell.Cardiol.* **18,** 691-710, 1986

71. Tsien, RW, Hess P, **Nilius, B.** Cardiac calcium currents at the level of single channels. *Experientia* **43**, 1169-1175, 1987

72. **Nilius, B.** Which information comprise Ca^{2+}-mediated action potentials in cardiac muscle? *Biomed.Biochim.Acta* **46**, 177-188, 1987

73. **Nilius, B.** Modal gating behaviour of single sodium channels from the guinea pig heart. *Biomed.Biochim.Acta* **46**, 662-667, 1987

74. **Nilius, B**, Benndorf, K, Markwardt, F. Effects of lidocaine on single cardiac sodium channels. *J.Mol.Cell.Cardiol.* **19**, 865-874, 1987

75. Wussling, M, Schenk, W, **Nilius, B.** A study of dynamic properties in isolated myocardial cells by the laser diffraction method. *J.Mol.Cell.Cardiol*.**19**, 897-907, 1987

76. **Nilius, B**, Marinov, BS. Current-dependent gating of single cardiac sodium channels? *Gen.Physiol.Biophys.***6**, 655-658, 1987

77. Benndorf, K, **Nilius, B.** Inactivation of sodium channels in isolated myocardial mouse cells. *Europ.Biophys.J.* **15,** 117-127, 1987

78. Benndorf, K, Markwardt, F, **Nilius, B.** Two types of transient outward currents in cardiac ventricular cells of mice. *Pflügers Arch. Europ. J. Physiol*. **409**, 641-643, 1987

79. **Nilius, B**, Benndorf, K, Markwardt, F, Franke, T. Modulation of single cardiac sodium channels by DPI 201-106. *Gen.Physiol.Biophys.* **6**, 409-424, 1987

80. **Nilius, B**, Reichenbach, A. Efficient K^+-buffering by mammalian retinal glial cells is due to cooperation of specialized ion channels. *Pflügers Arch. Europ. J. Physiol.* **411**, 654 - 660, 1988

81. **Nilius, B.** Modal gating behaviour of cardiac sodium channels in cell-free membrane patches. *Biopysical J.* **53**, 857 - 862, 1988

82. Markwardt, F, **Nilius, B.** Modulation of calcium channel currents in single ventricular cells of guinea-pig by BayK 8644. *J. Physiol.(Lond.)* **399**, 559-575, 1988

83. **Nilius, B.** Calcium block of guinea-pig heart sodium channels with and without modification by the piperazinylindol DPI 201-106. *J.Physiol.(Lond.)* **399**, 537-558, 1988

84. Markwardt, F, **Nilius, B.** Effects of Trapidil^R-derivatives on calcium channel currents in isolated ventricular cells from mice. *Naunyn-Schmiedeberg's Arch.Pharmacol.* **337**, 454 - 458, 1988

85. Albitz, R, **Nilius, B.** Pharmacological effects of oscillatory afterpotentials in partially depolarized ventricular myocardium. *Biomed.Biochim.Acta* **47,** 153-162, 1988

86. **Nilius, B**, Albitz, R, Linde T. Mechanisms involved in generation of oscillatory afterpotentials in myocardium. *Biomed.Biochim.Acta* **47**, 163-171, 1988

87. Tytgat, J, **Nilius, B**, Vereecke, J, Carmeliet, E. The T-type Ca^{2+} channel in guinea-pig ventricular myocytes is insensitive to Isoproterenol. *Pflügers Arch. Europ. J. Physiol.* **411**, 704 -706, 1988

88. **Nilius, B**, Vereecke, J, Carmeliet, E. Different conductance states of the bursting Na^+ channel in guinea-pig ventricular myocytes. *Pflügers Arch. Europ. J. Physiol.* **413**, 242-248, 1989

89. Carmeliet, E, **Nilius, B**, Vereecke, J. Properties of the block of single Na^+ channels in guinea-pig ventricular myocytes by the local anaesthetic Penticainide. *J.Physiol.(Lond.),* **409**, 241-262, 1989

90. Droogmans G, **Nilius, B.** Kinetic properties of the T-type cardiac Ca^{2+} channel *J.Physiol.(Lond.)* **1989**, 419, 627-650

91. **Nilius, B**, Vereecke, J, Carmeliet E. Properties of the bursting Na^+ channel in the presence of DPI 201-106 in guinea-pig ventricular myocytes. *Pflügers Arch. Europ. J. Physiol.* **413**, 234-241, 1989

92. **Nilius, B.** Functional properties of single cardiac sodium channels. *Verhandelingen van de Koninklijke Academie voor Geneeskunde van Belgie(Belgium)* **5** , 446-476, 1989

93. Markwardt, F., Albitz, R, Franke, T, **Nilius, B.** Thrombin stimulates Ca^{2+} - channel currents in isolated frog ventricular cells. *Pflügers Arch. Europ. J. Physiol.* **412**, 668-670, 1988

94. Albitz, R, Gainullin, R, Kukushkin, N, **Nilius, B**, Saxon, M. Contribution of a Ca^{2+} - dependent component to the transient outward current in rabbit ventricular fibres. *Biomed.Biochim.Acta*, **47**, 1077 - 1080, 1988

95. Benndorf, K., **Nilius, B.** Different blocking effects of Cd^{2+} and Hg^{2+} on the early outward current in myocardial mouse cells *Gen.Physiol.Biophys*. **7,** 345 - 352, 1988

96. Benndorf, K., **Nilius, B.** Properties of an early outward current in single cells of the mouse ventricle *Gen.Physiol.Biophys.* **7,** 449 - 466, 1988

97. Tytgat, J, **Nilius, B**, Carmeliet, E. Modulation of T-type cardiac Ca channel by changes in proton concentration. *J.General Physiol.* **96,** 973-990, 1990

98. Markwardt, F., **Nilius, B.** Properties of inactivation during run-down *Gen.Physiol.Biophys.* **9,** 209-218, 1990

99. Albitz, R, Kammermeier H, **Nilius, B.** Intracellular phosphorylation potential fails to affect the ATP-regulated potassium channel in cardiac cells. *J.Mol.Cell.Cardiol.* **22,** 183-190, 1990

100. **Nilius, B**, Vereecke, J, Carmeliet, E. Subconductance states in cardiac sodium channels. *Biomed. Biochim. Acta* **48**, 354-357, 1989

101. Albitz, R, Markwardt, F, Franke, T, **Nilius, B.** Ca^{2+} - channel currents in isolated frog ventricular cells are increased by thrombin. *Biomed.Biochim.Acta* **48**, 350-353, 1989

102. Markwardt, F, Franke, T, Glusa, E, **Nilius, B.** Pharmacological modification of mechanical and electrical response of frog heart to thrombin. *Naunyn-Schmiedeberg's Arch.Pharmacol.* **341**, 341-346, 1990

103. **Nilius, B**, Tytgat, J, Albitz, R. Modulation of cardiac Na channel by Angiotensin II. *Biochim.Biophys.Acta (Amsterdam)*, **1014,** 259-262, 1989

104. **Nilius, B.** Gating properties and modulation of sodium channels. *News in Physiological Sciences (NIPS)*, **4,** 255-261, 1989

105. **Nilius, B**, Riemann, D. Ionic channels in human endothelial cells. *Gen.Physiol.Biophys.* **9,** 89-112,1990

106. Markwardt, F, Franke, T, Albitz, R, **Nilius, B.** Effects of thrombin on single calcium channels in frog ventricular cells. *Pflügers Arch. Europ. J. Physiol.* **415**, 547-553, 1990

107. Albitz, R, Magyar, J, **Nilius, B.** Block of single cardiac sodium channels by intracellular magnesium. *Europ.J.Biophysics*, **19,** 19-23, 1990

108. **Nilius, B**, Böhm, T, Wohlrab, W. Properties of a potassium selective ion channel in human melanoma cells. *Pflügers Arch. Europ. J. Physiol.* **417,** 269-277, 1990

109. Cernoch, L, Kovacs, L, **Nilius, B**, Szücs, G. Caffeine and the myoplasmic calcium removal in cut frog skeletal muscle fibres. *Gen.Physiol.Biophys.* **9,** 251-266, 1990

110. **Nilius, B.** Permeation properties of non-selective cation channels in human endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **416**, 609-611, 1990

111. Albitz, R., Droogmans, G, **Nilius, B.** Subconductance states in cardiac sodium channels are due to both changes in permeation and conductance. *Gen.Physiol.Biophys.* **10,** 3-9, 1991

112. Albitz, R, Droogmans, G, **Nilius, B.** The slope conductance of single cardiac sodium channels from guinea pig depends on intracellular sodium concentration. *Biomed.Biochim.Acta* **1068,** 254-256, 1991

113. Kitamura, K, Teramoto, N, Oike, M, Xiong, ZL, Kajioka, S, Inoue, Y, **Nilius, B,** Kuriyama, H. Characteristics of the voltage-dependent calcium channel in smooth muscle: patch-clamp studies. *Adv.Exp.Med.Biol.* **304,** 209-27, 1991

114. Albitz, R., Droogmans, G, **Nilius, B**, Casteels R. Thrombin stimulates L-type Ca^{2+} currents of guinea pig cardiomyocytes in cell-attached configuration but not after intracellular dialysis. *Cell Calcium*, **13,** 203-210, 1992

115. **Nilius, B**, Wohlrab, W. Potassium channels are involved in control of proliferation of human melanoma cells. *J. Physiol. (Lond)*, **445,** 537-548, 1991

116. Schwarz G, Droogmans, G., **Nilius, B.** Shear stress induced membrane currents in human vascular endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **421,** 394-396, 1992

117. **Nilius, B.** Control of transmembrane calcium fluxes in endothelium. *News in Physiological Sciences (NIPS)* **6,** 110-114, 1991

118. Schwarz, G, Droogmans, G., **Nilius, B.** Shear stress induced calcium transients in human endothelial cells from umbilical cord veins. *J.Physiol. (Lond.)*, **458,** 527-538, 1992

119. Gericke, M., Droogmans. G. **Nilius, B.** Changes by thimerosal of intracellular calcium in human endothelium cells. *Cell Calcium,* **14,** 201 – 207, 1993

120. Gericke, M, Droogmans, G, **Nilius,** B. Thapsigargin induces transmembrane currents and discharges intracellular calcium stores in human endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **422**, 552 - 557, 1993

121. Scamps, F, **Nilius,** B, Alvarez, J, Vassort, G. Modulation of L-type Ca^{2+}-channel activity by P_2-purinergic agonist in cardiac cells. *Pflügers Arch. Europ. J. Physiol.* **422,** 465 - 471, 1993

122. **Nilius,** B, Schwarz, G, Oike M, Droogmans, G. Histamine-activated non-selective cation currents and Ca^{2+} transients in endothelial cells from human umbilical vein. *Pflügers Arch. Europ. J. Physiol.* **424**, 285-293, 1993

123. Oike, M, Droogmans, G, Casteels R, **Nilius, B.** Electrogenic Na^+/K^+ -transport in human endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **424,** 301-307, 1993

124. **Nilius,** B, Schwarz, G, Droogmans, G. Modulation by histamine of an inwardly rectifying potassium channel in human endothelial cells. *J. Physiol. (Lond.)* **472,** 359-371, 1993

125. Schwarz, G, Droogmans, G, **Nilius, B.** Multiple effects of SK&F 96365 on ionic currents and intracellular calcium in human endothelial cells. *Cell Calcium* **15,** 45 - 54, 1994

126. **Nilius,** B, Schwarz, G, Droogmans, G. Control of intracellular calcium by membrane potential in human melanoma cells. *American Journal of Physiology,* **265**, C1501 - C1510, 1994

127. **Nilius,** B, Oike, M, Zahradnik, I, Droogmans, G. Activation of Cl^- channels by hypotonic stress in human endothelial cells. *J General Physiology* **103,** 787-805, 1994

128. Oike, M, Droogmans, **Nilius,** B. Mechanosensitive Ca^{2+} transients in endothelial cells from human umbilical vein. *Proc. Natl. Acad. Sci. (USA)* **91,** 2940-2944, 1994

129. **Nilius,** B, Droogmans, G. A role for potassium channels in cell proliferation ? *News in Physiological Sciences (NIPS),* **9,** 105-109, 1994

130. Oike, M, Droogmans, G, **Nilius, B.** Amplitude-modulation of Ca^{2+} signals induced by histamine in human endothelial cells. *Biochim. Biophys. Acta* **1222**, 287-291, 1994

131. Oike, M, Droogmans, G, **Nilius, B.** Cytoskeletal modulation of the response to mechanical stimulation of human vascular endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **428,** 569-576, 1994

132. Oike, M, Droogmans, G, **Nilius, B.** Volume-dependent Cl^- currents are dependent on intracellular ATP. *Pflügers Arch. Europ. J. Physiol.* **427,** 184-186, 1994

133. De Smet, P, Oike M, Droogmans, G, Van Driessche, W, **Nilius, B.** Endothelial cells lack regulatory volume decrease. *Pflügers Arch. Europ. J. Physiol.* **428,** 94-96, 1994

134. **Nilius, B**, Kitamura, K, Kuriyama, H. Properties of inactivation of calcium channel currents in smooth muscle cells of rabbit portal vein. *Pflügers Arch. Europ. J. Physiol.* **426,** 239-246, 1994

135. **Nilius,** B, Sehrer, J, Viana, F, De Greef, C, Raeymaekers, L, Eggermont, J, Droogmans, G. Volume-activated Cl^- currents in different mammalian non-excitable cell types. *Pflügers Arch. Europ. J. Physiol.* **428,** 364-371, 1994

136. **Nilius,** B, Sehrer, J, Droogmans, G. Permeation properties and modulation of volume-activated Cl^- currents in human endothelial cells. *Brit. J. Pharmacology* **112,** 1049-1056, 1994

137. Gericke, M, Oike, M, Droogmans, G, **Nilius, B.** The chloride channel blocker NPPB inhibits Ca^{2+} entry in human endothelial cells. *Europ. J. Pharmacology* **255,** 470-473, 1994

138. Gericke, M, Dar, O, Droogmans, G, Pecht, I, **Nilius, B.** $Fc_\varepsilon RI$-receptor mediated intracellular Ca^{2+}-signals and membrane currents in single mast cells. *Cell Calcium* **17,** 71-83, 1994

139. Oike, M, Gericke, M, Droogmans, G, **Nilius, B.** Calcium entry activated by store depletion in human umbilical vein endothelial cells. *Cell Calcium*, **16,** 367-376, 1995

140. Viana, F, Van Akkeren, K, Eggermont, J, De Greef, C, Raeymaekers, L, Droogmans, G, **Nilius, B.** Drug-transport and volume-activated chloride channel function in human erythroleukemia cells: relation to expression level of P-glycoprotein. *J. Membr. Biol.* **145,** 87-98, 1995

141. **Nilius,** B, Sehrer, J, DeSmet, P, VanDriessche, W, Droogmans, G.Volume regulation in a toad epithelial cell line: role of coactivation of K^+ and Cl^- channels. *J. Physiol. (Lond.)* **487,** 367-378, 1995

142. De Greef, C, Sehrer, J, Eggermont, J, Mertens, L, Raeymaekers, L, Droogmans, G, **Nilius, B.** Volume-activated chloride channels are not correlated with P-glycoprotein expression. *Biochemical Journal* **307,** 713-718, 1995

143. Heinke, S, Szücs, G, Norris, A, Droogmans, G, **Nilius, B.** Inhibition of volume-activated chloride currents in endothelial cells by chromones. *Brit. J. Pharmacology* **115,** 1393-1398, 1995

144. De Greef, C., Van der Heyden, S, Viana, F, Eggermont, J, De Bruijn, E A, Raeymaekers, L, Droogmans, G, **Nilius, B**. Lack of correlation between mdr-1 expression and volume-activation of chloride-currents in rat colon cancer cells. *Pflügers Arch. Europ. J. Physiol.* **430,** 296-298, 1995

145. **Nilius, B**, Sehrer, J, Heinke, S, Droogmans, G. Ca^{2+} release and activation of K^+ and Cl^- currents by extracellular ATP in distal nephron epithelial cells. *American Journal of Physiology* **269,** C376-84, 1995.

146. Voets, T, Szücs, G, Droogmans, G, **Nilius, B**. Blockers of volume-activated Cl^- currents inhibit endothelial cell proliferation. *Pflügers Arch. Europ. J.Physiol.* **431,** 132-134, 1995

147. Voets, T, Buyse, G, Tytgat, J, Droogmans, G, Eggermont, J, **Nilius, B**. The chloride current induced by expression of pICln in Xenopus oocytes differs from the endogenous volume-sensitive chloride current. *J. Physiol. (Lond.)* **495,** 441-447, 1996

148. **Nilius,** B, Eggermont, J, Voets, T, Droogmans, G. Volume-activated Cl^- channels. *Gen. Pharmacol.* **27,** 1131-1140, 1996

149. Buyse, G, DeGreef, C, Raeymaekers, L, Droogmans, G, **Nilius,** B, Eggermont J. The ubiquitously expressed pI_{Cln} protein forms homomeric complexes in vitro. *Biochem. Biophys. Res. Commun.* **218,** 822-27, 1996.

150. Szücs, G, Buyse, G, Eggermont, J, Droogmans, G, **Nilius, B.**. Characterisation of volume-activated chloride currents in endothelial cells from bovine pulmonary artery. *J. Membr. Biol.* **179,** 189-97, 1996

151. Szücs, G, Heinke, S, De Greef, C, Raeymaekers, L, Eggermont, J, Droogmans, G, **Nilius, B**. The volume-activated Cl^- current in endothelial cells from bovine pulmonary artery is not modulated by phosphorylation. *Pflügers Arch. Europ. J. Physiol.* **431,** 540-48, 1996

152. Voets, T, Droogmans, G, **Nilius,** B. Potent block of volume-activated chloride currents in endothelial cells by the uncharged form of quinine and quinidine. *Brit. J. Pharmacology* **118,** 1869-1871, 1996

153. Szücs G, Heinke, S, Droogmans, G, **Nilius, B.** Activation of the volume-sensitive chloride current in vascular endothelial cells requires a permissive intracellular Ca^{2+} concentration. *Pflügers Arch. Europ. J. Physiol.* **431**, 467-469, 1996

154. Voets, T, Droogmans, G, **Nilius, B**. Ionic currents in non-stimulated endothelial cells from bovine pulmonary artery. *J. Physiol. (Lond.)* **497,** 95-107, 1996

155. **Nilius, B**, Gerke, V, Prenen, J, Szücs, G, Heinke, S, Weber, K, Droogmans, G. Annexin II modulates volume-activated chloride currents *J. Biol. Chemistry*, **271,** 30631-30637, 1996

156. Manolopoulous, V, Prenen, J, Droogmans, G, **Nilius, B**. Thrombin potentiates volume-activated chloride currents in pulmonary artery endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **433,** 845-847, 1996

157. Tytgat, J, Buyse, G, Eggermont, J, Droogmans, G, **Nilius, B**, Daenens, P. No evidence for heteromultimer formation between voltage-gated and inward rectifier potassium channels: a comparison with the TOK 1 channel. *FEBS Letters* **390,** 280-284, 1996

158. Missiaen, L, De Smedt, H, Parys, JB, Sienaert, I, Vanlingen, S, Droogmans, G, **Nilius, B**, Casteels, R. Hypotonically induced calcium release from intracellular calcium stores *J. Biol. Chemistry* **271,** 4601-4604, 1996

159. **Nilius, B**, Szücs, G, Heinke, S, Voets, T, Droogmans, G. Multiple types of chloride channels in bovine pulmonary artery endothelial cells. *J. Vasc. Res.* , **34,** 220-228, 1997

160. Heinke S, Raskin G, De Smet P, Droogmans G, Willy Van Driessche, W, **Nilius, B**. Membrane capacitance and whole cell currents during cell swelling in macrovascular endothelium *Cell. Physiol. Biochem.* **7,** 19-24, 1997

161. Szabo, I, **Nilius, B**, Zhang, X, Busch, AE, Lang, F. Inhibitory effects of oxidants on n-type K^+ channels in T - lymphocytes and Xenopus oocytes. *Pflügers Arch. Europ. J. Physiol.* **432,** 626-635, 1997

162. Haburcak, M, Wei, L, Viana, F, Prenen, J, Droogmans, G, **Nilius, B.** Calcium-activated potassium channels in cultured human endothelial cells are not directly modulated by nitric oxide. *Cell Calcium* **21,** 302-314, 1997

163. Buyse, G., Voets, T, Tytgat, J, Degreef, C, Droogmans, G, **Nilius, B,** Eggermont, J. Expression of human pI_{Cln} and ClC 6 in Xenopus oocytes induces an identical endogenous chloride conductance. *J. Biol. Chemistry* **272**, 3615-3621, 1997

164. Eggermont, J, Buyse, G, Voets, T, Tytgat, J, De Smedt, H, Droogmans, G, **Nilius, B**. Alternative splicing generates three truncated ClC-6 isoforms: structural and functional analysis. *Biochemical Journal* **325,** 269-276, 1997

165. Kamouchi, M, Trouet, D, De Greef, C, Droogmans, G, Eggermont, J, **Nilius, B**. Functional expression of hslo Ca^{2+}-activated K^+ channels in cultured macrovascular endothelial cells. *Cell Calcium* **22,** 497-506, 1997

166. Kamouchi, M, Van den Bremt, K, Eggermont, J, Droogmans, G, **Nilius, B**. Modulation of inwardly rectifying potassium channels in cultured bovine pulmonary artery endothelial cells. *J.Physiol. (Lond.)* **504,** 545-556, 1997

167. Manolopoulos, VG, Droogmans, G, **Nilius, B**. Hypotonicity and thrombin activate taurine efflux in BC_3H1 and C_2C_{12} myoblasts that is down regulated during differentiation. *Biochemical and Biophysical Research Communications* **232**, 74-79, 1997

168. Manolopoulos, VG, Voets, T., Declercq, P E, Droogmans, G, **Nilius, B**. Swelling-activated efflux of taurine and other organic osmolytes in endothelial cells. *American Journal of Physiology* **271,** C101-C109, 1997.

169. **Nilius, B**, Eggermont, J, Voets, T, Buyse, G, Manolopoulos, GV, Droogmans, G. Properties of volume-regulated anion channels in mammalian cells. *Progress in Biophysics and Molecular Biology* **68,** 69-119, 1997

170. **Nilius, B**, Prenen, J, Kamouchi, M, Viana, F, Voets, T, Droogmans, G. Inhibition by mibefradil, a novel calcium channel antagonist, of Ca^{2+} and volume activated Cl^- channels in macrovascular endothelial cells. *Brit. J. Pharmacology* **121**, 547-555, 1997

171. **Nilius, B**, Prenen, J, Szücs, G, Wei, L, Tanzi, F, Voets, T, Droogmans, G. Calcium activated chloride channels in bovine pulmonary artery endothelial cells. *J. Physiol. (Lond.)* **498**, 381-396, 1997

172. Voets, T, Wei, L, De Smet, P, Van Driessche, W, Eggermont, J, Droogmans, G, **Nilius, B**. Down regulation of volume-activated Cl^- currents during muscle differentiation. *American Journal of Physiology* **272,** C667-C674, 1997

173. **Nilius, B**, Viana, F, Droogmans, G. Ion channels in vascular endothelium. *Annual Review of Physiology* **59**, 145-170, 1997

174. **Nilius, B**, Prenen, J, Voets, T, Van Den Bremt, K, Eggermont, J, Droogmans, G. Kinetic and pharmacological properties of the calcium-activated chloride current in macrovascular endothelial cells. *Cell Calcium* **22,** 53-63, 1997

175. Voets, T, Droogmans, G, **Nilius B.** Modulation of voltage-dependent properties of a swelling-activated Cl^- current. *J General Physiology,* **110**, 313 – 325, 1997

176. **Nilius, B**, Prenen, J, Voets, T, Eggermont, J, Bruzik, KS, Shears, SB, Droogmans, G. Ins(1,4,5,6)P4 and Ins(3,4,5,6) inhibit volume-activated chloride currents. *Pflügers Arch. Europ. J. Physiol.* **435,** 637-644, 1998

177. **Nilius, B**, Prenen, J, Voets, T, Eggermont, J, Droogmans, G. Reduction of intracellular ionic strength activates the volume-regulated chloride current in cultured bovine pulmonary endothelial cells. *J. Physiol. (Lond.)* **506**, 353-361, 1998

178. Viana, F, VanDenBosch, L, Missiaen, L,Vandenberghe, W, Droogmans, G, **Nilius, B,** Robberecht,W. Mibefradil (Ro 40-5967) blocks multiple types of voltage-gated calcium channels in cultured rat spinal motoneurones, *Cell Calcium* **22,** 299-311, 1998

179. Voets, T., Manolopoulos, GV, Eggermont, J, Ellory, C, Droogmans, G,**Nilius, B**. Regulation of a swelling-activated Cl-current in bovine endothelium by protein tyrosine phosphorylation and G-proteins. *J. Physiol. (Lond.)* **506**, 341-352, 1998

180. Cuppens, H, Lin, W, Jaspers, M, Costes, B, Teng, H, Vaderkeerberghen, A, Jorissen, M, Droogmans, G, Reynaert, I, Goossens, M, **Nilius, B**, Cassiman, JJ. Polyvariant CFTR genes explain the partial penetrance of the T5 allelle as a disease mutation. *Journal of Clinical Investigation* **101,** 487-496, 1998

181. Fasolato, C, **Nilius, B**. Store depletion triggers the Calcium Release Activated Calcium Current, I_{CRAC}, in macrovascular endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **436,** 69-74, 1998

182. König, J, Prenen, J, **Nilius, B,** Gerke, V. The annexin II-p11 complex is involved in regulated exocytosis in bovine pulmonary artery endothelial cells *J. Biol. Chemistry* **273**, 19679-19684, 1998

183. Pedersen, SF, Prenen, J, Droogmans, G, Hoffmann, EK, **Nilius, B**. Separate swelling- and Ca^{2+} activated anion currents in Ehrlich Ascites Tumor Cells. *J. Membr. Biol.* 163: 97-110, 1998

184. Droogmans, G, Prenen, J, Eggermont, J, Voets, T, **Nilius, B**. (1998). Voltage-dependent block of endothelial volume-regulated anion channels by calix[4]arenes. *American Journal of Physiology* **275,** C646-C652, 1998

185. Eggermont, J, Buyse, G, Voets, T, Tytgat J, Droogmans, G, **Nilius, B**. Is there a link between protein pI_{Cln} and volume-regulated anion channels ? *Biochemical Journal* 331: 347-352, 1998

186. Voets, T, Buyse, G, Droogmans, G, Eggermont, J, **Nilius, B.**: The GXGXG motif in the pICln protein is not important for the nucleotide sensitivity of the pI_{Cln}-induced Cl- current in Xenopus oocytes. *FEBS Letters* **426,** 1711-173, 1998

187. **Nilius, B,** Viana, F, Kamouchi, M, Fasolato, C, Eggermont, J, Droogmans, G. Ca^{2+} signalling in vascular endothelium: Role of ion channels. *Korean. J. Physiol.* **2,** 133-145, 1998

188. Viana, F, De Smedt, H, Droogmans G, **Nilius, B.** Ca^{2+} signalling through nucleotide P_{2y2} receptors in human endothelial cells. *Cell Calcium* **24**, 117-127, 1998

189. **Nilius B.** Signal transduction in vascular endothelium: the role of ion channels and calcium. *Verhand Konink Academie voor Geneeskunde*, **60,** 215-250, 1998

190. **Nilius, B**, Prenen, J, Droogmans, G. Modulation of volume-regulated anion channels by extra- and intracellular pH. *Pflügers Arch. Europ. J. Physiol.* 436: 742-748, 1998

191. Vankeerberghen, A, Wei, L, Jaspers, M, Cassiman, JJ, **Nilius, B**, Cuppens, H. Characterisation of disease associated mutations in the regulatory domain of the cystic fibrosis transmembrane conductance regulator. *Hum. Molec. Genetics,* 7, 1761-1769, 1998

192. Maertens, Ch, Wei, L, Voets, T, Droogmans, G, **B. Nilius**. Block by fluoxetine of volume-regulated anion channels. *Brit. J. Pharmacology* **126,** 508-514, 1999

193. Wei, L, Vaankeerberghen, A, Cuppens, H, Droogmans, G, Cassiman, JJ, **Nilius, B.** Phosphorylation site independent single R-domain mutations affect CFTR channels activity. *FEBS Letters*, **439,** 121-126, 1998

194. Vankeerberghen, A, Wei, L, Teng H, Jaspers, M. Cassiman, JJ, **Nilius, B**, Cuppens, H. Characterization of mutations located in exon 18 in the CFTR gene *FEBS Letters* **437,** 1-4, 1998

195. Kamouchi, M, Philipp, S, Flockerzi, V, Wissenbach, U, Mamin, U, Raeymaekers, L, Eggermont, J, Droogmans, G, **Nilius, B**. Properties of heterologously expressed hTRP3 channels in bovine pulmonary artery endothelial cells. *J. Physiol. (Lond.)* **518,** 345-358, 1999

196. Kamouchi, M, Droogmans, G, **Nilius, B.** Membrane potential as a modulator of free intracellular Ca^{2+} concentration in agonist-activated endothelial cells. *Gen Physiol Biophys.* **18,** 199-208, 1999

197. Kamouchi, M, A. Mamin, Droogmans, G, **Nilius, B.** Non-selective cation channels in human umbilical vein derived endothelial cells, *J. Membr. Biol.* **169**, 29-38, 1999

198. Lang, F, Uhlemann, AC, Lepple-Wienhues, A, Szabo, I, Siemen, D, **Nilius, B,** Gulbins, E. Cell volume regulatory mechanisms in apoptotic cell death. *HERZ* **19,** 23-26, 1999

199. **Nilius B,** Voets T, Prenen J, Barth H, Aktories K, Kaibuchi, K, Droogmans G, Eggermont, J. Role of RhoA and Rho Kinase in the activation of volume-regulated anion channels in bovine endothelial cells. *J. Physiol. (Lond.)* **516**, 67-74, 1999

200. Vennekens, R, Trouet, D, Vankeerberghen A, Voets T, Cuppens, H, Eggermont, J, Cassiman JJ, Droogmans, **G, Nilius B.** Inhibition of volume-regulated anion channels by expression of the cystic fibrosis transmembrane conductance regulator. *J. Physiol. (Lond.)* **515,** 75-85, 1999

201. Droogmans, G, Maertens, Ch, Prenen, J, **Nilius, B.** Sulphonic acid derivatives as probes of properties of volume-regulated anion channels. *Brit. J. Pharmacology* **126,** 35-40, 1999

202. Pedersen, S, Pedersen, SF, **Nilius, B**, Lambert, IH, Hoffmann, EK. Mechanical stress induces release of ATP from Ehrlich Ascites Tumor cells. *Biochimica Biophysica Acta* **1416:** *271-284, 1999*

203. Junge, S, Brenner, B., Lepple-Wienhues, A., **Nilius, B.,** Lang, F., Linderkamp, O., Gulbins, E. Intracellular mechanisms of L – selectin induced capping. *Cellular Signalling* **11,** 301-308, 1999

204. Voets, T, Droogmans, G, Raskin, Eggermont, J, **Nilius, B.** Reduced ionic strength as the initial trigger for activation of endothelial volume-regulated anion channels. *Proc. Natl. Acad. Sci. USA (PNAS)* **96,** 5298-5303, 1999

205. Wei, L, Vaankeerberghen, A, Cuppens, H, Droogmans, G, Cassiman, JJ, **Nilius, B**. Interaction between calcium - activated chloride channels and the cystic fibrosis transmembrane conductance regulator. *Pflügers Arch. Europ. J. Physiol.* **438**, 635-641, 1999

206. Suh, SH, Vennekens, R, Manolopoulos, VG, Freichel, M, Schweig, U, Prenen, J, Flockerzi, V, Droogmans, G, **Nilius, B.** Characterisation of explanted endothelial cells from mouse aorta: electrophysiology and Ca^{2+} - signalling. *Pflügers Arch. Europ. J. Physiology,* **438,** 612 – 620, 1999

207. Boegehold, M., Lee, R.M., Mulvany, M., Nilius, B., Prewitt, R.L., Zhang, J. Vascular Research at INABIS 98. *Journal of Vascular Research* **36**, 147-150, 1999

208. Trouet, D, **Nilius,** B, Jacobs, A, Remacle, C, Droogmans, G, Eggermont, J. Caveolin-1 modulates the activity of the volume-regulated chloride channel. *J. Physiol. (Lond.)* **520**, 113-119, 1999.

209. Vankeerberghen, A, Wei, L, Jaspers, M, Cuppens, H, **Nilius, B**, Cassiman, JJ. Functional characterization of the CFTR R domain using CFTR/MDR1 hybrids and deletion constructs. *Biochemistry,* **38**, 14988-14998, 1999

210. **Nilius, B,** Viana, F, Kamouchi, M, Eggermont, J, Droogmans, G. Ca^{2+} signalling in macrovascular endothelium: Role of ion channels. *J Vasc Res* **35** (Supplement 3), 12-14, 1999

211. Sabirov, R, Prenen, J, Tomita, T, Droogmans, G, **Nilius, B.** Reduction of ionic strength activates single volume-regulated anion channels (VRAC) in endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **439,** 315-320, 2000

212. Suh, SH, Droogmans, G, **Nilius, B.** Effects of cyanide and deoxyglucose on Ca^{2+} signalling in macrovascular endothelial cells. *Endothelium*, **7**, 155-168, 2000

213. Wei, L, Vankeerberghen, A, Jaspers, M, Cassiman, JJ, Cuppens, H, **Nilius, B**. Suppressive interaction between mutations located in the two nucleotide binding domains of CFTR. *FEBS LETTERS* ***473***, 149-53, 2000.

214. Papassotitiou, J, Köhler, R, Prenen, J, Krause, H, Akbar, M, Eggermont, J, Paul, M, Distler, A, **Nilius, B**, Hoyer, J. Endothelial K^+ channel lacks the Ca^{2+} sensitivity regulating ß-subunit. *Faseb J.*, **14**, 125-132, 2000

215. Vennekens, R, Hoenderop, JGJ, Prenen, J, Stuiver, M, Willems, PHGM, Droogmans, G, **Nilius, B,** Bindels, R.J.M. Permeation and gating properties of the novel epithelial channel, ECaC. *J. Biol. Chemistry*, **275**, 3963-3969, 2000

216. Maertens, Ch, Wei, L, Tytgat, J, Droogmans, G, **Nilius, B.** Chlorotoxin, an inhibitor of chloride channels? *Brit. J. Pharmacology*, 129: 791-801, 2000

217. Manolopoulos, VG, Liekens, S, Koolwijk, P, Peters, E, Droogmans, G, Lelkes, PI, De Clerq, E, **Nilius, B.** Inhibition of angiogenesis by blockers of volume regulated anion channels. *General Pharmacology*, **36**: 278-290, 2000

218. **Nilius, B**, Prenen, J, Walsh, M, Bollen, M, Droogmans, G., Eggermont, J. Myosin light chain dependent modulation of volume-regulated anion channels (VRAC) in macrovascular endothelium. *FEBS Letters* **466:** 346-350, 2000

219. Missiaen L, Robberecht W, van den Bosch L, Callewaert G, Parys JB, Wuytack F, Raeymaekers L, **Nilius B**, Eggermont J, De Smedt H.Abnormal intracellular ca(2+)homeostasis and disease. *Cell Calcium.* **28**::1-21, 2000

220. Wagner, C.A., Huber, S.M., Wärntges, S., Zempel, G., Kaba, N.K., Fux, R., Busch, G.L., Wladegger, S., Lambert, I., **Nilius, B.**, Heinle, H., Lang, F. Effect of urea and osmotic cell shrinkage on Ca^{2+} entry and contraction of vascular smooth muscle. *Pflügers Arch. Europ. J. Physiol.* **440:** 295-301, 2000

221. Shen, M.-R. Droogmans, G., Eggermont, J., Voets, T., Ellory, J.C., Nilius, B. Differential expression of volume-regulated anion channels during cell cycle progression of human cervical cancer cells. *J. Physiol. (Lond.)* **527:** 239-248, 2000

222. Sabirov, R, Prenen, J, Droogmans, G, **Nilius, B.** Extra- and intracellular proton binding sites for volume-regulated anion channels (VRAC) *J. Membr Biol*, 177, 13-22, 2000

223. Missiaen, L., Callewaert, G., Parys, J. B., Wuytack, F., Raeymaekers, L., Droogmans, G., **Nilius, B.,** Eggermont, J. and De Smedt, H. Intracellulaire calcium: Fysiologie en Fysiopathologie. *Verhandelingen van de Koninklijke Academie voor Geneeskunde van België* **LXII**: 471-500, 2000

224. Maertens Ch, Wei, L., Droogmans, G., and **Nilius, B**. Inhibition of volume-regulated and calcium-activated chloride channels by the antimalarial mefloquine. *Journal of Pharmacology and Experimental Therapeutics* **295**, 29-36, 2000

225. Oury, C, Toth-Zsamboki, E, Van Geet C, **Nilius, B**, Vermeylen, J, Hoylaerts, M. A dominant negative mutation in the platelet P2X1 ADP receptor causing severe bleeding disorder *J. Biol. Chem.* **275**, 22611-22614, 2000

226. **Nilius, B**., Eggermont, J., Droogmans, G. The Endothelial Volume-Regulated Anion Channel, VRAC. *Cellular Physiology and Biochemistry* **10**, 313-320, 2000

227. **Nilius, B**, Vennekens, R, Prenen, J, Hoenderop, JGJ, Bindels, RJM, Droogmans, G. Whole cell and single channel monovalent cation currents through the novel epithelial Ca^{2+} channel, ECaC. *J. Physiol. (Lond.)* **527:** 239-248, 2000

228. Vennekens, R., Prenen, J., Hoenderop, J.G.J., Bindels, R.J.M., Droogmans, G., **Nilius, B.** Pore properties and ionic block of the epithelial calcium channels, ECaC, expressed in HEK 293 cells. *J. Physiol. (Lond.)* **530:** 183 - 191, 2000

229. Maertens, C, Droogmans, G., Chakraborty, P. and **B. Nilius**. Pharmacological modulation of volume-regulated anion channels (VRAC) by anti-estrogens. *British J Pharmacology*, 135-142, 2001

230. Staes, M., Talavera, K., Klugbauer, N., Prenen, J., Lacinová, L., Droogmans, G., Hofmann, F., **Nilius, B.** The amino side of the C-terminus determines fast inactivation of the T-type calcium channel α1G. *J. Physiol. (Lond.)* **530:** 35-45, 2001

231. **Nilius, B**., Vennekens, R., Prenen, J., Hoenderop, J.G.J., Bindels, R.J.M., Droogmans, G. The single pore residue Asp^{542} determines Ca^{2+} permeation and Mg^{2+} block of the epithelial Ca^{2+} channel. *J. Biol. Chemistry*, **276,** 1020-1025, 2001

232. **Nilius, B**., Droogmans, G. "Functional role of ion channels in vascular endothelium" *Physiological Reviews* , 81: 1429-1477, 2001

233. Kielbassa, K, Janning, A, Missiaen, L, **Nilius, B,** Gerke, V. Endothelial Ca^{2+} release following monocyte adhesion is required for the transendothelial migration of monocytes. *Cell Calcium* **30:** 29-40, 2001

234. Papassotiriou, J., Eggermont, J., Droogmans, G., **Nilius, B**. Lack of correlation between mCLCA expression and Ca^{2+} activated Cl^- currents. *Pflügers Arch. Europ. J. Physiol.* **442:** 273-279, 2001

235. Wei, L., Vankeerberghen, A., Cuppens, H., Cassiman, J.J., Droogmans, G., **Nilius, B.** The C-terminal part of the R-domain but not the PDZ binding motif is involved in interaction with Ca^{2+} activated Cl^- channels. *Pflügers Arch. Europ. J. Physiol.* **442:** 280-285, 2001

236. Vennekens, R., Prenen, J., Hoenderop, JGJ, Bindels, RMJ, Droogmans, G., **Nilius, B.** Modulation by extracellular pH of the epithelial Ca^{2+} channel, ECaC. *Pflügers Arch. Europ. J. Physiol.* **442:** 280-285, 2001

237. Vennekens; R., Droogmans, G., **Nilius, B**. Functional properties of the epithelial Ca^{2+} channel, ECaC. *General Physiology and Biophysics,* 20, 239-253, 2001

238. Freichel, M, Suh HS, Pfeifer, A, Schweig, U, Trost, C, Weißgerber, P, Biel, M, Philipp, S, Freise, D, Droogmans G, Hofmann F, Flockerzi, V and **B.Nilius**. Lack of an endothelial store-operated Ca^{2+}-current impairs agonist-dependent Ca^{2+} entry and vasorelaxation in TRP4 (CCE1) -/- mice. *Nature Cell Biology* **3**, 121-127, 2001

239. **Nilius, B.**, Suh, S.H., Freichel, M., Droogmans, G., Flockerzi, M. Role of TRP channels in endothelial calcium signalling. *J. Physiol. (Lond.)* **531:** 2S-3S, 2001

240. Wei, L., Freichel, M., Jaspers, M., Cuppens, H., Cassiman, J.-J., Droogmans, G., Flockerzi, V., **Nilius, B.** Functional interaction between TRP4 and CFTR in mouse aorta endothelial cells. *BMC Physiology* **1:** 3, 2001 (electronic journal)

241. **Nilius, B.**, Prenen, J., Vennekens, R., Hoenderop, G.J.J., Bindels, R.J.M., Droogmans, G. Modulation of the epithelial calcium channel, ECaC, by intracellular Ca^{2+}. *Cell Calcium* **29:** 417-428, 2001

242. **Nilius, B.** Chloride channels go cell cycling. *J. Physiol. (Lond.)* **532:** 581 (editorial), 2001

243. **Nilius, B**., Prenen, J., Vennekens, R., Hoenderop, J.G.J., Bindels, R.J.M., Droogmans, G. Pharmacological modulation of monovalent cation currents through the epithelial Ca^{2+} channel ECaC1, *Brit J Pharmacol* 134, 453-462, 2001

244. **Nilius, B.,** Prenen, J., Wissenbach, U., Bödding, M. Droogmans, G. Differential activation of the volume-sensitive cation channel TRP12 (OTRPC4) and volume-regulated anion currents in HEK-293 cells. *Pflügers Arch. Europ. J. Physiol.* **442:** 280-285, 2001

245. Trouet D, Hermans D, Droogmans G, **Nilius B,** Eggermont J. Inhibition of volume-regulated anion channels by dominant-negative caveolin-1 *Biochem Biophys Research Comm* **284**: 461-465, 2001

246. Trouet D,Carton I, Hermans D, DroogmansG, **Nilius B,** Eggermont J. Inhibition of VRAC by c-Src tyrosine kinase targeted to caveolae is mediated by the Src homology domains *American Journal of Physiology* **281**: C248-C256, 2001

247. Decher, N., Lang, H.J., Busch, A.E., **Nilius, B.,** Brüggemann, A., Steinmeyer, K. DCPIB is a novel selective blocker of ICl,swell and prevents swelling-induced shortening of guinea-pig atrial action potential duration *Brit J Pharmacol*, **134**, 1467-1479, 2001

248. Voets, T., Prenen, J., Fleig, A., Vennekens, R. Watanabe, H., Hoenderop, J.G.J., Bindels, R.J.M., Droogmans, G., Penner, R., **Nilius, B.** CaT1 and the calcium release activated Ca^{2+} channels (CRAC) manifest distinct pore properties, *J. Biol. Chemistry*, 276, 51, 47767-47770, 2001

249. Talavera, K, Staes, M., Janssens, A., Klugbauer, N., Droogmans, G., Hofmann, F. and **Nilius, B.** Aspartate residues of the glu-glu-asp-asp (EEDD) pore locus control selectivity and permeation of the T-type Ca^{2+} channel α1G. *J. Biol. Chemistry*, **276,** 45628-45635, 2001

250. Eggermont J, Trouet D, Carton I, **Nilius B.** Cellular function and control of volume-regulated anion channels. *Cell Biochem Biophys* 35: 263-274 2001

251. Hoenderop, J.G.J., **Nilius. B.,** Bindels, R.J.M. Molecular mechanism of active Ca^{2+} reabsorption in the distal nephron. *Annual Review of Physiology*, **64**, 529-549, 2002

252. Müller, D., Hoenderop, J.G.J., Vennekens, R., Eggert, P., Harangi, F., Mehes, F., Garcia-Nieto, V., Claverie-Martin, F., Van os, C.H., **Nilius, B.,** Bindels, R.J.M. Epithelial Ca^{2+} channel (ECaC1) in autosomal dominant hypercalciuria. *Nephrol Dial Transplant* **17**, 1614 – 1620, 2002

253. Hoenderop, J.G.J, Vennekens, R., Müller, D., Prenen, J., Suzuki, M., Droogmans, G., Bindels, R.J.M. and **Nilius, B.** Function and expression of the epithelial Ca^{2+} channel family: comparison of the Epithelial Ca^{2+} Channel 1 and 2. *Journal of Physiology **537,*** 747-761, 2002

254. Lemonnier L, Prevarskaya N, Shuba Y, Vanden-Abeele F, **Nilius B**, Mazurier J, Skryma R Ca^{2+} modulation of volume-regulated anion channels: evidence for colocalization with store-operated channels. *FASEB J.***16:** 222-232, 2002

255. Suh, SH, Watanabe, H, Droogmans, G., **Nilius, B**. ATP and nitric oxide modulate a Ca^{2+} - activated non-selective cation current in macrovascular endothelial cells. *Pflügers Arch. Europ. J. Physiol.* **444:** 438 – 445, 2002

256. Watanabe, H., Davis, JB, Smart, D., Jerman, JC, Smith GD, Hayes, P., Vriens, J., Cairns, W., Wissenbach, U., Prenen, J., Flockerzi, V., Droogmans, G., **Nilius, B**. Activation of TRPV4 channels (hVRL-2/mTRP12) by phorbol derivatives. *J. Biol. Chemistry*, **277,** 13569-13577, 2002

257. Vennekens, R., Voets, T., Bindels, R.J.M., Droogmans, G., **Nilius, B.** Current understanding of mammalian TRP homologues, *Cell Calcium*, **31:** 253 –264, 2002

258. Maertens, C., Droogmans, G., Verbesselt, R., **Nilius, B.** Block of volume-regulated anion channels by selective serotonin reuptake inhibitors. *Naunyn-Schmiedeberg´s Archive of Pharmacology*, **366:** 158 - 165, 2002

259. **Nilius, B**., Prenen, J., Hoenderop, J.G.J., Vennekens, R., Hoefs, S., Weidema, A.F., Droogmans, G., Bindels, R.J.M. Fast and slow inactivation kinetics of the Ca^{2+} channels ECaC1 and ECaC2 (TRPV5 and 6): role of the intracellular loop located between transmembrane segment 2 and 3. *J. Biol. Chemistry*, **277**: 30852 - 30858, 2002

260. **Nilius B**. From TRPV4 to TRPV6: mechanisms of activation and inactivation. *J Physiol (Lond)* **544:** P105 – 106, 2002

261. Watanabe, H., Vriens, J., Suh, S.H., Benham, C.H., Droogmans, G. , **Nilius, B**. Heat-evoked Activation of TRPV4 Channels in a HEK293 Cell Expression System and in Native Mouse Aorta Endothelial Cells, *J. Biol. Chemistry*, **277**:47044-51, 2002

262. Voets, T., Prenen, J., Vriens, J., Watanabe, H., Janssens, A., Wissenbach, U., Bödding, M., Droogmans, G., **Nilius, B**. Molecular determinants of Permeation through the cation channel TRPV4**,** *J. Biol. Chemistry*, **277:** 33704-33710, 2002

263. Toth-Zsamboki E., Oury C., Watanabe H., **Nilius B.**, Vermylen J., Hoylaerts M.F. The intracellular tyrosine residues of the ATP-gated P2X(1) ion channel are essential for its function. *FEBS Letters* **524:**15-19, 2002.

264. Raeymaekers L., **Nilius B.,** Voets T., Missiaen L., Van Baelen K., Vanoevelen J., Wuytack F.. Additional fluxes of activator Ca^{2+} accompanying Ca^{2+} release from the sarcoplasmic reticulum triggered by InsP3-mobilizing agonists. *Novartis Found Symp.* **246:** 71-76, 2002

265. Carton I., Trouet D., Hermans D., Barth H., Aktories K., Droogmans G., Jorgensen N.K., Hoffmann E.K., **Nilius B.**, Eggermont J. RhoA exerts a permissive effect on volume-regulated anion channels in vascular endothelial cells. *Am J Physiol Cell Physiol* **283:** C115-25, 2002

266. **Nilius, B**. Read something of interest elsewhere: Ca^{2+} entry channels in endothelium. *Endothelium*, **9**: 279-281, 2002

267. Hoenderop JG, **Nilius B**, Bindels RJ ECaC: the gatekeeper of transepithelial Ca^{2+} transport. *Biochim Biophys Acta* **1600**:6-11, 2002

268. **Nilius, B** Calcium-impermeable monovalent cation channels: a TRP connection? *Brit. J. Pharmacol*. 138, 5-7, 2002

269. Van de Graaf, S.F.J., Hoenderop, , J.G., Gkika1, D., Lamers, D., Prenen, J. Rescher, U., Gerke, V., Staub, O., **Nilius, B**., Bindels R.J.M. Functional expression of the epithelial Ca^{2+} channels (TRPV5 and TRPV6) requires association of the S100A10-annexin 2 complex. *EMBO J*., **22:** 1478-1487, 2003

270. J.G.J. Hoenderop, T. Voets, S. Hoefs, F. Weidema, J. Prenen, **B. Nilius,** and R.J.M. Bindels Homo- and heterotetrameric architecture of the epithelial Ca^{2+} channels TRPV5 and TRPV6 *EMBO J*. **22:** 776-785, 2003

271. **Nilius, B.**, Droogmans, G. Amazing chloride channels: an overview. *Acta Physiol Scand,* **177**, 119 – 147, 2003

272. **Nilius, B**., Weidema, F., Prenen, J., Hoenderop, J.G.J., Vennekens, R., Hoefs, S., Droogmans, G., Bindels, R.J.M. The carboxyl-terminus of the epithelial Ca^{2+} channel ECaC1 is involved in Ca^{2+} dependent inactivation. *Pflügers Arch. Europ. J. Physiol.* **445***:* 584-588, 2003

273. Owsianik, G., Cao L., **Nilius, B**. Rescue of functional ΔF508-CFTR channels by co-expression with truncated CFTR constructs in COS-1 cells. *FEBS Letters* **554:** 173-178, 2003

274. Voets, T., **Nilius, B**. TRPs make sense. *J Membr Biol*, **192**: 1 – 8, 2003

275. **Nilius, B**., Droogmans, G., Wondergem, R. TRP channels in endothelium: Solving the Ca^{2+} entry puzzle? *Endothelium*, **10:** 5 – 15, 2003

276. **Nilius, B**. From TRPs to SOCs, CCEs, and CRACs: consensus and controversies, *Cell Calcium*, **33:** 293-298, 2003

277. Voets, T and **Nilius, B**. The pore of TRP channels: trivial or neglected? *Cell Calcium*, **33:** 299-302, 2003

278. Watanabe, H., Vriens, J., Janssens, A., Wondergem, R., Droogmans, G. **Nilius, B**. Modulation of TRPV4 gating by intra- and extracellular Ca^{2+}. *Cell Calcium*, **33:** 489-495**,** 2003

279. Den Dekker, E., Hoenderop, J. G. J., **Nilius, B.**, Bindels, R. J. M. The epithelial calcium channels, TRPV5 & TRPV6: from identification towards regulation. *Cell Calcium*, **33:** 497-507**,** 2003

280. **Nilius, B.** Milestones in Physiology: Pflügers Archive" and the advent of modern electrophysiology: From the first action potential to patch clamp. *Pflügers Arch. Europ. J. Physiol.* **447:** 267 - 271**,** 2003

281. Hoenderop, J. G.J. **Nilius, B**., Bindels, R.J.M. Epithelial calcium channels: from identification to function and regulation. *Pflügers Arch. Europ. J. Physiol.* **446,** 304-308, 2003

282. Voets, T., Janssens, A., Prenen, J., Droogmans, G. **Nilius, B.** Mg^{2+}-dependent gating and strong inward rectification of the cation channel TRPV6. *J Gen. Physiol.*, **121:** 245-260, 2003

283. **Nilius, B**., Watanabe, H., Vriens, J. The TRPV4 channel: structure – function relationship and promiscuous gating behaviour, *Pflügers Arch. Europ. J. Physiol.***, 446**:298–303, 2003

284. Cao, L., Owsianik, G. Jaspers, M., Janssens, A., Cuppens, H., Cassiman, J.-J. **Nilius, B**. Functional analysis of CFTR chloride channel activity in cells with elevated MDR1 expression. *Biochem Biophys Res Comm (BBRC)* **304:** 248-252, 2003

285. Talavera, K., Janssens, A., Klugbauer, N., Droogmans, G., **Nilius, B.** Extracellular Ca^{2+} Modulates the Effects of Protons on Gating and Conduction Properties of the T-type Ca^{2+} Channel α_{1G} ($Ca_V3.1$). *J Gen. Physiol.*, **121:** 511-528, 2003

286. Talavera, K., Janssens, A., Klugbauer, N., Droogmans, G., **Nilius, B.** Pore Structure Influences Gating Properties of the T-type Ca^{2+} Channel α_{1G} *J Gen. Physiol.*, **121:** 529-540, 2003

287. **Nilius**, B., Prenen, J., Droogmans, G., Voets, T., Vennekens, R., Freichel, M., Wissenbach, U., Flockerzi, V.Voltage dependence of the Ca^{2+} activated cation channel TRPM4 J. *Biol. Chem*., **278:** 30813-30820, 2003

288. Watanabe, H., Vriens, J., Prenen, J., Droogmans, G., Voets, T., **Nilius, B.** Anandamide and arachidonic acid use epoxyeicosatrienoic acids to activate TRPV4 channels, *Nature* **424:** 434-438, 2003

289. **B. Nilius.** TRP Channels: Facts, Fiction, Challenges, *Cell Calcium* **33:** 293-558, 2003

290. **Nilius B.,** Voets T., Diversity of TRP channel activation. *Novartis Found Symp.* **258:** 140-154, 2004

291. **Nilius, B.** Is the volume-regulated anion channel VRAC a “water permeable” channel ?, *J Neurochem Res*, **29:** 3 – 8 , 2004

292. Vriens, J., Janssens, A., Prenen, J., **Nilius, B**. and Wondergem, R. TRPV channels and modulation by Hepatocyte Growth Factor/Scatter Factor in Human Hepatoblastoma (HepG2) Cells, *Cell Calcium* **36:** 19-28, 2004

293. Srinivas, S.P., Maertens, C, Goon, L.H., Goon, L., Satpathy, M., Yue, B.Y.J.T., Droogmans, G.,**Nilius, B**. Cell volume response to hyposmotic shock and elevated cAMP in bovine trabecular meshwork cells**,** *Exp Eye Res* **78:** 15-26, 2004

294. **Nilius, B**., Vriens, J., Prenen, J., Droogmans, G. Voets, G. The TRPV4 calcium entry channel: a paradigm for gating diversity. *Am J Physiol Cell Physiol* 286: C195-C205, 2004

295. Seol G.H., Ahn S.C., Kim J.A., **Nilius B**, Suh SH. Inhibition of endothelium-dependent vasorelaxation by extracellular K^+: a novel controlling signal for vascular contractility. *Am J Physiol Heart Circ Physiol*. 286: H329-339, 2004

296. Vriens, J. Watanabe, H., Janssens, A., Droogmans, G., Voets, T., **Nilius, B**. Cell swelling, heat and chemical agonists use distinct pathways for the activation of the cation channel TRPV4. *Proc Natl Acad Sci USA* **101:** 396 – 401, 2004

297. Voets, T., **Nilius, B**., Hoefs, S., van der Kemp, A.W.C.M., Droogmans, G., Bindels, R.J.M.and Hoenderop, J.G.J. TRPM6 forms the Mg^{2+} influx channel involved in intestinal and renal Mg^{2+} absorption *J. Biol. Chemistry* **279:** 19 – 25, 2004

298. Best, L., Yates, A.P., Decher, N., Steinmeyer, K., **Nilius, B.** Inhibition of Glucose-Induced Electrical Activity in Rat Pancreatic β-Cells by DCPIB, a Selective inhibitor of Volume-Sensitive Anion Currents. *Europ J Pharmacol.* 489: 13-19, 2004

299. **Nilius, B**, Prenen, J., Voets, T. Droogmans, G. Intracellular nucleotides and polyamines inhibit the Ca^{2+} activated cation channel TRPM4b *Pflügers Arch. Europ. J. Physiol.* **448:** 70-75, 2004

300. Voets, T., Janssens, A., Droogmans, G, **Nilius, B.** Outer pore architecture of a Ca^{2+} -selective TRP channel *J. Biol. Chemistry* **279**: 15223 – 15230, 2004

301. Gkika, D., Mahieu, F., **Nilius, B**. , Hoenderop, J. G.J. and Bindels**,** R. J.M. 80K-H as a new Ca^{2+} sensor regulating the activity of the epithelial Ca^{2+} channel TRPV5 *J. Biol. Chemistry,* **279:** 26351 – 26357, 2004

302. Lambers, T.T., Weidema, A.F., **Nilius, B**., Hoenderop, J.G.J., Bindels, R.J.M. Regulation of the mouse epithelial Ca^{2+} channel, TRPV6, by the Ca^{2+}-sensor calmodulin *J. Biol. Chem.* **279:** 28855 – 28861, 2004

303. Vriens, J, Owsianik, G., Voets, T., Droogmans, G., **Nilius, B.** Invertebrate TRP proteins as functional models for mammalian channels. *Pflügers Arch. Europ. J. Physiol.* **449:** 213 - 226 , 2004

304. **Nilius, B**., Prenen, J., Voets, T., Droogmans, G. Decavanadate modulates gating properties of TRPM4 cation channels. *J Physiol (Lond)* **560:** 753-765, 2004

305. Talavera, K., Staes, M., Janssens, A., Droogmans, G., **Nilius, B**. Mechanism of arachidonic acid modulation of the T-type Ca^{2+} channel α_{1G}. *J Gen Physiol*, **124**; 225-238, 2004

306. Voets, T., Droogmans, G., Wissenbach, U., Janssens, A., Flockerzi, V., **Nilius, B.** The principle of temperature-dependent gating in cold- and heat-sensitve TRP channels, *Nature*, **430:** 748-754, 2004, *accompanied by a "New and Views" in Nature Reviews Neurosciences 5:, 670, 2004*

307. Ullrich, N.D., Voets, T., Prenen, J., Vennekens, R. Talavera, K.,Droogmans, G., **Nilius, B**. Comparison of functional properties of the Ca^{2+} activated cation channels TRPM4 and TRPM5 from mice *Cell Calcium,* **37:** 267 – 278, 2005

308. **Nilius, B.** Store-Operated Ca^{2+} Entry Channels: Still Elusive! *Science STKE* 243, pe36, 2004 www.stke.org/cgi/content/full/sigtrans;2004/243/pe36

309. Lemonnier L, Shuba Y, Crepin A, Roudbaraki M, Slomianny C, Mauroy B, **Nilius B**, Prevarskaya N, Skryma R. Bcl-2-dependent modulation of swelling-activated Cl- current and ClC-3 expression in human prostate cancer epithelial cells. *Cancer Research* **64:** 4841-4848, 2004

310. **Nilius, B**., Prenen, J., Tang, J., Wang, C., Owzianik, G., Janssens, A., Droogmans, G., Voets, T., Zhu, M.X. Regulation of the Ca^{2+} sensitivity of the non-selective cation channel TRPM4, *J. Biol. Chemistry* , **280:** 6423-33, 2004

311. Vastiau, A., Cao, L., Jaspers, M., Owsianik, G., Janssens, V., Cuppens, H., Goris, J., Nilius, B., Cassiman, J.-J. Binding of PR65, a subunit of the protein phosphatase 2A, to the R domain of the CFTR channel: Dephosphorylation and inactivation of CFTR by PP2A *J. FEBS Letters* **579**:3392-3396, 2005

312. Hoenderop, J.G.J., **Nilius, B.**, Bindels, R.J.M. Calcium transport across absorbing epithelia. *Physiological Reviews* **85:** 273-422, 2005

313. **Nilius B,** Prenen J, Janssens A, Owsianik G, Wang C, Zhu MX, Voets T. The selectivity filter of the cation channel TRPM4**.** *J Biol Chem.* **280**: 22899-906, 2005

314. Cao, L**,** Owsianik G, Becq, F. **Nilius,** B. Chronic exposure to EGF affects trafficking and function of ENAC channels in cystic fibrosis *Biochem Biophys Res Commun 331*, 503-511, 2005

315. **Nilius B,** Voets T. Trp channels: a TR(I)P through a world of multifunctional cation channels. *Pflügers Arch. Europ. J. Physiol.* **451:** 1-10, 2005

316. Voets, T., Talavera, K., Owsianik, G., **Nilius, B.** Sensing with TRP channels. *Nature Chemical Biol* , **2:** 85-92, 2005

317. **Talavera, K., Voets, T., Droogmans G., Nilius, B.** Heat-activation of TRPM5 underlies thermal sensitivity of sweet taste. *Nature*, *Nature*, **438:** 1022-1025, 2005

318. **Nilius, B**, Talavera, K., Owsianik, G., Prenen, J., Droogmans, G. Voets, T. Gating of TRP channels: a voltage connection? *J Physiol (Lond)* **567:** 35-44, 2005

319. Pedersen, S. F., Owsianik, G. , **Nilius, B**. TRP channels: an overview. *Cell Calcium*, 2005, **38**: 233-252, 2005

320. **Nilius, B.,** Sage, S.O. TRP channels: novel gating properties and physiolgical functions, *J Physiol (Lond)* **567:** 33-34, 2005

321. **Nilius, B.**, Voets, T, Peters, J. TRP channels in Diesease, *Science* 295 STKE, pp.re8

322. Vriens, J., Owsianik, G., Fisslthaler, B., Suzuki, M., Janssens, A., Voets, T., Morisseau, C. Hammock, B. D., Fleming, I., Busse, R., **Nilius, B.** Modulation of the Ca^{2+} permeable cation channel TRPV4 by cytochrome P450 epoxygenases in vascular endothelium. *Circulation Reserach,* **97:** 908-915, 2005

323. Owsianik, G **,** Talavera, K., Voets, T., **Nilius, B.** Permeation and selectivity of TRP channels. *Annu Rev Physiol*, **68:**685-717, 2006

324. **Nilius, B.**, Mahieu, F., Prenen, J. Janssens, A., Owsianik, G., Voets, T. The Ca^{2+}-activated cation channel TRPM4 is regulated by phosphatidylinositol 4,5-biphosphate. *EMBO Journal*, **25:** 467-478, 2006

325. Owsianik, G., D'hoedt, D., Voets, T., **Nilius, B.** Structure-function relationships of the TRP channel superfamily. *Rev Physiol Biochem Pharmacol*., **156**:61-90, 2006

326. Ullrich, N., Caplanusi, A., Brône, B., Hermans, D., Larivière, E., **Nilius, B.**, Van Driessche, W., Eggermont, J. Stimulation by caveolin-1 of the hypotonicity-induced release of taurine and ATP at the basolateral, but not apical membrane of Caco-2 cells. *Amer J Physiol,* **290:** C1287-C1296, 2006

327. **Nilius, B.** Editorial, *Pflügers Arch. Europ. J. Physiol.* **452:** 1-2, 2006

328. Hutchings, G., Deprest, J., **Nilius, B**., Roskams, T., De Ridder, D. The effect of imatinib mesylate on the contractility of isolated rabbit myometrial strips *Gynecol Obstet Invest*. **62:**79-83, 2006

329. **Nilius, B**., Talavera, K., Verkhratsky, A. T-type calcium channels: the never ending story. *Cell Calcium*, **40**:81-88, 2006

330. Talavera, K., **Nilius, B**. Biophysics and Structure-Function Relationship of T-type Ca^{2+} channels. *Cell Calcium*, **40:** 97-114, 2006

331. **Nilius, B**., Vennekens, R. From cardiac cation channels to the molecular dissection of the transient receptor potential channel TRPM4 *Pflügers Arch. Europ. J. Physiol.* **453:** 313-321, 2006

332. **Nilius, B ,** Mahieu, F. A road map for TR(I)Ps. *Mol Cell*, **22:** 297-307, 2006

333. Cuajungco, M.P., Grimm, C., Oshima, K., D'hoedt, D., **Nilius, B.**, Mensenkamp,A.R., Bindels, R. J. M., Plomann, M., Heller, S. PACSINs bind to the TRPV4 cation channel: PACSIN 3 modulates the subcellular localization of **TRPV4** *J. Biol. Chemistry*, **281:** 18753-62, 2006

334. Lambers, T.T., Mahieu, F., Oancea, E., Hoofd, L., de Lange, F, R. Mensenkamp, A.R., Voets, T, **Nilius, B.**, Clapham, D.E., Hoenderop, J.G., Bindels, R.G. Calbindin-D28K dynamically controls TRPV5-mediated Ca^{2+} transport. *EMBO Journal*, **25:** 2978-88, 2006

335. Nilius, B., Vennekens, R. From cardiac cation channels to the molecular dissection of the transient receptor potential channel TRPM4. *Pflügers Arch. Europ. J. Physiol* **453:** 313-321, 2006.

336. Talavera, K., Nilius, B. Evidence for common structural determinants of activation and inactivation in T-type Ca^{2+} channels. *Pflügers Arch. Europ. J. Physiol* **453:** 189-201, 2006

337. **Nilius, B.**, Owsianik, G., Voets, T., Peters, J.A. Transient receptor potential (TRP) cation channels in disease. *Physiol Reviews*, 87:165-217, 2007

338. Gevaert, T., Vandepitte, M.B.S., Ost, D., **Nilius, B**., De Ridder, D. TRPV1 is involved in stretch-evoked contractile changes in the rat autonomous bladder model: a study with piperine, a new TRPV1 agonist. *Neurourology and Urodynamics*, **26:** 440-450, 2007

339. Gevaert, T., Vandepitte, M.B.S., Ost, D., **Nilius, B**., De Ridder, D. The autonomous contractility pattern in the isolated rat bladder is modulated by a TRPV1 dependent mechanism. *Neurourology and Urodynamics*, **26:** 424-342, 2007

340. Topala, C.N., Tiel-Groenestege, W., Thebault, S., van den Berg, D., **Nilius, B.**, Hoenderop, J.G., Bindels, R.J. Molecular determinants of permeation through the cation channel TRPM6**,** *Cell Calcium*, **41:** 513-23, 2007

341. Waning, J. Vriens, J., Owsianik G., Stüwe L., Mally S., Fabian A., Frippiat C., **Nilius, B.**, Schwab, A. A novel function of capsaicin-sensitive TRPV1 channels: involvement in cell migration, *Cell Calcium*, **42:** 17-25, 2007

342. Pedersen, SF, **Nilius, B**. Transient Receptor Potential channels in mechanosensing and cell volume regulation. *Methods in Enzymology*; **428:**183-207, 2007

343. Mahieu, M., Owsianik, G., Verbert, L., Janssens, A., De Smedt, H., **Nilius, B**., Voets, T. TRPM8-independent menthol-induced Ca^{2+} release from Endoplasmic Reticulum and Golgi. *J. Biol. Chemistry*, **282**: 3325-36, 2007

344. Vennekens, R., Olausson, J., Meissner, M., Bloch, W., Mathar, I., Philipp, S.E, Schmitz, F., Weissgerber, P., **Nilius, B**., Flockerzi, V., Freichel, M. Increased IgE-dependent mast cell activation and anaphylactic responses in mice lacking the calciumactivated nonselective cation channel TRPM4. *Nature Immunology*, **8:** 312-320, 2007

345. Voets, T, Owsianik, G., Janssens, A., Talavera, K., **Nilius, B**. Voltage sensor mutations in TRPM8 reveal a mechanism for integration of thermal and chemical stimuli. *Nature Chem Biol,* **3:** 174-182, 2007

346. Vriens, J., Owsianik, G., Janssens, A., Voets, T., **Nilius, B**. Determinants of 4α-phorbol sensitivity in transmembrane domains 3 and 4 of the cation channel TRPV4. *J. Biol. Chemistry*, **282**: 12796-803, 2007

347. Gevaert ,T., Vriens, J., Segal, A., Everaerts., W, Roskams, T., Talavera, K., Owsianik, G., Liedtke, W., Daelemans, D., Dewachter, I., Van Leuven, F., Voets, T., De Ridder, D., **Nilius, B**. Deletion of the transient receptor potential cation channel TRPV4 impairs murine bladder voiding. *Journal Clinical Investigations*, **117:** 3453-62, 2007.

348. Dewachter I, Ris L, Croes S, Borghgraef P, Devijver H, Voets T, **Nilius B**, Godaux E, Van Leuven F. Modulation of synaptic plasticity and Tau phosphorylation by wild-type and mutant presenilin1. *Neurobiol Aging*. **29:** 639-652, 2008

349. Voets T, Owsianik G, **Nilius B**. TRPM8. *Handb Exp Pharmacol*. **179**: 329-44., 2007

350. **Nilius, B**., Mahieu, F., Karashima, Y., Voets, T. Regulation of TRP channels: a voltage-lipid connection. *Biochem Soc Trans.* **35:** 105-108, 2007

351. Vennekens R, **Nilius B**. Insights into TRPM4 function, regulation and physiological role. *Handb Exp Pharmacol.* **179**:269-85, 2007

352. Talavera K, Ninomiya Y, Winkel C, Voets T, **Nilius B**. Influence of temperature on taste perception. *Cell Mol Life Sci*. 64: 377-381 2007

353. Talavera, K., Voets, T., **Nilius, B**. Mechanisms of thermosensation in TRP channels. "*Springer Series in Biophysics*", Sensing with Ion Channels, edited B. Martinac, pp. 101-120, 2008

354. Gevaert, T., Vriens, J., Everaerts, W., **Nilius, B.,** Ridder, D. TRPV4 is localised on urothelium: Does it play a role in afferent bladder signalling? *European Urology Supplements* **6**: 38-39, 2007

355. Logothetis, D.E., **Nilius, B.** Dynamic changes in phosphoinositide levels control ion channel activity. *Pflügers Arch. Europ. J. Physiol* **455:** 1-3, 2007

356. **Nilius, B.** TRP channels in disease. *Biochim Biophys Acta*. **1772:** 805-812, 2007

357. Voets, T., **Nilius, B**. Modulation of TRPs by PIPs. *J Physiol*. **582:** 939-944, 2007

358. Rohacs T, **Nilius B**. Regulation of transient receptor potential (TRP) channels by phosphoinositides. *Pflügers Arch. Europ. J. Physiol.* **455:** 157-168, 2007

359. **Nilius, B.** Voets, T. Channeling Cold Reception, *Nature*, **447:** 147-148, 2007

360. Everaerts, W., Gevaert, T., **Nilius, B.,** De Ridder, D. On the origin of bladder sensing: Tr(i)ps in urology. *Neurourology and Urodynamics,* **27:** 264-73, 2008

361. Karashima Y, Damann N, Prenen J, Talavera K, Segal A, Voets T, **Nilius B**. Bimodal action of menthol on the transient receptor potential channel TRPA1. *J Neurosci.* **27**: 9874-84, 2007

362. Hutchings G, Gevaert T, Deprest J, **Nilius B**, De Ridder D. Effect of Prolonged c-Kit Receptor Inhibition by Imatinib Mesylate on the Uterine Contractility of Pregnant Rabbits. *Gynecol Obstet Invest.* **65**:108-111, 2007

363. **Nilius, B.** Transient receptor potential (TRP) cation channels: rewarding unique proteins. *Bull et Mem de l'Academie Royale de Medecine de Belgique*, **162:** 244-253, 2007

364. Wilkinson, J.A., Scragg, J.L., Boyle, J.P., **Nilius, B**., and Peers, C. 2007. H_2O_2-stimulated Ca^{2+} influx via TRPM2 is not the sole determinant of subsequent cell death. *Pflugers Arch Europ J Physiol* **455**:1141-1151, 2008

365. Talavera,K., Yasumatsu, K., Yoshida, R., Margolskee, R.F., Voets, T., Ninomiya, Y., **Nilius, B. T**he taste transduction channel TRPM5 is a locus for bitter-sweet taste interactions. *FASEB J*. **22**:1343-55, 2008

366. D'hoedt, D., Owsianik, G., Prenen, J., Cuajungco, M.P., Grimm, C., Heller, S., Voets, T., **Nilius, B**. Stimulus-specific modulation of the cation channel TRPV4 by PACSIN 3 *J. Biol. Chemistry* **283:** 6272-80, 2008

367. Meseguer, V., Karashima, Y., Talavera, K., D'Hoedt, D., Donovan-Rodríguez, T., Viana, F., **Nilius, B.**, Voets, T. Transient Receptor Potential Channels in Sensory Neurons Are Targets of the Antimycotic Agent Clotrimazole, *J Neurosci.* **28:** 576-586, 2008

368. Sharif-Naeini R, Dedman A, Folgering JH, Duprat F, Patel A, **Nilius B**, Honoré E. 2008 TRP channels and mechanosensory transduction: insights into the arterial myogenic response *Pflugers Arch Europ J Physiol* **456**: 529-40, 2008

369. Fabian, A., Fortmann, T. Dieterich, P., Riethmüller, C., Schön, P., Mally, S., **Nilius, B.**, Schwab, A. TRPC1 channels regulate directionality of migrating cells, *Pflugers Arch Europ J Physiol,* 457: 475-484, 2008

370. Masuyama, R., Vriens, J., Voets, T., Karashima, Y., Owsianik, G., Vennekens, R., Torrekens, S., Lieben, L., Torrekens, S. Moermans, K., Vanden Bosch, A., Bouillon, R., **Nilius, B.**, Carmeliet,G. TRPV4-mediated calcium influx regulates terminal differentiation of osteoclasts *Cell Metabolism,* **8:** 257-265, 2008

371. Damann, N., Owsianik, G., Li, S., Poll, C., **Nilius, B**. The transient receptor potential channel TRPC6 is involved in macrophage inflammatory protein-2 (MIP-2) induced migration in neutrophil granulocytes, *Acta Physiol,* **195:** 3-11, 2009

372. Vennekens, R., Owsianik, G., **Nilius, B.** Vanilloid Receptor Potential Cation Channels: An Overview, *Current Pharmacological Design,* **14:** 18-31, 2008

373. Saliez, J., Bouzin, C., Rath, G., Ghisdal, P., Desjardins, F., Rezzani, R., Rodella, L.F., Vriens, J., **Nilius, B.**, Feron, O., Balligand, J.L., Dessy, C. Role of Caveolar Compartmentation in Endothelium-Derived Hyperpolarizing Factor-Mediated Relaxation. Ca^{2+} Signals and Gap Junction Function Are Regulated by Caveolin in Endothelial Cells. *Circulation* **117:** 1065-1074, 2008

374. Gevaert T, Owsianik G, Hutchings G, Everaerts W, **Nilius B**, De Ridder D. Maturation of stretch-induced contractile activity and its muscarinic regulation in isolated whole bladder strips from rat. *Neurourol Urodyn.* 2008 Feb 20;

375. Hughes, D.A., Tang, K., Strotmann, R., Schöneberg, T., Prenen, J., **Nilius, B.**, Stoneking, M. Parallel Selection on *TRPV6* in Human Populations *PLoS ONE,* 3(2):e1686, 2008

376. Karashima, Y., Prenen, J., Meseguer, V., Owsianik, G., Voets, T., Nilius, B. Modulation of the transient receptor potential channel TRPA1 by phosphatidylinositol 4,5-biphosphate manipulators, *Pflugers Arch Europ J Physiol* **457:**77-89, 2008

377. Rock, M.J., Prenen, J., Funari, V.A., Funari, T.L., Merriman, B., Lachman, R.S., Wilcox, W.R., Reyno, S., Quadrelli, R., Vaglio, A., Owsianik,G., Janssens, A., Vpets, T., Ikegawa, S., Nagai, T., Rimoin, D.L., **Nilius, B.**, Cohn, D. H. A mutation in the gene encoding the calcium-permeable cation channel TRPV4 causes autosomal dominant brachyolmia: a novel mechanism in the pathogenesis of the skeletal dysplasias, *Nature Genetics,* **40:** 999-1003, 2008

378. Wondergem, R. Ecay, T.W. Mahieu, F., Owsianik, G., **Nilius, B**. HGF/SF and menthol increase human glioblastoma cell calcium and migration *Biochemical and Biophysical Research Communications* **372:** 210-5, 2008

379. Gevaert, T., Owsianik, G., Hutchings, G., Van Leuven, L., Everaerts, W., Nilius, B., De Ridder, D. The loss and progressive recovery of voiding after spinal cord interruption in rats is associated with simultaneous changes in autonomous contractile bladder activity.*European Urology* **56:** 168-176, 2009

380. Talavera, K., Nilius, B., Voets, T. Neuronal TRP channels: thermometers, pathfinders and life-savers, *Trends in Neurosciences*, **31:** 287-295, 2008

381. Loot, A.E., Popp, R., Fisslthaler, B., Vriens, J., **Nilius, B**., Fleming, I. Role of cytochrome P450-dependent TRPV4 activation in flow-induced vasodilatation. *Cardiovasc Res.* **80:** 445-452, 2008

382. Kottgen, M., Buchholz, B., Garcia-Gonzalez, M.-A., Kotsis, F., Fu, X., Doerken, M., Boehlke, C., Steffl, D., Tauber, R., Wegierski, T., Nitschke, R., Suzuki, M., Kramer-Zucker, A, Germino, G.G., Watnick, T., Prenen, J., **Nilius, B**., Kuehn, W.E., Walz, G. TRPP2 and TRPV4 form a polymodal sensory channel complex, *J. Cell Biol.* **182**: 437-447, 2008

383. Hutchings, G., Gevaert, T., Deprest, J., Roskams, T., Van Lommel, A., **Nilius, B.,** De Ridder, D**.** Immunohistochemistry using an antibody to unphosphorylated connexin 43 to identify human myometrial interstitial cells *Reproductive Biology and Endocrinology* **6:**43, 2008 (via BioMed Centraol Open Access)

384. Damann, N., Voets, T., **Nilius, B.** TRPs in Our Senses. *Current Biology* **18:** R880-889, 2008

385. **Nilius, B**, Owsianik, G., Voets, T. Transient Receptor Potential Channels meet Phosphatidylinositides *EMBO J*, **27:** 2809-2816, 2008

386. **Nilius, B.,** Voets, T. A TRP channel-steroid marriage –*Nature Cell Biol* **10:** 1383 – 1384, 2008

387. Vriens, J., **Nilius, B.,** Vennekens, R. Herbal Compounds and Toxins Modulating TRP Channels. *Curr Neuropharmacol* **6:** 79-96, 2008

388. Shimizu, T., Janssens, A., Voets, T, **Nilius B.** Regulation of the murine TRPP3 channel by voltage, pH, and changes in cell volume. *Pflügers Arch Europ J Physiol***, 457:** 795-807, 2008

389. Karashima, Y., Talavera, K., Everaerts, W. Janssens, A., Kwan, K.Y., Vennekens, R., **Nilius, B**., Voets, T. TRPA1 acts as a cold sensor *in vitro* and *in vivo, Proc Natl Acad Sci USA* **106:** 1273-1278, 2009

390. Voets, T., **Nilius, B.** TRPCs, GPCRs and the Bayliss effect, *EMBO J*, 28:4-5, 2009

391. Krakow, D., Vriens, J., Camacho.N., Luong, P., Deixler, H., Funari, T.L., Bacino, C., Irons, M., Janssens, A., Holm, I.A., Sadler, L., Okenfuss, E., Rimoin, D.L., Voets, T., Lachman, R.S.**, Nilius, B.**, Cohn, D.H. Mutations in the gene encoding the calcium-permeable ion channel TRPV4 produce spondylometaphyseal dysplasia, Kozlowski type and metatropic dysplasia. *Amer J. Genetics*, **84:** 307-315, 2009

392. Everaerts, W., Sepúlveda, M.R., Gevaert, T., Roskams, T., **Nilius, B**., De Ridder, D. Where is TRPV1 expressed in the bladder, do we see the real channel? *Naunyn-Schmied Arch Pharmacol*, **379:** 421-5, 2009

393. Shimizu,T., Owsianik, G., Freichel, M., Flockerzi, V., **Nilius, B**., Vennekens, R. TRPM4 regulates migration of mast cells in mice. Cell Calcium, **45:**226-32, 2009

394. Hutchings, G., Gevaert, T., Deprest, J., Nilius, B., Williams, O., De Ridder, D. The effect of extracellular adenosine triphosphate on the spontaneous contractility of human myometrial strips. European Journal of Obstetrics & Gynecology and Reproductive Biology, **143**:79-83, 2009

395. Gerzanich, V., Woo, S.K., Vennekens, R., Tsymbalyuk, O., Ivanova, S., Ivanov, A., Geng, Z., Chen, Z., **Nilius, B.,** Flockerzi, V., Freichel, M. Simard, J.M. De novo expression of Trpm4 initiates secondary hemorrhage in spinal cord injury, *Nature Medicine*, **15:** 185-91, 2009

396. Vriens, J., Appendino, G., Nilius, B. Pharmacology of Vanilloid Transient Receptor Potential Cation Channels TRPV. *Mol Pharmacol.* **75:** 1262-1279, 2009

397. Klausen, T.K., Pagani, A. Minassi, A., Ech-Chahad, A. Prenen, J., Owsianik, G. Hoffmann, E.K., Pedersen, S.F., Appendino, G., **Nilius, B**. Modulation of the Transient Receptor Potential Vanilloid Channel TRPV4 by 4α-Phorbol Esters. A Structure-Activity Study. *Journal of Medicinal Chemistry,* **52:** 2933-2939, 2009

398. Colsoul, B., **Nilius, B**., Vennekens, R. On the putative role of transient receptor potential cation channels in asthma. *Clin Exp Allergy,* **39**: 1456-66, 2009

399. Talavera, K., Karashima, Y., Gees, M., Meseguer, V.M., Vanoirbeek, J.A.J., Damann, N., Everaerts, W., Benoit, M., Janssens, A. Vennekens, R., Viana, F., Nemery, B. **Nilius, B**., Voets, T. Nicotine activates the chemosensory cation channel TRPA1, *Nature Neuroscience,* **12:** 1293-1299, 2009

400. Everaerts, W , **Nilius, B.** Grzegorz Owsianik, G. The vallinoid transient receptor potential channel TRPV4: from structure to disease, *Progress in Biophysics and Molecular Biology*, *in the press*, 2009

401. **Nilius, B.** Polycystins under pressure. *CELL*, **139:** 466-467, 2009

402. Everaerts, W., Vriens, J., Owsianik, G., Appendino, G., Voets, T., De Ridder, D., **Nilius, B.** Functional characterisation of transient receptor potential channels in mouse urothelial cells *Amer J Physiol*, 2009, in the press

403. Camacho, N., Krakow, D., Johnykutty, S., Katzman, P.J., Pepkowitz, S. Vriens, J., **Nilius, B.**, Boyce, B.F., Cohn, D.H. Dominant *TRPV4* mutations in non-lethal and lethal metatropic dysplasia, *Human Mol Genetics*, 2009, in the press

404. Karashima, Y., Prenen, J., Talavera, K., Janssens, A., Voets, T., **Nilius, B.** **A**gonist-induced changes in Ca^{2+} permeation through the nociceptor cation channel TRPA1, *Biophys J*, 2009, in the press

405. Mahieu F, Janssens A, Gees M, Talavera K, **Nilius B,** Voets T Modulation of the cold-activated cation channel TRPM8 by surface charge screening. *J Physiol,* 2009, in the press

406. Nilius, B., Owsianik, G. Transient receptor potential channelopathies. *Pflügers Arch Europ J Physiol,* 2010, in the press

407. Nilius, B., Owsianik, G. Channelopathies converge on TRPV4, *Nature Genetics*, 2010, in the press

II. doctorate thesis: B. Nilius

1971 **Dr. med**., Faculty of Medicine, Martin Luther University Halle, Thesis: "*Dependence of vagal effects in heart on extracellular calcium and sodium"*

1978 **Dr. sc**., "doctor scientiae", Ph.D. Physiology, Martin Luther University Halle-Wittenberg, Thesis: "*Electrotropic and inotropic mechanisms of acetylcholine action on atrial myocardium"*

1975 Mathematics, Faculty of Natural Science, Thesis: *"Asymptotic evaluation of parameter-integrals from the Laplace and Fourier type"*

III. books: as editor

1. "Julius Bernstein", ed L.Zett, ***B.*Nilius,** Martin Luther Universität Halle, 1983

2. "Tiracizin (Bonnecor^{R}): Grundlagen der klinischen Prüfung von Antiarrhythmika". ed. K.J.Rostock, ***B.*Nilius,** H.Poppe, G.Rostock, Akademie Verlag Berlin GmbH, 1991

3**.** "*Cardiovasculaire fysiologie"*, **Nilius, B**. in Dutch, Medica, Leuven, 1995

4. *"Algemene fysiologie"*, **Nilius, B**. in Dutch, Medica, Leuven, 1996, 1997, 1998, 3rd Edition

5. "*Celfysiologie"*, **Nilius, B**. in Dutch, Acco, Leuven, 1999, 2000, 2001, 2002, 2003, 212 pages, now 3rd revised Edition.

6. *"TRP Channels: Facts, Fiction, Challenges"* Special Issue Cell Calcium **33**, edited by **B. Nilius**, Churchill Livingston, 2003

7. *"TRP channels: a functional approach"*, Special Issue Pflügers Archiv Europ J Physiol, Springer Verlag Berlin-Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest, editor **B. Nilius**, 2005

8. *"TRP channels"* in Handbook of Experimental Pharmacology", Volume 167, Springer Verlag, Berlin-Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest, edited by Veit Flockerzi and Bernd Nilius, 2006

9. *"TRP channels in Disease"*, edited by B. Nilius, Special Issue in Molecular Basis of Disease, BBA, Elsevier, 1772, 2007

10. "*Phosphoinositide control of ion channel activity"*, edited by D.L. Logothetis and B. Nilius, Pflügers Archiv Europ J Physiol, Springer, 455, 2007

IV. articles in books

1. **Nilius, B**, Opitz, H. Dynamics of the staircase phenomenon in heart atria. In: "Biocybernetics", Vol.IV, ed.H.Drischel, Jena, p.306-311, 1972

2. **Nilius, B**, Koester, G.,Voigt, A. Die pH-Abhängigkeit der elektromechanischen Koppelung am Kaninchenvorhof. In "Probleme der kardiovaskulären Regulation", ed.R.Baumann, J.K.Shwazabaja, Berlin AdW, p.467-473,1973

3. **Nilius, B.** Julius Bernstein als Begründer der Membrantheorie. In: "Julius Bernstein Symposium", ed.L.Zett, B.**Nilius,** Halle, p.95-124, 1983

4. **Nilius, B.** Ruhepotentialentstehung am Myokard. In: "Julius Bernstein Symposium", ed.L.Zett, B.**Nilius,** Halle, p.158-185, 1983

5. **Nilius, B**, Benndorf, K. Analysis of electrical instabilities in the ventricular myocardium by means of the study of voltage fluctuations. In: "Sudden cardiac death", ed.L.Szekeres, J.Papp, I.Takats, Budapest , p.157-162, 1983

6. Schüttler, K, **Nilius, B**, Boldt W. The generation of two types of afterdepolarization in the atrial myocardium:possible arrhythmogenic mechanisms. In: "Sudden cardiac death", ed.L.Szekers, J.Papp, I.Takats, Budapest, p.163-168, 1983

7. **Nilius, B.** Pacing-dependent properties of the slow inward current in the atrial myocardium. In: "Cellular and molecular aspects of the regulation of the heart" ed.E.-G.Krause, L.Will-Shahab, Berlin.p.57-66, 1984

8. **Nilius, B**, Hess, P, Lansman JB, Tsien, RW. Two kinds of Ca channels in isolated ventricular cells from guinea pig hearts. In: "Membrane control of cellular activity", ed.H.C.Lüttgau, Stuttgart, p.38-44, 1986

9. Hess, P, Fox, AP, Lansman, JB, **Nilius, B**, Nowicky, MC, Tsien, RW. Different types of Ca^{2+} channels in neuronal tissue, heart,and smooth muscle. Differences in gating and permeability. In: "Ion channels in neural membranes", ed. M.Ritchie, R.D.Keynes, L.Bolis, New York, p227-252, 1986

10. Hess, P, Lansman, JB, **Nilius, B**, Tsien, RW. Ca^{2+} channel types in cardiac myocytes. Modulation by dihydropyridines and ß-adrenergic stimulation. In: "Membrane transport processes in excitable membranes", Smith Kline & French Lab.Res.Symp., p.37-52, 1986

11. Tsien, RW, Fox, AP, Hess, P, McCleskey, EW, **Nilius, B**, Nowycky MC,Rosenberg RL. Multiple types of Ca^{2+} channels in excitable membranes. In: "Proteins of excitable membranes", ed. B.Hille, D.M.Fambourgh, New York, p.1-34, 1986

12. **Nilius, B.** Dihydropyridine als potentielle Kardiotonika. In: "Nichtglykosidische Kardiotonika", ed.P.Oehme, H.Loewe, E.Goeres, Berlin, p.78-87, 1987

13. **Nilius, B.** Calcium and liver cell death. In: "New aspects in aetiology and pathogenesis of liver diseases", ed. R.Nilius**,** Chr.Rink, alle, p.108-122, 1987

14. **Nilius, B.** Mechanismus der herztoxischen Wirkung des Alkaloids Aconitin. In: "Beiträge zur aktuellen Forschung auf dem Gebiet der Toxikologie", ed. P.Hoffmann, Halle, 7-15, 1988

15. **Nilius, B.** Gating properties of cardiac sodium channels. In: "Electrocardiology", ed.E.Schubert, Akademie Verlag Berlin, 33-40, 1988

16. Droogmans, G., **Nilius, B.** Kinetic properties of the T-type Ca channel. In: "Ion transport". D.Keeling, C.Benham. Academic Press London-San Diego-Sydney-Berkeley-Boston-Tokyo-Toronto 315-316, 1989

17. **Nilius, B.** Ionenkanäle in erregbaren Membranen: Permeation und Schalten von Na^{+}-Kanälen. Sitzungsberichte der Akademie der Wissenschaften der DDR. 1990, book

18. **Nilius, B.** Transmembranale Ca-Bewegungen im Herzen, im glatten Muskel und im Endothel. In: " Transmembranale Ca^{2+} - Bewegungen" , Herausgeber: A.Ziegler, K.Mohr, Acris Verlag, München, S.17 – 45, 1990

19. **Nilius, B**, Albitz, R., Kammermeier H. Free energy of ATP hydrolysis fails to affect ATP dependent potassium channels in isolated mouse ventricular cells. In: " Ionic currents and ischemia", ed. J.Vereecke, P.-P.van Bogaert, F.Verdonck, Leuven Univ.Press,p.256-259, 1990

20. **Nilius, B.** "Erregbare Membranen", in “Medizinische Physiologie”, ed. E.Schubert, Walter De Gruyter Verlag, Berlin - New York, 61 – 87, 1992

21. **Nilius, B.** "Erzeugung, Übertragung und Integration neuronaler Signale", in “Medizinische Physiologie”, ed. E.Schubert, Walter De Gruyter Verlag, Berlin - New York, 87 – 119, 1992

22. **Nilius, B.** "Transport durch Zellmembranen", in “Medizinische Physiologie”, ed. E.Schubert, Walter De Gruyter Verlag, Berlin - New York, 1992, 39 - 59

23. **Nilius, B.** T-type Ca channels in cardiac muscle: news in kinetics and modulation. In "Intracellular Regulation of Ion channels", ASI NATO Res.Series, ed. M.Morad and W.Agus, p.181-189, 1992

24. **Nilius, B.** Ion channels and regulation of transmembrane Ca^{2+} influx in endothelium. In " Electrophysiology and Ion channels of vascular smooth muscle and endothelial cells", ed. by N.Sperelakis and H.Kuriyama, Elsevier, New York, p. 317-325, 1991

25. **Nilius, B,** Casteels, R. Biology of the vascular wall and its interaction with migratory and blood cells. In "Human Physiology. From Cellular Mechanisms to Integration.", Chapter 98., Ed. R.Greger, U.Windhorst. Springer Verlag, Berlin-Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest, 1996, vol 2, 1981-1993

26. **Nilius, B**, Droogmans, G, Gericke, M, Schwarz, G. Nonselective ion pathways in human endothelial cells. In "Nonselective cation channels - pharmacology, physiology & biophysics", ed.W Siemen, J Hescheler, Birkhäuser Verlag, Basel, Switzerland, p. 85-97, 1994

27. **Nilius, B**, Droogmans, G. Ion channels of endothelial cells. In "Physiology and Pathophysiology of the Heart", Chapter 51, ed. N.Sperelakis, Kluwer Publishing House, Cincinnati-New York, 910-943, 1994

28. **Nilius, B.** Ion channels in non-excitable cells. in "Principles of Cell Physiology and Biophysics", edited by N.Sperelakis, Academic Press London-New York, p. 315-329, 1995

29. **Nilius, B.** Ion channels in non-excitable cells. In "Principles of Cell Physiology and Biophysics", edited by N.Sperelakis, Academic Press London-New York, second completely revised edition, p. 412-433, 1997

30. **Nilius, B.** Cardiac T-type Ca^{2+} channels. In "Low-voltage activated T-type Ca^{2+} channels" ed. R.W. Tsien, J. Naregot, J.P. Clozel, Birkhäuser, Basel Switzerland, p. 16-28, 1998

31. **Nilius, B**, Eggermont, J, Droogmans, G. Chloride channels in endothelium: The role of mechano-stimulation and changes in cell volume. In "Mechanical forces and the endothelium", ed. P.I.Lelkes, Harvard Academic Publisher, London, , pp. 33-54, 1999

32. **Nilius, B.**, Eggermont, J, Voets, T, Droogmans, G. Volume-regulated anion channels in vascular endothelium. In: "Cell Volume Regulation: The Molecular Mechanism and Volume Sensing Machinery". Ed. Y. Okada, Elsevier Science B.V., p.141-150, 1998

33. **Nilius, B**, Voets, T, Eggermont J, Droogmans, G. VRAC: a multifunctional volume-regulated anion channel in vascular endothelium, in: "Chloride Channels", ed by R.Kozlowski, Isis Medical Media Ltd, Oxford, pp. 47-63, 1999

34. **Nilius, B.** Ion channels in non-excitable cells. In "Principles of Cell Physiology and Biophysics", edited by N.Sperelakis, Academic Press London-New York, Fourth completely revised edition, chapter 28, pp. 885-930, 2000

35. **Nilius, B.** and G. Droogmans. Ion channels in endothelium, in "Heart Physiology and Pathophysiology", Fourth Edition, Edited by N. Sperelakis, Y. Kurachi, A. Terzic, M. Cohen, Academic Press, chapter IV, pp. 481-500, 2000

36. Droogmans, G, **Nilius, B.,** De Smedt, H, Missiaen, L. Electromechanical and pharmacomechanical coupling in smooth-muscle cellsin "Heart Physiology and Pathophysiology", Fourth Edition, Edited by N. Sperelakis, Y. Kurachi, A. Terzic, M. Cohen, Academic Press, chapter IV, pp. 501-518, 2000

37. Eggermont, J, Eggermont, E, **Nilius, B.** Transepitheliaal zouttransport: mechanismen en stoornissen. In *"Mucoviscidose"* ed. K. De Boeck, Acco, Leuven/ Amersfoot, pp. 85- 94, 1999

38. Hoenderop JGJ, Müller D, van Os CH, Vennekens R, **Nilius B** and Bindels RJM. The epithelial calcium channel, ECaC, functions as gate-keeper of active calcium (re)absorption. In *"Vitamin D endocrine system: structural, biological, genetic and clinical aspects: proceedings of the Eleventh Workshop on vitamin D",* Editors: AW Norman, R Bouillon, M Thomasset, Riverside, University of California, 633-640, 2000.

39. Eggermont, J., Trouet, D., Buyse, G., Vennekens, R., Droogmans, G., **Nilius, B.** "Bicistronic GFP expression vector as a tool to study ion channels transiently in transfected cultured cells", in *"Ion channel localization methods and protocols",* ed. C.G.Nichols, A.Lopatin, Humana Press Inc, Totowa, 167-186, 2001

40. Droogmans, G., **Nilius, B**. Potassium channels in vascular endothelium, in "Potassium channels in cardiovascular biology", ed. N. Rusch, Academic Press 639-650, 2001

41. **Nilius, B**., Droogmans, G. Calcium-actuivated chloride channels in vascular endothelial cell. In *"Calcium activated chloride channel"* edited by C.M.Fuller, Academic Press, series *"Current Topics in Membranes"*, 327- 344, 2002

42. Vanderlinden, C., Vanhemelen, M., **Nilius, B**., Gailly, P., Mallefet, J. Pharmacological and electrophysiological studies of the light emmission in three ophiuroid species. In "Bioluminiscence & Chemiluminiscence (edited by A. Tsuji, M. Maeda, L.S: Kricka, P.E. Stanley), Singapore Univ Press, p. 23-29, 2004,

43. **Nilius, B:** Editor of the **SPECIAL ISSUE in *"CELL CALCIUM"*:** "TRP Channels: Facts, Fictions, Challenges", Publisher: Churchill Livinstone, UK, 2003

44. **Nilius, B:** Editor of the **SPECIAL ISSUE in *"PFLÜGERS ARCHIVE EUROPEAN JOURNAL OF PHYSIOLOGY"*: "TRP channels: a functional approach"**, Publisher: Springer Verlag, Germany, 2005

45. Voets, T., Owsianik, G., **Nilius, B.** TRP channels, in "Biomedical and Medical Physics, Biomedical Engineering"; Series"Biological Membrane Ion Channels", Springer Verlag, Berlin-Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest, edited by S.-H. Chung, O.S. Andersson, andV. Krishnamurthy, p.399-424, 2006

46. Voets, T., Owsianik G., **Nilius, B**. TRPM8. in *"TRP channels"* Handbook of Experimental Pharmacology, Volume 167, Springer Verlag, Berlin-Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest, edited by Veit Flockerzi and Bernd Nilius, 2007, p. 267-284,

47. Vennekens, R., **Nilius, B**. Insights into TRPM4 function, regulation and physiological role, in *"TRP channels"* Handbook of Experimental Pharmacology, Volume 167, Springer Verlag, Berlin-Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest, edited by Veit Flockerzi and Bernd Nilius, 2006, p. 327-343

48. Talavera, K, Voets, T., **Nilius B**. "TRP channels and their role in temperature sensing", in "Sensing with Ion Channels", Springer Book Series "Springer Series in Biophysics", edited by B. Martinac, in the press, 2006

49. Owsianik, G., Voets, T., **Nilius, B.** "Transient Receptor Potential Channels", in "Ion Channels", Academic Press, editor C.H. Davies, J.M.Kew, chapter 5.1, pp. 512-539, 2009

50. N. Damann . D. D'hoedt . **B. Nilius** , Signal Molecules and Calcium, in "Handbook of Neurochemistry and Molecular Neurobiology", Neural Signaling Mechanisms, Volume Editor: Katsuhiko Mikoshiba 2009 Springer Science Business Media, LLC, p.490-508, 2009

51. **B. Nilius**, R. Vennekens, "TRP Channels and Human Diseases", in *"Vanilloid Receptor TRPV1 in Drug Discovery: Medicinal Chemistry, Biology, and Therapeutic Potential for Chronic Pain and Pathological Disorders"*, edited by Arthur Gomtsyan, Connie R. Faltynek, John Wiley and Sons, Inc., New York, NY, ISBN: 978-0-470-17557-6, Hardcover, 496 pages, February 2010,