

CURRICULUM VITAE

Bernd Nilius M.D., Ph.D.



(see also <http://www.kuleuven.be/fysio/trp/> or [B. Nilius website](#))
http://de.wikipedia.org/wiki/Bernd_Nilius

Present Position and Address:

Emeritus Professor of Physiology, KU Leuven, Department of Molecular Cell Biology,
Laboratory Ion Channel Research, Campus Gasthuisberg, Herestraat 49, bus 802, B-3000
Leuven, Belgium.

tel. 0032-16-345 937, fax. 0032-16-345 991, e-mail: bernd.nilius@med.kuleuven.ac.be

Nationality:

German

Private address:

Huldenbergstraat 12 , B-3040 Sint Agatha Rode, Belgium,
tel: 0032- (16)-470 890

Biographical:

born: July, 16th, 1945, Halle (Saale), Germany, status: married, two sons (32y, 33y), my wife is a child psychiatrist at the University Hospital KU Leuven, Leuven, Belgium

Education:

1964 - 1970 Study of Medicine, M.D.

1971-1975 Study of Mathematics, Dipl. Math., written thesis

1978 habilitation, Ph.D. in Physiology (Dr.sc.)

Professional experience:

2005 – 2010 Director of the Center of Excellence KU Leuven “TRP Channels”

1993 ... Full Professor of Physiology, KU Leuven, Belgium

1992 - 1993 Leader Max Planck Research Group “Mol Cell Physiology” connected to the Max Planck Institute of Biophysical Chemistry, Göttingen (Germany).

1990 - 1991 Full Professor of Physiology and Chairman at the Medical University Erfurt, Department of Medical Physiology, Erfurt, Germany

1985 - 1990 Associate Professor of Physiology, Julius Bernstein Institut of Physiology, Martin Luther University, Halle (Germany)

1980 - 1985 Assistant Professor, same Institute

1970 - 1980 Research Associate, same Institute

1981 Foreign Invited Research Associate Academy of Slovak Sciences, Bratislava, Tschechoslovakia

1984 Foreign Invited Research Associate Univ.Medical School Debrecen, Hungary

1985 Postdoctoral Fellow, Yale University, New Haven, USA

1987 Visiting Professorship Catholic University Leuven, Belgium,

1990 Visiting Professorship Kyushu University, Fukuoka, Japan

1991 Visiting Professorship CNRS, INSERM, Orsay, France

1992 Appointment: Full Professor and Chair in Physiology at the State University New York, Downstate Medical Center Brooklyn, USA, refused December 1992.

1992 Appointment: Full Professor of Physiology, Department of Physiology, University of Calgary, Medical School. 1993 refused

1992 Visiting Senior Scientist at the Weizmann Institute of Sciences, Rehovot, Israel

1992 Visiting Professor at S.U.N.Y. Downstate Medical School and Veterans Administration Hospital, New York

1992 Visiting Professor at the University of Calgary

1994 Visiting Professor: Academia Sinica (Taiwan), National Taiwan University, Taipei, National Defence Medical School (Taipei)

Membership in Editorial Boards of International Journals:

General Physiology and Biophysics: 1982 - 2006 (Executive Editor since 1999)

Biomedica Biochimica Acta: 1988 -1991

Pflügers Archiv Europ J Physiol:

1989 -2003, *Editorial Associate*

2003 - 2005 *Executive Editor,*

2006 - 2013, *Editor-in-Chief*

Cell Calcium: 1995 - .. Editor.

Cellular Physiology and Biochemistry: Editorial Board 1995 ...

Endothelium: 1999 ... Editorial Board

The Journal of Physiology (London): 2000 - 2007 Reviewing Editor

The American Journal of Physiology (Cell Physiol): 2002 ... Editorial Board

The Journal of Biological Chemistry: 2006 - Reviewing Editor -

Member of The Faculty of the 1000: 2005 –

Channels: 2006 - ..., Editorial Board

The Journal of Neurosciences: 2006 ... Editorial Board -

Physiological Reviews: 2008 – 2013 European Editorial Board

EMBO Molecular Medicine: 2009 -... Editorial Board

EMBO Journal: 2009 ... Editorial Board and member of EMBO Advisory Board

EMBO Reports: 2009 ... Editorial Board

Proceedings American National Academy of Sciences, PNAS: 2009 appointment as non-member Editor

Wiley Interdisciplinary Reviews: Membrane Transport Signaling. 2009 ... Associate Editor

2010 - Reviewing Editor of "*Frontiers in Pharmacology of Ion Channel and Channelopathies*, Frontiers Media, Frontiers Community

2010 – Associate Editor '*Reviews of Physiology, Biochemistry and Pharmacology*' Springer

Since 1997 evaluator by the European Commission in the framework of several “Biomed“ calls. Since 2001 Member of the evaluation panel for “Current Drug Research”, from 2008 **ERC** Member of Pool of Reviewers, ...

acting referee in: Nature, Science, Cell, Nature Neurosciences, Nature Cell Biology, Nature Immunology, Neuron, Proc.Natl.Acad.Sci.USA, Journal of Clinical Investigation, J Neurosciences, J Neurophysiology, J.Physiol (Lond), J.General Physiol, EMBO J., J. Biol. Chemistry, J Cell Physiol, Biochem Pharmacol, J Membr Biol, Circulation, Circulation Research, Cardiovascular Res., Biophys.J., Biochem Biophys Acta, Amer J Physiol, NIPS, Biochemistry, Europ J Pharm, J Biochem, J Vasc Res, FEBS Letters, Brit J Pharmacology, Cell Molecular Life Sciences, and others ...

Membership in Scientific Societies:

1971 - 1990 Society of German Physiologists (East)

1989 Foreign Corresponding Member of the *Royal Academy of Medical Sciences*
Belgium

1990 Member of the *Academia Europea*

1990 - 1993 Corresponding member of The Academy of Sciences to Berlin, Germany

1990 - 1993 Member of the German Physiological Society

1991 - 1993 Foreign member of The Physiological Society, UK

1993 - ... Ordinary member of The Physiological Society, UK

1994 - ... Member of the Belgian Society of Physiology & Pharmacology

1998 - ... Member of the Society of General Physiologists, USA

- 1998 - ... Member of the American Physiological Society
- 2000 - ... Honorary Member of the Slovak Physiological Society
- 2005 - ...Elected Member of the Faculty of the 1000
- 2006 - Appointed as Member of the Nomination Committee of the Academia Europaea
Section Physiology & Medicine
- 2006 – Appointed as referee at the European Science Foundation
- 2007 Elected as permanent Member of *EMBO* (European Molecular Biology
Organisation)

Honours:

- 1979 Research Award 1.Class Martin Luther University, Halle - Wittenberg
- 1980 Johannes Müller Award of the Society of Experimental Medicine Germany
- 1985 Research Award 1.Class of the Martin Luther University, Halle - Wittenberg.
- 1987 "Hermann Kolbe Award", research award of the Pharmaceutical Industry
- 1987 Appointment IUPS workshop as "Principal Instructor and Lecturer", Academia
Sinica (China, Shanghai, led by Prof. Dr. R.W. Tsien)
- 1988 Rudolf Virchow Research Award
- 1989 Corresponding Foreign Member of the Royal Academy of Medical Sciences
Belgium
- 1990 Member of the Academia Europea
- 1990 – 1992 Corresponding Member of the German Academy of Sciences to Berlin
- 1992 Appointment for the Chair of Physiology at the State University New York,
Downstate Medical Center Brooklyn, USA; refused December 1992.
- 1992 Appointment Full Professor of Physiology, Department of Physiology, University
of
Calgary, Medical School. refused September 1993.
- 1997-2001 Nomination as expert referee at the European Commission for the
“BIOMED”
programme
- 1998 Chairman and organizer of the symposium “Signal transduction in endothelium:

- mechano-sensing, ion channels and intracellular calcium”, World Meeting Life Sciences, INABIS, McMaster University Toronto, Canada,
- 1999 Member of the *National Science Foundation* (Belgium), Commission “Physiology” (Fonds Wetenschappelijk Onderzoek, F.W.O.)
- 2000 Honorary Membership Slovak Physiological Societ
- 2000/2001 President of the Belgian Society of Physiology and Pharmacology
- 2002 - 2006 Consultant of the Pharmaceutical Group NEUROSEARCH (Denmark, UK)
- 2005 Chairman Gordon Research Conference, “Calcium Signalling”, Oxford, session TRP channels
- 2005 - 2009 Consultant of the Pharmaceutical Group REDPOINT, New Yersey, USA, XENTION, Cambridge, UK, GIVAUDAN, CH, ONO (Japan)
- 2006 **Dautrebande Award** of the Royal Academy of Sciences Belgium **awarded by the Belgian Queen**
- 2007 Elected Member of **EMBO (European Mol Biol Organization)**, Member Advisory Board EMBO Journals (EMBO J, EMBO Reports, EMBO Mol Medicine)
- 2009 Appointment as foreign scientific advisor for the translational Research Center in Debrecen, Hungary: **DERMINOVA**: Cutaneous Biology Research Center: Integrating innovation-oriented research activities of the University of Debrecen in order to investigate cutaneous biology and pathomechanisms of diseases affecting large populations
- 2009 Appointment as Honorary Guest Professor at the Medical University Chongqing, China
- 2010 ... Scientific Avisor *ONO-Pharmaceuticals*, Japan
- 2010 ...Scientific Avisor *Grünenthal -Pharmaceuticals*, Germany
- 2010 Member Commission *Forton Foundation*, CFTR, Koning Boudewijn Stichting

Invited lectures at international meetings:

until 1985 only invited lectures in the “COMICON” countries.

1986 Invited discussant Gordon Conference “Ion channels”, Plymouth, MA, USA

1989 Invited lecturer XXXI IUPS World Meeting, Helsinki, July 1989

1990 Invited lecturer Europ Meeting, Europ Soc Neurophysiology, Leipzig, July 1990

1991 Invited lecturer, IUPS, Europ Sect, Prague, July, 1991

1991 Invited lecturer “Ion channels”, NATO meeting, Il Ciocco, Italy, April, 1991

1992 Invited lecturer at the Weizmann Institute of Sciences, Rehovot, Israel

1992 Invited lecturer at the Hebrew University, Jerusalem, Israel and the “Technion”,
Haifa, Israel

1992 Invited lecturer at S.U.N.Y. Downstate Medical School and Veterans
Administration Hospital, New York

1993 Invited lecturer “Ion channels in heart and endothelium”, Nice, August 1993

1994 Invited lecturer Kyushu University, Fukuoka, Japan

1995 Invited lecturer FEBS Europ Trainings Course, “Ion channels and Transporters”,
Budapest, May 1995

1995 Invited lecturer “Smooth Muscle and Endothelium”, IHSR World Congress, Prague

1996 Invited lecturer “Int Soc Biophysics and Applied Physics”, Amsterdam

1996 Invited lecturer “Signal transduction in endothelium”, Vancouver, September 1996

1996 Invited lecturer “Low-voltage activated Ca^{2+} channels”, Montpellier, October 1996

1997 Invited lecturer “European Comm Spring School “ Ca^{2+} and Signal Transduction””.
Liverpool, May 1997

1997 Invited lecturer XVIII Int Soc Heart Res, Versailles, July 1997

1997 Invited lecturer XXXIII IUPS World Congress, St. Petersburg, July 1997

1997 Invited lecturer: Volume regulation, Smolenice, Slovakia, Juni 1997

1997 Invited lecturer: Annu Meeting, Physiological Society Korea, October 1997

1997 Invited lecturer: Taniguchi Biophysics Symposium: “Molecular Biology and
Biophysics of the Volume Sensor”, Okazaki, Japan, 1997

1998 Invited lecture: Signaaloverdracht in het vasculaire endotheel, Brussel, Koninklijke
Academie voor Geneeskunde

1998 Invited lecturer: Ion channels in cell proliferation, La Londe les Maures, France

- 1998 Invited lecturer German Pharmacological Society, “Regulation of Ca^{2+} entry in vascular endothelium” Mainz
- 1998 Invited lecturer, Pharmaceutical Industry (org. by Hoechst AG), Frankfurt, “ Cl^- channels as therapeutic targets in endothelial dysfunction”
- 1998 Invited lecturer: Bad Nauheimer Vorlesungen; Max Planck Gesellschaft, Germany: “Ion channels in Endothelium”
- 1998 Invited lecturer: Univ Marburg, Marburg, Germany: “Endothelial Cl^- channels”
- 1998 Invited lecturer Homburg, Germany: “ Ca^{2+} entry channels in endothelium”
- 1998 Invited lecturer Indian Pharmacological Society, Symposium “Ion channels and ion channel modulators”, Lucknow, India
- 1998 Invited lecturer at the Internat INABIS World Meeting Life Sciences “ Ca^{2+} signalling in macrovascularendothelium: role of ion channels”. McMaster University, Toronto
- 1998 Invited lecturer, International Symposium “Molecular biology and Physiology of Cl^- Biology and Physiology of Cl^- channels”, Oxford, UK
- 1999 Invited lecturer, International Symposium: “Physiology of endothelial Cl^- channels”, Manchester, UK
- 1999 Invited lecturer, International symposium “ABC Proteins and Ion channels: from gene to disease”, Kyoto. Japan
- 1999 Invited lecturer 31st Annual Meeting European Society of Human Genetics Meeting, “Channelopathies: Cl^- channel defects”, Geneva, Switzerland
- 1999 Invited lecturer “International symposium on new developments in smooth muscle and endothelial cell signalling”, Nagoya, Japan
- 1999 Invited lecturer Biederstein Symposium “ Ca^{2+} channels in excitable and non-excitable cells”, Munich, Germany
- 1999 Invited lecturer, Frankfurt, MHR Lectures on endothelial function: “Volume-regulated anion channels in endothelium: modulation and physiology”
- 1999 Invited lecturer, Homburg, Germany, “ECaC a novel Ca^{2+} entry channel”
- 1999 Invited lecturer, Oxford, “ Ca^{2+} signalling in endothelium”
- 2000 Invited honorary lecturer “Receptors, Ion channels and transporters”, 3rd International Symposium, Smolenice, June 2000

- 2000 Invited speaker, Cancun, Mexico, International Congress Mex Physiol Society, "Volume sensors and volume regulation", Sept. 2000
- 2000 Invited lecturer, "Cell Volume: Signalling and Regulation", Berlin, October 2000
- 2000 Physiological Society, UK, Invited speaker, King's College, London "Endothelial Ca^{2+} signalling", December 2000
- 2001 Invited speaker, 83rd International Titisee Conference "Ion channels in Health and Disease", Titisee, Germany, March 2001
- 2001 Invited speaker "Spatio-Temporal Interaction of Cellular Signalling Molecules", Homburg (Saar), May
- 2001 Invited lecturer Academia Europaea Annual Meeting, Rotterdam, June 2001 "Trp channels: a new challenge to understand Ca^{2+} entry"
- 2001 Invited speaker "24th European Cystic Fibrosis Conference", Vienna (Austria), June
- 2001 Invited speaker, XXXIV IUPS World Congress, Christchurch, New Zealand, "Molecular Mechanisms of Cell Volume regulation", August 2001
- 2001 Invited lecturer IBRO Summer School "Neuronal transmission: microphysiology of synaptic currents and receptor function", Tihany, Hungary
- 2001 Invited lecturer Glaxo-Smith-Kline, "ECaC channels: novel properties", Harlow, UK
- 2001 Invited lecturer International Meeting ISHR Japan, Akita, Japan, "Ion channels in vascular endothelium"
- 2001 Boehringer-Ingelheim Lecturer, ISHR meeting, Akita, Japan; "Cl⁻ channels in endothelium"
- 2001 Invited lecturer "Cl⁻ channels: from molecule to disease", Leuven
- 2002 Invited Lecturer, RTHW Aachen, "From EcaCs to CRACs?", February
- 2002 Invited Lecturer, Erasmus University, Rotterdam, March, "The TRP-superfamily. Novel cation channels"
- 2002 Invited lecturer XIV International Biophysics Congress, Buenos Aires, Argentina, "Trp channels: from structure to function", April
- 2002 Invited lecturer international meeting "Frontiers in Molecular Pharmacology and Physiology", Munich, "TRP - related Ca^{2+} entry channels: structure and function", May

- 2002 Invited Lecturer “Ion channels and transporters in cardiovascular cell growth”,
Reading, British Society of Cardiovascular Research, April
- 2002 Invited Lecturer “Signalling Mechanism in the Pulmonary Circulation”, AHA/APS,
September
- 2002 Invited lecturer Free University of Brussels (ULB) “ TRP channels”, June
- 2002 Invited Lecturer “Channel and transporter proteins”, Leeds, Physiol Soc, UK,
September
- 2002 Invited Lecturer, NIH, Baltimore, “TRP channels: Novel players in Ca²⁺ signalling”
- 2002 Invited Lecturer, University Medical School Georgetown, “Structure, function of
TRP channels”, USA
- 2003 Invited Lecturer INSERM Chateneau, Paris-Sud “Amazing Cl⁻ channels”, January
- 2003 Novartis Lecturer “Mammalian TRP channels as molecular targets”, Novartis
Foundation, London March
- 2003 Invited Lecturer, Novartis & Physiological Society Meeting UK, “Mammalian
TRP channels”, open meeting, London, Burlington House, March
- 2003 Invited Lecturer 3rd FEPS Meeting, Nice, “Novel Ca²⁺ entry channels”, July
- 2003 Plenary lecturer Austrian Society of Biomedical and Genetical Societies ÖGBM,
ÖGGT, ÖGBT, ANGT), Graz, Austria, “TRP channel gating and function”
- 2003 Plenary lecturer Scandinavian Physiological Society, Odense, Denmark, October,
“TRP channels and Ca²⁺ signalling”
- 2003 Plenary lecturer at the British Pharmacological Society Meeting, London,
December “TRP proteins as drug targets”
- 2004 Invited public lecture, Salzburg, ÖGBM Austrian Society Molec Biol/Genetics
“TRP Kanäle: Über Schmerz, Drugs, Sex und mehr ...”, Salzburg, January
- 2004 Invited speaker Brit Physiol Soc. Symposium on TRPM: “TRPM4 and TRPM5:
comparing siblings”, Glasgow, March
- 2004 Invited speaker “TRP channels as novel pharmacological targets”, Novartis,
Harshow, April
- 2004 Invited speaker, DFG symposium “Spatio-Temporal Interaction of Cellular
Signalling Molecules”, Homburg (Saar), May

- 2004 Invited speaker, DFG symposium "TRP Channels as New Pharmacological Targets" "TRPV – sense and versatility", Rauischholzhausen Marburg, June
- 2004 Invited speaker, "Calcium in Health and Disease" Rovaniemi, Finnish Lapland Finland, July
- 2004 Invited lecturer summer school "Ion Channels and Disease" Soria, Spain, July
- 2004 Invited platform lecturer University of Hong Kong "Calcium Function in Development, Health and Disease", Hong Kong, December
- 2005 Invited lecturer Signaltransduction SFB Freie Universität Berlin, January
- 2005 Invited lecturer International Workshop, British Physiological Society: Ion channels: "From Physiology to Pathology". Seville, February
- 2005 Invited Speaker, Gordon Research Conference , Salivary Glands and Exocrine Secretion, Ventura California, February 2005
- 2005 Invited lecturer IUPS meeting, San Diego "Functional role of TRP channels", San Diego, March 2005
- 2005 Invited speaker Cell Biology Symposium, Liege, March
- 2005 Invited speaker Neurobiology Seminars, Alicante, Spain, June
- 2005 Chairman, Gordon Research Conference, Ca²⁺ Signalling, Oxford, July
- 2005 Invited Speaker Karolinska Institute Stockholm Sweden, May, TRP channels as thermosensors
- 2005 Invited Speaker, Naarden (QUEST, The Netherlands): "TRP channels and the mystery of taste"
- 2005 Invited Lecturer, Princeton "The physiology of TRP channels in taste", July, sponsored by LINGUAGEN (USA)
- 2005 Invited speaker EBSA and IUPAB (European Biophysical Societies Association and International Union of Pure and Applied Biophysics, Montpellier, September
- 2005 Invited speaker "Excitability in Smooth Muscle Tissues" BPS Meeting, Oxford
- 2005 Keynote speaker "Volume regulation and volume sensors", Copenhagen, September
- 2005 Invited Speaker EMBO Indian Academy of Sciences, "Calcium Signalling", Bangalore, India, December

- 2006 Invited lecturer, University of Linz (AUT), “TRP channels and temperature sensing”, February
- 2006 Invited lecturer and Chairman Minerva-Gent Symposium “TRP channels and Calcium Signaling”, Hebrew University, Eilat, Israel, February
- 2006 Invited lecturer, CMBI symposia, University of Innsbruck (AUT), “TRP channels: unique cellular sensors”, March
- 2006 Invited Lecturer 8th Annual Eicosanid Conference, Baltimore, March “Gating and modulation of TRPV channels by epoxyeicosanoids”
- 2006 Invited Lecturer SFB Biomembranes, Graz (AUT), “TRP channel gating: a voltage – lipid connection”, March
- 2006 Invited lecturer Acaemia Europea “25 Years of Giga-Seal Patch Clamping”, “TRP channels: novel gating mechanisms”, March, Heidelberg, Germany
- 2006 Invited Lecturer, Princeton “The physiology of TRP channels in taste”, April, sponsored by LINGUAGEN (USA)
- 2006 Invited Lecturer, Innsbruck CMBI seminars, “Sensing temperature with TRPs”, May
- 2006 Invited lecturer Debrecen, Hungary, Medical University Seminars, “TRP channels: universal cell sensors”, June
- 2006 Invited lecturer 6th International Muscle Energetics Conference, Banff, CANADA, “TRP channels in endothelium”. July
- 2006 Invited lecturer 15th World Congress of Pharmacology, IUPHAR, Beijing, China, “TRP channels in Endothelium”, July
- 2006 Invited speaker, Gordon Reserach Conference, Plymouth, USA, Ion channels, July,
- 2006 Invited lecturer World Conference on Pain, Istanbul, “TRP channels and temperature sensing”, September
- 2006 British Biochemical Society Meeting on Cell and Molecular Biology of TRP Channels, Bath, UK, “Gating mechanisms of TRP channels”, September
- 2006 Invited lecturer University of Geneve (Switzerland), November
- 2006 Invited lecturer, Symposium Grünenthal AG, Aachen (Germany) “Novel Targets of Pain”, December 2006

- 2007 Invited Speaker FASEB Conference on Ion Channel Regulation, June, Snowmass, Colorado, USA
- 2007 Invited Speaker European Hair Cell Organisation “TRPs as mechanosensors”, Paris, April
- 2007 Invited speaker Gordon Conference Gordon Research Conference on “Calcium Signaling”, July, Tilton School, Tilton, New Hampshire, USA
- 2007 Invited Speaker and Chairman, Keystone Symposia, USA, “The transient receptor potential ion channel superfamily”, lecture “TRP channels: novel gating mechanisms”, July
- 2007 Invited Lecturer Symposium “Cellular mechanisms of Ion Channel Regulation” Akita, Japan, May
- 2007 Invited Lecture “Seminars in Molecular Biology”, Department of Molecular Biology, University of Copenhagen, Copenhagen, Denmark, May
- 2007 Invited lecturer “Breakthroughs in Nephrology, AMGEN”, “From bench to bedside”, “TRP ion channels in health and disease”, December, Paris
- 2008 Invited Speaker Geneva, Institute of Pharmacology, January
- 2008 Invited Speaker “Rare Diseases: Channels and Transporters” ESF-UB Conferences in Biomedicine, Sant Feliu de Guixols, Spain, March
- 2008 Invited Speaker INFORMA Meeting (Pharmaceutical Industry meets Fundamentalists): “Ion channels as drug targets”, Berlin. March
- 2008 Invited Speaker, Karolinska Institute Stockholm: Ionic mechanism of Pain “TRPs: more than nociceptors”, Stockholm. March
- 2008 Invited Speaker “Molecular drug targets”, Vienna, April
- 2008 Invited Speaker “TRP channels: From Aristotele’s five senses to TRP’athies”; May 2008
- 2008 Invited lecturer JFRC Conference, Janelia Farm, USA “Force gated Ion Channels: From Structure to Sensation”, May
- 2008 Royal Academy of Sciences and Letters of Denmark, “Frontiers in Physiology”, May
- 2008 Invited Speaker European Neuropeptide Club, Ferrara. May
- 2008 Invited Speaker “Frontiers in Ion Channel Research”, Manchester, June
- 2008 Invited Speaker Academie Royale De Medicine de Belgique, June

- 2008 Invited Speaker FASEB Meeting Snowmass, USA, July
- 2008 Gordon Reserach Conference “Membrane Transport”, Il Ciocco, Italy, July
- 2008 Plenary Invited Speaker World Congress “Purines”, July
- 2008 Invited Speaker: “Ion Channels and calmodulin” “Modulation of TRP channels by calmodulin”. Calmodulin meeting Asilomar/CA/USA
- 2008 Invited Speaker EMBO Meeting, Tampere, September
- 2008 Plenary Invited Speaker, Chongqin, China International Meeting, “TRP channels in hypertension and metabolic diseases”: Lecture “TRPpathies”, November
- 2008 Invited Speaker PFIZER, Sandwich, UK, “TRP Channels in Disease”, November
- 2008 Invited Speaker SAFONI/AVENTIS, Frankfurt, “TRP Channels in Disease” , November
- 2008 Invited Speaker Molecular Biology Series ULB, Brussels, “TRP Channels linked to human Diseases”, December
- 2009 Invited Speaker “TRP channels in disease”, Korea, January 2009, IUPS Workshop in Busan , January
- 2009 Invited Speaker “Ion Channel TRP Workshop” IUPS, August
- 2009 Annual Meeting “Japanese Pharmacological Society”, Kyoto, March
- 2009 Invited Speaker IUPS Sattelite Meeting “Volume Regulation” Meeting, Kyoto, August
- 2009 Sir Adrian Lecture in Cambridge, March
- 2009 Plenary Speaker “50 years Pharmacological Society Germany”, Mainz, March 2009
- 2009 Key Note Speaker “*Informa* Symposium: Pharmaceutical Industry meets cademic Research”, Barcelona, March 2007
- 2009 Plenary Lecturer “Molecular Medicine”, Iasi, Romania, May 2009
- 2009 Turine, Physiol Institure, Invited Lecturere “Amazing TRP channels between sensory function and disease”, June
- 2009 Gordon Conference “Ion Channels”, invited speaker “Gating mechanisms of TRP channels”, July
- 2009 Invited Speaker “TRP Channels: from Sensory function to disease” Nobel Forum Karolinska Institute Stockholm, September

- 2009 Invited Speaker, INSERM “Progress in Ion Channel Research”, Marseille, France, September
- 2009 Invited Speaker, Italian Pharmacol Society, Annual International Meeting, Rimini, “TRP channels in health and disease”, October
- 2009 Invited Lecturer “Pathophysiology in Pecs: 60 years Prof. Donhoffer, November, “Pathophysiology of TRP channels”
- 2009 Invited Lecturer Boehringer-Ingelheim, Biberach, December 2009 “TRP channels and diabetes”
- 2010 Invited lecture University of Erlangen/Nürnberg, “The TRPA1 puzzle”, February 2010
- 2010 Invited Lecture “Sensory Physiology and Ca²⁺ Signalling”, Göttingen, May 2010
- 2010 Invited Lecturer, Grünenthal AG, Aachen, Germany “TRPA1: Nociception, irritation and pain”, April 2010
- 2010 Invited Lecturer, Technical University Munich, Germany, “Irritant TRPA1”, May 2010
- 2010 Invited lecture, Universität zu Lübeck: “TRPA1- how irritant”, June 10th
- 2010 Invited Lecturer European Peptid Club, Pecs, “Modulation of TRPA1”, June
- 2010 Invited Lecturer TRP Meeting, Leuven. “TRP channels: from structure to disease”, September 2010
- 2010 Invited Lecturer Annual Meeting Academia Europea, Leuven 2010: “TRP channels in the brain”, September
- 2010 Plenary Lecturer Annual Meeting French Society of Nephrology, Brussels, “TRP channels in the kidney”, September
- 2010 Hungarian Academy of Sciences, invited speaker Semmelweis Symposium “Cellular Signalling in Physiology and Pathophysiology”, November
- 2010 Invited Lecturer, Max Delbrück Center, Berlin, December
- 2011 Invited Plenary Speaker “German Physiological Society, DPG”, Regensburg, 28th, March
- 2011 Invited plenary Lecturer, Spanish Physiological Society, July, 6th
- 2011 Invited Plenary Speaker, Annual Meeting Physiological Society, Hungary, Pecs
- 2011 Invited Lecturer Würzburg, Meeting SFB 487, July 29th

Funding:

no funding until 1990

- “Steuerung des Calcium-Eintritts in nicht-erregbaren Zellen”, Max Planck Gesellschaft (1990 - 1991), location KU Leuven
- “Molekulare und zelluläre Physiologie: Rolle von Ionenkanälen bei der Signaltransduktion in Endothelzellen”, Max Planck Gesellschaft (1992-1994), location KU Leuven
- “Rolle Calcium-permeabler Ionenkanäle beim Signaltransfer in vaskulären Endothelzellen”, BMFT (Bundesministerium für Forschung und Technologie, DKFZ, 1991-1992), location KU Leuven
- “Kaliumkanäle in menschlichen Melanomzellen”, Thyssen Stiftung, Menschliche Melanomzelle IGR-1, Az9.26/90, 1990-1992, location KU Leuven
- “De rol van intracellulaire calcium ionen in de signaaltransduktie van endotheelcellen” Levenslijn 7.0035.91 (1992-1993).
- GOA/92/11 Belgium, “Kontrolle van het Ca^{2+} gehalte in intracellulaire stapelplaatsen en het effect van deze Ca^{2+} hoeveelheid op het naar binnen stromen van Ca^{2+} in dierlijke cellen” (1994-1998). Coordinator Prof. R. Casteels
- NFWO Belgium, Wetenschappelijke Onderzoeksgemeenschap “Signaltransduktie tijdens mechanostimulatie”, 1993-1995
- “The bimodal channel-transporter function of the human multi drug resistance P-glycoprotein”, EC Human Capital and Mobility, ERB 4050PL940816, 1994-1996, coordinator
- “Biofysische en moleculair-biologische karakterisering van mechano-sensitieve anionenkanalen in menselijke endotheelcellen”, NFWO Belgium, 1995-1998, coordinator

- INTAS, European Community, International Association for Promotion of Cooperation with Scientists from the independent States of the former Soviet Union, “Vascular human endothelial cells as mechanosensors: mechanosensitive pathways in intracellular calcium signalling”, INTAS-94-241, 1994-1997, coordinator
- European Community: project : Cellular and Molecular mechanisms of mechanosensitive signalling in endothelial cells. BMH4-CT96-0602, 1996-1999, coordinator
- Fisons Pharmaceuticals: Modulation of Cl⁻ channels by cromones. 1996-1998
- Research support from Hoechst AG: “ VRAC channels as targets for cardiovascular drugs”
- FWO Belgium “T – type Ca²⁺ channels: a structure-function analysis”, G.0118.00, 2000-2003
- Fonds Alphonse and Jean Forton in the King Boudewijn Foundation “Links between CFTR and other Cl⁻ channels”, 1999-2002
- FWO Belgium “Gating mechanisms of VRAC”, G.0214.99, 1999-2002
- GOA 99/Belgium “Molecular and cellular physiology of anion channels”, 1999-2003, coordinator
- FWO (Belgium): Structure and functional role of VRAC, a volume activated anion channel, 1999-2002, coordinator
- FWO (Belgium), Levenslijn: Ca²⁺ signalling and ion channel function in endothelium under hypoxia and re-oxygenation, coordinator
- FWO (Belgium): Structure function relation in T-type (low threshold) Ca²⁺ channels, 2000-2002, coordinator
- FWO (Belgium): Functional analysis of endothelial trp proteins as possible Ca²⁺ entry channels, 2000-2002, coordinator
- European Community Project, 2002-2005 “Rescue of CFTR function”

- FWO (Belgium): Molecular analysis of the biophysics, regulation and function of calcium – permeable cation channels of the TRP family”, 2003-2007 (coordinator)
- INTAS, European Community “Volume regulated anion channels and store operated Ca²⁺ entry”, INTAS-99-01248, 1999-2003
- Flemish Government, GOA: “Novel players in Ca²⁺ signalling”. 2004-2008, GOA-2005/07
- Human Frontiers Science Programme (HFSP): “Structure and function of TRPV channels” 2005-2008.
- Center of Excellence “TRP ion channels as novel cellular sensors”, 2005-2010, Director
- Funding NOVARTIS: “Role of TRP channels in blood cell migratiuon, 2005-2007
- Funding Givaudan “Effects of tastants on TRP channels, 2005-2008, promoter
- Funding Grünenthal “Mechanistic analysis of TRPV1 blockers”, 2007 and 2008
- “Calcium-transport proteins: mechanisms of function and their role in disease “GOA-09-00725, co-promoter, 2008
- “Functional effects of TRP channel nanobodies”, ABLYNX, 2008-2010, promoter
- “Rol of TRP channels in pancreas”, ONO (Japan), 2009-2010, promoter

Organizer of International symposia:

- L. Zett and B. Nilius “*Julius Bernstein Symposium*”, International Symposium, Halle, Germany, November 20th – 22nd, 1981
- B. Nilius “*Calcium and Cell Function*”, Internatinal Symosium related to the retirement if Professor Rik Casteels, Leuven, September 18th, 1998,
- B. Nilius “*Molecular Physiology of Chloride Channels: from molecule to disease*” Leuven, 20-22 September 2001

- B. Nilius: “TRP channels: physiological genomics and proteomics”, IUPS symposium, San Diego, April 5th, 2005
- B. Nilius “*TRP channels: Truly Remarkable Proteins in health and disease*”, Leuven, September 15 – 17th, 2005
- B. Nilius “*Novel mechanisms of Volume and Osmoregulation*”, Germany Biological Society, Frankfurt, March 2007
- B. Nilius, J. Putney, C. Montell “*The Transient Receptor Potential Ion Channel Superfamily*”, KEYSTONE Symposia, July, 2007
- F. Wuytack, J. Parys, B. Nilius „*Calcium Binding Proteins*”, Leuven, September 2008
- M. Trebak, B. Nilius, J. Putney, A. Parekh, I. Bezprozvanny: „*Ion channel signaling mechanisms: from basic science to clinical application*”, October 31st until November 4th 2011 in Marrakesh, Morocco

Fields of interest:

A. expert, B. competent

general cellular physiology: electrophysiology of excitable and non-excitable tissues

(A) Ca²⁺ signalling (A)

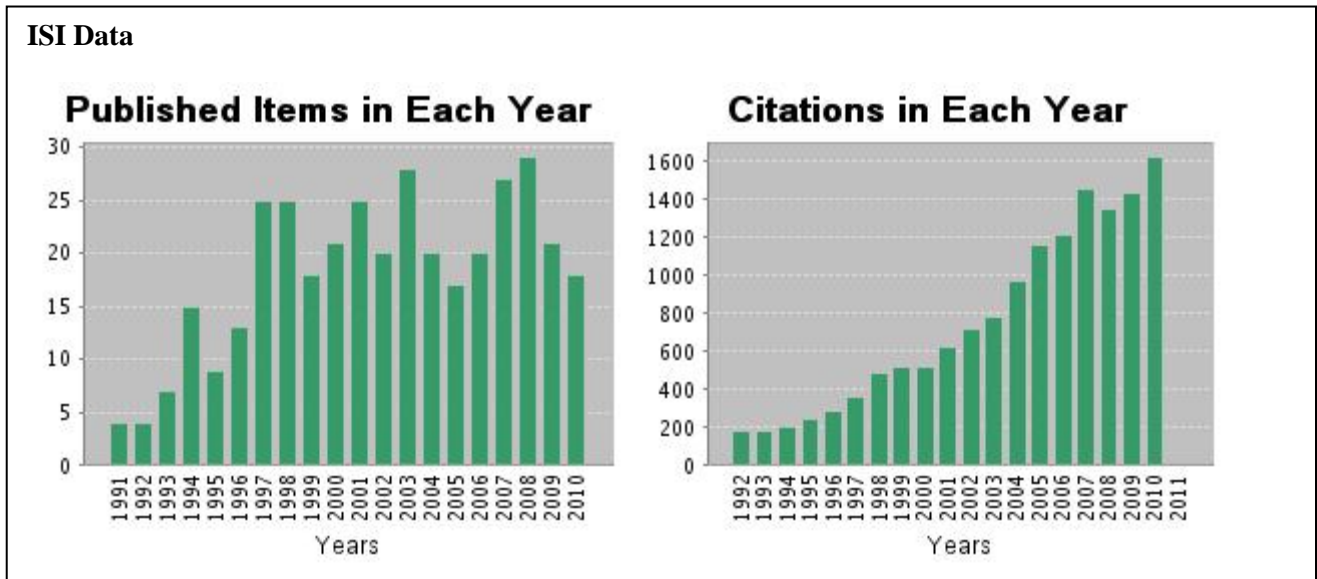
membranes and transport: ion channels (A), electrophysiology (A), biophysics (A), volume regulation (A)

heart: electrophysiology (A), excitation contraction coupling (A), cardiovascular diseases (B)

endothelium: Ca²⁺ signalling (A), ion channels, transporters (A), signal-transduction (A), cell-cell coupling (B), nitric oxide (B), endothelial (B)

mathematical biology, models and theory: (B)

Publications.



bibliometric data: 479 entries registered in ISI Web of Knowledge 2010, total citations 15.500; h-index 64; rank 7th 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:

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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

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I. International journals

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

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5. "*Celfysiologie*", **Nilius, B.** in Dutch, Acco, Leuven, 1st Edition 1999, 2nd revised Edition 2002, 3rd revised Edition 2004, revised 4th Edition 2008 248 pages + 1 slide book 212 pages
6. "*TRP Channels: Facts, Fiction, Challenges*" Special Issue Cell Calcium **33**, edited by **B. Nilius**, Churchill Livingstone, 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 V. Flockerzi and **B. 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
11. "*Endothelial vasomotor control: The herotage of Rpbert Furchgott*", edited by P. Vanhoutte, D. Serban, **B. Nilius**, Pflügers Archiv Europ J Physiol, Springer, Special Issue, 459, 2010
12. "*Channelopathies*", edited by **B. Nilius**, Pflügers Archiv Europ J Physiol, Springer, Special Issue, 460, 2010

IV. articles in books

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18. **Nilius, B.** Transmembranale Ca-Bewegungen im Herzen, im glatten Muskel und im Endothel. In: " Transmembranale Ca²⁺ - Bewegungen" , Herausgeber: A. Ziegler, K. Mohr, Acris Verlag, München, S.17 – 45, 1990
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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
52. **B. Nilius**, G. Owsianik, “TRP channelopathies” in “TRP Channels in Health and Disease: Implications for Diagnosis and Therapy”, edited by A. Szallasi, *Nova Publishe, Series Advances in Biology and Medicine*, 2010
53. M. Gees, B. Colsoul, **B. Nilius** “The role of Transient Receptor Potential (TRP) cation channels in Ca²⁺ signaling” in “Calcium Signalling”, CSH Perspectives Series, Cold Spring Harbor Press, ed by M. Berridge and M. Bootman, 2010

Teaching experience:

1970 -1990 lectures in general physiology (Halle) (all topics of Physiology, especially cardiac physiology, circulation, motor control, excitability, integrative systems, synapses, 6 h/week), all practical courses in physiology, examinations

1974 Course on Nonequilibrium Thermodynamics : (per book Katchalsky, Curran: Nonequilibrium thermodynamics in Biophysics, Harvard Univ.Press, Cambridge 1967 and Glansdorff, Prigogine: Thermodynamic Theory of Structure, Stability, and Fluctuation, Wiley New York, 1971)

1990/1991 lecturer in Biophysics, Erfurt (Germany)

1991/1992 lecturer in Physiology, Erfurt (Germany)

1993-1996 practical courses in Physiology KU Leuven, second year, Medicine, Pharmacy, Dentistry

1993-1995 lecturer University of Kortrijk “*Function of Endothelium*”

1993 - 1997 course Ph.D. students, KU Leuven “*Biophysical and Molecular analysis of ion channels*”

1994 lecturer KU Leuven, “Cardiovascular Physiology”, third year medicine

1995 - 1999 lecturer: “*General Physiology*”, KU Leuven, second year medicine, titularis, written textbook Nilius, B: “*Algemene fysiologie*”, in Dutch, Acco, Leuven, 230 pages

1995 – 1999 tutorials: “*General Physiology, Membrane Physiology*”

1996- 1999 all examination in general physiology

1999 - lecturer: “*Cell Physiology*”, KU Leuven, second year medicine, titularis, 30h/year, written text book: B. Nilius “*Celfysiologie*”, in Dutch, Acco, Leuven, 1999, 2000, 2001, 2002, 2003, 2004, 212 pages, now 4th revised edition.


2006- 2010 “*Celfysiologie*” with an additional “*Afbeeldingen Celfysiologie*”, 215 pages

1999 - 2009 tutorials: “*Membrane Physiology*”, for medical students and students Biomedical Sciences

1999 – 2010 special lecture series “*Channelopathias*” (kanalopathieën)

1995 - 2010 all examinations in “*Cell Physiology*”

I have promoted of 26 M.D. and 25 “habilitation”/Ph.D. theses.

A handwritten signature in black ink that reads "Bernd Nilius". The signature is written in a cursive, slightly slanted style.

Leuven, November 2010

Bernd Nilius