

PROF. PAOLO BERNARDI



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<http://scholar.google.it/citations?user=OlumVrsAAAAI>

Place of birth	Cividale del Friuli (Italy)
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Citizenship	Italian

STUDIES

High School Diploma	Liceo Classico "Paolo Diacono", Cividale del Friuli (Italy) 1971
M.D. Degree	University of Padova (Italy), summa cum laude 1978

APPOINTMENTS

1979 – 1987:	Assistant Professor , University of Padova Medical School
1988 – 1999:	Associate Professor , University of Padova Medical School
2000 – present:	Full Professor , University of Padova Medical School
2001 – 2004:	Deputy Dean of the Medical Faculty, University of Padova
2003 – 2009:	Chairman , Department of Biomedical Sciences, University of Padova
2012 – 2018:	Director , Postgraduate School of Clinical Pathology, University of Padova
2012 – 2020:	Coordinator , Ph.D. Program in Biomedical Sciences, University of Padova

HONORS

1984:	EMBO Fellow , University of Helsinki, Finland
1985 – 87:	Fogarty Fellow , Whitehead Institute for Biomedical Research, Cambridge Massachusetts, USA
2006 – 2010:	Council Member , Bioenergetics Subgroup, Biophysical Society USA
2006 – 2014:	Socio Corrispondente , Istituto Veneto di Scienze, Lettere ed Arti, Venice
2008:	Visiting Professor , Oregon Clinical and Translational Research Institute, Portland, Oregon, USA
2009 – 2011:	Council Member , Associazione di Biologia Cellulare e del Differenziamento
2010 – 2013:	President , Italian Group of Biomembranes and Bioenergetics
From 2010:	Member , Accademia Europaea
2012:	Prize for Physiology and Pathology , Ministro Beni e Attività Culturali, Accademia Nazionale dei Lincei, Rome
2014 – 2016:	Council Member , Bioenergetics Subgroup, Biophysical Society USA
From 2015:	Socio Effettivo , Istituto Veneto di Scienze, Lettere ed Arti, Venice
From 2016:	Scientific Advisory Board Member , Institute Cochin, Paris
From 2016:	Scientific Committee Member of Fondazione Fibrosi Cistica, Verona
2016 – 2019:	Member , Consiglio direttivo della Scuola Galileiana di Studi Superiori, Padova
2016 – present:	President , Italian Group of Biomembranes and Bioenergetics
From 2019:	Socio Corrispondente , Istituto Lombardo–Accademia di Scienze e Lettere, Milano
From 2022:	President, Scientific Committee of Fondazione Fibrosi Cistica, Verona

SCIENTIFIC INTERESTS AND CAREER HIGHLIGHTS

Paolo Bernardi began his studies on mitochondrial physiology and ion transport under the guidance of Giovanni Felice Azzzone, one of the founding Fathers of Bioenergetics. His education in Cellular and Molecular Biology was completed with a long-term stay at the Whitehead Institute for Biomedical Research - Massachusetts Institute of Technology, where he worked under the supervision of Harvey F. Lodish. He pioneered the field of mitochondrial channels and their role in cellular pathophysiology. In particular, he focused on the permeability transition pore (PTP), a high conductance channel that is increasingly recognized as a key player in cell death. During the early 1990s he defined key points of regulation of the PTP in isolated mitochondria (membrane potential, matrix pH, Me^{2+} -binding sites, specific redox-sensitive sites). He then developed tools to reliably monitor mitochondrial function *in situ*, and addressed mechanistic questions on the PTP as a target in degenerative diseases and cancer. His studies have been extended to *in vivo* models, and led to the demonstration that early mitochondrial adaptation plays a key role in hepatocarcinogenesis [Klöhn et al. (2003) *Proc Natl Acad Sci USA* 100, 10014-10019] and in onset of the Warburg effect [Sciacovelli et al. (2013) *Cell Metab* 17, 988-999]; and that mitochondrial dysfunction mediated by the PTP unexpectedly causes muscular dystrophy in collagen VI deficiency [Irwin et al. (2003) *Nat Genet* 35, 367-371; Angelin et al. (2007) *Proc Natl Acad Sci USA* 104, 991-996; Merlini et al. (2008) *Proc Natl Acad Sci USA* 105, 5225-5229]. These studies paved the way to a potential therapy of Ullrich Congenital Muscular Dystrophy and Bethlem Myopathy with NIM811, a non immunosuppressive analog of cyclosporin A [Zulian et al. (2014) *Hum Mol Genet* 23, 5353-5363]. The recent identification of the PTP, which appears to originate from dimers of the FoF_1 ATP synthase [Giorgio et al. (2013) Dimers of mitochondrial ATP synthase form the permeability transition pore, *Proc Natl Acad Sci USA* 110, 5887-5892; Urbani et al. (2019) Purified F-ATP synthase forms a Ca^{2+} -dependent high-conductance channel matching the mitochondrial permeability transition pore, *Nat. Commun.* (2019) 10, 4341] and the dissection of its key regulatory sites [Giorgio et al. (2017) Ca^{2+} binding to F-ATP synthase β subunit triggers the mitochondrial permeability transition, *EMBO Rep.* 18, 1065-1076; Antoniel et al. (2018) The unique histidine in OSCP subunit of F-ATP synthase mediates inhibition of the permeability transition pore at acidic pH, *EMBO Rep* 19, 257-268; Carraro et al. (2020) The Unique Cysteine of F-ATP Synthase OSCP Subunit Participates in Modulation of the Permeability Transition Pore, *Cell Rep.* 32, 108095]. These advances offer great promise for further molecular definition of the pore and of its function in health and disease. Development of novel chemical inhibitors of the PTP with potential use in degenerative diseases developed with NIH funding is currently one of the most successful research programs of the Bernardi lab.

Paolo Bernardi was a major actor in the Mitochondrial Renaissance of the 1990s. As early as 1992 he was one of the few to realize the importance of mitochondria in cell death well before the role of cytochrome *c* release was shown to be a key event in apoptosis. He pioneered the field rapidly reaching international recognition, as testified by 357 invited lectures (220 conference talks and 137 seminars at prestigious Institutions worldwide). He has organized or coorganized key meetings on mitochondrial pathophysiology that significantly contributed to the continuing success of the field (see below). His achievements were possible through the work and training of junior personnel (from 1991 Prof. Bernardi has supervised the work of over 60 Graduate Students and postdoctoral Fellows).

MEETINGS AS ORGANIZER

1. Conference *New Perspectives in Mitochondrial Research*, Padova, Italy 1993
2. Colloquium *Mitochondria in Cell Death*, 8th European Bioenergetics Conference, Valencia, Spain 1994
3. Colloquium *The Mitochondrial Permeability Transition in Accidental and Programmed Cell Death*, 9th European Bioenergetics Conference, Louvain-la-Neuve, Belgium 1996
4. First Conference *Frontiers in Mitochondrial Research*, Albany, NY 1996
5. Conference *New Perspectives in Mitochondrial Research*, Padova, Italy 1997
6. Second Conference *Frontiers in Mitochondrial Research*, Albany, NY 1998
7. Third Conference *Frontiers in Mitochondrial Research*, Albany, NY 2000
8. Symposium *New Frontiers in Mitochondrial Research – from Bioenergetics to Dynamics*, Bertinoro, Italy 2007
9. 52nd Annual Meeting of the Biophysical Society USA, Bioenergetics Subgroup Meeting *Mitochondria in Bioenergetics in Disease and Therapeutics*, Long Beach, CA 2008
10. 54th Annual Meeting of the Biophysical Society USA, Bioenergetics Subgroup Meeting *Mitochondria in Disease*, San Francisco, CA 2010
11. 58th Annual Meeting of the Biophysical Society USA, Bioenergetics Subgroup Meeting *Ion Channels in the Inner Mitochondrial Membrane*, San Francisco, CA 2014
12. Cold Spring Harbor Asia Conference *Mitochondria*, Suzhou, China 2015
13. 19th European Bioenergetics Conference, Riva del Garda, Italy 2016

14. Cold Spring Harbor Asia Conference *Mitochondria*, Suzhou, China 2017
15. Cold Spring Harbor Asia Conference *Mitochondria and Metabolism in Health and Disease*, Suzhou, China 2019
16. Cold Spring Harbor Asia Conference *Mitochondria and Metabolism in Health and Disease*, Suzhou, China 2021

EDITORIAL ACTIVITIES

1. **Editor-in-Chief, Section *Organelle Function*, *Cells*** (from 2019).
2. **Associate Editor, *Frontiers in Medical Technology*** (from 2021).
3. **Editorial Board Member (current):** *Biochimica et Biophysica Acta* (from 1999), *Pharmacological Research* (from 2015), *Current Opinion in Physiology* (from 2017), *Current Research in Physiology* (from 2020).
4. **Chief Specialty Editor, *Frontiers in Mitochondrial Research*** (2012-2021).
5. **Editorial Board Member (past):** *The Journal of Biological Chemistry* (1997-2002, 2003-2008, 2010-2015), *Archives of Biochemistry and Biophysics* (1998-2003), *IUBMB Life* (2002-2007).
6. **Guest Editor:** *Biochimica et Biophysica Acta* "Mitochondria in Cell Death" (1998); *BioFactors* "New Perspectives in Mitochondrial Research" (1998); *IUBMB Life* Special Issue "Perspectives in Mitochondrial Research" (2001); *Biochimica et Biophysica Acta* EBEC Special Issue (2016); *Pharmacological Research* Special Issues "Cold Spring Harbor Asia Conference on Mitochondria" (2018) and "Cold Spring Harbor Asia Conference on Mitochondria and Metabolism in Health and Disease" (2020).
7. **Section Editor, *Pathobiology of Human Disease: A Dynamic Encyclopedia of Disease Mechanisms***, Elsevier (2014).
8. Member of the **Education Committee, *International Union of Biochemistry and Molecular Biology*** (1998-2003).

FUNDING

Ministry for the University and Scientific Research – Italy; University of Padova; Telethon – Italy; National Institutes of Health - Public Health Service (USA); AIRC (Italian Association on Cancer Research); Fondazione Cassa di Risparmio di Padova e Rovigo; Leducq Foundation.

BIBLIOMETRIC INDICATIONS

As of June, 2022 Prof. Bernardi has published 273 articles that have received 39,396 citations, H index 100 (Google Scholar). In the *Updated science-wide author databases of standardized citation indicators* [Ioannidis et al., (2020) *PloS Biology* 18: e3000918] he ranks in the top 1,9 percentile worldwide (position 3,055 of 159,684). His most quoted paper [Bernardi P (1999) Mitochondrial transport of cations: Channels, exchangers and permeability transition. *Physiol Rev* 79, 1127-1155] has 1,840 citations. His "top ten" list gathers over 9,700 quotes.

INVITED LECTURES AT MEETINGS

1. 13th International Congress of Biochemistry, International Union of Biochemistry (Amsterdam, Holland 1985)
2. NATO Advanced Research Workshop *Mechanics of Swelling: From Clays to Living Cells and Tissues* (Korfu, Greece 1991)
3. 37th Annual Meeting of the Biophysical Society USA, platform presentation (Washington, DC 1993)
4. Euromech Colloquium *Mechanics of Swelling* (Rhodes, Greece 1993)
5. Workshop *New Perspectives in Mitochondrial Research* (Padova, Italy 1993)
6. 2nd IUBMB Conference *Biochemistry of Cell Membranes* (Bari, Italy 1993)
7. 38th Annual Meeting of the Biophysical Society USA, platform presentation (New Orleans, Louisiana 1994)
8. 8th European Bioenergetics Conference (Valencia, Spain 1994)
9. 6th BioThermoKinetics Conference (Schröcken, Austria 1994)
10. International Symposium *Thirty Years of Progress in Mitochondrial Bioenergetics and Molecular Biology* (Bari, Italy 1994)
11. International Symposium *Ischemia-Reperfusion Syndrome, Trends and Concepts* (Lieges, Belgium 1995)
12. International Conference *New Frontiers in Cell and Molecular Biology* (Warsaw, Poland 1995)
13. 1st Colloquium on *Myopathies and Mitochondria* (Halle, Germany 1995)
14. 40th Annual Meeting of the Biophysical Society, USA, platform presentation (Baltimore, Maryland 1996)
15. 9th European Bioenergetics Conference (Louvain-la-Neuve, Belgium 1996). Organizer and Chairman, Colloquium *The Mitochondrial Permeability Transition in Accidental and Programmed Cell Death*
16. Congress of the European Society of Parenteral and Enteral Nutrition (Geneva, Switzerland 1996)
17. Albany Conference *Frontiers in Mitochondrial Research* (Albany, New York 1996)
18. International Symposium *University and Research: Public and Private* (Rio de Janeiro, Brasil 1996)

19. Annual Meeting, *Group de Réflexion sur la Recherche Cardiovasculaire* (Bordeaux-Arcachon, France 1997)
20. Gordon Research Conference on *Bioenergetics* (New Hampshire, 1997)
21. Workshop *New Perspectives in Mitochondrial Research* (Padova, Italy 1997)
22. International Workshop *Molecular Approaches to Studying Structure-Function Relationships in Membrane Proteins* (Düsseldorf, Germany 1997)
23. European Research Conference *Mechanisms of Toxicity: Recent Molecular Advances* (Maratea, Italy 1997)
24. 42nd Annual Meeting of the Biophysical Society USA session *Mitochondrial Channels in Cell Death* (Kansas City, Kansas 1998)
25. XVI World Congress of the International Society for Heart Research (Rhodes, Greece 1998)
26. World Conference of the International Society for Biomedical Research on Alcohol (Copenhagen, Denmark 1998)
27. 10th European Bioenergetics Conference (Göteborg, Sweden 1998)
28. 2nd Albany Conference *Frontiers in Mitochondrial Research* (Albany, New York 1998)
29. Philippe Laudat Conference *The Mitochondrion: Critical for Health, Death and Disease* (Aix-les-Bains, France 1998)
30. Italian-Japanese Bilateral Meeting on *Bioenergetics* (Bari, Italy 1998)
31. International Conference *In Vitro Cytotoxicity Mechanisms* (Rome, Italy 1999)
32. 43rd Annual Meeting of the Biophysical Society, platform presentation (Baltimore, Maryland 1999)
33. International Symposium *Molecular Basis of Biomembrane Transport* (Bari, Italy 1999)
34. 3rd Armenise-Harvard Symposium (Castelvecchio Pascoli, Italy 1999)
35. 2nd European Congress of Pharmacology (Budapest, Hungary 1999)
36. International Symposium *Neuronal Apoptosis* (Tübingen, Germany 1999)
37. International Symposium *Oxidative Stress and Antioxidants* (Ravenna, Italy 1999)
38. Congresso Nazionale della Società Italiana di Biochimica (Alghero, Italy 1999)
39. Keystone Symposium *Mitochondrial Dysfunction in Pathogenesis* (Santa Fe, New Mexico 2000)
40. EURO-NEURO, Second International Update on *Neuro-Anesthesia & Neuro-Critical Care* (Genk, Belgium 2000)
41. FEBS Advanced Course 2000-03 *Expression and regulation of mitochondrial oxidative phosphorylation and disorders in human pathology* (Martina Franca, Italy 2000)
42. 2nd Colloquium on *Mitochondria and Myopathies* (Halle, Germany 2000)
43. Fernström Symposium *The Role of Mitochondria in Apoptosis and Neurodegeneration* (Lund, Sweden 2000)
44. BAM 2000, *Basics and Applications of Muscle Plasticity* (Abano Terme, Italy 2000)
45. International Symposium on *Pharmacology of Cerebral Ischemia* (Marburg, Germany 2000)
46. Gordon Research Conference on *Macromolecular Organization and Cell Function* (Oxford, UK 2000)
47. International IUBMB-UNESCO Course on *Intracellular Calcium Signaling* (Padova, Italy 2000)
48. 3rd Albany Conference *Frontiers in Mitochondrial Research* (Albany, New York 2000)
49. 2° Convegno della Federazione Italiana Scienze della Vita – FISV (Riva del Garda, Italy 2000)
50. INVITOX 2000 (Meeting of the European Society of Toxicology In Vitro) (Alicante, Spain 2000)
51. Second Conference of the International Coenzyme Q₁₀ Association (Frankfurt, Germany 2000)
52. Katzir Conference *Cellular Implications of Redox Signaling* – Weizmann Institute of Science (Abano Terme, Italy 2001)
53. XVI Conference of the European Association of Urology, Meeting of the European Society of Urological Research (Geneva, Switzerland 2001)
54. International Conference *Mitochondria. Evolution, Genomics, Homeostasis and Pathology* (Selva di Fasano, Italy 2001)
55. Experimental Biology Annual Meeting (Orlando, Florida 2001)
56. 27th Meeting of the Federation of the European Biochemical Societies (Lisbon, Portugal 2001)
57. Euromit V, The Fifth European Meeting on Mitochondrial Pathology (Venezia, Italy 2001)
58. V Congresso dell'Associazione Italiana di Biologia e Genetica Generale e Molecolare (AIBG) (Perugia, Italy 2001)
59. Semmelweis Symposium on *Oxidative stress in neurodegeneration and ischemia* (Budapest, Hungary 2001)
60. 41st Annual Meeting of the Society of Toxicology USA (Nashville, Tennessee 2002)
61. Keystone Symposium *Mitochondria and Pathogenesis*, Keynote lecture (Copper Mountain, Colorado 2002)
62. 6th International Conference on *Plasma membrane redox systems and their role in biological stress and disease* (Ravenna, Italy 2002)
63. COST844 WorkGroup1 meeting *Mitochondria, oxidative stress and programmed cell death* (Chania, Greece 2002)
64. 12th European Bioenergetics Conference (Arcachon, France 2002)
65. 18th European Workshop on *Drug Metabolism* (Valencia, Spain 2002)
66. 35th Annual Meeting of the American Society of Nephrology (Philadelphia, Pennsylvania 2002)
67. Third Conference of the International Coenzyme Q₁₀ Association (London, UK 2002)

68. Meeting of the NWO-CW Study Group on *Lipids and Biomembranes* (Lunteren, Holland 2003)
69. European Science Foundation Workshop *Trends in Mitochondrial Pharmacology and Genetics* (Warsaw, Poland 2003)
70. Mitochondria 2003 (San Diego, California 2003)
71. Workshop MitEuro 3 (Padova, Italy 2003)
72. International Symposium *Inflammation, Degeneration and Regeneration: from Basic Mechanisms to Clinical Manifestations* (Magdeburg, Germany 2003)
73. XII Congress of Bioenergetics and Biomembranes, Mexican Society of Biochemistry (Pátzcuaro, Mexico 2003)
74. Seventh Wiggers-Bernard Conference *Mitochondrial Dysfunction in Shock, Sepsis and Organ Failure* (Vienna, Austria 2003)
75. 48th Annual Meeting of the Biophysical Society USA, Invited lecture, Bioenergetics Subgroup Meeting *Mitochondrial Ion Channels: Their Physiological and Pathological Relevance* (Baltimore, Maryland 2004)
76. 29th Meeting of the Federation of the European Biochemical Societies (Warsaw, Poland 2004)
77. Symposium *Calcium in Health and Disease* (Rovaniemi, Finland 2004)
78. Symposium *Aging Heart and Vessels* (Melbourne, Australia 2004)
79. XVIII World Congress of the International Society for Heart Research (Brisbane, Australia 2004)
80. 13th European Bioenergetics Conference, Co-organizer and Session Chair (Pisa, Italy 2004)
81. MitEURO Plenary Meeting (Aussois, France 2004)
82. 12th Euroconference on Apoptosis, Training Course *Concepts and Methods in Programmed Cell Death* (Chania, Greece 2004)
83. Annual Meeting of the German Society for Biochemistry and Molecular Biology (Münster, Germany 2004)
84. Hepatocyte Users Group (HUG) Meeting (Valencia, Spain 2004)
85. 49th Annual Meeting of the Biophysical Society USA, Platform presentation (Long Beach, California 2005)
86. XIII Telethon Convention (Salsomaggiore Terme, Italy 2005)
87. FEBS-IUBMB Workshop *Mitochondrial Dynamics in Cell Life and Death* (Padova, Italy 2005)
88. Symposium on *Neuroprotection in Early Life* (Venice, Italy 2005)
89. 9th Course in Cancer Genetics, European School of Genetic Medicine (Bertinoro di Romagna, Italy 2005)
90. Cold Spring Harbor Meeting *Mitochondria in Neurological Disease and Aging*, Banbury Conference Center (Cold Spring Harbor, New York 2005)
91. International Society for Heart Research/SFC - *Cardiac ischemia and oxidative stress* (Paris, France 2006)
92. Keystone Symposium on *Metabolomics: From Bioenergetics to Apoptosis* (Snowbird, Utah 2006)
93. EMBO Workshop on *Redox Signaling in Human Disease and Ageing* (Roma, Italy 2006)
94. 26th Meeting of the European Section, International Society for Heart Research (Manchester, UK 2006)
95. Course on *Neurotoxicants and Neurodegenerative Disorders*, satellite of the 28th International Congress on Occupational Health (Venezia, Italy 2006)
96. 14th European Bioenergetics Conference (Moscow, Russian Federation 2006)
97. International Conference on Laboratory Medicine *Enzymes: Old Molecules with New Clinical Applications* (Padova, Italy 2006)
98. Novartis (formerly Ciba) Foundation Symposium 287 on *New Perspectives on Mitochondrial Biology* (London, UK 2006)
99. 2007Spring PaduaMuscleDays - E. Gutman Heritage 30-year after (Padova, Italy 2007)
100. VII Congresso Nazionale della Associazione Italiana di Miologia (AIM) (Ferrara, Italy 2007)
101. United Mitochondrial Disease Foundation (UMDF) Symposium *Mitochondrial Medicine 2007: Wave of the Future* (San Diego, California 2007)
102. Mitochondrial Physiology Society (MiP) – 64th Harden Conference *Mitochondrial Physiology* (Ambleside, UK 2007)
103. *Mitochondria and Oxidative Stress in Neurodegenerative Disorders*, New York Academy of Sciences (New York, New York 2007)
104. Secondo Convegno Nazionale *Nuove prospettive della medicina mitocondriale* (Bologna, Italy 2007)
105. International Meeting on *The Endothelial Function: From the Pathological Mechanisms to Optimal Therapies* (Padova, Italy 2007)
106. Fifth Conference of the International Coenzyme Q10 Association (Kobe, Japan 2007)
107. X Congresso Nazionale della Società Italiana di Genetica Umana (SIGU) (Montecatini Terme, Italy 2007)
108. Workshop *New Frontiers in Mitochondrial Research – from Bioenergetics to Dynamics*, Organizer (Bertinoro, Italy 2007)
109. 52nd Annual Meeting of the Biophysical Society USA, Bioenergetics Subgroup Meeting *Mitochondria Bioenergetics in Disease and Therapeutics* (Long Beach, California 2008)
110. International Symposium on *Cyclophilins as Drug Targets* (Lausanne, Switzerland 2008)
111. *Mitochondrial Dysfunction in Disease and Therapeutic Approaches* (Tempe, Arizona 2008)
112. Bari International Symposium on *Mitochondrial Physiology and Pathology* (Bari, Italy 2008)

113. 15th European Bioenergetics Conference (Dublin, Ireland 2008)
114. FISV 2008, Symposium *DNA Damage and Chronic-degenerative Diseases* (Riva del Garda, Italy 2008)
115. Congresso Nazionale della Società Italiana di Biochimica (Rimini, Italy 2008)
116. XV Congresso Nazionale della Società Italiana di Tossicologia (Verona, Italy 2009)
117. EMBO Course *Mitochondrial Medicine: From genetics to biological mechanisms and beyond* (Bologna, Italy 2009) and Workshop in memory of Giuseppe Attardi (Padova, Italy 2009)
118. Fourth Meeting on *Molecular Mechanisms of Neurodegeneration* (Milano, Italy 2009)
119. ENMC Symposium on Collagen VI (Naarden, The Netherlands 2009)
120. Collège de France, First Symposium, Institut thématique multi-organismes circulation, métabolisme, nutrition (Paris, France 2009)
121. CMD Therapeutic Target Conference (Atlanta, Georgia 2009)
122. Symposium *Mitochondrial Medicine*, Korean Society for Mitochondrial Research and Medicine (Seoul, Korea 2009)
123. International Congress of Physiological Sciences, Symposium *Mitochondrial calcium and ROS signaling* (Kyoto, Japan 2009)
124. Society for Heart and Vascular Metabolism Seventh Annual Scientific Sessions on *Mitochondria: From Physiology to Pathology* (Padova, Italy, 2009)
125. Congress of the European Society of Cardiology (ESC) (Barcelona, Spain 2009)
126. *Rudolph J Schweyen Symposium*, Max F Perutz Laboratories, University of Vienna (Vienna, Austria 2009)
127. Meeting of the World Muscle Society (Geneva, Switzerland 2009)
128. 16th Symposium *Ca²⁺- Binding Proteins and Ca²⁺ Function in Health and Disease* (Pucón, Chile 2009)
129. 54th Annual Meeting of the Biophysical Society USA, Bioenergetics Subgroup Meeting *Mitochondria in Disease* (San Francisco, California 2010), Symposium Co-Chair
130. St. Moritz Neuropathology Winter Meeting 2010 (St. Moritz, Switzerland 2010)
131. American Society for Investigative Pathology Symposium *Mitochondrial Medicine* (Anaheim, California 2010)
132. International Conference *Frontiers in Water Biophysics* (Trieste, Italy 2010)
133. Sixth Conference of the International Coenzyme Q10 Association (Bruxelles, Belgium 2010)
134. 35th Meeting of the Federation of the European Biochemical Societies (Göteborg, Sweden 2010)
135. 9th International Conference on *Brain Energy Metabolism* (Budapest, Hungary 2010)
136. Gordon Research Conference on *Mitochondria and Chloroplasts* (Lucca, Italy 2010)
137. 16th European Bioenergetics Conference (Warsaw, Poland 2010)
138. International Symposium *Mitochondria: Function and Dysfunction* (Kibbutz Ein Gedi, Israel 2010)
139. 3rd International Conference on *Drug Discovery & Therapy* (Dubai, UAE 2011)
140. XVI Scientific Convention of Telethon (Riva del Garda, Italy 2011)
141. Conferenza su *Malattie neuromuscolari: nuove strategie terapeutiche* (Verona, Italy 2011)
142. Reunion Groupe Insulinosecretion *Mitochondrie et cellule β : pour le meilleur et pour le pire* (Paris, France 2011)
143. EUROMIT 8 Pre-Conference Symposium *Mitochondrial Dysfunction in Metabolic and Age-related Diseases: New technology for assessing mitochondrial pathology in small samples* (Zaragoza, Spain 2011)
144. Duchenne Muscular Dystrophy Near Term Therapeutics Working Group (Baltimore, Maryland 2011)
145. 65th Annual Meeting of the Society of General Physiologists, Symposium *Mitochondrial Physiology and Medicine* (Woods Hole, MA 2011)
146. International Symposium on *Mitochondria*, Mitochondria Hub Research Center (Busan, Korea 2011)
147. Keystone Symposium on *Mitochondrial Dynamics and Function* (Banff, Alberta 2012)
148. International Symposium *Frontiers in Translational Neurosciences: From Bench to Bedside* (Seoul, Korea 2012)
149. Meeting *Mitochondria and Metabolism* (Philadelphia, Pennsylvania 2012)
150. 17th European Bioenergetics Conference (Freiburg, Germany 2012)
151. Meetochondrie Meeting (Soustons, France 2012)
152. 9th Conference of the Asian Society of Mitochondrial Research and Medicine (ASMRM) and 5th Conference of the Chinese Society of Mitochondrial Research and Medicine (C-mit) (Beijing, China 2012)
153. 9th BRSI Convention & International Conference on *Industrial Biotechnology*, The Biotech Research Society, Punjabi University (Patiala, India 2012)
154. Symposium *Mitochondria, the cardiovascular system and metabolic syndrome*, UCL Consortium for Mitochondrial Research, Opening Guest lecture (London, UK 2013)
155. Cell Symposium *Mitochondria: from Signalling to Disease* (Lisbon, Portugal 2013)
156. 35th National Congress of the Italian Society of Histochemistry (Santa Margherita di Pula, Italy 2013)
157. International Society for Heart Research (ISHR) World Congress XXI *Unifying, Invigorating and Translating Cardiovascular Research* (San Diego, California 2013)
158. 4th ECS Workshop *Ca²⁺ and Cell Death* (Leuven, Belgium 2013)
159. Scandomit 2013 (Oulu, Finland 2013)
160. Invited Conference at the Opening Ceremony, Master Programs in Biotechnology, Molecular Biomedicine and

- Molecular and Cellular Biology, Universidad Autónoma de Madrid (Madrid, Spain 2013)
161. Pancreas and GI Translational Science Symposium, Keynote lecture (Liverpool, UK 2013)
 162. Heart Failure Association Winter Research Meeting 2014 (Les Diablerets, Switzerland 2014)
 163. 58th Annual Meeting of the Biophysical Society USA, Bioenergetics Subgroup Meeting *Ion Channels in the Inner Mitochondrial Membrane* (San Francisco, California 2014)
 164. Annual Meeting of the Italian Biochemistry PhD Students (Brallo di Pregola, Italy 2014)
 165. Gordon Research Conference on *Mitochondria and Chloroplasts* (Lucca, Italy 2014)
 166. Symposium *Recent advances in heart failure* - King's College London British Heart Foundation Centre and the *Journal of Clinical Investigation* (London, UK 2014)
 167. XIII National Meeting of the Italian Federation of Life Sciences (FISV) (Pisa, Italy 2014)
 168. Meeting *Industrial Pharmaceutical Biotechnology* (New Delhi, India 2014)
 169. Joint Keystone Symposia on *Mitochondria, Metabolism, and Heart Failure/Diabetes* (Santa Fe, New Mexico 2015)
 170. Symposium on *Elements of Mitochondrial Function*, 94th Annual meeting of the German Physiological Society (Magdeburg, Germany 2015)
 171. International Conference on *Systems Biology* (Grenoble, France 2015)
 172. Conference on *Progress in Cell Biology - Mitochondria and Chloroplasts* (Krakow, Poland 2015)
 173. Seahorse Bioscience Users' Group Meeting (Amsterdam, The Netherlands 2015)
 174. Fifth National Meeting for Mitochondrial Medicine (Bologna, Italy 2015)
 175. Gordon Research Conference on *Intracellular Ion Channels* (Waltham, Massachusetts 2015)
 176. Gordon Research Conference on *Bioenergetics* (Andover, New Hampshire 2015)
 177. Meeting for the 125th Anniversary of the Institute of Experimental Medicine of Saint Petersburg (Saint Petersburg, Russian Federation 2015)
 178. Meeting of the French Group of Bioenergetics (GFB) (Mittelswihr, France 2015)
 179. 8th Conference of the International Coenzyme Q₁₀ Association (Bologna, Italy 2015)
 180. Cold Spring Harbor Asia Conference on Mitochondria (Suzhou, China 2015)
 181. 11th International Congress on *Coronary Artery Disease* (Firenze, Italy 2015)
 182. Pharmacology 2015 (British Society for Cardiovascular Research and British Pharmacological Society) Symposium *Targeting cardiotoxicity* (London, UK 2015)
 183. International Society for Heart Research World Congress XXII – *Unraveling the Mysteries of the Heart at the Rhythm of Tango* (Buenos Aires, Argentina 2016)
 184. Congress of the European Society of Cardiology (ESC) (Roma, Italy 2016)
 185. 27th Ion Channel Meeting (Sète, France 2016)
 186. Symposium *Transport across and into membranes* (Freiburg, Germany 2016)
 187. International Workshop *Viruses, Inflammation and Cancer* (Venezia, Italy 2016)
 188. Mini-Symposium on *Structure-Based Bioenergetics*, Kamitsubo Hall (Harima, Japan 2016)
 189. Meeting of the Spanish Network of Excellence on *Reactive Oxygen Species and Systems* (Madrid, Spain 2017)
 190. International Society for Heart Research-North American Section Meeting (New Orleans, Louisiana 2017)
 191. Congress of the European Society of Cardiology (ESC) (Barcelona, Spain 2017)
 192. British Society for Cardiovascular Research (BSCR) Meeting *Cardiac Metabolic Disorders and Mitochondrial Dysfunction* (Oxford, UK 2017)
 193. First Moscow International Cardiology Congress (Moscow, Russian Federation 2017)
 194. Cold Spring Harbor Asia Conference on Mitochondria (Suzhou, China 2017)
 195. International Society for Heart Research-Japanese Section Meeting (Osaka, Japan 2017)
 196. Keynote Speaker, Meeting *Oxidative Stress in Subcellular Compartments* University of Namur (Namur, Belgium 2018)
 197. Weizmann Institute Conference *Emerging Concepts in Mitochondrial Biology* (Rehovot, Israel 2018)
 198. Giovanni Salviati Memorial *Translational Myology for Health and Disease* (Padova, Italy 2018)
 199. Seventh World Congress *Oxidative Stress, Calcium Channels and TRP Channels* (Antalya, Turkey 2018)
 200. Conference on *Membrane Transport* (Sümege, Hungary 2018)
 201. Symposium on *Cell Organelles* (Shanghai, China 2018)
 202. International Conference *The 3rd BIOCEV DAYS*, Biotechnology and Biomedicine Center of the Academy of Sciences and Charles University (Vestec, Czech Republic 2018)
 203. 20th European Bioenergetics Conference, Opening Lecture (Budapest, Hungary 2018)
 204. Cold Spring Harbor Meeting *The Evolving Concept of Mitochondria: From Physics to Biology to Medicine* (Cold Spring Harbor, New York 2018)
 205. Gordon Research Conference on *Mitochondria in Health and Disease* (Ventura Beach, California 2019)
 206. Giornata di studio *Guido Tarone*, Molecular Biotechnology Center (Torino, Italy 2019)
 207. FASEB Conference *Mitochondrial Biogenesis and Dynamics in Health and Disease*, Keynote Lecture (Palm Springs, California 2019)
 208. International Society for Heart Research XXIII World Congress (Beijing, China 2019)

209. 44th Meeting of the Federation of the European Biochemical Societies (Krakow, Poland 2019)
210. NHLBI Mitochondrial Biology Symposium, NIH (Bethesda, Maryland 2019)
211. Second Moscow International Cardiology Congress (Moscow, Russian Federation 2019)
212. Cold Spring Harbor Asia Conference on Mitochondria (Suzhou, China 2019)
213. 64th Annual Meeting of the Biophysical Society USA, Symposium on *Mitochondrial Calcium Fluxes* (San Diego, California 2020)
214. Minisymposium *The still elusive molecular identity of the mitochondrial permeability transition pore (mPTP)*, transNIH Mitochondrial Disease Working Group [webconference] (Bethesda, Maryland, 2020)
215. 2020 *PaduaMuscleDays* [webconference] (Padova, Italy 2020)
216. 2121 *Padua Days on Myology & Mobility Medicine* [webconference] (Padova, Italy 2021)
217. XXII Congreso de la Rama de Bioenergética y Biomembranas, Sociedad Mexicana de Bioquímica, Conferencia Magistral I [webconference] (Michoacán, Mexico 2021)
218. European Society for Clinical Investigation 56th Meeting (Bari, Italy, 2022).
219. The 25th IUBMB, 46th FEBS, 15th PABMB Congress "*The Biochemistry Global Summit*" (Lisbon, Portugal 2022)
220. 21st European Bioenergetics Conference (Aix-en-Provence, France 2022)

INVITED SEMINARS

1. Boston University, Boston, Massachusetts (host Michael A. Shia, 1992)
2. Brock University, St. Catharines, Canada (host Peter Rand, 1992)
3. National Institute of Aging - NIH, Baltimore, Maryland (host Richard Hansford, 1992)
4. Ohio State University, Columbus, Ohio (host Gerald P. Brierley, 1992)
5. Medical College of Ohio, Toledo, Ohio (host Keith D. Garlid, 1992)
6. Stanford University, Stanford, California (host Ron R. Kopito, 1992)
7. Wayne State University, Detroit, Michigan (host C.P. Lee, 1993)
8. Università degli Studi di Bologna, Italy (host Giorgio Lenaz, 1993)
9. Sandoz Pharma AG, Basel, Switzerland (host Max H. Schreier, 1993)
10. Università degli Studi di Modena, Italy (host Claudio Franceschi, 1994)
11. Ohio State University, Columbus, Ohio (host Douglas R. Pfeiffer, 1994)
12. Oregon Graduate Institute of Science and Technology, Portland, Oregon (host Keith D. Garlid, 1994)
13. Thomas Jefferson University, Philadelphia, Pennsylvania (host Jan B. Hoek, 1994)
14. Università degli Studi di Ferrara, Italy (host Francesco Di Virgilio, 1994)
15. San Diego State University, San Diego, California (host Roger Sabbadini, 1995)
16. University of North Carolina at Chapel Hill, Chapel Hill, North Carolina (host John J. Lemasters 1995)
17. Johns Hopkins University, Baltimore, Maryland (host William S. Agnew, 1995)
18. University of Konstanz, Germany (host Dieter Brdiczka, 1995)
19. Vollum Institute, Oregon Health Sciences University, Portland, Oregon (host Michael A. Forte, 1996)
20. University of California at San Diego, San Diego, California (host John C. Reed, 1996)
21. University of Rochester, Rochester, New York (host Thomas E. Gunter, 1996)
22. University of Würzburg, Würzburg, Germany (host Roland Benz, 1996)
23. University of Munich, Munich, Germany (host Martin Klingenberg, 1996)
24. University of Bordeaux II, Bordeaux, France (host Jean-Pierre Mazat, 1996)
25. Università degli Studi di Trieste, Italy (host Gianluigi Sottocasa, 1996)
26. University of Rio de Janeiro, Rio de Janeiro, Brasil (host Leopoldo De Meis, 1996)
27. University of Connecticut Health Center, Farmington, Connecticut (host Leslie M. Loew 1997)
28. Merck & Co. Inc., West Point, Pennsylvania (host Allen Oliff, 1997)
29. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 1997)
30. F. Hoffmann-La Roche Ltd, Basel, Switzerland (host Andrea M. Cesura, 1998)
31. ETH, Zürich, Switzerland (host Theo Wallimann, 1998)
32. Astra Arcus, Rochester New York (host Eric Harris, 1998)
33. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 1998)
34. Emory University, Atlanta, Georgia (host Dean P. Jones, 1999)
35. Allergan Inc., Irvine California (host Joseph S. Adorante, 1999)
36. Columbia College of Physicians and Surgeons, New York, New York (host Salvatore Di Mauro, 1999)
37. Telethon Institute of Genetics and Medicine, Milano, Italy (host Giorgio Casari, 1999)
38. ETH, Zürich, Switzerland (host Theo Wallimann, 1999)
39. California Institute of Technology, Pasadena, California (host Giuseppe Attardi, 1999)
40. Vollum Institute, Oregon Health Sciences University, Portland, Oregon (host Michael A. Forte, 1999)

41. Università degli Studi di Ancona, Italy (host Enrico Bertoli, 1999)
42. University of Lausanne, Switzerland (host Urs Ruegg 1999)
43. F. Hoffmann-La Roche Ltd, Basel, Switzerland (host John Kemp, 1999)
44. Istituto Europeo di Oncologia, Milano, Italy (host Pier Giuseppe Pelicci, 1999)
45. University of Helsinki, Finland (host Ove Eriksson, 1999)
46. University of Lund, Sweden (host Tadeusz Wieloch, 1999)
47. Stanford University, Stanford, California (host Ron R. Kopito, 2000)
48. Neuroscience Institute, Honolulu, Hawaii (host Bo Siesjö, 2000)
49. University of Manitoba, Winnipeg, Canada (host Klaus Wrogemann, 2000)
50. Centro de Investigaciones Biológicas, CSIC, Madrid (host Eduardo Rial, 2000)
51. University of Gent, Belgium (host Walter Fiers, 2001)
52. University of Toulouse, France (host Louis Casteilla, 2001)
53. Università degli Studi di Siena, Italy (host Angelo Benedetti, 2001)
54. University of Lausanne, Switzerland (host Urs Ruegg, 2001)
55. H. Lundbeck A/S, Copenhagen (host Marcel Leist, 2002)
56. University of Helsinki, Finland (host Ove Eriksson, 2002)
57. Scuola Superiore S. Anna, Pisa, Italy (host Giancarlo Solaini, 2002)
58. Vasopharm Biotech GmbH, Würzburg, Germany (host Frank Tegtmeier, 2002)
59. University of Lyon, France (host Catherine Godinot, 2002)
60. Università Cattolica di Roma, Italy (host Tommaso Galeotti, 2002)
61. University of Rochester, Rochester, New York (host Thomas Gunter, 2002)
62. Vollum Institute, Oregon Health Sciences University, Portland, Oregon (host Michael A. Forte, 2002)
63. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 2002)
64. Thomas Jefferson University, Philadelphia, Pennsylvania (host Jan B. Hoek, 2002)
65. MRC Toxicology Unit, University of Leicester, UK (host Pierluigi Nicotera, 2002)
66. INSERM U523, Hôpital Pitié-Salpêtrière, Paris, France (host Anne Lombès, 2003)
67. INSERM U393, Hôpital Necker Enfants Malades, Paris, France (host Pierre Rustin, 2003)
68. International Institute of Genetics and Biophysics, Napoli, Italy (host Stefania Filosa, 2003)
69. IRCC, Institute for Cancer Research, Candiolo – Torino, Italy (host Andrea Rasola, 2003)
70. Università degli Studi di Siena, Italy (host Cosima T. Baldari, 2004)
71. Georgetown University, Washington DC (host Martine Culty, 2004)
72. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 2004)
73. MRC Dunn Human Nutrition Unit, Cambridge, UK (host Michael P. Murphy, 2004)
74. Fred Hutchinson Cancer Research Center, Seattle, Washington (host, David M. Hockenbery, 2004)
75. Centro de Investigaciones Biológicas, CSIC, Madrid, Spain (host Eduardo Rial, 2004)
76. Center of Molecular Biology Severo Ochoa, Autonomous University of Madrid, Spain (host Jorgina Satrustegui, 2004)
77. University of Geneva, Switzerland (host Urs Ruegg, 2005)
78. Università degli Studi di Udine, Italy (host Claudio Brancolini, 2005)
79. Università Statale di Milano, Italy (host Nica Borgese, 2005)
80. Scuola Normale di Pisa, Italy (host Lucia Galli-Resta, 2005)
81. Burnham Institute for Medical Research and the University of California, San Diego, California (host Stuart Lipton, 2006)
82. Stanford University, Stanford, California (host Ron R. Kopito, 2006)
83. Chemical Pharmaceutical Academy of Saint Petersburg, Russian Federation (host Olga Kudritskaya, 2007)
84. Department of Molecular Genetics, Institute of Experimental Medicine, Saint Petersburg, Russian Federation (host Vadim Vasilyev, 2007)
85. National Institute of Aging of NIH, Baltimore, Maryland (host Edward Lakatta, 2007)
86. National Institutes of Health, Bethesda, Maryland (host Elisabetta Müller, 2007)
87. Northwestern University Medical School, Chicago, Illinois (host Hossein Ardehali, 2007)
88. University of Rochester, Rochester, New York (host Gail Johnson, 2007)
89. Università Federico II, Napoli, Italy (host Franca Esposito, 2007)
90. University of Sevilla, Spain (host Plácido Navas, 2008)
91. Oregon Clinical and Translational Research Institute, Portland, Oregon (host Eric Orwoll, 2008)
92. Università degli Studi di Torino, Italy (host Antonio Amoroso, 2008)
93. Max F. Perutz Laboratories, University of Vienna, Austria (hosts Rudolf J. Schweyen and Karin Nowikovsky, 2008)
94. Biomedicum, University of Helsinki, Finland (host Anu Suomalainen-Wartiovaara, 2009)
95. Università Vita-Salute San Raffaele, Milano, Italy (host Jacopo Meldolesi, 2009)
96. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 2009)

97. Seahorse Bioscience Cellular Bioenergetics Webinar Series, On-line Seminar (host David Ferrick, 2009)
98. Thomas Jefferson University, Philadelphia, Pennsylvania (host György Hajnoczky, 2009)
99. Università degli Studi di Pavia, Italy (host Pietro Speziale, 2010)
100. 12th Annual Frank M. Townsend, MD Lecture, University of Texas (San Antonio, Texas 2010)
101. Università degli Studi "Magna Graecia" di Catanzaro, Italy (host Giuseppe Viglietto, 2011)
102. Stockholm University, Sweden (hosts Elzbieta Glaser and Peter Brzezinski, 2011)
103. Université Joseph Fourier, Grenoble, France (host Uwe Schlattner, 2011)
104. Boston University, Boston, Massachusetts (host Orian Shirihai, 2011)
105. Biomedicum, University of Helsinki, Finland (host Ove Eriksson, 2011)
106. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 2011)
107. CNR Institute of Neurosciences, Milano, Italy (host Nica Borgese, 2012)
108. Università degli Studi di Roma "Tor Vergata" (host Francesco Cecconi, 2012)
109. Université Claude Bernard Lyon 1 (host Michel Ovize, 2012)
110. Stanford University, Stanford California (host Ron R. Kopito, 2013)
111. Vollum Institute, Oregon Health Sciences University, Portland, Oregon (host Michael A. Forte, 2013)
112. University of Tokushima, Japan (host Yasuo Shinohara, 2013)
113. Medical Research Institute at Tokyo Medical and Dental University, Japan (host Shigeomi Shimizu, 2013)
114. Max Plank Institute for Biology and Aging, Köln, Germany (hosts Nils-Göran Larsson and Thomas Langer, 2013)
115. MRC Mitochondrial Biology Unit, Cambridge UK (host Massimo Zeviani, 2013)
116. Stockholm University, Sweden (host Elzbieta Glaser, 2013)
117. Medical University of Vienna and Research Center for Molecular Medicine, Austrian Academy of Sciences (hosts Karin Nowikovsky and Keiryn Bennett, 2013)
118. National Institutes of Health, Bethesda, Maryland (host Robert S. Balaban, 2014)
119. Subharti Medical College, Meerut, India (host Sunjay Kumar, 2014)
120. Nencki Institute of Experimental Biology, Warsaw, Poland (host Adam Szewczyk, 2015)
121. Università degli Studi di Udine, Italy (host Claudio Brancolini, 2015)
122. Institute of Molecular Medicine, Beijing University, Beijing China (host Heping Cheng, 2015)
123. Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, Vienna, Austria (host Andrey Kozlov, 2016)
124. MRC Mitochondrial Biology Unit, Cambridge UK (host Massimo Zeviani, 2016)
125. Guest Lecturer, Saint Petersburg State University, Russian Federation (host Sergey Tunik, 2016)
126. University of Washington, Seattle Washington (host Rong Tian, 2016)
127. University of Tokyo, Japan (host Hiroyuki Noji, 2016)
128. University of Osaka, Japan (host Genji Kurisu, 2016)
129. Università di Siena, Italy (host Marina Ziche, 2017)
130. National Institutes of Health, Bethesda, Maryland (host Leonid B. Margolis, 2017)
131. Zhejiang University, Hangzhou, China (host Min-Xin Guan, 2018)
132. New York University, New York NY (host Evgeny Pavlov, 2018)
133. Center for Cooperative Research on Biomaterials, Donostia-San Sebastian, Spain (host Maurizio Prato, 2019)
134. Telethon Institute of Genetics and Medicine (TIGEM), Pozzuoli, Italy (host Giorgio Casari, 2019)
135. Department of Biochemical Sciences, Sapienza University of Rome, Italy [webinar] (host Francesco Malatesta, 2021)
136. Institute of Biochemistry and Biophysics, Polish Academy of Science, Warsaw, Poland [webinar] (host Roza Kucharczyk, 2021)
137. Center for Mitochondrial and Epigenomic Medicine (CMEM) Seminar Series, Philadelphia, PA [webinar] (host Douglas C. Wallace)

LIST OF PUBLICATIONS

1. **Bernardi, P.** and Azzone, G.F. (1979) Δ pH-induced Ca^{2+} Fluxes in Rat Liver Mitochondria. *Eur. J. Biochem.* **102**, 555-562
2. Azzone, G.F., **Bernardi, P.** and Bragadin, M. (1979) Pathways and Regulation of Ca^{2+} Transport in Rat Liver Mitochondria, in *Function and Molecular Aspects of Biomembrane Transport*, Quagliariello, E. et al. Eds., North Holland Biomedical Press/Elsevier pp. 183-192
3. **Bernardi, P.** and Azzone, G.F. (1981) Synthesis of ATP During Oxidation of Exogenous NADH by Intact Liver Mitochondria: a Reappraisal, in *Vectorial Reactions in Electron and Ion Transport in Mitochondria and Bacteria*, Palmieri, F. et al. Eds., North Holland Biomedical Press/Elsevier pp. 419-422
4. Pozzan, M., **Bernardi, P.** and Di Virgilio, F. (1981) The Mechanism of Ca^{2+} Release Induced by N-Ethylmaleimide in Rat Liver Mitochondria. *FEBS Lett.* **127**, 263-266
5. **Bernardi, P.** and Azzone, G.F. (1981) Cytochrome *c* as an Electron Shuttle Between the Outer and Inner Mitochondrial Membranes. *J. Biol. Chem.* **256**, 7187-7192
6. **Bernardi, P.** and Azzone, G.F. (1982) ATP Synthesis During Exogenous NADH Oxidation: a Reappraisal. *Biochim. Biophys. Acta* **679**, 19-27
7. **Bernardi, P.** and Pietrobon, D. (1982) On the Nature of Pi -Induced, Mg^{2+} -Prevented Ca^{2+} Release in Rat Liver Mitochondria. *FEBS Lett.* **139**, 9-12
8. **Bernardi, P.** and Azzone, G.F. (1982) A Membrane Potential Modulated Pathway for Ca^{2+} Efflux in Rat Liver Mitochondria. *FEBS Lett.* **139**, 13-16
9. **Bernardi, P.**, Pozzan, M. and Azzone, G.F. (1982) Mitochondrial Oscillation and Activation of H^+ /Organic Cation Exchange. *J. Bioenerg. Biomembr.* **14**, 387-403
10. **Bernardi, P.** and Azzone, G.F. (1983) Electroneutral H^+/K^+ Exchange in Liver Mitochondria: Regulation by Membrane Potential. *Biochim. Biophys. Acta* **724**, 212-223
11. **Bernardi, P.** and Azzone, G.F. (1983) Regulation of Ca^{2+} Efflux in Rat Liver Mitochondria: Role of Membrane Potential. *Eur. J. Biochem.* **134**, 377-383
12. Saris, N.-E. L. and **Bernardi, P.** (1983) Inhibition by Sr^{2+} of Specific Mitochondrial Ca^{2+} Efflux Pathways. *Biochim. Biophys. Acta* **725**, 19-24
13. **Bernardi, P.**, Paradisi, V., Pozzan, T. and Azzone, G.F. (1984) Pathway for Uncoupler-Induced Ca^{2+} Efflux in Rat Liver Mitochondria: Inhibition by Ruthenium Red. *Biochemistry* **23**, 1645-1651
14. **Bernardi, P.** (1984) Modulation of Ca^{2+} Efflux and Rebounding Ca^{2+} Transport in Rat Liver Mitochondria. *Biochim. Biophys. Acta* **766**, 277-282
15. Favaron, M. and **Bernardi, P.** (1985) Tissue-Specific Modulation of the Mitochondrial Calcium Uniporter by Magnesium Ions. *FEBS Lett.* **183**, 260-264
16. Allshire, A., **Bernardi, P.** and Saris, N.-E. L. (1985) Manganese Stimulates Calcium Flux through the Mitochondrial Uniporter. *Biochim. Biophys. Acta* **807**, 202-209
17. Rizzuto, R., **Bernardi, P.**, Favaron, M. and Azzone, G.F. (1987) Pathways for Ca^{2+} Efflux in Heart and Liver Mitochondria. *Biochem. J.* **246**, 271-277
18. **Bernardi, P.**, Patel, V.P. and Lodish, H.F. (1987) Lymphoid Precursor Cells Adhere to Two Different Sites on Fibronectin. *J. Cell Biol.* **105**, 489-498
19. **Bernardi, P.**, Angrilli, A., Ambrosin, V. and Azzone, G.F. (1989) Activation of Latent K^+ Uniport in Mitochondria Treated with the Ionophore A23187. *J. Biol. Chem.* **264**, 18902-18906
20. **Bernardi, P.**, Angrilli, A. and Azzone, G.F. (1990) A Gated Pathway for Electrophoretic Na^+ Fluxes in Rat Liver Mitochondria. Regulation by Surface Mg^{2+} . *Eur. J. Biochem.* **188**, 91-97
21. Lenartowicz, E., **Bernardi, P.** and Azzone, G.F. (1991) Phenylarsine Oxide Induces the Cyclosporin A-Sensitive Membrane Permeability Transition in Rat Liver Mitochondria. *J. Bioenerg. Biomembr.* **23**, 679-688
22. Nicolli, A., Redetti, A. and **Bernardi, P.** (1991) The K^+ Conductance of the Inner Mitochondrial Membrane. A Study of the Inducible Uniport for Monovalent Cations. *J. Biol. Chem.* **266**, 9465-9470
23. **Bernardi, P.**, Zoratti, M. and Azzone, G.F. (1992) Mitochondrial Volume Homeostasis: Regulation of Cation Transport Systems in *Mechanics of Swelling: from Clays to Living Cells and Tissues*, Karalis, T.K. Ed., Springer Verlag, Berlin, pp. 357-377
24. **Bernardi, P.**, Vassanelli, S., Veronese, P., Colonna, R., Szabò, I. and Zoratti, M. (1992) Modulation of the Mitochondrial Permeability Transition Pore. Effect of Protons and Divalent Cations. *J. Biol. Chem.* **267**, 2934-2939
25. Szabò, I., **Bernardi, P.** and Zoratti, M. (1992) Modulation of the Mitochondrial Megachannel by Divalent Cations and Protons. *J. Biol. Chem.* **267**, 2940-2946
26. Bragadin, M., Argese, E., Nicolli, A. and **Bernardi, P.** (1992) A Simple *in vitro* Test to Monitor Trace Metal Toxicity in Aqueous Samples. *Environ. Technol.* **13**, 779-784

27. **Bernardi, P.** (1992) Modulation of the Mitochondrial Cyclosporin A-Sensitive Permeability Transition Pore by the Proton Electrochemical Gradient. Evidence that the Pore can be Opened by Membrane Depolarization. *J. Biol. Chem.* **267**, 8834-8839
28. **Bernardi, P.**, Veronese, P. and Petronilli, V. (1993) Modulation of the Mitochondrial Cyclosporin A-Sensitive Permeability Transition Pore. I. Evidence for Two Separate Me^{2+} Binding Sites with Opposing Effects on the Pore Open Probability. *J. Biol. Chem.* **268**, 1005-1010
29. Petronilli, V., Cola, C. and **Bernardi, P.** (1993) Modulation of the Mitochondrial Cyclosporin A-Sensitive Permeability Transition Pore. II. The Minimal Requirements for Pore Induction Underscore a Key Role for Transmembrane Electrical Potential, Matrix pH and Matrix Ca^{2+} . *J. Biol. Chem.* **268**, 1011-1016
30. Nicolli, A., Petronilli, V. and **Bernardi, P.** (1993) Modulation of the Mitochondrial Cyclosporin A-Sensitive Permeability Transition Pore by Matrix pH. Evidence that the Pore Open-Closed Probability is Regulated by Reversible Histidine Protonation. *Biochemistry* **32**, 4461-4465
31. Petronilli, V., Cola, C., Massari, S., Colonna, R. and **Bernardi, P.** (1993) Physiological Effectors Modify Voltage Sensing by the Cyclosporin A-Sensitive Permeability Transition Pore of Mitochondria. *J. Biol. Chem.* **268**, 21939-21945
32. Petronilli, V., Costantini, P., Scorrano, L., Colonna, R., Passamonti, S. and **Bernardi, P.** (1994) The Voltage Sensor of the Mitochondrial Permeability Transition Pore is Tuned by the Oxidation-Reduction State of Vicinal Thiols. Increase of the Gating Potential by Oxidants and its Reversal by Reducing Agents. *J. Biol. Chem.* **269**, 16638-16642
33. Petronilli, V., Nicolli, A., Costantini, P., Colonna, R. and **Bernardi, P.** (1994) Regulation of the Permeability Transition Pore, a Voltage-dependent Mitochondrial Channel Inhibited by Cyclosporin A. *Biochim. Biophys. Acta* **1187**, 255-259
34. Petronilli, V., Nicolli, A., Costantini, P., Colonna, R. and **Bernardi, P.** (1994) The Permeability Transition Pore. Pathophysiology of a Cyclosporin A-sensitive Mitochondrial Channel, in *Modern Trends in BioThermoKinetics*, Vol. 3 (Gnaiger, E., Gellerich, F.N., and Wyss, M., Eds.) Innsbruck University Press, pp.259-262
35. **Bernardi, P.**, Broekemeier, K.M. and Pfeiffer, D.R. (1994) Recent Progress on Regulation of the Permeability Transition Pore, a Cyclosporin A-sensitive Pore in the Mitochondrial Inner Membrane. *J. Bioenerg. Biomembr.* **26**, 509-517
36. Costantini, P., Petronilli, V., Colonna, R. and **Bernardi, P.** (1995) On the Effects of Paraquat on Isolated Mitochondria. Evidence that Paraquat Causes Opening of the Cyclosporin A-Sensitive Permeability Transition Pore Synergistically with Nitric Oxide. *Toxicology* **99**, 77-88
37. **Bernardi, P.** (1995) The Permeability Transition Pore. History and Perspectives of a Cyclosporin A-Sensitive Mitochondrial Channel, in *Progress in Cell Research* Vol. 5 (Palmieri, F. et al Eds.), Elsevier Science Publishers B.V., Amsterdam, pp. 119-123
38. Costantini, P., Chernyak, B.V., Petronilli, V. and **Bernardi, P.** (1995) Selective Inhibition of the Mitochondrial Permeability Transition Pore at the Oxidation-Reduction Sensitive Dithiol by Monobromobimane. *FEBS Lett.* **362**, 239-242
39. Nicolli, A., Costantini, P., Basso, E., Colonna, R., Petronilli, V. and **Bernardi, P.** (1995) Potential Role of Cyclosporin A-Sensitive Mitochondrial Channels in Ischemia-Reperfusion Injury. *Transpl. Proc.* **27**, 2825-2826
40. **Bernardi, P.** and Petronilli, V. (1996) The Permeability Transition Pore as a Mitochondrial Ca^{2+} Release Channel; a Critical Appraisal. *J. Bioenerg. Biomembr.* **28**, 131-138
41. Nicolli, A., Basso, E., Petronilli, V., Wenger, R.M. and **Bernardi, P.** (1996) Interactions of Cyclophilin with the Mitochondrial Inner Membrane and Regulation of the Permeability Transition Pore, a Cyclosporin A-sensitive Channel. *J. Biol. Chem.* **271**, 2185-2192
42. Costantini, P., Chernyak, B.V., Petronilli, V. and **Bernardi, P.** (1996) Modulation of the Mitochondrial Permeability Transition Pore by Pyridine Nucleotides and Dithiol Oxidation at Two Separate Sites. *J. Biol. Chem.* **271**, 6746-6751
43. Chernyak, B.V. and **Bernardi, P.** (1996) The Mitochondrial Permeability Transition Pore is Modulated by Oxidative Agents Through both Pyridine Nucleotides and Glutathione at Two Separate Sites, *Eur. J. Biochem.* **238**, 623-630
44. **Bernardi, P.** (1996) The Permeability Transition Pore. Control Points of a Cyclosporin A-sensitive Mitochondrial Channel Involved in Cell Death. *Biochim. Biophys. Acta* **1275**, 5-9
45. Presotto, C., Agnolucci, L., Biral, D., Dainese, P., **Bernardi, P.** and Salviati, G. (1997) A Novel Muscle Protein Located Inside the Terminal Cisternae of the Sarcoplasmic Reticulum. *J. Biol. Chem.* **272**, 6534-6538
46. Scorrano, L., Nicolli, A., Basso, E., Petronilli, V. and **Bernardi, P.** (1997) Two Modes of Activation of the Permeability Transition Pore: The Role of Mitochondrial Cyclophilin. *Mol. Cell Biochem.* **174**, 181-184

47. Scorrano, L., Petronilli, V. and **Bernardi P.** (1997) On the Voltage Dependence of the Mitochondrial Permeability Transition Pore. A Critical Appraisal. *J. Biol. Chem.* **272**, 12295-12299
48. Eriksson, O., Fontaine, E., Petronilli, V. and **Bernardi, P.** (1997) Inhibition of the Mitochondrial Cyclosporin A-sensitive Permeability Transition Pore by the Arginine Reagent Phenylglyoxal. *FEBS Lett.* **409**, 361-364
49. Salet, C., Moreno, G., Ricchelli, F. and **Bernardi, P.** (1997) Singlet Oxygen Produced by Photodynamic Action Causes Inactivation of the Mitochondrial Permeability Transition Pore. *J. Biol. Chem.* **272**, 21938-21943
50. Fontaine, E., Eriksson, O., Ichas, F. and **Bernardi, P.** (1998) Regulation of the Permeability Transition Pore in Skeletal Muscle Mitochondria. Modulation by Electron Flow Through the Respiratory Chain Complex I. *J. Biol. Chem.* **273**, 12662-12668
51. Eriksson, O., Fontaine, E., and **Bernardi, P.** (1998) Chemical Modification of Arginines by 2,3-Butanedione and Phenylglyoxal Causes Closure of the Mitochondrial Permeability Transition Pore. *J. Biol. Chem.* **273**, 12669-12674
52. **Bernardi, P.**, Basso, E., Colonna, R., Costantini, P., Di Lisa F., Eriksson, O., Fontaine, E., Forte, M., Ichas, F., Massari, S., Nicolli, A., Petronilli, V. and Scorrano, L. (1998) Perspectives on the Mitochondrial Permeability Transition. *Biochim. Biophys. Acta* **1365**, 200-206
53. Costantini, P., Colonna, R. and **Bernardi, P.** (1998) Induction of the Mitochondrial Permeability Transition by N-Ethylmaleimide Depends on Secondary Oxidation of Critical Thiol Groups. Potentiation by Copper-*ortho*-phenanthroline without Dimerization of the Adenine Nucleotide Translocase. *Biochim. Biophys. Acta* **1365**, 385-392
54. Di Lisa, F. and **Bernardi, P.** (1998) Mitochondrial Function as a Determinant of Recovery or Death in Cell Response to Injury. *Mol. Cell Biochem.* **184**, 379-391
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