

PROF. PAOLO BERNARDI



Department of Biomedical Sciences, University of Padova, Via Ugo Bassi 58b, I-35131 Padova, Italy

<http://www.biomed.unipd.it/research/mitochondria-in-cell-death-and-cancer/overview/>

<http://www.biomed.unipd.it/people/bernardi-paolo/>

Place and date of birth	Cividale del Friuli (Italy) November 21 st , 1953
Phone	+39 049 827 6365
Fax	+39 049 827 6049
E-mail	bernardi@bio.unipd.it
Citizenship	Italian
Marital Status	Married, one son

STUDIES

High School Diploma	Liceo Classico "Paolo Diacono", Cividale del Friuli (Italy) 1971
M.D. Degree	University of Padova (Italy), 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 – present:	Director , Postgraduate School of Clinical Pathology, University of Padova
2012 – present:	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
2009 – present:	Member , Confrérie des Chevaliers de Tastevin, Château Clos Vougeot, Bourgogne, France
2010 – 2013 and 2016-present	President , Italian Group of Biomembranes and Bioenergetics
2010 – present:	Member , Academia Europaea, Section for Biochemistry and Molecular Biology
2012:	Prize for Physiology and Pathology , Ministro Beni e Attività Culturali, Accademia Nazionale dei Lincei, Rome
2014 – present:	Council Member , Bioenergetics Subgroup, Biophysical Society USA
2015 – present:	Socio Effettivo , Istituto Veneto di Scienze, Lettere ed Arti, Venice
2016 – present:	Membro , Consiglio direttivo della Scuola Galileiana di Studi Superiori, Padova

SCIENTIFIC INTERESTS AND CAREER HIGHLIGHTS

Paolo Bernardi began his studies on mitochondrial physiology and ion transport under the guidance of Giovanni Felice Azzone, 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) *Proc Natl Acad Sci USA* 110, 5887-5892; Carraro et al. (2014) *J Biol Chem* 23, 15980-15985; von Stockum et al (2015) *J Biol Chem* 290, 4537-4544], offers 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 realise 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 191 invited lectures at meetings and 128 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 24 Graduate Students from the University of Padova, 4 visiting Graduate Students from other Universities and 19 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 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

EDITORIAL ACTIVITIES

1. Chief Specialty Editor, *Frontiers in Mitochondrial Research* (from 2012), *Frontiers in Physiology*.
2. Section Editor, *Pathobiology of Human Disease: A Dynamic Encyclopedia of Disease Mechanisms*, Elsevier.
3. Editorial Board Member: *Journal of Biological Chemistry* (1997-2002, 2003-2008, 2010-2015), *Biochimica et Biophysica Acta* (1999-present), *Pharmacological Research* (2015-present), *Archives of Biochemistry and Biophysics* (1998-2003), *IUBMB Life* (2002-2007).
4. 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).
5. Member of the Education Committee, *International Union of Biochemistry and Molecular Biology* (1998-2003).
6. Ad hoc reviewer: *American Journal of Physiology*; *Apoptosis*; *Basic Research in Cardiology*; *Biochemical Pharmacology*; *Biochemistry*; *Biophysical Journal*; *Brain*; *British Journal of Pharmacology*; *Carcinogenesis*; *Cardiovascular Research*; *Cell*; *Cell Calcium*; *Cell Death and Differentiation*; *Cell Death and Disease*; *Cell Metabolism*; *Circulation*; *Circulation Research*; *eLife*; *EMBO Journal*; *EMBO Reports*; *Experimental Cell Research*; *FASEB Journal*; *FEBS Journal*; *FEBS Letters*; *Gastroenterology*; *Hepatology*; *Human Molecular Genetics*; *International Journal of Biochemistry & Cell Biology*; *Journal of Bioenergetics and Biomembranes*; *Journal of Cell Biology*; *Journal of Cell Science*; *Journal of General Physiology*; *Journal of Hepatology*; *Journal of Molecular and Cellular Cardiology*; *Journal of Neurochemistry*; *Journal of Neuroscience*; *Journal of Neuroscience Research*; *Journal of Physiology (London)*; *Molecular Cell*; *Molecular Pharmacology*; *Nature*; *Nature Genetics*; *Neuron*; *Neuroscience Letters*; *Neurotoxicity Research*; *Pharmacology & Toxicology*; *Physiological Reviews*; *PLoS Genetics*; *PLoS One*; *Proceedings of the National Academy of Sciences USA*; *Science*; *Scientific Reports*; *Trends in Biochemical Sciences*.

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 January, 2017 Prof. Bernardi has published 227 peer-reviewed articles which have received 25,466 citations with an H index of 82 (Google Scholar). His most quoted paper [Bernardi P (1999) Mitochondrial transport of cations: Channels, exchangers and permeability transition. *Physiol Rev* 79, 1127-1155] has 1,368 citations; his most quoted experimental paper [Basso, E., Fante, L., Fowlkes, J., Petronilli, V. Forte, M.A. and Bernardi, P. (2005) Properties of the Permeability Transition Pore in Mitochondria Devoid of Cyclophilin D, *J Biol Chem* 280, 18558-18561] ranks 4th with 668 quotes. His "top ten" list gathers over 6,800 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^o 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, FEBS (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, FEBS (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. FEBS Congress 2010 (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. British Society for Cardiovascular Research (BSCR) Meeting *Cardiac Metabolic Disorders and Mitochondrial Dysfunction* (Oxford, UK 2017)
191. Cold Spring Harbor Asia Conference on Mitochondria (Suzhou, China 2017)

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 Kostanz, 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 Lombés, 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 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. Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, Vienna, Austria (host Andrey Kozlov, 2016)
123. MRC Mitochondrial Biology Unit, Cambridge UK (host Massimo Zeviani, 2016)

124. Guest Lecturer, Saint Petersburg State University, Russian Federation (host Sergey Tunik, 2016)
125. University of Washington, Seattle Washington (host Rong Tian, 2016)
126. University of Tokyo, Japan (host Hiroyuki Noji, 2016)
127. University of Osaka, Japan (host Genji Kurisu, 2016)
128. Università di Siena, Italy (host Marina Ziche, 2017)

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-

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
55. Fontaine, E., Ichas, F. and **Bernardi, P.** (1998) A Ubiquinone-binding Site Regulates the Mitochondrial Permeability Transition Pore. *J. Biol. Chem.* **273**, 25734-25740
56. **Bernardi, P.** (1998) Mitochondria in Cell Death [Editorial], *Biochim. Biophys. Acta*, **1366**, 1-2
57. Petronilli, V., Miotto, G., Canton, M., Colonna, R., **Bernardi, P.** and Di Lisa, F. (1998) Imaging the mitochondrial permeability transition pore in intact cells. *BioFactors* **8**, 263-272
58. **Bernardi, P.**, Colonna, R., Costantini, P., Eriksson, O., Fontaine, E., Ichas, F., Massari, S., Nicolli, A., Petronilli, V. and Scorrano, L. (1998) The Mitochondrial Permeability Transition. *BioFactors* **8**, 273-281
59. Petronilli, V., Miotto, G., Canton, M., Brini, M., Colonna, R., **Bernardi, P.** and Di Lisa, F. (1999) Transient and long-lasting openings of the mitochondrial permeability transition pore can be monitored directly in intact cells by changes in mitochondrial calcein fluorescence. *Biophys. J.* **76**, 725-734
60. **Bernardi, P.**, Colonna, R., Costantini, P., Eriksson, O., Nicolli, A., Petronilli, V. and Scorrano, L. (1999) Chemical Modification of the Mitochondrial Permeability Transition Pore by Specific Amino Acid Reagents. *Drug Dev. Res.* **46**, 14-17
61. **Bernardi, P.** (1999) Perspectives on the Permeability Transition Pore, a Mitochondrial Channel Involved in Cell Death in *Frontiers of Cellular Bioenergetics: Molecular Biology, Biochemistry, and Physiopathology* (S. Papa, F. Guerrieri and J. Tager, Eds.) Plenum Publishing Company, London, pp. 773-795.
62. Scorrano, L., Petronilli, V., Di Lisa, F. and **Bernardi, P.** (1999) Commitment to Apoptosis by GD3 Ganglioside Depends on Opening of the Mitochondrial Permeability Transition Pore. *J. Biol. Chem.* **274**, 22581-22585
63. **Bernardi, P.**, Scorrano, L., Colonna, R., Petronilli, V. and Di Lisa, F. (1999) Mitochondria and Cell Death. Mechanistic Aspects and Methodological Issues. *Eur. J. Biochem.* **264**, 687-701
64. Ciminale, V., Zotti, L., D'Agostino, D.M., Ferro, T., Casareto, L., Franchini, G., **Bernardi, P.** and Chieco-Bianchi, L. (1999) Mitochondrial targeting of the p13^{II} protein coded by the x-II ORF of human T-cell leukemia/lymphotropic virus type I (HTLV-I). *Oncogene* **18**, 4505-4514
65. Scorrano, L., Petronilli, V., Colonna, R., Di Lisa, F. and **Bernardi, P.** (1999) Chloromethyltetramethylrosamine (Mitotracker OrangeTM) Induces the Mitochondrial Permeability Transition and Inhibits Respiratory Complex I. Implications for the Mechanism of Cytochrome c Release. *J. Biol. Chem.* **274**, 24657-24663.
66. Fontaine, E. and **Bernardi, P.** (1999) Progress on the Mitochondrial Permeability Transition Pore. Regulation by Complex I and Ubiquinone Analogs. *J. Bioenerg. Biomembr.* **31**, 335-345.
67. **Bernardi, P.** (1999) Mitochondrial Transport of Cations: Channels, Exchangers and Permeability Transition. *Physiol. Rev.* **79**, 1127-1155
68. **Bernardi, P.** (1999) Mitochondria in Muscle Cell Death. *Ital. J. Neurol. Sci.* **20**, 395-400
69. Standards for the Doctoral Degrees in the Molecular Biosciences – Recommendations of the Committee on Education of the International Union of Biochemistry and Molecular Biology – IUBMB publication free of copyright available at <http://www.iubmb.org/index.php?id=32> (as a Committee Member and Consultant)

70. Scorrano, L., Petronilli, V., Colonna, R., Di Lisa, F. and **Bernardi, P.** (1999) Interactions of Chloromethyltetramethylrosamine (Mitotracker Orange™) with Isolated Mitochondria and Intact Cells. *Ann. N.Y. Acad. Sci.* **893**, 391-395
71. Di Lisa, F., Petronilli, V., Colonna, R. and **Bernardi, P.** (1999) Response to J.J. Lemasters et al. *Biophys. J.* **77**, 1749-1750
72. Walter, L., Nogueira, V., Leverve, X., Heitz, M.-P., **Bernardi, P.** and Fontaine, E. (2000) Three Classes of Ubiquinone Analogs Regulate the Mitochondrial Permeability Transition Pore through a Common Site. *J. Biol. Chem.* **275**, 29521-29527
73. Scorrano, L., Petronilli, V., Penzo, D. and **Bernardi, P.** (2000) Arachidonic acid induces the mitochondrial permeability transition, cytochrome *c* release and apoptosis. *Eur. J. Anaesthesiol.* **17** (Suppl. 18), 14-16.
74. Rizzuto, R., **Bernardi, P.** and Pozzan, T. (2000) Mitochondria as all-round players of the calcium game. *J. Physiol. (London)* **529**, 37-47
75. **Bernardi, P.** and Fontaine, E. (2000) Regulation of the permeability transition pore by ubiquinone analogs in *Pharmacology of Cerebral Ischemia* (J. Kriegstein and S. Klumpp, Eds.) Medpharm Scientific publishers, Stuttgart, pp. 225-227
76. Beghetto, C., Renken, C., Eriksson, O., Jori, G., **Bernardi, P.** and Ricchelli, F. (2000) Generation of Reactive Oxygen Species by Photoactivated Calcein. Implication for Mitochondrial Studies. *Eur. J. Biochem.* **267**, 5585-5592
77. Nicholls, D.G., **Bernardi, P.**, Brand, M., Halestrap, A.D., Lemasters, J.J., and Reynolds, I. D. (2000) Apoptosis and the Laws of Thermodynamics. *Nat. Cell Biol.* **2**, E172
78. **Bernardi, P.**, Petronilli, V., Di Lisa, F. and Forte, M. (2001) A Mitochondrial Perspective on Cell Death. *Trends Biochem. Sci.* **26**, 112-117
79. Di Lisa, F., Menabò, R., Canton, M., Barile, M., and **Bernardi, P.** (2001) Opening of the mitochondrial permeability transition pore causes depletion of mitochondrial and cytosolic NAD⁺ and is a causative event in the death of myocytes in postischemic reperfusion of the heart. *J. Biol. Chem.* **276**, 2571-2575
80. Petronilli, V., Penzo, D., Scorrano, L., **Bernardi, P.** and Di Lisa, F. (2001) The Mitochondrial Permeability Transition, Release of Cytochrome *c* and Cell Death. Correlation with the Duration of Pore Openings *in situ*. *J. Biol. Chem.* **276**, 12030-12034
81. Scorrano, L., Penzo, D., Petronilli, V., Pagano, F., and **Bernardi, P.** (2001) Arachidonic Acid Causes Cell Death through the Mitochondrial Permeability Transition. Implications for TNF α Apoptotic Signaling, *J. Biol. Chem.* **276**, 12035-12040 [[discussed by J.J. Lemasters *Hepatology* \(2001\) 34, 606-607](#)]
82. Kristián, T., **Bernardi, P.**, and Siesjö, B.K. (2001) Acidosis Promotes the Permeability Transition in Energized Mitochondria: Implications for Reperfusion Injury, *J. Neurotraum.* **18**, 1059-1074
83. **Bernardi, P.** (2001) Perspectives in Mitochondrial Research. Foreword, *IUBMB Life* **52**, 91-92
84. Walter L., Miyoshi, H., Leverve, X., **Bernardi, P.**, and Fontaine, E. (2002) Regulation of the Mitochondrial Permeability Transition Pore by Ubiquinone Analogs. A Progress Report. *Free Rad. Res.* **36**, 405-412
85. **Bernardi, P.**, Penzo, D., and Wojtczak, L. (2002) Mitochondrial Energy Dissipation by Fatty Acids: Mechanisms and Implications for Cell Death. *Vitamins and Hormones*, **65**, 97-126
86. Linder, M.D., Morkunaite-Haimi, S., Kinnunen, P., **Bernardi, P.**, and Eriksson, O. (2002) Ligand-Selective Modulation of the Permeability Transition Pore by Arginine Modification. Opposing Effects of *p*-Hydroxyphenylglyoxal and Phenylglyoxal. *J. Biol. Chem.* **277**, 937-942
87. Risso, A., Braidot, E., Sordano, M.C., Vianello, A., Macrì, F., Skerlavaj, B., Zanetti, M., Gennaro, R., and **Bernardi, P.** (2002) BMAP-28, an Antibiotic Peptide of Innate Immunity, Induces Cell Death Through Opening of the Mitochondrial Permeability Transition Pore. *Mol. Cell. Biol.* **22**, 1926-1935
88. Irwin, W., Fontaine, E., Agnolucci, L., Penzo, D., Betto, R., Bortolotto, S., Reggiani, C., Salviati, G., and **Bernardi, P.** (2002) Bupivacaine Myotoxicity is Mediated by Mitochondria. *J. Biol. Chem.* **277**, 12221-12227
89. Trinei, M., Giorgio, M., Cicalese, A., Barozzi, S., Ventura, A., Migliaccio, E., Milia, E., Martin Padura, I., Raker, V.A., Maccarana, M., Petronilli, V., Minucci, S., **Bernardi, P.**, Lanfrancone, L., Pelicci, P.G. (2002) A p53-p66Shc signalling pathway controls intracellular redox status, levels of oxidation-damaged DNA and oxidative stress-induced apoptosis, *Oncogene* **21**, 3872-3878
90. Penzo, D., Tagliapietra, C., Colonna, R., Petronilli, V., and **Bernardi, P.** (2002) Effects of fatty acids on mitochondria: Implications for cell death, *Biochim. Biophys. Acta* **1555**, 160-165
91. Gugliucci, A., Ranzato, L., Scorrano, L., Colonna, R., Petronilli, V., Cusan, C., Prato, M., Mancini, M., Pagano, F. and **Bernardi, P.** (2002) Mitochondria are Direct Targets of the Lipoyxygenase Inhibitor MK886. A Strategy for Cell Killing by Combined Treatment with Mk886 and Cyclooxygenase Inhibitors, *J. Biol. Chem.* **277**, 31789-31795

92. D'Agostino, D.M., Ranzato, L., Arrigoni, G., Cavallari, I., Belleudi, F., Torrisi, M.R., Silic-Benussi, M., Ferro, T., Petronilli, V., Marin, O., Chieco-Bianchi, L., **Bernardi, P.**, and Ciminale, V. (2002) Mitochondrial alterations induced by the p13 II protein of human T-cell leukemia virus type 1: critical role of arginine residues, *J. Biol. Chem.* **277**, 34424-34433
93. Walzel, B., Speer, O., Zanolta, E., Eriksson, O., **Bernardi, P.**, and Wallimann, T. (2002) Novel Mitochondrial Creatine Transport Activity. Implications for Intracellular Creatine Compartments and Bioenergetics, *J. Biol. Chem.* **277**, 37503-37511
94. **Bernardi, P.** (2002) The Permeability Transition Pore as Source and Target of Oxidative Stress, Chapter 17 in *Cellular Implications of Redox Signalling* (Gitler, C. and Danon, A. Eds.) World Scientific Publishing Co, Singapore pp. 393-419
95. Troyano, A., Sancho, P., Fernández, C., de Blas, E., **Bernardi, P.**, and Aller, P. (2003) The selection between apoptosis and necrosis is differentially regulated in hydrogen peroxide-treated and glutathione-depleted human promonocytic cells, *Cell Death Diff.* **10**, 889-898
96. Di Lisa, F., Canton, M., Menabò, R., Dodoni, G. and **Bernardi, P.** (2003) Mitochondria and reperfusion injury. The role of the permeability transition *Basic Res. Cardiol.* **98**, 235-241
97. Klöhn, P.C., Soriano, M.E., Irwin, W., Penzo, D., Scorrano, L., Bitsch, A., Neumann, H.G., and **Bernardi, P.** (2003) Early resistance to cell death and to onset of the mitochondrial permeability transition during hepatocarcinogenesis with 2-acetylaminofluorene, *Proc. Natl. Acad. Sci. USA* **100**, 10014-10019
98. Cesura, A.M., Pinard, E., Schubel, R., Goetschy, V., Friedlein, A., Langen, H., Polcic, P., Forte, M.A., **Bernardi, P.**, and Kemp, J.A. (2003) The voltage-dependent anion channel is the target for a new class of inhibitors of the permeability transition pore, *J. Biol. Chem.* **278**, 49812-49818
99. Irwin, W., Bergamin, N., Sabatelli, P., Reggiani, C., Megighian, A., Merlini, L., Braghetta, P., Volpin, D., Bressan, G.M., **Bernardi, P.***, and Bonaldo, P.* (2003) Mitochondrial dysfunction and apoptosis in myopathic mice with collagen VI deficiency, *Nat. Genet.* **35**, 367-371 *Corresponding Authors [Covered in News and Views by Rizzuto (2003) Nat. Genet. 35, 300]
100. Gramaglia, D., Gentile, A., Battaglia, M., Ranzato, L., Petronilli, V., Fassetta, M., **Bernardi, P.** and Rasola, A. (2004) Apoptosis to necrosis switching downstream of apoptosome formation requires inhibition of both glycolysis and oxidative phosphorylation in a BCL-XL- and PKB/AKT-independent fashion, *Cell Death Diff.* **11**, 342-353
101. Bianchi, C., Fato, R., Angelin, A., Trombetti, F., Ventrella, V., Borgatti, A.R., Fattorusso, A., Ciminiello, P., **Bernardi, P.**, Lenaz, G., and Parenti Castelli, G. (2004) Yessotoxin, a shellfish biotoxin, is a potent inducer of the permeability transition in isolated mitochondria and intact cells, *Biochim. Biophys. Acta* **1656**, 139-147
102. Penzo, D., Petronilli, V., Angelin, A., Cusan, C., Colonna, R., Scorrano, L., Pagano, F., Prato, M., Di Lisa, F. and **Bernardi, P.** (2004) Arachidonic Acid Released by Phospholipase A₂ Activation Triggers Ca²⁺-dependent Apoptosis through the Mitochondrial Pathway, *J. Biol. Chem.* **279**, 25219-25225
103. Dodoni, G., Canton, M., Petronilli, V., **Bernardi, P.**, and Di Lisa, F. (2004) Induction of the mitochondrial permeability transition by the DNA alkylating agent N-Methyl-N'-nitro-N-nitrosoguanidine. Sorting cause and consequence of mitochondrial dysfunction, *Biochim. Biophys. Acta* **1658**, 58-63
104. Soriano, M.E., Nicolosi, L., and **Bernardi, P.** (2004) Desensitization of the Permeability Transition Pore by Cyclosporin A Prevents Activation of the Mitochondrial Apoptotic Pathway and Liver Damage by TNF- α , *J. Biol. Chem.* **279**, 36803-36808
105. D'Agostino, D.M., **Bernardi, P.**, Chieco-Bianchi, L. and Ciminale, V. (2005) Mitochondria as functional targets of proteins coded by human tumor viruses, *Adv. Cancer Res.* **94**, 87-142
106. Johans, M., Milanese, E., Franck, M., Johans, C., Liobikas, J., Panagiotaki, M., Greci, L., Principato, G., Kinnunen, P.K.J., **Bernardi, P.**, Costantini, P., and Eriksson, O. (2005) Modification of Permeability Transition Pore Arginine(s) by Phenylglyoxal Derivatives in Isolated Mitochondria and Mammalian Cells. Structure–function relationship of arginine ligands, *J. Biol. Chem.* **280**, 12130-12136
107. Di Lisa, F. and **Bernardi, P.** (2005) Mitochondrial function and myocardial aging. A critical analysis of the role of permeability transition, *Cardiovasc. Res.* **66**, 222-232
108. Cusan, C., Spalluto, G., Prato, M., Adams, M., Bodensieck, A., Bauer, R., Tubaro, A., **Bernardi, P.**, and Da Ros, T. (2005) Synthesis and biological evaluation of new phenidone analogues as potential dual cyclooxygenase (COX-1 and COX-2) and human lipoxygenase (5-LOX) inhibitors, *Il Farmaco* **60**, 7-13
109. Cusan, C., Spalluto, G., Prato, M., Adams, M., Bodensieck, A., Bauer, R., Tubaro, A., **Bernardi, P.**, and Da Ros, T. (2005) Synthesis and biological evaluation of a new class of acyl derivatives of 3-amino-1-phenyl-4,5-dihydro-1H-pyrazol-5-one as potential dual cyclooxygenase (COX-1 and COX-2) and human lipoxygenase (5-LOX) inhibitors, *Il Farmaco* **60**, 327-332

110. Ricchelli, F., Dabbeni-Sala, F., Petronilli, V., **Bernardi, P.**, Hopkins, B., and Bova, S. (2005) Species-specific modulation of the mitochondrial permeability transition by norbormide, *Biochim. Biophys. Acta* **1708**, 178-186
111. Basso, E., Fante, L., Fowlkes, J., Petronilli, V. Forte, M.A. and **Bernardi, P.** (2005) Properties of the Permeability Transition Pore in Mitochondria Devoid of Cyclophilin D, *J. Biol. Chem.* **280**, 18558-18561 [19th most read article in the *Journal of Biological Chemistry* in May, 2005; reviewed with score 8 (must read) in Faculty of 1000 Biology; commented upon by A. Gawrylewski, *The Scientist* (2007) **21**, 73]
112. Giorgio, M., Migliaccio, E., Orsini, F., Paolucci, D., Moroni, M., Contursi, C., Pelliccia, G., Luzi, L., Minucci, S., Marcaccio, M., Pinton, P., Rizzuto, R., **Bernardi, P.**, Paolucci, F. and Pelicci, P.G. (2005) Electron transfer between cytochrome *c* and p66Shc generates reactive oxygen species that trigger mitochondrial apoptosis, *Cell* **122**, 221-233 [reviewed with score 12 (exceptional) in Faculty of 1000 Biology]
113. Forte, M. and **Bernardi, P.** (2005) Genetic dissection of the permeability transition pore, *J. Bioenerg. Biomembr.*, **37**, 121-128
114. Di Lisa, F. and **Bernardi, P.** (2006) Mitochondria and ischemia-reperfusion injury of the heart: Fixing a hole, *Cardiovasc. Res.* **70**, 191-199
115. Krauskopf, A., Eriksson, O., Craigen, W.J., Forte, M.A. and **Bernardi, P.** (2006) Properties of the Permeability Transition in *VDAC1^{-/-}* Mitochondria, *Biochim. Biophys. Acta* **1757**, 590-595
116. Milanese, E., Costantini, P., Gambalunga, A., Colonna, R., Petronilli, P., Cabrelle, A., Semenzato, G., Cesura, A.M., Pinard, E. and **Bernardi, P.** (2006) The Mitochondrial Effects of Small Organic Ligands of BCL-2 at the BH3 Domain. Sensitization of BCL-2-overexpressing Cells to Apoptosis without Mitochondrial Toxicity by a Pyrimidine-2,4,6-trione Derivative, *J. Biol. Chem.* **281**, 10066-10072
117. **Bernardi, P.**, Krauskopf, A., Basso, E., Petronilli, V., Blachly-Dyson, E., Di Lisa, F. and Forte, M.A. (2006) The mitochondrial permeability transition from *in vitro* artifact to disease target, *FEBS J.* **273**, 2077-2099
118. Forte, M. and **Bernardi, P.** (2006) The Permeability Transition and BCL-2 Family Proteins in Apoptosis: Co-conspirators or Independent Agents? *Cell Death Diff.* **13**, 1287-1290
119. O'Brien, P.J., Irwin, W., Diaz, D., Krejsa, C.M., Gao, B., Howard-Cofield, E., Kaluderčić N., Angelin, A., **Bernardi, P.**, Brain, P., Slaughter, M.R., Hougham, C. (2006) High Concordance of Drug-Induced Human Hepatotoxicity and Other Target Organ Toxicity with *in vitro* Sublethal, Live-Cell Cytotoxicity Determined by High Content Screening, *Arch. Toxicol.* **80**, 580-604
120. Ferraro, P., Nicolosi, L., **Bernardi, P.**, Reichard, P. and Bianchi, V. (2006) Mitochondrial deoxynucleotides in mouse liver. Pool sizes and evidence for a carrier for thymidine monophosphate, *Proc. Natl. Acad. Sci. U.S.A.* **103**, 18586-18591
121. Angelin, A., Tiepolo, T., Sabatelli, P., Grumati, P., Bergamin, N., Golfieri, C., Mattioli, E., Gualandi, F., Ferlini, A., Merlini, L., Maraldi, N.M., Bonaldo, P. and **Bernardi, P.** (2007) Mitochondrial dysfunction in the pathogenesis of Ullrich congenital muscular dystrophy and prospective therapy with cyclosporins, *Proc. Natl. Acad. Sci. USA* **104**, 991-996 [covered in Editorial by Olsen, *Matrix Biology* (2007) **26**, 145 and reviewed with score 6 (recommended) in Faculty of 1000 Medicine]
122. Pellegrini, M., Finetti, F., Petronilli, V., Ulivieri, C., Giusti, F., Lupetti, P., Giorgio, M., Pelicci, P.G., **Bernardi, P.** and Baldari C.T. (2007) Phosphorylation of p66Shc Downregulates PMCA4a and Sensitizes T Cells to Ca²⁺ Deregulation, Mitochondrial Dysfunction and Apoptosis, *Cell Death Diff.* **14**, 338-347
123. Rasola A. and **Bernardi, P.** (2007) The mitochondrial permeability transition pore and its involvement in cell death and in disease pathogenesis, *Apoptosis* **12**, 815-833
124. Forte, M., Gold, B., Marracci, G., Chandhary, P., Basso, E., Johnsen, D., Yu, X., Fowlkes, J., **Bernardi, P.** and Bourdette, D. (2007) Cyclophilin D Inactivation Protects Axons in Experimental Autoimmune Encephalomyelitis, an Animal Model of Multiple Sclerosis, *Proc. Natl. Acad. Sci. USA* **104**, 7558-7563 [reviewed with score 6 (must read) in Faculty of 1000 Biology]
125. **Bernardi, P.** and Rasola, A. (2007) Calcium and cell death: the mitochondrial connection, *Subcell. Biochem.* **45**, 481-506
126. Di Lisa, F., Canton, M., Menabò, R., Kaluderčić, N. and **Bernardi, P.** (2007) Mitochondria and cardioprotection, *Heart Fail. Rev.* **12**, 249-260
127. **Bernardi, P.** and Forte, M. (2007) The Mitochondrial Permeability Transition, *Novartis Found. Symp.* **287**, 157-169
128. Zulian, A., Petronilli, V., Bova, S., Dabbeni-Sala, F., Cargnelli, G., Cavalli, M., Rennison, D., Ståb, J., Laita, O., Brimble, M.A., Hopkins, B., **Bernardi, P.** and Ricchelli, F. (2007) Assessing the molecular basis for rat-selective induction of the mitochondrial permeability transition by norbormide, *Biochim. Biophys. Acta* **1767**, 980-988
129. **Bernardi, P.** and Bonaldo, P. (2008) Dysfunction of Mitochondria and Sarcoplasmic Reticulum in the Pathogenesis of Collagen VI Muscular Dystrophies *Ann. N.Y. Acad. Sci.* **1147**, 303-311

130. Merlini, L., Angelin, A., Tiepolo, T., Braghetta, P., Sabatelli, P., Zamparelli, A., Ferlini, A., Maraldi, N.M., Bonaldo, P. and **Bernardi, P.** (2008) Cyclosporin A corrects mitochondrial dysfunction and muscle apoptosis in patients with collagen VI myopathies, *Proc. Natl. Acad. Sci. USA* **105**, 5225-5229 [covered in an Editorial by Olsen, *Matrix Biology* (2008) 27, 273; reviewed by Robinson, *Neurology Today*, Nov 20, 2008, 22-23 and Kaplan (2008) *Med. Sci. (Paris)* 24, 470; reviewed with score 6 (must read) in Faculty of 1000 Biology]
131. Chiara, F., Castellaro, D., Marin, O., Petronilli, V., Brusilow, W.S., Juhaszova, M., Sollott, S.J., Forte, M., **Bernardi, P.*** and Rasola, A.* (2008) Detachment of type II hexokinase from mitochondria triggers apoptosis through the permeability transition pore independent of voltage-dependent anion channels, *Corresponding authors *PLoS One* **3**, e1852
132. Angelin, A., Bonaldo, P. and **Bernardi, P.** (2008) Altered Threshold of the Mitochondrial Permeability Transition Pore in Ullrich Congenital Muscular Dystrophy, *Biochim. Biophys. Acta* **1777**, 893-896
133. Luvisetto, S., Basso, E., Petronilli, V., **Bernardi, P.** and Forte, M. (2008) Enhancement of anxiety, facilitation of avoidance behavior, and occurrence of adult-onset obesity in mice lacking mitochondrial cyclophilin D, *Neuroscience* **155**, 585-596
134. Merlini, L. and **Bernardi, P.** (2008) The Therapy of COL6-related Myopathies (Bethlem and Ullrich), *Neurotherapeutics* **5**, 613-618
135. Basso, E., Petronilli, V., Forte, M.A. and **Bernardi, P.** (2008) Phosphate is essential for inhibition of the mitochondrial permeability transition pore by cyclosporin A and by cyclophilin D ablation, *J. Biol. Chem.* **283**, 26307-26311
136. Brookes, P.S., Parker, N., Buckingham, J.A., Vidal-Puig, A., Halestrap, A.P., Gunter, T.E., Nicholls, D.G., **Bernardi, P.**, Lemasters, J.J., and Brand, M.D. (2008) UCPs – Unlikely Calcium Porters, *Nat. Cell Biol.* **10**, 1235-1237
137. Cereghetti, G.M., Stangherlin, A., Martins de Brito, O., Chang, D.R., Blackstone, C., **Bernardi, P.** and Scorrano, L. (2008) Dephosphorylation by calcineurin regulates translocation of Drp1 to mitochondria, *Proc. Natl. Acad. Sci. USA* **105**, 15803-15808
138. Rigoni, M., Paoli, M., Milanesi, E., Petronilli, V., Rasola, A., **Bernardi, P.** and Montecucco, C. (2008) Snake PLA2 neurotoxins enter neurons, bind specifically to mitochondria and open their transition pores, *J. Biol. Chem.* **283**, 34013-34020
139. Berniakovich, I., Trinei, M., Stendardo, M., Migliaccio, E., Minucci, S., **Bernardi, P.**, Pelicci, P.G. and Giorgio, M. (2008) P66shc-Generated Oxidative Signal Promotes Fat Accumulation *J. Biol. Chem.* **283**, 34283-34293
140. Nowikovsky, K., Schweyen, R.J. and **Bernardi, P.** (2009) Pathophysiology of mitochondrial volume homeostasis: Potassium transport and permeability transition, *Biochim. Biophys. Acta* **1787**, 345-350
141. Porcelli, A.M., Angelin, A., Ghelli, A., Mariani, E., Martinuzzi, A., Carelli, V., Petronilli, V., **Bernardi, P.*** and Rugolo, M. (2009) Respiratory complex I dysfunction due to mitochondrial DNA mutations shifts the voltage threshold for opening of the permeability transition pore toward resting levels, *Corresponding author *J. Biol. Chem.* **284**, 2045-2052 [reviewed with score 8 (must read) in Faculty of 1000 Biology]
142. Baron, A., Mancini, M., Caldwell, E., Cabrelle, A., **Bernardi, P.*** and Pagano, F.* (2009) Serenoa repens extract targets mitochondria and activates the intrinsic apoptotic pathway in human prostate cancer cells, *Corresponding authors *BJU Int.* **103**, 1275-1283
143. Wang, X., Carlsson, Y., Basso, E., Zhu, C., Rousset, C.I., Rasola, A., Johansson, B.R., Blomgren, K., Mallard, C., **Bernardi, P.**, Forte, M.A. and Hagberg, H. (2009) Developmental shift of mitochondrial cyclophilin D contribution to hypoxic-ischemic brain injury, *J. Neurosci.* **29**, 2588 –2596
144. Fontanini, A., Foti, C., Potu, H., Crivellato, E., Maestro, R., **Bernardi, P.**, Demarchi, F. and Brancolini, C. (2009) The isopeptidase inhibitor G5 triggers a caspase-independent necrotic death in cells resistant to apoptosis: A comparative study with the proteasome inhibitor Bortezomib, *J. Biol. Chem.* **284**, 8369-8381
145. Silic-Benussi, M., Cannizzaro, E., Venerando, A., Cavallari, I., Petronilli, V., Marin, O., Chieco-Bianchi, L., D'Agostino, D.M., **Bernardi, P.**, and Ciminale, V. (2009) Modulation of mitochondrial K⁺ permeability and reactive oxygen species production by the p13 protein of human T-cell leukemia virus type 1, *Biochim. Biophys. Acta* **1787**, 947-954
146. Maraldi, N.M., Sabatelli, P., Columbaro, M., Zamparelli, A., Manzoli, F.A., **Bernardi, P.**, Bonaldo, P. and Merlini, L. (2009) Collagen VI myopathies: From the animal model to the clinical trial, *Adv. Enzyme Regul.* **49**, 197-211
147. **Bernardi, P.**, Bonaldo, P., Maraldi, N.M., Merlini, L. and Sabatelli, P. (2009) On the pathogenesis of collagen VI muscular dystrophies - Comment on article of Hicks *et al.*, *Brain* DOI 10.1093/awp021
148. Di Lisa, F. and **Bernardi, P.** (2009) A CaPful of mechanisms regulating the mitochondrial permeability transition, *J. Mol. Cell. Cardiol.* **46**, 775-780

149. Palma, E., Tiepolo, T., Angelin, A., Sabatelli, P., Maraldi, N.M., Basso, E., Forte, M.A., **Bernardi, P.*** and Bonaldo, P.* (2009) Genetic ablation of cyclophilin D rescues mitochondrial defects and prevents muscle apoptosis in collagen VI myopathic mice, *Corresponding authors *Hum. Mol. Genet.* **18**, 2024-2031
150. Tiepolo, T., Angelin, A., Sabatelli, P., Merlini, L., Nicolosi, L., Finetti, F., Braghetta, P., Vuagniaux, G., Dumont, J.-M., Baldari, C.T., Bonaldo, P. and **Bernardi, P.** (2009) The cyclophilin inhibitor Debio 025 normalizes mitochondrial function, muscle apoptosis and ultrastructural defects in *Col6a1^{-/-}* myopathic mice, *Br. J. Pharmacol.* **157**, 1045-1052
151. Petronilli, V., Šileikytė, J., Zulian, A., Dabbeni-Sala, F., Jori, G., Gobbo, S., Tognon, G., Nikolov, P., **Bernardi, P.**, and Ricchelli, F. (2009) Switch from inhibition to activation of the mitochondrial permeability transition during hematoporphyrin-mediated photooxidative stress. Unmasking pore-regulating external thiols, *Biochim. Biophys. Acta* **1787**, 897-904
152. Frka, K., Facchinello, N., Del Vecchio, C., Carpi, A., Curtarello, M., Venerando, R., Angelin, A., Parolin, C., **Bernardi, P.**, Bonaldo, P., Volpin, D., Braghetta, P., Bressan, G.M. (2009) Lentiviral-mediated RNAi *in vivo* silencing of *Col6a1*, a gene with complex tissue specific expression pattern, *J. Biotechnol.* **141**, 8-17
153. Giorgio, V., Bisetto, E., Soriano, M.E., Dabbeni-Sala, F., Basso, E., Petronilli, V., Forte, M.A., **Bernardi, P.*** and Lippe, G.* (2009) Cyclophilin D modulates mitochondrial F₀F₁ ATP synthase by interacting with the lateral stalk of the complex, *Corresponding authors, *J. Biol. Chem.* **284**, 33982-33988 [[reviewed with score 8 \(must read\) in Faculty of 1000 Biology](#)]
154. Rasola, A., Sciacovelli, M., Chiara, F., Pantic, B., Brusilow, W.S. and **Bernardi, P.** (2010) Activation of mitochondrial ERK protects cancer cells from death through inhibition of the permeability transition, *Proc. Natl. Acad. Sci. USA* **107**, 726-731 [[reviewed with score 6 \(must read\) in Faculty of 1000 Biology](#)]
155. Giorgio, V., Soriano, M.E., Basso, E., Bisetto, E., Lippe, G., Forte, M.A., and **Bernardi, P.** (2010) Cyclophilin D in Mitochondrial Pathophysiology, *Biochim. Biophys. Acta* **1797**, 1113-1118
156. Rasola, A., Sciacovelli, M., Pantic, B. and **Bernardi, P.** (2010) Signal transduction to the permeability transition pore, *FEBS Lett.* **584**, 1989-1996
157. Allamand, V., Merlini, L. and Bushby, K. (2010) 166th ENMC International Workshop on Collagen type VI-related Myopathies, 22–24 May 2009, Naarden, The Netherlands On behalf of all participants (includes **P. Bernardi**), *Neuromuscul. Disord.* **20**, 346-356
158. Azzolin, L., von Stockum, S., Basso, E., Forte, M.A. and **Bernardi, P.** (2010) The mitochondrial permeability transition from yeast to mammals *FEBS Lett.* **584**, 2504-2509
159. Azzolin, L., Basso, E., Argenton, F. and **Bernardi, P.** (2010) Mitochondrial Ca²⁺ transport and permeability transition in zebrafish (*Danio rerio*), *Biochim. Biophys. Acta* **1797**, 1775-1779
160. Grumati, P., Coletto, L., Sabatelli, P., Cescon, M., Angelin, A., Blaauw, B., Bertaglia, E., Urciuolo, A., Tiepolo, T., Merlini, L., Maraldi, N. M., **Bernardi, P.**, Sandri, M., and Bonaldo, P. (2010) Autophagy is defective in collagen VI muscular dystrophies and its reactivation rescues myofiber degeneration, *Nat. Med.* **16**, 1313-1320 [[covered in News and Views by Aviva M Tolkovsky Nat. Med. \(2010\) 16, 1188-1190; reviewed with score 6 \(must read\) in Faculty of 1000 Biology](#)]
161. Šileikytė, J., Petronilli, V., Zulian, A., Dabbeni-Sala, F., Tognon, G., Nikolov, P., **Bernardi, P.*** and Ricchelli, F.* (2011) Regulation of the Inner Membrane Mitochondrial Permeability Transition by the Outer Membrane Translocator Protein (Peripheral Benzodiazepine Receptor), *Corresponding Authors, *J. Biol. Chem.* **286**, 1046-1053
162. Barsukova, A., Komarov, A., Hajnóczky, G., **Bernardi, P.**, Bourdette, D. and Forte, M. (2011) Cyclophilin D-Dependent Mitochondrial Permeability Transition Pore Represents a Novel Component of Neuronal Ca²⁺ Homeostatic Networks in Adult Neurons, *Eur. J. Neurosci.* **33**, 831-842
163. Azzolin, L., Antolini, N., Calderan, A., Ruzza, P., Marin, O., Mammi, S., **Bernardi, P.**, Rasola, A. (2011) Antamanide, a derivative of *Amanita phalloides*, is a novel desensitizer of the mitochondrial permeability transition pore, *PLoS One* **6**, e16280
164. Di Lisa, F., Carpi, A., Giorgio, V. and **Bernardi, P.** (2011) The mitochondrial permeability transition pore and cyclophilin D in cardioprotection, *Biochim. Biophys. Acta* **1813**, 1316-1322
165. Ricchelli, F., Šileikytė, J. and **Bernardi, P.** (2011) Shedding light on the mitochondrial permeability transition, *Biochim. Biophys. Acta* **1807**, 482-490
166. Rasola, A. and **Bernardi, P.** (2011) Mitochondrial permeability transition in Ca²⁺-dependent apoptosis and necrosis, *Cell Calcium* **50**, 222-233
167. Jambekar, A.A., Palma, E., Nicolosi, L., Rasola, A., Petronilli, V., Chiara, F., **Bernardi, P.**, Needleman, R. and Brusilow, W.S.A. (2011) A Glutamine Synthetase inhibitor increases survival and decreases cytokine response in a mouse model of Acute Liver Failure, *Liver Int.* **31**, 1209-1221
168. Merlini, L., Sabatelli, P., Armaroli, A., Gnudi, S., Angelin, A., Grumati, P., Michelini, M.E., Franchella, A., Gualandi, F., Bertini, E., Maraldi, N.M., Ferlini, A., Bonaldo, P., and **Bernardi, P.** (2011) Cyclosporine A in Ullrich congenital muscular dystrophy: long-term results, *Oxid. Med. Cell. Longev.* 13194 (full on line article)

169. Zulian, A., Šileikytė, J., Petronilli, V., Bova, S., Dabbeni-Sala, F., Cargnelli, G., Rennison, D., Brimble, M.A., Hopkins, B., **Bernardi, P.***, and Ricchelli, F.* (2011) *Corresponding Authors, The translocator protein (peripheral benzodiazepine receptor) mediates rat-selective activation of the mitochondrial permeability transition by norbormide, *Biochim. Biophys. Acta* **1807**, 1600-1605
170. von Stockum, S., Basso, E., Petronilli, V., Sabatelli, P., Forte, M.A., and **Bernardi, P.** (2011) Properties of Ca²⁺ Transport in Mitochondria of *Drosophila melanogaster*, *J. Biol. Chem.* **286**, 41163-41170
171. Šileikytė, J., Nikolov, P., **Bernardi, P.** and Ricchelli, F. (2011) The Outer Membrane-Translocator Protein Mediates Activation of the Mitochondrial Permeability Transition by Porphyrin-Based Photooxidative Stress *Forum on Immunopathological Diseases and Therapeutics* **2**, 215–226
172. Giorgio, V., Petronilli, V., Ghelli, A., Carelli, V., Rugolo, M., Lenaz, G. and **Bernardi, P.** (2012) The Effects of Idebenone on Mitochondrial Bioenergetics, *Biochim. Biophys. Acta* **1817**, 363-369
173. Sabatelli, P., Palma, E., Angelin, A., Squarzone, S., Pellegrini, C., Urciuolo, A., Tiepolo, T., Bonaldo, P., Gualandi, F., Merlini, L., **Bernardi, P.** and Maraldi, N.M. (2012) Critical evaluation of the use of cell cultures for inclusion in clinical trials of patients affected by Collagen VI myopathies *J. Cell. Physiol.* **227**, 2927–2935 - doi:10.1002/jcp.23039
174. Masgras, I., Rasola, A. and **Bernardi, P.** (2012) Induction of the permeability transition pore in cells depleted of mitochondrial DNA, *Biochim. Biophys. Acta* **1817**, 1860-1866
175. Sassi, N., Biasutto, L., Mattarei, A., Carraro, M., Giorgio, V., Citta, A., **Bernardi, P.**, Garbisa, S., Szabó, I., Paradisi, C., Zoratti, M. (2012) Cytotoxicity of a mitochondriotropic quercetin derivative: mechanisms, *Biochim. Biophys. Acta* **1817**, 1095-1106 - doi: 10.1016/j.bbabc.2012.03.007
176. **Bernardi, P.**, and von Stockum, S. (2012) The permeability transition pore as a Ca²⁺ release channel: New answers to an old question, *Cell Calcium* **52**, 22-27
177. Cascone, A., **Bernardi, P.** and Eriksson, O. (2012) Destabilization of the Outer and Inner Mitochondrial Membranes by Core and Linker Histones, *PLoS One* **7**, e35357
178. Nowikovsky, K., Pozzan, T., Rizzuto, R., Scorrano, L. and **Bernardi, P.** (2012) The Pathophysiology of LETM1, *J. Gen. Physiol.* **139**, 445-454
179. Li, B., Chauvin, C., De Paulis, D., De Oliveira, F., Gharib, A., Vial, G., Lablanche, S., Leverve, X., **Bernardi, P.**, Ovize, M. and Fontaine, E. (2012) Inhibition of Complex I Regulates the Mitochondrial Permeability Transition through a Phosphate-sensitive Inhibitory Site masked by Cyclophilin D, *Biochim. Biophys. Acta* **1817**, 1628-1634
180. Chiara, F., Gambalunga, A., Sciacovelli, M., Nicolli, A., Ronconi, L., Fregona, D., **Bernardi, P.**, Rasola, A., and Trevisan, A. (2012) Chemotherapeutic induction of mitochondrial oxidative stress activates GSK-3 α/β and Bax, leading to permeability transition pore opening and tumor cell death, *Cell Death Dis.* **3**, e444
181. **Bernardi, P.** (2013) The mitochondrial permeability transition pore, *Encyclopedia of Biological Chemistry* **3**, 162-167
182. Pellegrini, C., Zulian, A., Gualandi, F., Manzati, E., Merlini, L., Michelini, M.E., Benassi, L., Ferlini, A., Sabatelli, P., **Bernardi, P.**, and Maraldi, N.M. (2013) Melanocytes – A novel tool to study mitochondrial dysfunction as a biomarker of Duchenne Muscular Dystrophy, *J. Cell. Physiol.* **228**, 1323-1331
183. **Bernardi, P.** and Giorgio, V. (2013) EBEC2012 – An energetic time in Freiburg, *EMBO Rep.* **14**, 7-9
184. **Bernardi, P.** and Bonaldo, P. (2013) Mitochondrial Dysfunction and Defective Autophagy in the Pathogenesis of Collagen VI Muscular Dystrophies, *Cold Spring Harb. Perspect. Biol.* **5**, a011387
185. De Palma, S., Leone, R., Grumati, P., Vasso, M., Polishchuk, R., Capitanio, D., Braghetta, P., **Bernardi, P.**, Bonaldo, P. and Gelfi, G. (2013) Changes in Muscle Cell Metabolism and Mechanotransduction are Associated with Myopathic Phenotype in a Mouse Model of Collagen VI Deficiency, *PLoS One* **8**, e56716
186. Giorgio, V., von Stockum, S., Antoniel, M., Fabbro, A., Fogolari, F., Forte, M., Glick, G.D., Petronilli, V., Zoratti, M., Szabó, I., Lippe, G., and **Bernardi, P.** (2013) Dimers of Mitochondrial ATP Synthase Form the Permeability Transition Pore, *Proc. Natl. Acad. Sci. USA* **110**, 5887-5892
187. Sassi, N., Mattarei, A., Azzolini, M., **Bernardi, P.**, Szabó, I., Paradisi, C., Zoratti, M., Biasutto, L. (2013) Mitochondria-targeted resveratrol derivatives act as cytotoxic pro-oxidants, *Current Pharm. Des.* **20**, 172-179
188. Sciacovelli, M., Guzzo, G., Morello, V., Frezza, C., Nannini, N., Calabrese, F., Laudiero, G., Esposito, F., Landriscina, M., Gottlieb, E., Defilippi, P., **Bernardi, P.*** and Rasola, A.* (2013) The mitochondrial chaperone TRAP1 promotes neoplastic growth by inhibiting succinate dehydrogenase, *Corresponding Authors *Cell Metab.* **17**, 988-999
189. **Bernardi, P.** (2013) The mitochondrial permeability transition pore: A mystery solved? *Front. Physiol.* **4**, 95.
190. Battigelli, A., Russier, J., Venturelli, E., Fabbro, C., Petronilli, V., **Bernardi, P.**, Da Ros, T., Prato, M. and Bianco, A. (2013) Peptide-based Carbon Nanotubes for Mitochondrial Targeting, *Nanoscale* **5**, 9110-9117
191. Pantic, B., Trevisan, E., Citta, A., Rigobello, M.P., Marin, O., **Bernardi, P.**, Salvatori, S. and Rasola, A. (2013) Myotonic dystrophy protein kinase (DMPK) prevents ROS-induced cell death by assembling a hexokinase II-Src complex on the mitochondrial surface, *Cell Death Dis.* **4**, e858

192. Trinei M., Migliaccio, E., **Bernardi, P.**, Paolucci, F., Pelicci, P, and Giorgio, M. (2013) p66Shc, mitochondria, and the generation of reactive oxygen species. *Methods Enzymol.* **528**, 99-110
193. **Bernardi, P.** and Rasola, A. (2014) Inner Membrane Permeabilization – The Permeability Transition, *Pathobiology of Human Disease* (McManus, Linda M. and Mitchell, Richard N., Eds.) Academic Press, San Diego pp. 162-169
194. Ciscato, F., Sciacovelli, M., Villano, G., Turato, C., **Bernardi, P.**, Rasola, A. and Pontisso, P. (2014) SERPINB3 protects from oxidative damage by chemotherapeutics through inhibition of mitochondrial respiratory Complex I, *Oncotarget* **5**, 2418-2427
195. Da-Rè, C., Franzolin, E., Biscontin, A., Piazzesi, A., Pacchioni, B., Gagliani, C., Mazzotta, G., Tacchetti, C., Zordan, M.A., Zeviani, M., **Bernardi, P.**, Bianchi, V., De Pittà, C. and Costa, R. (2014) Functional characterization of drim2, the *Drosophila melanogaster* homolog of the yeast mitochondrial deoxynucleotide transporter, *J. Biol. Chem.* **289**, 7448-7459
196. Nowikovsky, K. and **Bernardi, P.** (2014) LETM1 in mitochondrial cation transport, *Front. Physiol.*, **5**:83
197. Da-Rè, C., De Pittà, C., Zordan, M.A., Zeviani, M., Teza, G., Nestola, F., Costa, R., and **Bernardi, P.** (2014) UCP4C mediates uncoupled respiration in larvae of *Drosophila melanogaster*, *EMBO Rep.* **15**, 586–591
198. Villano, G., Turato, C., Quarta, S., Ruvoletto, M., Ciscato, F., Terrin, L., Semeraro, R., Paternostro, C., Parola, M., Alvaro, D., **Bernardi, P.**, Gatta, A. and Pontisso, P. (2014) Hepatic progenitor cells express SerpinB3. *BMC Cell Biol.* **15**, 5
199. Šileikytė, J., Blachly-Dyson, E., Sewell, R., Ricchelli, F., **Bernardi, P.*** and Forte, M.* (2014) Regulation of the Mitochondrial Permeability Transition Pore by the Outer Membrane does not Involve the Peripheral Benzodiazepine Receptor (TSPO), *Corresponding Authors, *J. Biol. Chem.* **289**, 13769-13781
200. Carraro, M, Giorgio, V., Šileikytė, J., Sartori, G., Forte, M., Lippe, G., Zoratti, M, Szabò, I. and **Bernardi, P.** (2014) Channel Formation by Yeast F-ATP Synthase and the Role of Dimerization in the Mitochondrial Permeability Transition, *J. Biol. Chem.* **289**, 15980-15985 – **paper of the year in Bioenergetics**
201. Zulian, A., Rizzo, E., Schiavone, M., Palma, E., Tagliavini, F., Blaauw, B., Merlini, L., Maraldi, N.M., Sabatelli, P., Braghetta, P., Bonaldo, P., Argenton, F. and **Bernardi, P.** (2014) NIM811, a cyclophilin inhibitor without immunosuppressive activity, is beneficial in collagen VI congenital muscular dystrophy models, *Hum. Mol. Genet.* **23**, 5353-5363
202. Antoniel, M., Giorgio, V., Fogolari, F., Glick, G.D., **Bernardi, P.** and Lippe, G. (2014) The oligomycin-sensitivity conferring protein of mitochondrial ATP synthase: Emerging new roles in mitochondrial pathophysiology, *Int. J. Mol. Sci.* **15**, 7513-7536
203. Fancelli, D., Abate, A., Amici, R., **Bernardi, P.**, Ballarini, M., Cappa, A., Carenzi, G., Colombo, A., Contursi, C., Di Lisa, F., Dondio, G., Gagliardi, S., Milanese, E., Minucci, S., Pain, G., Pelicci, P.G., Saccani, A., Storto, M., Thaler, F., Varasi, M., Villa, M., Plyte, S. (2014) Cinnamic Anilides as New Mitochondrial Permeability Transition Pore Inhibitors Endowed with Ischemia-Reperfusion Injury Protective Effect in Vivo, *J. Med. Chem.* **57**, 5333-5347
204. Sorato, E., Menazza, S., Zulian, A., Sabatelli, P., Gualandi, F., Merlini, L., Bonaldo, P., Canton, M., **Bernardi, P.** and Di Lisa, F. (2014) Monoamine oxidase inhibition prevents mitochondrial dysfunction and apoptosis in myoblasts from patients with collagen VI myopathies, *Free Radic. Biol. Med.* **75C**, 40-47
205. Gibellini, L., Pinti, M., Boraldi, F., Giorgio, V., **Bernardi, P.**, Bartolomeo, R., Nasi, M., De Biasi, S., Missiroli, S., Carnevale, G., Losi, L., Tesei, A., Pinton, P., Quaglinò, D., and Cossarizza, A. (2014) Silencing of mitochondrial Lon protease deeply impairs mitochondrial proteome and function in colon cancer cells, *FASEB J.* **28**, 5122-5135
206. Da-Rè, C., von Stockum, S., Biscontin, A., Millino, C., Cisolto, P., Zordan, M.A., Zeviani, M., **Bernardi, P.**, De Pittà, C., and Costa, R. (2014) Leigh Syndrome in *Drosophila melanogaster*: Morphological and Biochemical Characterization of *Surf1* Post-transcriptional Silencing, *J. Biol. Chem.* **289**, 29235-29246
207. Guzzo, G., Sciacovelli, M., **Bernardi, P.** and Rasola, A. (2014) Inhibition of succinate dehydrogenase by the mitochondrial chaperone TRAP1 has anti-oxidant and anti-apoptotic effects on tumor cells, *Oncotarget* **5**, 11897-11908
208. Zulian, A., Tagliavini, F., Rizzo, E., Pellegrini, C., Sardone, F., Zini, N., Maraldi, N.M., Faldini, C., Merlini, L., **Bernardi, P.*** and Sabatelli, P.* (2014) Melanocytes from patients affected by Ullrich congenital muscular dystrophy and Bethlem myopathy have dysfunctional mitochondria that can be rescued with cyclophilin inhibitors, *Corresponding Authors, *Front. Aging Neurosci.* **6**, 324
209. Rasola, A. and **Bernardi, P.** (2014) The mitochondrial permeability transition pore and its adaptive responses in tumor cells, *Cell Calcium* **56**, 437-445
210. **Bernardi, P.** and Di Lisa, F. (2015) The mitochondrial permeability transition pore: Molecular nature and role as a target in cardioprotection, *J. Mol. Cell. Cardiol.* **78**, 100-106
211. von Stockum, S., Giorgio, V., Trevisan, E., Lippe, G., Glick, G.D., Forte, M., Da-Rè, C., Checchetto, V., Mazzotta, G., Costa, R., Szabò, I., and **Bernardi, P.** (2015) F-ATPase of *D. melanogaster* Forms 53-Picosiemens (53-pS) Channels Responsible for Mitochondrial Ca²⁺-induced Ca²⁺ Release, *J. Biol. Chem.* **290**, 4537-4544

212. Di Lisa, F. and **Bernardi, P.** (2015) Modulation of Mitochondrial Permeability Transition Prevents Energetic Failure in Ischemia-Reperfusion Injury of The Heart. Advantages and Limitations, *Curr. Med. Chem.* **22**, 2480-2487
213. **Bernardi, P.**, Di Lisa, F., Fogolari, F. and Lippe, G. (2015) From ATP to PTP and back. A dual function for the mitochondrial ATP synthase, *Circ. Res.* **116**, 1850-1862
214. **Bernardi, P.**, Rasola, A., Forte, M. and Lippe, G. (2015) The Mitochondrial Permeability Transition Pore: Channel Formation by F-ATP Synthase, Integration in Signal Transduction and Role in Pathophysiology, *Physiol. Rev.* **95**, 1111-1155
215. Roy, S., Šileikytė, J., Schiavone, M., Neuenswander, B., Argenton, F., Aubé, J., Hedrick, M.P., Chung, T.D.Y., Forte, M.A.*, **Bernardi, P.*** and Schoenen F.J.* (2015) Discovery, Synthesis, and Optimization of Diarylisoazole-3-carboxamides as Potent Inhibitors of the Mitochondrial Permeability Transition Pore, *corresponding Authors, *ChemMedChem* **10**, 1655-1671
216. Šileikytė, J., Roy, S., Porubsky, P., Neuenswander, B., Wang, J., Hedrick, M., Pinkerton, A.B., Salaniwal, S., Kung, P., Mangravita-Novo, A., Smith, L.H., Bourdette, D.N., Jackson, M.R., Aubé, J., Chung, T.D.Y., Schoenen, F.J., Forte, M.A. and **Bernardi, P.** (2015) Small Molecules Targeting the Mitochondrial Permeability Transition. Updated 2015 Jan 16, In: *Probe Reports from the NIH Molecular Libraries Program [Internet]*. Bethesda (MD): National Center for Biotechnology Information (US); 2010-
217. **Bernardi, P.** and Forte, M. (2015) Commentary: SPG7 is an essential and conserved component of the mitochondrial permeability transition pore. *Front. Physiol.* **6**, 320
218. Granatiero, V., Giorgio, V., Cali, T., Patron, M., Brini, M., **Bernardi, P.**, Tiranti, V., Zeviani, M., Pallafacchina, G., De Stefani, D. and Rizzuto, R. (2016) Reduced mitochondrial Ca²⁺ transients stimulate autophagy in human fibroblasts carrying the 13514A>G mutation of the ND5 subunit of NADH dehydrogenase, *Cell Death Diff.* **23**, 231-241
219. Roy, S., Šileikytė, J., Neuenswander, B., Hedrick, M.P., Chung, T.D.Y., Aubé, J., Schoenen, F.J., Forte, M.A. and **Bernardi, P.** (2016) N-Phenylbenzamides as Potent Inhibitors of the Mitochondrial Permeability Transition Pore, *ChemMedChem* **11**, 283-288
220. **Bernardi, P.** and Di Lisa, F. (2016) Correspondence on article "Cyclosporine before PCI in Patients with Acute Myocardial Infarction" *N. Engl. J. Med.* **374**, 88-90
221. Fontaine, E. and **Bernardi, P.** (2016) Lethal and non-lethal functions of the permeability transition pore. *Mitochondria and Cell Death* (D.M. Hockenbery ed.) Springer, New York 2016, pp. 1-15
222. Carraro M. and **Bernardi, P.** (2016) Calcium and reactive oxygen species in regulation of the mitochondrial permeability transition and of programmed cell death in yeast, *Cell Calcium* **60**, 102-107
223. Scotton, C., Bovolenta, M., Schwartz, E., Falzarano, M.S., Martoni, E., Passarelli, C., Armaroli, A., Osman, H., Rodolico, C., Messina, S., Pegoraro, E., D'Amico, A., Bertini, E., Gualandi, F., Neri, M., Selvatici, R., Boffi, P., Maioli, M.A., Lochmuller, H., Straub, V., Bushby, K., Castrignano', T., Pesole, G., Sabatelli, P., Merlini, L., Braghetta, P., Bonaldo, P., **Bernardi, P.**, Reghan Foley, A., Cirak, S., Zaharieva, I., Muntoni, F., Capitanio, D., Gelfi, C., Kotelnikova, E., Yuryev, A., Lebowitz, M., Zhang, X., Hodge, B.A., Esser K. and Ferlini, A. (2016) Deep RNA profiling identified Clock and molecular clock genes as pathophysiological signatures in collagen VI myopathy *J. Cell Sci.* **129**, 1671-1684
224. **Bernardi, P.** (2016) 19th European Bioenergetics Conference–Preface, *Biochim. Biophys. Acta* **1857**, 1023-1026
225. Zulian, A., Schiavone, M., Giorgio, V. and **Bernardi, P.** (2016) Forty years later: mitochondria as therapeutic targets in muscle diseases, *Pharmacol. Res.* **113**, 563-573
226. **Bernardi, P.** and Forte, M (2016) Commentary: The m-AAA protease associated with neurodegeneration limits MCU activity in mitochondria, *Front. Physiol.* **7**, 583
227. Masgras, I., Ciscato, F., Brunati, A.M., Tibaldi, E., Indraccolo, S., Curtarello, M., Chiara, F., Cannino, G., Papaleo, E., Lambrughì, M., Guzzo, G., Gambalunga, A., Pizzi, M., Guzzardo, V., Ruggè, M., Vuljan, S.E., Calabrese, F., **Bernardi, P.** and Rasola, A. (2017) Absence of neurofibromin induces an oncogenic metabolic switch via mitochondrial ERK-mediated phosphorylation of the chaperone TRAP1, *Cell Rep.* **18**, 659-672