

## CURRICULUM VITAE

*Name:* ALEXEI VERKHRATSKY

*Date of birth:* July 30, 1961

*Citizenship:* British

*Title:* MD, PhD, Dr. Sci.

*Department:* Professor of Neurophysiology  
Faculty of Life Sciences,  
The University of Manchester  
Michael Smith Building,  
Oxford Road, Manchester M13 9PT, UK  
e-mail: Alexej.Verkh ratsky@manchester.ac.uk

*Current appointments:* Professor of Neurophysiology

### *Higher Education and academic degrees:*

1993: Doctor of Medical Sciences, Bogomoletz Institute of Physiology, Physiology, "Mechanisms of calcium signal generation in neurones and glial cells".

1983-1986: PhD, Bogomoletz Institute of Physiology: Physiology, "Tetrodotoxin sensitive ionic currents in the membrane of isolated cardiomyocytes"

1977 - 1983: MD, Kiev Medical Institute.

### *Honours:*

2003: Elected Member of Academia Europaea

2006 - 2013: Chairman of the Physiology and Medicine Section of the Academia Europaea;  
Member of the Council

2012: Elected member of Real Academia Nacional de Farmacia, Spain

2012: Research Award of German Purine Club

2012: Elected member of European Dana Alliance for the Brain Initiatives (since 2015 Dana Alliance for Brain Initiatives).

2013: Recipient of Dozor Visiting Scholar award, Ben Gurion University, Beer Sheva, Israel.

2013: Fellow of Japan Society for the Promotion of Science (JSPS).

2013: Elected member of Nationale Akademie der Wissenschaften Leopoldina (The German National Academy of Sciences Leopoldina).

2016 - present: Vice-President and Chairmen of the Class C (Life Science and Medicine) of the Academia Europaea.

2016: Copernicus Gold medal and Copernicus Visiting Professor at the University of Ferrara

2017: Honorary adjunct professor at the Department on Physiology at Yeditepe University, Istanbul, Turkey

2017: Elected member of Polish National Academy of Sciences  
 2018: Distinguished Professor of Chengdu University of Traditional Chinese Medicine, Chengdu, China  
 2018: Distinguished Professor of Jinan University, Guangzhou, China  
 2019: Honorary Professor of China Medical University, Shenyang, China  
 2019: Elected Corresponding Member of Slovenian Academy of Sciences and Arts

*Membership of  
academic societies:*

The Physiological Society, UK (1994 - 2010)  
 1994 - 2006 Member of International Committee  
 2002 - 2006 Member of Council  
 Member of Council of Federation of European Physiological Societies, FEPS (2007 - 2015)  
 American Society for Neuroscience, ASN (2011 -)  
 2012 - 2018: member of membership committee

*Appointments:*

March 1st, 2002 - present: Professor of Neurophysiology at the Faculty of Life Sciences, The University of Manchester, Manchester, UK  
 June 1st, 2002 - August 2004: Chairman of the Division of Neuroscience at the School of Biological Sciences, The University of Manchester, Manchester, UK  
 July 1st 2001 - February 28, 2002: Reader in Neurophysiology at the School of Biological Sciences, The University of Manchester, Manchester, UK  
 September 1999 - June 2001: Senior Lecturer at the School of Biological Sciences, The University of Manchester, Manchester, UK  
 August 1995 - August 1999: Senior Research Scientist at the Department of Cellular Neuroscience in the Max-Delbrück Center for Molecular Medicine, Berlin  
 December 1993 - August 1995: Head of the Research Group of Cellular Neuroscience, Bogomoletz Institute of Physiology, Kiev  
 May 1993 - September 1993: guest scientist at the Department of Cellular Neuroscience of the Max-Delbrück Center of Molecular Medicine, Berlin  
 May 1992 - August 1995: deputy director of the International Center of Molecular Physiology of the Ukrainian Academy of Sciences  
 February 1992 - May 1992: guest scientist at the Research Group of Cellular Neurophysiology, Max-Planck Institute for Biophysical Chemistry, Göttingen  
 1990 - 1993: Senior Research Scientist at the Department of General Physiology of the Nervous System, Bogomoletz Institute of Physiology  
 1989 - 1990: Research Scientist in the Institute of Neurobiology, Heidelberg University  
 1986 - 1989: Junior Research Scientist at the Department of General Physiology of the Nervous System, Bogomoletz Institute of Physiology, Kiev

*Visiting/Honorary Appointments*

September 2012 - present: Adjunct director of Achucarro Basque Centre for Neuroscience.

January 2011 - January 2016: Visitor Honorary Professor at Kyushu University, Fukuoka, Japan

May 2010 - present: Visitor Professor/Consultant of the Basque Research Council (Ikerbasque)

March 15th, 2007 - June 2010: Visitor Professor; Head of the Department of Molecular Neurophysiology, Institute of Experimental Medicine, ACSR, Prague, Czech Republic.

October 2017 - present: Honorary adjunct professor of the Department on Physiology at Yeditepe University, Istanbul, Turkey

May 2019 - - present: Honorary Visitor Professor of China Medical University, Shenyang, China

June 2019 - present: Honorary Professor and Chair, Chairman of the Academic Committee of the Key Laboratory of Sichuan Province for Acupuncture & Chronobiology, Chengdu University of Traditional Chinese Medicine, Chengdu, China

## PROFESSIONAL AND ADMINISTRATIVE RESPONSIBILITIES

### Editorial

Editor in Chief of *Cell Calcium* (2000 - ).  
 Deputy Editor-in Chief of *Cell Death and Disease* (2010 - 2018);  
 Receiving editor (Neuroscience) of *Cell Death and Disease* (2010 - )  
 Editor in Chief of *Membrane Transport & Signalling - Wiley Interdisciplinary Reviews* (2010 - 2015).  
 Receiving Editor (Neuroscience) of *Acta Physiologica (Oxford)* (2018 - ).

Member of Editorial board of *Acta Pharmacologica Sinica* (2005 - ).  
 Member of Editorial board of *Journal of Molecular & Cellular Medicine* (2005 - 2009).  
 Member of Editorial board of *Acta Physiologica (Oxford)* (2006 - ).  
 Member of Editorial board of *Pflugers Archiv European Journal of Physiology* (2006 - ).  
 Member of Editorial board of *Glia* (2008 - 2018).  
 Member of Editorial board of *Frontiers in Neuropharmacology* (2009 - 2014).  
 Member of Editorial board of *Frontiers in Aging Neuroscience* (2009 - 2014).  
 Member of Editorial board of *Purinergic Signalling* (2010 - ).  
 Member of Editorial Board of *ASN Neuro* (2011 - 2019).  
 Member of Editorial Board of *Frontiers in Neurodegeneration* (2011 - 2014).  
 Member of Editorial Board of *Advances in Neurobiology* (2011 - ).  
 Member of Editorial Board of *Neuroscience Bulletin* (2011 - ).  
 Member of Editorial Board of *Translational Neurosciences* (2012 - ).  
 Member of Editorial Board of *European Journal of Neurodegenerative Disease* (2015 - ).  
 Member of Editorial Board of *MedComm* (2020 - ).  
 Member of Editorial Board of *FUNCTION* (2020 - ).

### Reviewing

I regularly act as an expert referee for a range of scientific journals (Science, Journal of Neuroscience, Current Biology, Journal of Physiology (London), Trends in Neurosciences, Pflügers Archiv European Journal of Physiology, Glia, Neuroscience, Journal of Neurochemistry, European Journal of Neuroscience, FEBS Letters, European Journal of Pharmacology, British Medical Journal, etc.).

### Membership in grant funding panels

2004 - 2012: Deutsche Forschungsgemeinschaft SFB/SPP panels, Germany  
 2008 - 2010: Federal Ministry of Education and Research (BMBF), Germany  
 2011: member of the Panel for the Principal Investigator Programme of the Science Foundation  
 Ireland

2011 - present: member of the International Expert Council, The state fund for fundamental research,  
The Ukraine

### **Research students supervised**

Yuri Usachev 1992 - 1995

"Mechanisms of calcium-induced calcium release in sensory neurones"  
PhD awarded 1995

Nana Voitenko 1992 - 1996

"Mechanisms of calcium homeostasis in cerebellar granule neurones"  
PhD awarded 1996

Natalia Svichar 1995 - 1997

"Interactions between intracellular calcium stores in sensory neurones"  
PhD awarded 1997

Vitaly Matiash 1995 - 1997

"Molecular characterization of glutamate receptors in Bergmann glial cells"  
PhD Awarded 1997

Wolfgang Kresse 1998 - 1999

Funded by Graduirte Colleague of the Humboldt University, Berlin, Germany.  
PhD Awarded 2000

Tze-Jen Huang 2000 - 2003 (with Dr. P. Fernyhough)

"Mitochondria and insulin receptors in diabetic neuropathies"  
PhD Awarded 2003

Michelle Lockwood 2000 - 2003 (with Dr. P. Fernyhough)

Molecular mechanisms of regeneration of sensory neurones in culture  
PhD Awarded 2003

I. Psakopulos 2001 - 2004 (with Dr. C. Tournier)

PhD Awarded 2005

Naila Ismailova 2002 - 2003 (with Prof. A. Crossman)

Role of adenosine, dopamine and metabotropic glutamate receptors in Parkinson disease.  
PhD Awarded 2003

A. Wilton 2003 - 2006

PhD awarded 2006

Annes Teresa Florence Lambert 2004 - 2008

Endoplasmic reticulum stress in neuronal cell models  
PhD awarded in 2008

Victoria Jones 2004 – 2007  
PhD awarded 2007

Markel Olabarria 2008 - 2011  
PhD awarded 2011

Weihong Ma, 2009 – 2010  
Biophysical and Pharmacological Characterisations of Pannexin 1  
PhD Awarded 2010

Wenxuan Zheng, 2009 - 2012  
Properties of mammalian P2X7 receptors  
PhD Awarded 2012

Chia-Yu Yen, 2008 – 2012  
PhD Awarded 2012

Simon Rothwell  
2009 – 2013  
PhD awarded 2013

### **Post-doctoral researchers directly supervised**

Dr. Alexandr Savchenko 1990 - 1993  
Bogomoletz Institute of Physiology  
Dr. Nina Pronchuk 1991 - 1995  
Bogomoletz Institute of Physiology  
Dr. Anatoly Shmigol 1992 - 1995  
Bogomoletz Institute of Physiology  
Dr. Sergei Kirischuk  
1991 - 1995 Bogomoletz Institute of Physiology  
1995 - 1997 Max Delbrück Center for Molecular Medicine  
Dr. T. Möller 1995 - 1997  
Max Delbrück Center for Molecular Medicine  
Dr. V. Matiash 1997 - 1999  
Max Delbrück Center for Molecular Medicine  
Dr. Fiona Ross, 2000 - 2004  
Manchester University, School of Biological Sciences  
Dr. Natalia Solovieva, 2000 - 2004  
Manchester University, School of Biological Sciences  
Dr. Pavel Pakhotin, 2001 - 2004  
Manchester University, School of Biological Sciences  
Dr. Yuri Pankratov, 2001 - 2007  
Manchester University, Faculty of Life Sciences

Dr. Ulyana Lalo, 2002 - 2007  
Manchester University, Faculty of Life Sciences  
Dr. Olexandr Bondarenko, 2004 - 2005  
Manchester University, Faculty of Life Sciences  
Dr. Victoria Jones, 2007 - 2009  
Manchester University, Faculty of Life Sciences  
Dr. Liam Brown, 2009 - 2013  
Manchester University, Faculty of Life Sciences  
Dr Vincent Compan, 2009 - 2013  
Manchester University, Faculty of Life Sciences  
Dr. Ambra Grolla, 2011 - 2012  
Manchester University, Faculty of Life Sciences  
Miss Hanna Jahn, 2010 - 2013  
Manchester University, Faculty of Life Sciences  
Dr. Alessandro Faroni, 2013 -  
Manchester University, Faculty of Life Sciences  
Dr. Mehmet Aydin, 2013 - 2014  
Manchester University, Faculty of Life Sciences  
Dr. Sandra Regina Perosa, 2015 - 2016  
Manchester University, Faculty of Life Sciences  
Dr. Verena Untiet, 2018 -  
Copenhagen University

## Organisation of Scientific Meetings

- 2019: 1<sup>st</sup> European Purine Meeting, Saintiago, Spain, September 4 - 6, Member of Organizing committee, Symposium organizer.
- 2018: International conference "More than neurons: Toward a less neurocentric view of brain disorders", Turin, Italy, November 29 - December 1, Member of the Organizing committee.
- 2018: International conference "Moving the Brain Fluids Glymphatic System and Beyond", Copenhagen, Denmark, March 5 – 6 Organizer, (together with Professor Maiken Nedergaard).
- 2017: Joint Meeting of the Federation of European Physiological Societies and the Austrian Physiological Society; Organiser of the symposium (together with Professor Israel Sekler) "Mitochondrial and cell membrane Ca<sup>2+</sup> and Na<sup>+</sup> signaling in health and disease", Vienna, Austria, Sept 13 - 15.
- 2017: Member of the organizing committee of the 2<sup>nd</sup> meeting of Baltic Physiological Societies "New frontiers in neurophysiology and neurology ", March 23 - 24, Kaunas, Lithuania.
- 2016: Joint Meeting of the Federation of European Physiological Societies (FEPS) and the French Physiological Society. Organiser of the symposium (together with Professor Robert Zorec) " The Frontier of Astroglial Physiology: The Gliocrine System", June 29 - July 1, Paris, France.
- 2016: 12<sup>th</sup> International conference on Brain Energy and Metabolism, member of the Organising committee, Hong Kong, May 25 - 28.
- 2016: The Royal Society scientific meeting "Evolution brings Ca<sup>2+</sup> and ATP together to control life and death", Organiser (together with Professor Ole Petersen), Kavli Royal Society Centre, Chicheley Hall, UK, March 16 - 18.
- 2015: The 7<sup>th</sup> International Conference on Na<sup>+</sup>/Ca<sup>2+</sup> Exchange; Member of the International Scientific Committee organising, November 1-5, 2015, Jerusalem, Israel.
- 2015: Joint Meeting of the Federation of European Physiological Societies (FEPS) and the Baltic Physiological Societies. Organiser of the symposium "Astroglia in neuropsychiatric diseases", August 26 - 29, Kaunas, Lithuania.
- 2015: The Japanese-Europe Glial Workshop "Manipulation and visualization of physiological and pathophysiological functions of glia" in association with XII European Meeting on Glial Cells in Health and Disease, July 15, 2015, Bilbao, Spain (co-organiser Professor Schuichi Koizumi, Yamanashi, Japan).
- 2014: Joint meeting of FEPS and Hungarian Physiological Society, Member of the Organising Committee and organiser of the symposium "Sodium Signalling in Astroglia", August 27 - 30 Budapest, Hungary.
- 2014: Symposium "Purinergic Control of Synaptic Transmission"; Purines 2014: "Nucleotides, Nucleosides and Nucleobases International Conference on Signalling, Drugs and Targets", Bonn, Germany, July 23 – 27.
- 2013: Workshop "Astrocyte heterogeneity and transcriptome analysis"; XI European meeting on Glial Cells in Health and Disease, Berlin, July 3 - 6, 2013 (together with Professor M. Nedergaard).
- 2012: Purines 2012. "Purinergic signalling in new strategy of drug discovery". Fukuoka, Japan, member of programme committee.



- 2011: Euroglia 2011 Meeting, Prague, Czech Republic: member of Programme Committee.
- 2011: Joint Meeting of the Turkish Society of Physiological Sciences and FEPS, Istanbul, Turkey, September 3 - 7; member of Organising and Programme Committees.
- 2011: Symposium "Molecular physiology of chemical transmission in neuronal-glia circuits"; Joint Meeting of the Turkish Society of Physiological Sciences and FEPS, Istanbul, Turkey, September 3 - 7, Organizer.
- 2011: Satellite meeting of International Society for Neurochemistry "Glial cells in (patho)physiology. Ljubljana, Slovenia, August 24 - 27, member of Programme Committee.
- 2011: International symposium "Reflections in Neuroscience. Integration and Disintegration of the Brain", Bilbao, 13-14 June, Organizer (together with Professor J.J. Rodriguez Arellano).
- 2011: Colloquium "Physiological and Pathophysiological Signalling in Astroglial Circuits"; 42<sup>nd</sup> Annual Meeting of the American Neurochemical Society, St. Louis, USA, 19 - 23 March, Organizer.
- 2010: COST B-30 Training School: "Cellular Neuropathology - *In Vitro* Models"; Kiev, Bogomoletz Institute of Physiology, 3 - 6 June, Organizer (together with Prof. O. Krishtal and Prof. R. Poshtet).
- 2009: Joint meeting of FEPS and Slovakian Physiological Society, Ljubljana, 12 - 15 November; Member of the Organising Committee.
- 2009: International conference on "Purinergic signalling" dedicated to 80 years of ATP, Stockholm, Karolinska Institute, 17 - 19 September; Organizer (together with Prof. B. Fredholm).
- 2009: Symposium "Calcium and Cell Death"; International Union of Physiological Societies, Kyoto, Japan, July 29 - August 1. Organizer (together with Prof. P. Nicotera)
- 2007: 14<sup>th</sup> International Symposium on Chromaffin Cell Biology (with Prof. E. Carbone & Prof. A. Nistri), Sestri-Levante, Italy, October 11 - 15, 2007.
- 2007: International Physiological Society Workshop on "Molecular Physiology of Membrane Transport and Cell Excitability", Yaremche, Ukraine - 19 - 23 September 2007.
- 2007: Symposium "Molecular physiology of integration in neuronal-glia circuits" in the framework of Joint meeting of The Slovak Physiological Society, The Physiological Society and The Federation of European Physiological Societies (with Prof. E. Sykova), Bratislava, September 13, 2007.
- 2007: Symposium "Functional role of Bergmann glia - Purkinje cell signalling" in the framework of VIII<sup>th</sup> European Meeting "Glial cells in health and disease" (with Dr. F. Kirchhoff), London, September 5, 2007.
- 2007: International symposium on "Calcium Channels and Transporters" (with R.M. Case, D. Eisner, A. Gourney, O. Jones and S. Muallem), Manchester June 6 - 9, 2007.
- 2007: Academia Europaea International Symposium "Molecular and Cellular mechanisms of Tissue Damage and Repair" (with Prof. P. Nicotera and Prof. O.H. Petersen), Heidelberg, March 1 - 4, 2007
- 2006: Academia Europaea International Symposium "25 Years of Giga-Seal Patch Clamping" (with Prof. O.H. Petersen), Heidelberg, March 30 - April 1, 2006
- 2006: Symposium in the framework of Joint meeting of German Physiological society and FEPS "Purinergic transmission in the CNS" (with Prof. A. North), Munchen, March 27, 2006.

- 2005: Joint Symposium of Societa Italiana di Fisiologia and The Physiological Society "I segnali di Calcio" (in the framework of 56 Annual Meeting of Italian Physiological Society), organizer (mutually with E. Carbone), Palermo, September 27, 2005.
- 2005: Academia Europea International workshop on "Reactive Oxygen Species", organiser (mutually with O.H. Petersen and A. Spat), Heidelberg, March 9 - 12, 2005.
- 2005: Physiological Society International Workshop in Cardiovascular Physiology "Ion Channels: From Physiology to pathology", organiser (mutually with J. Lopez-Barneo), Seville, February 7 - 9, 2005.
- 2004: Physiological Society International Workshop in Cardiovascular Physiology "Signal transduction in cardio-vascular system", organiser (mutually with D.A. Eisner, S. Wray & A. Beresevich), Warsaw, May 13 - 16, 2004.
- 2004: Academia Europaea International workshop on "Brain Plasticity: From Neurobiology to Neurology", organiser (mutually with O.H. Petersen), Heidelberg, March 4 - 6, 2004.
- 2003: Symposium in the framework of VI<sup>th</sup> IBRO Congress, "Endoplasmic reticulum as neuronal signalling organelle" organiser (mutually with Prof. O.H. Petersen), Prague, July 14, 2003.
- 2003: Symposium in the framework of 3rd FEPS congress, "Calcium signalling and neuronal-glia interactions", Nice, June 27 - July 2, 2003.
- 2002: International symposium "Molecular physiology of calcium signalling", organizer (mutually with Prof. O.H. Petersen and Dr. D. Riccardi), Liverpool, July 7 - 8, 2002.
- 2001: Symposium "Intracellular calcium stores" in a framework of BNA meeting, Harrogate, April 9, 2001.
- 2000: Physiological Society International Autumn School, Kiev, September 4 - 11, Organizer (mutually with Prof. D.A. Brown, London).
- 2000: International symposium on "Calcium as a molecule for cellular integration", Wye College, Kent, UK, July 21 - July 24, organiser.
- 2000: International symposium in the framework of 4th European glial meeting, Barcelona, May 24 - 27, organiser (mutually with Prof. A. Volterra, Milan).
- 1999: International symposium on "Neuronal calcium at the turn of millennium", December 22, Birmingham, organiser (mutually with Dr. E.C. Toescu, Birmingham).
- 1999: FEPS symposium "Calcium and neuronal ageing", Prague, June 30 - July 4.
- 1998: International symposium on "Glial cells membrane physiology", organiser (mutually with Prof. D. Attwell, London).
- 1998: International symposium on "Calcium signalling in the Nervous System", organiser (mutually with Prof. O.H. Petersen, Liverpool).
- 1998: Symposium "Ion channels and neurotransmitter receptors in glia", organiser (in a framework of European Meeting on Glial function in Health and Disease; mutually with Dr. F. Kirchhoff)
- 1997: IUPS Workshop "Intracellular signalling", organiser, June 25 - 28, Kiev.
- 1996: Joint German-Ukraine meeting on "Intracellular signalling", organising secretary, September 30 - October 2, Berlin.

- 1995: International meeting on "Calcium and intracellular signalling" (supported by UNESCO), organising secretary, May 7 - 15, Kiev.
- 1994: International meeting on "Mechanisms of calcium signalling", organising secretary, June 20 - 28, Kiev.
- 1993: Joint meeting of The Physiological Society (UK) and Ukrainian Physiological society, organising secretary, October 1 - 7, Kiev.
- 1992: Joint Spain-USSR meeting on "Membrane biophysics", organising secretary, May 22 - 28, Kiev.
- 1991: Joint FRG-USSR meeting on "Biophysics of excitable membranes", organising secretary, October 1 - 7, Kiev.

### **Plenary lectures at international and national meetings**

- 2019: 23<sup>rd</sup> Biennial Meeting of the European Society for Neurochemistry; Opening Plenary Lecture "Principles of astroglipathology: From reactivity to atrophy and degeneration", Milan, Italy, Sept 1 - 4.
- 2019: 17<sup>th</sup> Turkish Neuroscience Congress Plenary lecture "Principles of astroglipathology", Trabzon, Turkey 4-7 April.
- 2019: XIV Congress of Italian Society for Neurology; Key lecture "Neuroglia: Functional paralysis and reactivity in Neurodegenerative pathologies", Florence, Italy, March 7 - 9.
- 2018: International conference "More than neurons: Toward a less neurocentric view of brain disorders", Plenary lecture "Principles of astroglipathology", Turin, Italy, November 29 - December 1.
- 2018: Sino-German Summer School "Frontiers in Purinergic Signalling and Acupuncture"; Plenary lecture "Physiology and pathophysiology of astroglia", Chengdu, China, September 2 - 9.
- 2018: Achucarro International Glia School; Plenary lecture "Astroglia: History, definition, evolution and physiology", Bilbao, Spain, June 27 - 29.
- 2017: International conference "Stem Cells: Translational research", Plenary lecture "Astroglia in cognitive disorders: do human iPSCS-derived cells hold the key?", Warsaw, Poland, December 8 - 9.
- 2017: IV<sup>th</sup> Turkish Medical World Congress, Plenary lecture "General pathophysiology of astroglia", Istanbul, Turkey, October 28 - 29.
- 2017: 2<sup>nd</sup> Sino-German Symposium on Purinergic Signaling, Pain and Acupuncture, Keynote lecture "Redefining neuron-centrism: Principles of astroglipathology", Leipzig, Germany, September 26 - 29.
- 2017: 2<sup>nd</sup> meeting of Baltic Physiological Societies, Plenary lecture "Principles of astroglipathology and astrocytes in Alzheimer's disease", Kaunas, Lithuania, March 23 - 24.
- 2016: International conference "More than Neurons: Toward a less neuronocentric view of brain disorders". Opening honorary lecture "Spectrum of astroglipathology: From atrophy and loss of function to reactivity", Turin, Italy, December 1 - December 3.

- 2016: The Nobel forum meeting on "The diverse roles of  $Ca^{2+}$  in the nervous system" Invited key lecturer "Glial calcium in health and disease", Stockholm, Sweden, May 17.
- 2016: 22<sup>nd</sup> Conference of the Society on NeuroImmune Pharmacology (SNIP), Plenary Lecture "Reassessing neurocentrism: Principles of astroglipathology", Krakow, Poland, April 6 - 9
- 2015: 69<sup>th</sup> National Congress of Italian Society for Anatomy and Histology, Lettura Magistrale "Astroglial networks in health and disease: New Frontiers", Ferrara, September 17 - 19.
- 2015: Sheffield Glia Symposium, Plenary lecture "Astrocytes in healthy and diseased brain", Sheffield, September 22.
- 2015: Cardiff-Leuven Calcium Signalling Workshop, Plenary Lecture "Neuroglia as a fulcrum for morbid changes: Redefining cellular neuropathology". Cardiff, September 14 - 15.
- 2015: 13<sup>th</sup> Meeting of the Neuroscience Society of Turkey, Plenary lecture "Principles of astroglipathology", Konya, Turkey, April 29 - May 3.
- 2014: Special lecture on Mossakowski day of the Polish Academy of Sciences, "Neuroglipathology: redefining neurological diseases?", Warsaw, December 12.
- 2014: BMFZ Meeting at Düsseldorf; "Astrocyte networks"; Key lecture "Brain networks – challenges and perspectives", Düsseldorf, December 4 -5.
- 2014: "Astrocytes in Health and Neurodegenerative Disease". A joint Biochemical Society / British Neuroscience Association Focused Meeting. Plenary lecture "Astroglipathology: a central element of neurodegenerative and neuropsychiatric diseases", London 28 - 29 April.
- 2012: 21<sup>st</sup> Annual Puerto-Rico Neuroscience Conference, Plenary lecture "Physiology and Pathophysiology of Neuroglia", Puerto-Rico, December 1.
- 2012: 38<sup>th</sup> meeting of Turkish Physiological Society; Plenary lecture "Physiology of neuroglia", Trabzon, September 25 - 29.
- 2012: Inaugural lecture at Real Academia Nacional de Farmacia, "Physiology and pathophysiology of Neuroglia", Madrid, April 12.
- 2011: Key speaker at the "Neuroglia" workshop held in association with 10<sup>th</sup> national Meeting of the Turkish Neuroscience Society; Istanbul, 8 April.  
Lectures:  
"Where the thoughts dwell: History of Neuroscience and introduction into Neuroglia"  
"Cell Biology of Astroglia"  
"Glial Calcium Signalling"  
"Glial ionotropic receptors: Why Non-excitable Cells possess "Excitable" molecules?"  
"Glia in neuropathology with a Special Emphasis on Alzheimer's Disease"
- 2011: Annual meeting of Sonderforschungsbereich 748 ("Neuronal and glial P2 receptors; molecular basis and functional significance"), Plenary lecture "Ionotropic ATP receptors in the neuronal-glial communication"; Leipzig, Germany, 14 - 15 March.
- 2010: International conference dedicated to 30<sup>th</sup> anniversary of *Acta Pharmacologica Sinica*, Opening key lecture "Physiology and pathophysiology of neuroglia", Shanghai, China, August 31 - September 1.

- 2009: XIII National Congress of the Italian Society for Neuroscience. Plenary lecture: "Chemical transmission in neuronal-glia circuitry". Milan, Italy, October 2 – 5.
- 2009: Satellite Symposium of the International Society of Neurochemistry "Glia as transmitter sources and sensors", Plenary lecture "Neuronal-glia and interglial interactions", Shenyang, China, August 29 – September 1.
- 2009: ART Yorkshire Branch annual meeting, Plenary lecture: "The role of glia in Alzheimer's disease", Leeds University, January 21.
- 2008: 6<sup>th</sup> FENS Forum, Special plenary lecture "Glial-neuronal circuits unify the reticular and neuronal theories of brain organisation", Geneva, July 12 - 16.
- 2005: Inaugural Annual Lecture of Federation of European Physiological Societies (FEPS) "Physiology and pathophysiology of the endoplasmic reticulum calcium store" delivered at Joint Meeting of The Physiological Society and FEPS, Bristol (UK), July 22 - 25.

**Invited lectures at international meetings**

- 2020: FENS Forum 2020 (virtual) The Satellite Symposium "The role of glial cells in the era of personalised medicine", invited lecturer "Principles of astroglipathology with an emphasis on astrocytes in Alzheimer's disease".
- 2019: The 13<sup>th</sup> Biennial Conference of Chinese Neuroscience Society (CNS 2019), invited lecturer "Glial physiology, pathology and homeostasis", Suzhou, China, October 10 – 13.
- 2019: International conference "Functions of Neuroglia" in commemoration of Alexander Roitbak 100<sup>th</sup> birthday, Invited lecturer "Principles of astroglipathology", Tbilisi, Georgia, September 26 - 28.
- 2019: 10<sup>th</sup> IBRO World Congress of Neuroscience. Invited lecturer "Ionic excitability of astrocytes (beyond calcium)", Deagu, South Korea, September 21 - 25.
- 2019: ASN-ISN Congress, invited lecture "Astroglia define plasticity responses in the diseased brain", Montreal, Canada, August 4 - 9.
- 2019: XIV European Meeting on Glial Cells in Health and Disease, Invited lecture: "Pathological plasticity of astroglia", Porto, Portugal, July 10 - 13.
- 2018: British Pharmacological Society annual meeting, Invited lecture: "Principles of astroglipathology: From reactivity to atrophy", London, UK, December 18 - 20.
- 2018: Annual meeting of the Lithuanian Association of Stem Cells Researchers, invited lecture "Astrocytes in Alzheimer's disease: human stem cells open new research frontiers", Vilnius, Lithuania, October 26.
- 2018: The 69<sup>th</sup> National Congress of the Italian Physiological Society, invited lecture "Pathological plasticity of astroglia: From reactivity to astrodegeneration", Florence, Italy, September 19 - 21.
- 2018: The 43<sup>rd</sup> FEBS Congress, invited lecture "Astroglia define plasticity of the diseased brain", Prague, Czech Republic, July 7 - 12.
- 2018: FASEB Science Research Conference on Calcium and Cell Function; invited lecture "Ionic signalling in astroglia: beyond calcium", Lake Tahoe, USA, June 10 - 15.
- 2018: International conference "Frontiers in Life and Natural Sciences", invited lecture "Redefining neurone-centrism in neurological disorders: Principles of astroglipathology", Tbilisi, Georgia, May 10.
- 2018: International conference "Physiology and Pathophysiology 2018: Molecules, Cells, Organs and Systems", invited lecture "Redefining neuron-centrism: Principle of astroglipathology", Cardiff, UK, March 6-7.
- 2018: International conference "Moving the Brain Fluids Glymphatic System and Beyond", opening lecture "Historical and evolutionary perspectives of fluid flow in CNS", Copenhagen, Denmark, March 5 - 6.
- 2017: 20<sup>th</sup> International Symposium on Calcium Binding Proteins and Calcium Function in Health and Disease (CaBP20), Invited lecture: "Emergence and evolution of calcium signalling system", Awaji-shima, Japan, October 20 - 24.

- 2017: Joint Meeting of the Federation of European Physiological Societies and the Austrian Physiological Society, Invited lecture "Ionic signalling and astroglial function", Vienna, Austria, September 13 - 15.
- 2017: 6<sup>th</sup> Mediterranean Neuroscience Society Conference, invited lecture "Complex and differential glial responses in Alzheimer's disease and ageing", La Valetta, Malta, June 12 - 15.
- 2017: International training school "Reactive gliosis - from mechanobiology and signal transduction to molecular targets and disease pathogenesis", invited lecture "Molecular understanding of the function of astrocytes and their network in healthy and aging brain", Aspenäs Herrgård, Gothenburg, Sweden, May 2 - 6.
- 2017: International astrocyte school, invited lectures (1) "Physiology of astroglia"; (2) "Principles of astroglipathology with emphasis on neurodegenerative diseases", Bertinoro, Italy, March 26 - April 1.
- 2016: International conference on "Recent advances in modern medicine: molecular signalling scenarios in tissues and diseases", invited lecture "Physiology and pathophysiology of astroglia with some emphasis on neurodegenerative diseases", Chennai, India, September 3 - 4.
- 2016: International Workshop on "Molecular Physiology, Therapeutics and Experimental Medicine", Invited speaker "Astroglia in neurological diseases", Karakuidi, India, September 6.
- 2016: Joint Meeting of the Federation of European Physiological Societies (FEPS) and the French Physiological Society, invited speaker "Ionic signalling in astroglia", Paris, France, June 29 - July 1.
- 2016: The 12<sup>th</sup> International conference on Brain Energy and Metabolism, invited speaker "Sodium signalling controls homeostatic cascades in astrocytes", Hong Kong, May 25 - 28.
- 2016: The Royal Society scientific meeting "Evolution brings Ca<sup>2+</sup> and ATP together to control life and death", invited speaker "ATP and calcium: the inseparable tandem chosen by evolution", Kavli Royal Society Centre, Chicheley Hall, UK, March 16 - 18.
- 2015: The 7<sup>th</sup> International Conference on Na<sup>+</sup>/Ca<sup>2+</sup> Exchange; invited speaker: "Na<sup>+</sup> signalling and Na<sup>+</sup> dependent homeostatic pathways in astroglia", Jerusalem, Israel, November 1-5.
- 2015: IBRO-Kemali School in Neuroscience 2015 "Cannabinoid function in synapses, circuits and brain: from molecules to disease mechanisms", invited lecture "Introduction into glial physiology and pathophysiology", Pozzuoli, Italy, September 28 - October 3.
- 2015: Academia Europae Research Conference "Ion channels trimming the brain", invited lecture "Principles of Neurogliopathology", Kiev, The Ukraine, September 24 - 26.
- 2015: Joint Meeting of the Federation of European Physiological Societies (FEPS) and the Baltic Physiological Societies, Invited speaker "Neurological and psychiatric disorders as gliopathies", Kaunas, Lithuania, August 26 - 29.
- 2015: Satellite meeting "Understanding the function of glia in the healthy and diseased CMS" in conjunction with the 25<sup>th</sup> Biennial meeting of the International Society for Neurochemistry, invited speaker "Astroglia in ageing and neurodegeneration with an emphasis on Alzheimer disease", Sydney, Australia, August 19 - 22.
- 2015: 9<sup>th</sup> World Congress of International Brain Research Organization, Mini-Symposium 12 "Ionic transporters in microglia, astrocytes and oligodendrocytes: potential therapeutic targets for

- stroke" chaired by Lucio Annunziato & Marc Simard, invited lecture "Sodium signalling in astroglia: role for ion channels and transporters", Rio de Janeiro, Brazil, July 7-11,
- 2015: European Research Conference "Intermediate Filaments (Nanofilaments) in Health and Disease". invited speaker "The stress responses and homeostatic mechanisms in CNS diseases", Djurönäset, Stockholm, Sweden, June 24-27.
- 2015: 46<sup>th</sup> Annual meeting of the American Society for Neurochemistry, invited speaker "Astrocytes as obligatory partners in purinergic and glutamatergic neurotransmission", Atlanta, USA, March 14 - 18.
- 2015: 4<sup>th</sup> CaribeGLIA Symposium "Glial Interactions and Brain Experiments", invited speaker "Astroglial repairment as a way to brain longevity", San Juan, Puerto Rico, January 30.
- 2014: 12<sup>th</sup> International Symposium "Molecular Basis of Pathology and Therapy in Neurological Disorders", invited speaker "Astrocytes ER Ca<sup>2+</sup> signalling and its pathological relevance", Warsaw, Poland, November 20 - 21.
- 2014: Joint meeting of FEPS and Hungarian Physiological Society, invited speaker "Sodium signalling in astroglia", Budapest, Hungary, August 27 - 30.
- 2014: Purines 2014: Nucleotides, Nucleosides and Nucleobases International Conference on Signalling, Drugs and Targets, invited speaker "General physiology and pathophysiology of microglia", Bonn, Germany, July 23 - 27.
- 2014: International school "Gliotransmission in Physiology and Pathology", invited lecturer "General Physiology and Pathophysiology of Neuroglia", Bressanone/Brixen, Italy, July 12 - 19.



- 2014: International symposium "Basic and translational neurochemistry: Glia and neurones in health and disease", invited speaker, "Astroglia in Alzheimer disease", Rijeka, Croatia, July 7.
- 2014: XVIII Congresso nazionale della Societa Italiana di Neuropsicofarmacologia, invited speaker and session chair, "Neuroglia: central element of brain homeostasis and fulcrum of neuropsychiatric diseases", Turin, Italy, June 3 - 6
- 2014: International conference "Glutamate/GABA and neuro-glia-vascular interplay in norm and pathology", invited speaker "P2X and NMDA receptors mediate fast sodium signalling in astroglia", Krakow, Poland, May 21 - 24.
- 2014: 4<sup>th</sup> Annual Gladstone/DZNE Workshop "Cell and Organ Interactions in the Pathogenesis of Neurodegenerative Diseases", invited speaker "Astroglia in Alzheimer's disease", Bonn, Germany, May 11 - 13.
- 2014: Training School and International Research Conference "Astrocyte Intermediate Filaments (Nanofilaments) and Astrocyte Function in Health and Disease", invited speaker "Neuron-glia interactions in health and disease: what we know and would like to know", Gothenburg, Sweden, March 18 - 21.
- 2013: XV<sup>th</sup> Congress of the Italian Society of Neuroscience (S.I.N.S.); invited speaker: "Physiological role of microglia: shaping neural networks", Roma, Italy, October 3 - 6, 2013.
- 2013: 64<sup>th</sup> Congress of the Italian Physiological Society, Invited key speaker: "Astroglia function in ageing and Alzheimer's disease", Portonovo di Ankona, Italy, September 18 - 20, 2013.
- 2013: FENS Featured Regional meeting, Invited speaker, "Neurological diseases as gliopathologies", Prague, Czech Republic, September 11 - 14, 2013.
- 2013: 38<sup>th</sup> FEBS Congress, Invited speaker "P2X and NMDA receptors mediate fast sodium signalling in cortical astroglia", St. Petersburg, Russia, July 6 - 11, 2013.
- 2013: XI European meeting on Glial Cells in Health and Disease, Invited speaker "Evolution, physiology and pathophysiology of neuroglia", Berlin, Germany, July 3 - 6, 2013.
- 2013: 5<sup>th</sup> Conference on Advances in Molecular Mechanisms Underlying Neurological Disorders (Joint conference of the European Society for Neurochemistry and the Biochemical Society), Invited speaker "Cross-talk between astrocytes and neurones: Astrocytes in physiology and pathophysiology", Bath June 23 - 26, 2013.
- 2013: 4<sup>th</sup> Annual Conference "Superresolution Microscopy", Invited speaker "History of Neurophysiology with emphasis on Neuroglia", Ljubliana, Slovenia, June 10 - 12, 2013.
- 2013: Astroglia-ECM Signalling and Neural Activity international conference and workshop (BM1001 COST ACTION), invited speaker, " "Evolutionary roots, physiology and pathophysiology of astroglia", Palermo, Italy, may 27 - 29, 2013.
- 2013: Physiology and Pathophysiology. Bioscience Birthday Symposium for Ole Petersen. Invited speaker: "Calcium and sodium signalling in astroglia", Cardiff, UK, 6 - 7 March.
- 2013: 3<sup>rd</sup> Venusberg Meeting on neuroinflammation. Mediators, Mechanisms, Clinics. Invited speaker: "Astrocytes in Alzheimer's disease", Bonn, Germany, February 28 - March 2.
- 2012: 4<sup>th</sup> Conference of Mediterranean Neuroscience Society, Invited speaker "Neuroglia: from brain homeostasis to Pathophysiology", Istanbul, Turkey, September 30 - October 3.

- 2012: International symposium "Calcium signalling: Molecular mechanisms and Integrative Functions", invited speaker (opening lecture), "Calcium and sodium microdomains in fast neuronal-glia signalling. Homburg/Saar, Germany, September 7 - 8.
- 2012: 2<sup>nd</sup> Summer School of EduGlia, invited speaker "Neuroglia - Evolution of the Concept", Margaux, France, August 25 - 27.
- 2012: Satellite symposium of FENS Forum 2012 "Multidisciplinary approaches to quantify astrocyte neuron signaling", invited speaker "Ionotropic receptors and fast ion signalling drives neuronal-glia cross-talk at the level of individual synapse", Barcelona, Spain, July 12 - 13.
- 2012: International symposium "Purine 2012 in Fukuoka; Purinergic signalling in new strategy of drug discovery", invited speaker "ATP as a principal neuro-glia transmitter", Fukuoka, Japan, May 31 - June 2.
- 2012: American Society of Neurochemistry Annual meeting; Pre-meeting workshop "Glial cells in (patho)physiology: Possible new targets for medical intervention", invited speaker "Ionotropic receptors in physiology and pathophysiology of astroglia", Baltimore, USA, March 3.
- 2012: International Neuroscience Symposium 2012 "Neuronal and glial signalling: From physiology to epilepsy", invited speaker, "Physiology of astroglial neurotransmitter receptors ", Bonn, Germany, March 1 - 3rd
- 2012: International workshop "Physiopathology of Calcium Signaling", invited speaker "Where the Thoughts Dwell: History of Neurosciences and Introduction Into Neuroglia" University of Occupational and Environmental Health, Kitakyushu, Japan, January 20.
- 2011: 6<sup>th</sup> International conference on Na<sup>+</sup>/Ca<sup>2+</sup> exchange 2011, invited speaker "Sodium signalling in neuronal-glia communications", Lacco Ameno, Ischia Island, Italy, October 1 - 5.
- 2011: 10<sup>th</sup> European meeting on Glial cells in health and disease, invited speaker for the introductory course, "Where the thoughts dwell: History of neuroscience and introduction into neuroglia", Prague, Czech Republic, September 13 - 17.
- 2011: Joint Meeting of the Turkish Society of Physiological Sciences and FEPS, invited speaker "Chemical transmission in neuronal-glia networks", Istanbul, Turkey, September 3 - 7.
- 2011: Joint Meeting of the Turkish Society of Physiological Sciences and FEPS, invited speaker "Calcium signalling in neuroglia", Istanbul, Turkey, September 3 - 7.
- 2011: Satellite meeting of International Society for Neurochemistry "The glutamatergic synapse", invited speaker "Neuronal-glia chemical transmission mediated by glutamate and ATP", Heraklion, Crete, September 2 - 5.
- 2011: Satellite meeting of International Society for Neurochemistry "Glial cells in (patho)physiology." invited speaker "Ionotropic glutamate receptors and purinoceptors in astroglia" Ljubljana, Slovenia, August 24 - 27.
- 2011: Joint conference of the Czech and Slovak Neuroscience Societies, invited speaker: "Ionotropic receptors in astroglia", Smolenice Castle, Slovakia, May 18 - 21.
- 2011: The 21<sup>st</sup> National Biennial Meeting of the British Neuroscience Association, invited speaker: "Neuroglia in neurodegenerative diseases", Harrogate, UK, April 17 - 20.
- 2011: 42<sup>nd</sup> Annual Meeting of the American Neurochemical Society, invited speaker "Physiology and pathophysiology of astroglia: An overview" St. Louis, USA, 19 - 23 March.

- 2011: International Workshop "Calcium Dynamics in Cells", invited speaker "Glial ionotropic receptors and calcium signalling" Kitakushu, Japan, January 23.
- 2010: Annual general Meeting of Academia Europaea, invited speaker "Neuroglia is not a passive support for neurones", Leuven, Belgium, September 8 - 11.
- 2010: 11<sup>th</sup> Meeting of European Calcium Society, invited speaker "Calcium signals provide the substrate for glial excitability", Warsaw, September 6 - 9.
- 2010: Symposium of the DFG-Priority Programme, "The role of neuroglia for the formation, function and plasticity of synapses", invited speaker "Purinergic transmission in neuronal-glia networks" Kaiserslautern, Germany, August 26 - 29.
- 2010: Special symposium "Axon-glia interactions in the CNS" in conjunction with Summer meeting of The Anatomical Society, invited speaker "Neuroglia in neurodegenerative diseases", Portsmouth, July 20 - 22.
- 2010: Max-Planck Society and University of Maribor; Research conference "Communicating Physiology", invited speaker "Where the thoughts dwell: Physiology of neuronal glial networks", Maribor, Slovenia, July 15 - 18.
- 2010: The BBRI/DZNE and Cell Death & Disease Conference (dedicated to 101<sup>st</sup> birthday of Rita Levi-Montalchini) "From Synapses to neurodegeneration", invited speaker, "Neuroglial roots of neurodegeneration", Rome, Italy, July 12-13.
- 2010: COST B-30 Training School: "Cellular Neuropathology - In Vitro Models", invited speaker, "Astroglia in neurodegeneration", Kiev, The Ukraine, Bogomoletz Institute of Physiology June 3 - 6.
- 2010: Purines 2010 meeting "Adenine Nucleosides and nucleotides in biomedicine", invited speaker "Physiology and pathophysiology of purinergic signalling in neuroglia", Tarragona, Spain, May 30 - June 2<sup>nd</sup>.
- 2009: 1<sup>a</sup> Giornata Scientifica del Dipartimento di Medicina Sperimentale e Scienze Biochimiche, invited key-speaker, "ATP as a neuro/gliotransmitter", University "Tor Vergara", Rome, Italy, December 21.
- 2009: Inaugural meeting of the UK Purine Club, invited speaker "Purinergic signalling in the CNS in neuronal and glial networks", Sheffield, November 19.
- 2009: Joint Meeting of FEPS, Slovenian and Austrian Physiological Societies; invited speaker: "Dynamic calcium stores, calcium signalling and neurodegeneration". Ljubljana, Slovenia, November 12 - 15.
- 2009: International symposium "Ligand-gated cationic channels and G protein-coupled receptors in the nervous system", Invited speaker "Purinergic transmission in neuronal-glia networks", Leipzig, Germany, October 7-9.
- 2009: VI International Cajal Club Meeting. "Camillo Golgi and modern neuroscience" Invited speaker "Signalling in neuronal-glia circuits: Role of glutamate and ATP transmission" Pavia, Italy, September 30 - October 1.

- 2009: International conference on "Purinergic signalling" dedicated to 80 years of ATP, Invited speaker "P2X mediated transmission in neuronal-glia networks", Stockholm, Karolinska Institute, 17 – 19 September.
- 2009: 36<sup>th</sup> Congress of the International Union of Physiological Societies, Invited speaker "Endoplasmic reticulum Ca<sup>2+</sup> homeostasis and neural cell disease and death", Kyoto, Japan, July 29 – August 1.
- 2009: Spring Hippocampal Research Conference, Invited speaker "Physiology and pathophysiology of neuroglia", Verona, Italy, June 14 -19.
- 2009: EU workshop on "CORTEX - Neuronal signalling". Invited speaker: "Signalling mechanisms in neuronal-glia networks", Prague, Institute of Experimental Medicine, June 3 - 5.
- 2009: European workshop on "Astrocyte-synapse interactions". Invited speaker: "Chemical transmission in neuronal-glia circuits", Strasbourg, European Doctoral College, January 23.
- 2008: Forth Annual Benozio Symposium on Neurodegeneration, invited Plenary speaker: "The keeper, the guardian, the killer: Glial cells in brain diseases" Weizmann Institute, Rehovot, Israel, September 21.
- 2008: Annual Meeting of Scandinavian Physiological Society; invited speaker: "P2X-mediated transmission in neuronal-glia networks", Oulu, August 15 – 18.
- 2008: Special plenary lecture at 6<sup>th</sup> FENS Forum, "Glial-neuronal circuits unify the reticular and neuronal theories of brain organisation", Geneva, July 12 - 16.
- 2008: 1<sup>st</sup> Neurotek Research Symposium, invited Plenary speaker "Purinoreceptors in the CNS", Bilbao, July 4<sup>th</sup>.
- 2008: 52<sup>nd</sup> Canadian Federation of Biological Societies, invited speaker "Glia in neurodegeneration and Alzheimer disease", Winnipeg, June 17 - 20.
- 2008: International Symposium on "Frontiers in Physiology", invited speaker "Physiology of glial-neuronal circuits", Copenhagen, May 15-16.
- 2008: European Tissue Culture Society Meeting "Cell Death Mechanisms", invited speaker "Glial cells and brain diseases", Bristol, April 23<sup>rd</sup>.
- 2007: 6<sup>th</sup> Conference of the Czech Neuroscience Society, invited speaker "Glutamate-mediated neuronal-glia transmission", Prague, November 19 - 20, 2007.
- 2007: 14<sup>th</sup> International Symposium on Chromaffin Cell Biology, invited speaker "Calcium signalling in astrocytes", Sestri-Levante, October 11 - 15, 2007.
- 2007: Joint meeting of The Slovak Physiological Society, The Physiological Society and The Federation of European Physiological Societies, invited speaker "Calcium signals and integration in neuronal-glia networks", Bratislava, September 11 - 14, 2007.
- 2007: DiMI/EMIL European Summer school on Molecular imaging, invited speaker "Imaging of endoplasmic reticulum dynamics in living cells", Prague August 29 - 31, 2007.
- 2007: 31<sup>th</sup> Göttingen Neurobiologische Tagung, invited speaker "Quantal release of ATP in central synapses", Göttingen, March 29 - April 1.
- 2006: International conference of DFG special group on "The role of neuroglia for the formation, function and plasticity of synapses", invited speaker "NMDA receptors mediate neuronal-glia interactions in the cortex", Bonn, September 28-30.

- 2006: 2<sup>nd</sup> International Conference of Neuroscience Society of Romania, invited speaker "Physiology of neuroglia", Bucharest, August 31 - September 2.
- 2006: Plenary lecture at the Academy of Sciences of Hungary, "Glial neurobiology", June 12.
- 2006: First Montpellier International Calcium Conference, invited speaker "Integration in neuronal-glia circuits: Calcium takes the leading route", Montpellier, April 10.
- 2006: Academia Europaea International symposium, invited speaker "25 years of Giga-seal patch-clamping", invited speaker "Patching the glial cells - 150 years of understanding the glial function", Heidelberg, March 30 - April 1.
- 2006: Joint meeting of German Physiological Society and FEPS, invited speaker "Quantal release of ATP at cortical synapses", Munchen, March 26 - 29.
- 2006: Alzheimer Research Trust Network Conference, invited speaker "Endoplasmic reticulum calcium homeostasis and Alzheimer disease", Manchester, March 15 - 16.
- 2005: International Symposium on Neuroscience, invited speaker "Endoplasmic reticulum and neuronal calcium signalling", Timisoara, October 14 - 15.
- 2005: Joint Symposium of Societa Italiana di Fisiologia and The Physiological Society "I segnali di Calcio", invited speaker "Calcium dynamics and neuronal death", Palermo, September 27.
- 2005: 20<sup>th</sup> Meeting of International Society for Neurochemistry, invited speaker "Calcium homeostasis in the neuronal ER: General principles and implications for physiology and pathophysiology", Innsbruck (Austria), August 21 - 26.
- 2005: 82<sup>nd</sup> Annual Meeting of The Physiological Society of Japan, invited speaker "Endoplasmic reticulum and neuronal calcium signalling", Sendai (Japan), May 18 - 20.
- 2005: 14<sup>th</sup> International Symposium on "Calcium and Calcium Binding Proteins in Health and Disease", invited speaker "Endoplasmic reticulum and neuronal calcium signalling", Banff (Canada), April 5 - 10.
- 2005: INSERM/College de France International Meeting on "Aspects dynamiques des interactions neurone-glie", invited speaker "Neuroglial communications: role of electrical and chemical synapses" Paris, March 18.
- 2004: IBRO autumn school, invited speaker "Endoplasmic reticulum and calcium signalling", Yalta, September 15 - 28.
- 2004: Physiological Society International Workshop in Cardiovascular Physiology "Signal transduction in cardio-vascular system", invited speaker "General physiology of endoplasmic reticulum calcium signalling", Warsaw, May 13 - 16.
- 2004: International workshop "Oscillations and waves in cells and cellular networks", invited speaker "Neuronal ER calcium signalling", Cargese, May 9 - 11.
- 2004: Academia Europaea International workshop on "Brain Plasticity: From Neurobiology to Neurology", invited speaker "Neuronal-glia circuits: An overview", Heidelberg, 4 - 6 March, 2004.
- 2003: International Workshop "Calcium release and cellular calcium signalling domains", invited speaker: "ER calcium dynamics in nerve cells", Marbella, Chile, Sept. 28 - Oct. 2.
- 2003: International Workshop in Neuroscience "Ischemia/Hypoxia in the Brain, invited speaker: "Physiological and pathophysiological relevance of ER calcium signalling. Bucharest, Sept. 23 - 25.

- 2003: The First International Conference of the National Neuroscience society of Romania, invited speaker: "Mitochondrial dysfunction in diabetic sensory neuropathy", Bucharest, Sept. 26 - 27.
- 2003: X Congreso de La Sociedad Espanola de Neurociencia, invited speaker: "ER calcium dynamics and neuronal signalling", Lleida, Sept. 6 - 9,
- 2003: VI<sup>th</sup> IBRO Congress, invited speaker: "Endoplasmic reticulum calcium store and neuronal signalling", Prague, July 10 - July 15.
- 2003: 3<sup>rd</sup> FEPS Congress, invited speaker: "Neurones and glia in cross-talk: Role of chemical and electrical synapses", Nice, June 27 - July, 2nd.
- 2003: Academia Europaea meeting "Obesity and diabetes"; invited speaker "Insulin-dependent regulation of mitochondrial function in neurones", Heidelberg, 6 - 9 March.
- 2002: European (INTAS) meeting on "Calcium, synaptic transmission and intracellular signalling"; Invited speaker "Endoplasmic reticulum and neuronal signalling" Turin, September 26 - 27.
- 2002: International symposium on "Molecular Physiology of Calcium Signalling", invited speaker: "Intra-ER calcium dynamics in nerve cells", Liverpool, July 8 - 9.
- 2002: IBRO Summer School "Mechanisms of synaptic transmission", invited speaker "ER as an integrative signalling organelle: Role in neuronal signalling", Kiev, June 16 - 18.
- 2002: 4<sup>th</sup> International congress of pathophysiology, invited speaker "The endoplasmic reticulum as integrating signalling organelle", Budapest, June 29 - July 5.
- 2002: Academia Europaea meeting "Calcium signalling", invited speaker "Intra-ER calcium dynamics in neurones", Heidelberg, March 7 - 10.
- 2001: 4<sup>th</sup> Conference of Czech Neuroscience Society; Invited speaker "Calcium dynamics in the ER lumen in neurones: ER as a calcium tunnel?" Prague October 26 - 27.
- 2001: BNA national meeting; Invited speaker "Calcium stores and calcium-induced calcium release in neurones", Harrogate, April 8 - 12.
- 2001: Academia Europaea meeting "Imaging of brain function", invited speaker "Calcium signalling and neuronal-glia communication", Heidelberg, March 15 - 17.
- 2000: NATO workshop on Cellular Signalling, Invited speaker "Calcium and glial function", Il Ciocco, April 22 - 26.
- 2000: UNESCO Summer Workshop "Intracellular signalling", Invited speaker "Neuronal calcium stores", Kiev, June 8 - 12.
- 1999: Annual meeting of the Society for Experimental Biology, Invited speaker "Synaptically induced signals in Bergmann glia: characterization and mechanisms", Edinburgh, March 25.
- 1998: Forum of European Neuroscience, satellite symposium XIII "Cellular compartmentation by the second messenger Ca in nervous system cells", invited speaker "Calcium signalling in glial subcompartments", Berlin, July 1.
- 1998: Forum of European Neuroscience, invited speaker "Ca<sup>2+</sup> signalling between neurones and glia", Berlin, June 30.
- 1998: Symposium "Glial Cells and the Brain Interstitium", invited speaker "Glutamate-induced signalling in cerebellar Bergmann glial cells", Prague, June 22.

- 1998: Workshop on Theoretical Biophysics organized by Humboldt University, Berlin, invited speaker "Calcium signalling in glial cells", Hiddensee, Germany.
- 1997: Symposium "Cell Calcium Physiology", invited speaker "Calcium signalling in glial cells", Cambridge, UK.
- 1997: IUPS Workshop "Intracellular signalling", invited speaker "Calcium signalling in glia:  $[Ca^{2+}]_i$  fluctuation as a form of glial excitability", Kiev, Ukraine.
- 1997: Symposium "Neurobiology of Ageing", invited speaker "Calcium signalling and neuronal ageing", Dublin, Ireland.
- 1997: EC School on "Mechanisms of intracellular signalling", invited speaker "Calcium signalling in glial cells", Liverpool, UK.
- 1997: International meeting dedicated to 100 years of "Pflugers Archiv", invited speaker "Mechanisms of glutamate-induced calcium signalling in Bergmann glial cells", Liverpool, UK.
- 1996: 1<sup>st</sup> Congress of German Neuroscience Society, invited speaker "Purinoreceptors in glial cells", Berlin, Germany
- 1995: Göttingen Neurobiologische Tagung, invited speaker, "Mechanisms of calcium signalling in glial cells", Göttingen, Germany.
- 1995: International meeting "Calcium and intracellular signalling", invited speaker "Calcium-stores in neurones", Kiev, Ukraine.
- 1995: International symposium "Calcium and ageing", invited speaker "Calcium signalling in aged cerebellar granule neurones *in situ* in acutely prepared slices", Heidelberg, Germany
- 1994: International meeting on "Physiology of glial cells", invited speaker "Calcium signalling in oligodendrocytes", Dresden, Germany
- 1994: International meeting "Mechanisms of calcium signalling", invited speaker "Calcium-induced calcium release in neurones", Kiev, Ukraine.
- 1993: Congress of the International Union of Physiological Sciences, invited speaker "Caffeine-induced calcium release in cerebellar Purkinje neurones", Glasgow, Scotland.
- 1993: New York Academy of Sciences Symposium on "Calcium hypothesis of ageing and Alzheimer's disease", invited speaker "Calcium currents and cytoplasmic calcium homeostasis in aged neurones", Washington, USA.

### Seminars

1. *"Astroglia in the ageing brain: role in neurodegeneration and dementia"*, Sapienza University, Roma, Italy, February, 2020, Invited by Professor Adamaria Tata.
2. *"Physiology of astroglia"*, Two lectures in the course of special one day seminar for postdoctoral students of the Department of Neuroscience of Helsinki University, Helsinki, Finland, February 2020, invited by Professor Leonard Khiroug
3. *"Astroglipathology in neurological and neuropsychiatric diseases"* Special seminar at the Department of Neuroscience of Helsinki University, Helsinki, Finland, February 2020, invited by Professor Leonard Khiroug

4. *"Astrocytes in ageing and Alzheimer's disease"*, International research seminar at Jinan University, Gunagzhou, China, December 2019, invited by Professor Nong Nie.
5. *"Astroglipathies: from atrophy to reactivity"*, International seminar series at ShanghaiTech University, Shanghai, China, October 2019, Invited by Dr. Margaret Ho.
6. *"Principles of astroglipathology"* Special International excellence series lecture at the University of Sichuan, Chengdu, China, July 2019, invited by Professor Canhua Huang.
7. *"Astrocytes in Alzheimer's disease"*, postgraduate lecture seminar at Chengdu Sport University, Chengdu, China, July 2019, invited by Professor Xue Li.
8. *"Ionic signalling in neuroglia"*, postgraduate lecture seminar at Traditional Chinese Medicine University at Chegdu, Chengdu, China, July 2019, invited by Professor Yong Tong.
9. *"Principles of astroglipathology"*, Inauguration lecture (in conjunction with Honorary Professorship award) at China Medical University, Shenyang, China, June 2019, invited by Professor Baoman Li.
10. *"Neuroglia in health and disease"*, postrgraduate lecture seminar at China Medical University, Shenyang, China, June 2019, invited by Professor Baoman Li.
11. *"Physiology and pathophysiology of neuroglia"*, special seminar at Yeditepe University of Istanbul, Turkey, April 2019, invited by Professor Bayram Yilmaz.
12. *"Physiology and pathophysiology of astroglia"*, series of 5 lectures for postgraduate stidents of Jinan University and of the Institute of Traditional Chinese Medicine, Guangzhou, China, October 2018, Invited by Professor Hong Nie.
13. *"Introduction to astroglia in health and disease"*, series of 7 lectures for Postragruate students. University of Chengdu, China. August 2018, Invited by Professor Yong Tang.
14. *"Astroglia in neurological diseases"*, Technische Universität München, Germany, May 2018, Invited by Professor Arthur Konnert.
15. *"Principles of astroglipathology: from astrodegeneration to astroglial reactivity"*, State Research Institute Centre for Innovative Medicine, Vilnius, February 2018, invited by Dr. Augustas Pivoriūnas.
16. *"Astroglia: Physiology and pathophysiology"*, Hational Instritite of Health, Bethesda, November 2017, invited by Professor Shmuel Muallem.
17. *"Astroglia: physiology and pathophysiology (with the emphasis on Alzheimer's disease)"*. Padova University, June 2017, invited by Professor Giorgio Carmignoto.
18. *"Astroglia: History, definition, evolution, physiology and pathophysiology"*, Institute of Cell Biology and Neurobiology (CNR), Monterotondo, April 2017, invited by Professor Fabio Mammano.
19. *"Physiology and pathophysiology of astroglia"*, Vienna University, January 2017, invited by Professor Tibor Harkani.
20. *"Astroglipathology with emphasis on ageing and Alzheimer's disease"*, Institute of Experimental Medicine, Prague, April 2016, invited by Professor Govindan Dayanithi.
21. *"Ionic signalling in astroglia"*, University of Copenhagen, March 2016, invited by Professor Maiken Nedergaard.



22. *"Reassessing neuron-centrism: Principles of astroglipathology"* special seminar dedicated to 25<sup>th</sup> anniversary of MDC, Max Delbruck Centre for Molecular Medicine, March 2016, invited by professor Helmut Kettenmann
23. *"New frontiers in glial physiology and pathophysiology"*, University of Marseille, January 2016, invited by Professor Jean-Pierre Mothet.
24. *"Introduction into neuroglial physiology and pathophysiology"* Special lecture for postgraduate course in neuroscience at the University of Bordeaux, October 2015, invited by Professor Stephane Oliet.
25. *"Astroglipathology: redefining neurological diseases?"* University of Saarland, Homburg, June 2015, invited by Professor Frank Kirchhoff.
26. *"Introduction into physiology and pathophysiology of neuroglia"*, Yeditepe University of Istanbul April 2015, invited by Professor Bayram Yilmaz.
27. *"Astroglipathology: Redefining neurological diseases"* Special key lecture at the seminar of Faculty of Pharmaceutical Sciences "Neuroglia pathology from basic research to clinical practice", organized by Professor Mami Noda, Fukuoka, Japan, February 23, 2015.
28. *"Physiology and pathophysiology of astroglia with some emphasis on Alzheimer's disease"*, University of Copenhagen, January 2015, invited by Professor Ulla Wewer.
29. *"Pathophysiology of astroglia"*, University of Jena, November 2014, invited by Dr. Julian Grosskreutz.
30. *"Astroglia in neurological diseases"*, University of Umea, October, 2014, invited by Dr. Michail Druzin.
31. *"Pathophysiology of astroglia with special emphasis on Alzheimer's disease"*, University of Plymouth, October, 2014, invited by Professor Robert Fern.
32. *"Introduction into neuroglial physiology and pathophysiology"* Special lecture for postgraduate course in neuroscience at the University of Bordeaux, October 2014, invited by Professor Stephane Oliet.
33. *"Neuroglia in ageing and Alzheimer's disease"*, College de France, February 2014, invited by Professor Christian Giaume.
34. *"Astrocytes in health and disease"*, University of Milan, January 2014, invited by professor Maria-Pia Abbracchio.
35. *"Physiology and pathophysiology of neuroglia"*, University of Nizhny Novgorod, January 2014, invited by Professor Victor Kazantsev.
36. *"Astroglia in Alzheimer's disease"*, University of Kanazawa, November 2013, invited by Professor Hiroshi Kawasaki.
37. *"General physiology of neuroglia"*, "Tor Vergata" University of Rome, October 4, 2013, invited by Professor Gerry Melino.
38. *"Neuroglia: Physiology and pathophysiology"*, Opening lecture for postgraduate education course in neuroscience, Neurocentre Magandie, University Bordeaux 2, September 2013, invited by Professor Stephane Oliet.

39. *"Introduction into neuroglia: Evolution, definition, heterogeneity and general cell biology"*, Zlotowski special seminar series, Ben Gurion University, Beer Sheva, Israel, August 2013, invited by Professor Israel Sekler.
40. *"Physiology and pathophysiology of astroglia"*, Zlotowski special seminar series, Ben Gurion University, Beer Sheva, Israel, September 2013, invited by Professor Israel Sekler.
41. *"Neuroglia: Evolution, physiology and pathology with a particular emphasis on neurodegeneration"*, Department of Physiology, Tubingen University, March 2013, invited by Professor Olga Garaschuk.
42. *"Physiology and pathophysiology of astroglia"*, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden, February 2013, invited by Professor Balazs Gulyas.
43. *"The role of astrocytes in Alzheimer's disease"*, Department of Neurobiology, Care Sciences and Society, Karolinska Institute, Stockholm, Sweden, February 2013, invited by Professor Agneta Norenberg.
44. *"Astrocytes in neurodegenerative diseases"*. RIKEN, Tokyo, Japan, January 2013, Invited by Dr. Alexey Semyanov.
45. *"Astrocytes: Neurotransmitter receptors, Sodium signalling, Ageing and Neurodegeneration"*, Biomedicum Helsinki 1, University of Helsinki, December 2012, invited by Dr. Leo Khiroug.
46. *"Ionotropic receptor channels in glial cells"*, Universidad Central del Caribe, Puerto-Rico, December 2012, invited by Professor Serguei Skatchkov.
47. *"Physiology and pathophysiology of astroglia"*. Cardiff University, May 2012, invited by Professor Vincenzo Crunelli.
48. *"Astroglia in neurodegeneration"*, Trinity College, Dublin, February 2012, invited by Professor Marina Lynch.
49. *"Physiology and pathophysiology of neuroglia"*, University of Oxford, December 2011, invited by Dr. Maïke Glitsch.
50. *"Neuronal-glia chemical transmission"* Key lecture at the Glia day, November 2011, Center of Translational Medicine, University of Rochester, invited by Professor Maiken Nedergaard.
51. *"Astroglia in neurodegenerative diseases"*, Neuroscience Center, University of Helsinki, November 2011, Invited by Dr. Leo Khiroug.
52. *"Astroglia in neurodegeneration with particular emphasis on Alzheimer's disease"*, College de France, September 2011, invited by Prof. Christian Giaume.
53. *"General physiology of neuroglia"* University of Kentucky, Lexington, March 2011, invited by Professor Phil Landfield and Dr. Olivier Tibault.
54. *"Introduction into neuroglia"*, Kyushu University, Fukuoka, January 2011, invited by Professor Mami Noda.
55. *"Physiology and pathophysiology of neuroglia"*, MRC Centre for Neurodegeneration Research, Institute of Psychiatry, King's College London, December 2010, invited by Dr. Wendy Noble.

56. *"Ionotropic receptors in physiology and pathophysiology of astroglia"*, Lecture at the Mini-symposium "Physiology and pathophysiology of astroglia", University of Alabama at Birmingham, November 11, 2010, invited by Professor Vladimir Parpura.
57. *"ATP as a neurotransmitter in the central nervous system"*, June 2010, University of Konstanz, invited by Professor Helmut Plattner.
58. *"ATP-mediated neurotransmission in neuronal-glia networks"*, May 2010, Facultad de Veterinaria Universidad Complutense de Madrid, invited by Professor Maria-Teresa Miras-Portugal.
59. *"Physiology and pathophysiology of neuroglia"*, May 2010, Instituto Cajal, Madrid, invited by Professor Alfonso Araque
60. *"Purinergetic transmission in neural networks"*, March 2010, University of Split, invited by Professor Vladimir Parpura.
61. *"Where the thoughts dwell: Physiology and pathophysiology of neuronal-glia networks"*, January 2010, University of Basque country, Bilbao, Invited by Professor Carlos Matute.
62. *"Physiology and pathophysiology of glia"*, December 2009, University of Louvain, Brussels, Invited by Dr. Philippe Gailly.
63. *"Physiology of neuronal-glia networking"*, October 2009, Mediterranean Institute of Neurobiology, invited by Dr. Nail Burnashev.
64. *"Purinergetic transmission in the central nervous system"*, July 2009, University of Tokyo, invited by Professor Masanobu Kano.
65. *"Physiology of glia"*, May 2009, University of Kazan (Russia), invited by Professor E. E. Nikolsky.
66. *"Purinergetic signalling in neuronal-glia networks"*, April 2009, University of Leipzig, invited by Professor Andreas Reichenbach.
67. *"Chemical transmission in neuronal-glia networks with special emphasis on glutamate and ATP"*, December 2008, The University of Rochester, invited by Professor Maiken Nedergaard.
68. *"Purinergetic transmission in neuronal-glia circuits"*, September 2008, Max Delbrück Center of Molecular Medicine, Berlin, invited by Professor Helmut Kettenmann.
69. *"Excitatory purinergetic transmission in the CNS"*, August 2008, Neuroscience Centre, University of Helsinki, invited by Dr. Leonard Khiroug.
70. *"Neurobiology of glia"*, June 2008, Jena University, Invited by Dr. Julian Grosskreutz.
71. *"Physiology and pathophysiology of astroglia"*, May 2008, University Renes Descartes, Paris, invited by Prof. Jean-Marie Billard.
72. *"Excitatory purinergetic transmission in the CNS"*, May 2008, College de France, Paris, invited by Professor Christian Giaume.
73. *"Neurobiology of Glia"*, July 2007, University of Novara, invited by Professor Carla Distasi.
74. *"An outline of glial physiology"*, June 2007, Nencki Institute for Experimental Biology, Warsaw, invited by Prof. Leczek Kacmarek.
75. *"Glutamate mediated neuronal-glia transmission"*, May 2007, Queens University, Belfast, invited by Prof. Alexander Zholos.

76. *"Physiology of Glia"*, May 2007, Neuroscience Centre, University of Helsinki, invited by Dr. Leonard Khiroug.
77. *"Mechanisms of synaptic ATP release in the CNS"*, March 2007, University of Saarland, Homburg/Saar, invited by Prof. Veit Flockerzi.
78. *"Vesicular release of ATP at central synapses"*, January 2007, Charite Department of Physiology, invited by Prof. Uwe Heinemann and Dr. Sergei Kirischuk.
79. *"Glial neurobiology"*, November 2006, University Paris-5, Invited by Professor Alain Marty.
80. *"Patching the glia: What we learned about brain "silent cells"; with a particular emphasis on Neuronal-glial transmission mediated through glutamate receptors"*, November 2006, Institute of Experimental Medicine, Prague, Invited by Professor Eva Sykova.
81. *"Physiology of glia"*, July 2006, University of Leeds, invited by Professor Chris Peers.
82. *"Molecular physiology of endoplasmic reticulum calcium signalling"*, June 2006, University of Lille, invited by Professor Natalia Prevarskaya.
83. *"Integration in neuronal-glial circuits: Cellular and molecular mechanisms"*, June 2006, University of Valladolid, invited by Professor Javier Garcia-Sanchez.
84. *"Mechanisms of neuronal-glial integration"* February 2006, Oxford University, invited by Professor Anthony Galione.
85. *"Calcium signalling and neuronal functions"*, February 2006, Carpathian University, Ivano-Frankovsk, invited by Professor Volodymir Luchshak.
86. *"Mechanisms of neuronal-glial interactions in the CNS"*, January 2006, MRC Centre of Toxicology, Leicester, invited by Professor Pierluigi Nicotera.
87. *"Endoplasmic reticulum and neuronal calcium signalling"*, July 2005, University of Potsdam, invited by Professor Bernd Walz.
88. *"Neuronal-glial interactions: Role for chemical and electrical synapses"*, May 2005, University of Kanazawa (Japan), invited by Professor Masanobu Kano.
89. *"General physiology of glial cells"* May 2005, University of Tokyo, invited by Professor K. Iino.
90. *"Endoplasmic reticulum calcium signalling and neuronal function"*, April 2005, INSERM, Montpellier, invited by Professor Patrice Mollard.
91. *"Endoplasmic reticulum and neuronal calcium signalling"*, November 2004, University of Konstanz, invited by Professor Helmut Plattner.
92. *"Endoplasmic reticulum calcium homeostasis"*, June 2004, University of Urbino, invited by Professor Andrea Minelli.
93. *"Endoplasmic reticulum calcium signalling and neuronal function"*, June 2004, St. Boniface Hospital Research Centre, Winnipeg, The Samuel Weiner Distinguished Lecturer.
94. *"Neuronal-glial interactions - An overview"*, June 2004, University of Manitoba, invited by Dr. P. Fernyhough.
95. *"Endoplasmic reticulum, neuronal signalling and neurodegeneration"*, June 2004, University of Bilbao, invited by Professor Carlos Matute.

96. *"Endoplasmic reticulum calcium homeostasis and neuronal function"*, May 2004, University of Leicester, invited by Professor Pierluigi Nicotera.
97. *"Endoplasmic reticulum calcium homeostasis"*, February 2004, University of Bordeaux, invited by Dr. F. Ichas.
98. *"Calcium fluxes, endoplasmic reticulum and neuronal signalling"*, November 2003, Katolische Universitat Leuven, invited by Professor Bernd Nilius.
99. *"Endoplasmic reticulum calcium signalling and neurodegeneration"*, March 2003, Max Plank Institute for Neuroscience Research, Cologne, Invited by Professor Wulf Paschen.
100. *"Endoplasmic reticulum and neuronal signalling"*, February 2003, University of Oxford, invited by Professor Anant Parekh.
101. *"Endoplasmic reticulum and neuronal signalling"*, September 2002, University of Leeds, Invited by Professor Chris Peers.
102. *"Intra-ER Ca<sup>2+</sup> dynamic: role for neuronal signalling"* May 2002, University of Bristol, Invited by Professor Graham Collingridge.
103. *"Endoplasmic reticulum as a signalling organelle"* February 2002, University of Bonn, Invited by Professor Cristian Steinhauser.
104. *"Neuronal CICR: Direct visualisation and properties"*, February 2002, Birmingham University, Invited by Dr. Emil Toescu.
105. *"Direct visualisation of Ca<sup>2+</sup>-induced Ca<sup>2+</sup> release in sensory neurones"*, November 2001, University of Padova, invited by Professor Tullio Pozzan.
106. *"Intra-ER calcium dynamics in nerve cells"*, November 2001, SISSA Trieste, invited by Dr. Fabio Mammano.
107. *"Neuronal calcium stores"*, February 2001, Guy's University London, Invited by Dr. Arthur Butt.
108. *"Glial calcium signalling"*, December 2000, University of Liverpool, invited by Professor R. Burgoyne.
109. *"Ryanodine receptors, calcium stores and neuronal function"*, December 2000, Lundbeck AG/University of Copenhagen, invited by Dr. S. Larsen.
110. *"Calcium signalling and information processing in glia"*, September 1999, University of Bordeaux, Invited by Dr. Francois Ichas.
111. *"Glial membrane physiology"*, November 1998, University of Potsdam, Invited by Professor B. Walz.
112. *"Local calcium signals in glial cells"*, November 1998, University of Bonn, Invited by Professor Christian Steinhäuser
113. *"Calcium signalling in glia"*, June 1998, University of Kaiserslautern, Invited by Professor Joachim Deitmer
114. *"Local calcium signals in Bergmann glial cells"*, June 1998, Homburg University, Homburg/Saar, Invited by Professor Arthur Konnerth
115. *"Principles of calcium signalling"*, May 1998, University of Ancona, Invited by Professor Fiorenzo Conti.

116. *"Glial calcium"*, May 1998, San Raffaele Institute, DIBIT, Milano, Invited by Professor Jacopo Meldolesi.
117. *"Calcium homeostasis and signalling in glial cells in situ"*, September 1997, Max-Planck Institute for Biophysical Chemistry, Göttingen, invited by Professor Ervin Neher.
118. *"Calcium signalling in glia"*, March 1997, University College London, invited by Dr. Frances Edwards.
119. *"Neurotransmitter receptors and calcium signalling in cerebellar Bergmann glial cells"*, January 1997, Saarland University, invited by Professor Arthur Konnerth.
120. *"Calcium signals as a form of glial excitability"*, January 1997, Max Planck Institute for Medical Research, Heidelberg, invited by Dr. Nail Burnashev.
121. *"Calcium signalling in glial cells"*, June 1996, Heidelberg University, invited by Professor Veit Flockerzi.
122. *"Calcium-induced calcium release in mammalian neurones and its modulation by cyclic ADP ribose"*, St George School of Medicine, December 1994, invited by Professor Tom Bolton.
123. *"Mechanisms of calcium homeostasis in central neurones"*, Oxford University, Department of Physiology, July 1993, invited by Dr. Frances Ascroft.
124. *"Caffeine-sensitive internal calcium stores in mammalian neurones"*, Royal Free Hospital, School of Medicine, University of London, July, 1993, invited by Professor Annette Dolphin.
125. *"Age-dependent changes of calcium homeostasis in central mammalian neurones"*. Tropon Institute of Neurobiology, May 1993, invited by Professor B. Traber.
126. *"Internal calcium stores in cerebellar, neocortical and hippocampal neurones"*, Max-Planck Institute of Medical Research, Heidelberg, January 1993, invited by Professor Bert Sakmann.
127. *"Properties of internal calcium stores in central neurones"*, Liverpool University, October 1992, invited by Professor Ole Petersen.
128. *"Changes of neuronal calcium currents within ageing"* May 1992, Institute for General Physiology, Cologne University, invited by Professor Gerrit Isenberg.
129. *"Age-dependent changes of  $[Ca^{2+}]_i$  homeostasis including action of  $Ca^{2+}$ -antagonists"* Tropon Institute of Neurobiology, March 1992, invited by Professor B. Traber.
130. *"Calcium currents and cytoplasmic calcium in aged sensory neurones"*, Max-Planck Institute of Medical Research, Heidelberg, February 1992, invited by Professor Bert Sakmann.
131. *"Potassium channels in Schwann cells: Possible mechanisms for extracellular potassium homeostasis"*, May 1990, Technological University of Munich, invited by Professor Joseph Dudel.
132. *"Rat cardiac slices: New tool for patch clamp experiments"*, April 1990, Institute for General Physiology, Cologne University, invited by Professor Gerrit Isenberg.
133. *"Potassium currents in Schwann cells"*, Max-Planck Institute of Biophysical Chemistry, April 1990, invited by Dr. Walter Stühmer.
134. *"Characteristics of single potassium channels in mouse Schwann cells"*, Max-Planck Institute of Medical Research, Heidelberg, December 1989, invited by Professor Bert Sakmann.