

Curriculum Vitae

Prof. Vito De Pinto

April 2016



Current Appointment: Full Professor, Molecular Biology, University of Catania

PROFESSIONAL EXPERIENCE:

2004-today Full Professor, Molecular Biology, University of Catania

1994-2003 Full Professor, Biochemistry, University of Catania

1992-1994 Associate Professor, Biochemistry, University of Bari

1983-1992 Assistant Professor, Biochemistry, University of Bari

1981-1983 Postdoctoral fellow, Biochemistry, University of Bari, advisor: prof. F. Palmieri

1981 Graduated with first-class honors degree in Pharmaceutical and Pharmacology, University of Bari, thesis in Biochemistry: Purification and characterization of Glutamate Dehydrogenase from *Drosophila melanogaster*

ADMINISTRATIVE SERVICE

2010-today Coordinator of the PhD Program in Biotechnology at the University of Catania

2012-2015 Member of the Executive Board of the School of Medicine at the University of Catania

2010-2015 Member of the Executive Board of the Department of Biology, Geology and Environment at the University of Catania

2010-2015 Head of the Section of Biochemistry and Molecular Biology of the Department of Biology, Geology and Environment at the University of Catania

2004-2007 Member of the Executive committee, Dept. of Chemical Sciences, University of Catania

2000-2002 Head, Committee for Biotechnology Degree, University of Catania

1997-1999 Head, the Institute of Biochemistry and Pharmacology, University of Catania

1995-today Responsible for European student exchange programs (Socrates-Erasmus)

1994-1996 Secretary of the Faculty of Science, University of Catania

1988-1992 Member of the grant funding committee in the University of Bari

Responsible of a local research Unit of the Italian Institute for Biostructures and Biosystems based at the University of Catania: "Membrane proteins involved in energy and free radicals production".

TEACHING

PhD Programs:

2012-today: member of the PhD program in Biological and Environmental Sciences – Curriculum Biotechnology at the University of Catania

2009-2012: member of the PhD program in Biotechnology at the University of Catania

1996-2008: member of the PhD program in Biochemistry and Molecular Biology at the University of Catania

Graduate courses:

2005-today: Molecular Biology and Bioinformatics

2004-today: Molecular Technology

1994-1998: Specialized Molecular Biology

1994-1996: Biochemical Clinical Analysis

1992-1993: Applied Biochemistry, University of Bari

Undergraduate courses:

1998-today: General Molecular Biology

2001-2003: Biochemistry

1992-1993: Biochemical Clinical Analysis, University of Bari

In addition:

2010 e 2011 Heraeus Seminars, School of Biophysics of Cellular Channels, Jacobs University, Bremen

2007-today Tutor at the School of Excellence, University of Catania

2003, 2005 visiting professor, School of Biology, University of St Andrews, Scotlan (UK)

1996-today short specialized courses in Erasmus european partner Universities (Leon-ES, Konstanz-DE Würzburg-DE, Nijmegen-NL, Bordeaux-FR, Poznan-PL)

Author of the web site companion to the textbook Molecular Biology of the Gene by Watson et al., italian version (<http://online.scuola.zanichelli.it/watson/>)

Author of the italian translation of the textbook "*Molecular Biology of the Gene*" by Watson et al. (7th Edition)

TECHNOLOGY TRANSFER ACTIVITIES

SCIENTIFIC BOARD, REVIEWING COMMITTEES

Member of the following Expert lists:

MIUR, MAE, European Commission as an expert in the 'Systems biology, Food quality & safety, Health & Environment Impacts, Initial training of researchers', Regioni Sardegna, Piemonte, Emilia Romagna, Veneto, Lazio, Lombardia, Marche, Puglia.

Reviewer of the following Industrial Funding Programs:

PIA-Innovazione, program Euro TransBio, program REACH, regional programs for Sardinia, Lombardia, Lazio.

Technical Officer for INVITALIA, National Agency for investment and company development.

START-UP and SPIN-OFF

Co-founder of the Start-Up ABACO (Analysis of BarCoding), aiming to the implementation of mitochondrial DNA sequences in food traceability. Awarded in the Start-Cup of the University di Catania (2008) e in the Innovation Competition - Etna Valley 2009. Admitted to the National Selection for innovative Ideas, Milano 2008.

The transformation of the Start-Up into Spin Off is envisaged.

PROFESSIONAL EXPERIENCES

As a pharmacist he worked some time in a Chemist's. Founder and Vice-President of the Association of Young Pharmacist (1983-85). He taught in several retraining courses for Pharmacists.

He is member of the Italian Journalist Association.

TRAINING AND RESEARCH

RESEARCH EXPERIENCES:

1990: granted a one year fellowship in the Cancer Research Center, La Jolla Cancer Research Foundation, advisor: prof. Erkki Ruoshlati

1988: SCLAVO Research Facilities, Siena, Italy, prof. R. Melli

1982: Inst. of Physiology, Academy of Sciences, Prague, Czechoslovakia, dr. J. Houstek and prof. S. Drahota

1987 and '89: Lehrstuhl für Biologie, University of Würzburg, Germany prof. R. Benz

1984 and '86: Fakultät für Biologie, University of Konstanz, Germany, prof. D. Lauger

1984 and '85: Inst. für Physikalische Biochemie, University of München, Germany, prof. M. Klingenberg

EDUCATION:

2002: Bologna Winter School 2002 on "Predicting the 3D structure of difficult proteins" Bologna - Italy

2000: FEBS advanced course 2000-03 on "Expression and regulation of mitochondrial oxidative phosphorylation and disorders in Human Pathology" Martina Franca, Italia

1990 and '95: National School "WEB utilities in Biochemistry", TECNOPOLIS and CNR, Bari, Italia

1989: National School of Protein Sciences "Computer usage in protein chemistry", Università di Siena, Italia.

1984: FEBS Advanced Course "Redox and Energy Transfer Proteins of Coupling Membranes: Structure, Function and Biogenesis", Istituto di Biochimica, Facoltà di Medicina, Bari, Italia.

1984: EMBO Practical Course "Purification and Crystallization of Membrane Proteins", Max Planck Institut für Biochemie, Martinsried, West Germany

SCIENTIFIC SOCIETIES

2014-today Head of the Membrane group of the Italian Society of Biochemistry (SIB)

2012-2014 Responsible of the Membrane and Bioenergetics Section of the Italian Society of Biochemistry (SIB)

2008-2012 Member of the Executive Board of the Italian Group of Bioenergetics and Biomembranes (GIBB)

2003-today: Italian Human Proteome Organization

1999-today: Federazione Italiana Società della Vita (FISV)

1999-today: Società Italiana di Biofisica e Biologia Molecolare (SIBBM)

1984-today: Gruppo Italiano di Bioenergetica and Biomembrane (GIBB)

1983-today: Società Italiana di Biochimica (SIB)

JOURNAL EDITORIAL REVIEWS

Editor of Frontiers in Molecular and Cellular Oncology.

Ad Hoc reviewer:

Trends in Biochemistry, Nature Cell Biology, Journal of Biological Chemistry, Biochemistry,

Biochimica et Biophysica Acta, FEBS Letters, Systems Biology in Reproductive Medicine, J. Neurochemistry, Journal of Theoretical Biology, Human Genetics, Experimental Brain Research, Molecular Genetics and Metabolism.

GRANT REVIEW COMMITTEES

Italian Ministry for University, Progetti di Ricerca di Interesse Nazionale (PRIN), National Science Foundation (USA), German-Israel Foundation, Biotechnology and Biological Sciences Research Council (BBSRC), Australian Research Council.

SCIENTIFIC MEETINGS AND PRESENTATIONS

Invited speaker in about forty National and International meetings. Invited presentations in several National and International institutions.

- 2017 President of Scientific Committee and Organizer of the National Joint Meeting of Italian Bioenergetics Group and Membrane Group of Italian Society of Biochemistry.
- 2016 Organizer, Chair and Speaker of a Parallel Symposium at the European Bioenergetics Conference.
- 2016 Organizer and Chair of the National Meeting of Membrane Group of Italian Society of Biochemistry.
- 2016 Organizer, Chair and Speaker of a Plenary Session at the International Meeting of Italian Federation of Life Science Societies.
- 2015 Chair of a Plenary Session at the National Meeting of Italian Bioenergetics Group.
- 2015 Chair of a Plenary Session at the National Meeting of Italian Society of Biochemistry.
- 2015 Organizer, Chair and Speaker of a Plenary Session at the International Meeting of Italian Federation of Life Science Societies
- 2014 Organizer, Chair and Speaker of a Plenary Session at the International Meeting of Italian Federation of Life Science Societies.
- 2013 Organizer and Chair of the Membrane and Bioenergetic Section at the National Meeting of the Italian Biochemical Society.
- 2012 Organizer and Chair of the Membrane and Bioenergetic Section at the National Meeting of the Italian Biochemical Society.
- 2011 Organizer and Chair of the Membrane and Bioenergetic Section at the National Meeting of the Italian Biochemical Society.
- 2010 Organizer, Chair and Speaker of a Parallel Symposium at the European Bioenergetics Conference in Warsaw.
- 2010 Organizer, Chair and Member of the Scientific Committee of the National Meeting of Italian Bioenergetics Group.
- 2009 Organizer, Chair and Member of the Scientific Committee of the National Meeting of Italian Bioenergetics Group.
- 2008 Organizer, Chair and Member of the Scientific Committee of the National Meeting of Italian Bioenergetics Group.
- 2007: President of Scientific Committee and Organizer of the National Joint Meeting of Italian Bioenergetics Group and Cellular Differentiation and Biology Society.
- 2005-2007 Member of the Scientific Committee of School for Bioinformatics and Biomedicine held in various locations in Sicily
- 1996, 2009 Member of the organizing and scientific committee, Italian National Meeting of Biochemistry and Molecular Biology

SCIENTIFIC COLLABORATIONS

Electrophysiological analysis of pore-forming proteins:

- prof. R. Benz, Leh. Biotechnologie, Universität Würzburg, Germany
- prof. Mahias Wintherhalter, Jacobs Universität Bremen, Germany
- Protein Design and Bioinformatic analysis:
 - -prof. Matteo Ceccarelli, Dip. Physics, University of Cagliari
- Proteomics of membrane proteins:
 - Prof. Rona R. Ramsay, Centre of Biomolecular Sciences, University of St Andrews, Scotland, UK
 - Prof. S. Foti, Dept. of Chemical Sciences, University of Catania
- Apoptosis, confocal microscopy, fluorescent proteins:
 - dr. F. M. Tomasello, CNR Institute for Bioimaging
- Biophysical analysis of membrane proteins:
 - prof. I. Szàbo, Dept of Biology, University of Padua
- VDAC activity in plasma membrane:
 - prof. A. Lawen, Dept. of Biochemistry, Monash University, Melbourne, Australia
- *Saccharomyces cerevisiae* as a model system:
 - dr. M. Tommasino, Infections and Cancer Biology Group, International Agency for Research on Cancer, World Health Organization, Lyon, France
 - dr. C. Mazzoni, Dept. Cellular Biology, University of Rome La Sapienza, Italia
- *Drosophila melanogaster* as a model system:
 - prof. R. Caizzi, Genetics, University of Bari, Italia
 - prof. M. P. Bozzetti, Genetics, University of Lecce, Italia
- Peptide synthesis, purification ed NMR studies:
 - dr. G. Pappalardo, CNR Institute for Biostructures and Bioimaging, Catania, Italy

PRESENT RESEARCH TOPICS

- 1) Transmembrane mitochondrial transport proteins with special emphasis onto channel-forming protein porin (or VDAC: Voltage Dependent Anion selective Channel): purification, sequence determination, studies of the structure/function relationships also by means of molecular modeling, gene expression and regulation.
- 2) Production of artificial pore-forming proteins for bio-engineering applications.
- 3) Traceability of living species by DNA Barcoding analysis; application to foodstuff.
- 4) Apoptosis and autophagy: role of the mitochondrial outer membrane
- 5) Construction of new vectors with fluorescent tags and application in immunolocalization in vivo.

Several collaborations with italian and foreigner laboratories have been and are currently held, as can be deduced from the publication list.

PUBLICATIONS

Prof. Vito De Pinto is corresponding author of more than 100 papers published in international journal with peer review and impact factor. He has reported about 200 oral communications or posters to International and National Meetings.

Publication List

- 98) **De Pinto V**, Reina S, Gupta A, Messina A, Mahalakshmi R. Role of cysteines in mammalian VDAC isoforms' function. *Biochim Biophys Acta*. 2016 Mar 4. pii: S0005-2728(16)30045-7. doi: 10.1016/j.bbabbio.2016.02.020. [Epub ahead of print] PubMed PMID: 26947058.
- 97) Guardiani C, Leggio L, Scorciapino MA, **de Pinto V**, Ceccarelli M. A computational study of ion current modulation in hVDAC3 induced by disulfide bonds. *Biochim Biophys Acta*. 2016 Apr;1858(4):813-23. doi: 10.1016/j.bbammem.2016.01.013. Epub 2016 Jan 22.
- 96) Magri A, Di Rosa MC, Tomasello MF, Guarino F, Reina S, Messina A, **De Pinto V**. Overexpression of human SOD1 in VDAC1-less yeast restores mitochondrial functionality modulating beta-barrel outer membrane protein genes. *Biochim Biophys Acta*. 2016 Mar 4. pii: S0005-2728(16)30049-4.
- 95) Reina S, Checchetto V, Saletti R, Gupta A, Chaturvedi D, Guardiani C, Guarino F, Scorciapino MA, Magri A, Foti S, Ceccarelli M, Messina AA, Mahalakshmi R, Szabo I, **De Pinto V**. VDAC3 as a sensor of oxidative state of the intermembrane space of mitochondria: the putative role of cysteine residue modifications. *Oncotarget*. 2016 Jan 19;7(3):2249-68.
- 94) Guardiani C, Scorciapino MA, Amodeo GF, Grdadolnik J, Pappalardo G, De Pinto V, Ceccarelli M, Casu M. *The N-Terminal Peptides of the Three Human Isoforms of the Mitochondrial Voltage-Dependent Anion Channel Have Different Helical Propensities*. (2015) *Biochemistry* 54, 5646-56
- 93) A. Cuttitta, B. Patti, T. Maggio, E. M. Quinci, A. M. Pappalardo, V. Ferrito, **V. De Pinto**, M. Torri, F. Falco, A. Nicosia, M. Musco, G. M. Armeri, F. Placenti, G. Tranchida, R. Mifsud, A. Bonanno and S. Mazzola *Larval population structure of *Engraulis encrasicolus* in the Strait of Sicily as revealed by morphometric and genetic analysis* (2015) *Fish. Oceanogr.* 24, 135–149
- 92) G. F. Amodeo, M. A. Scorciapino, A. Messina, **V. De Pinto**, M. Ceccarelli. *Charged Residues Distribution Modulates Selectivity of the Open State of Human Isoforms of the Voltage Dependent Anion-Selective Channel*. (2014) *PLoS One*. 9, e103879
- 91) V. Checchetto, S. Reina, A. Magri, I. Szabo and **V. De Pinto**. *Recombinant human Voltage Dependent Anion selective Channel isoform 3 (hVDAC3) forms pores with a very small conductance*. *Cell Physiol. Biochem.* (2014) 34, 842-853.
- 90) A. Caccamo, **V. De Pinto**, A. Messina, C. Branca, and S. Oddo. *Genetic reduction of mTOR ameliorates Alzheimer's disease-like cognitive and pathological deficits by restoring hippocampal gene expression signature*. *J. Neurosc.* (2014) 34, 7988-98 .
- 89) A. Messina, S. Reina, F. Guarino, A. Magri, F. Tomasello, R. E. Clark, R. R. Ramsay and **V. De Pinto**. *Live cell interactome of the human Voltage Dependent Anion Channel 3 (VDAC3) revealed in HeLa cells by Affinity Purification Tag Technique*. *Mol. BioSyst.* (2014) 10, 2134-2145.
- 88) M.F. Tomasello, F. Guarino, S. Reina, A. Messina, **V. De Pinto** *The voltage-dependent anion selective channel 1 (VDAC1) topography in the mitochondrial outer membrane as detected in intact cell*. (2013) *PLoS One*. 8, e81522.
- 87) A. Urbani, M. De Canio, (...), **V. De Pinto**, and P. Sacchetta *Italian Mt-Hpp Study Group-Italian Proteomics Association (www.itpa.it). The mitochondrial Italian Human Proteome Project initiative (mt-HPP)*. (2013) *Mol Biosyst.* 9, 1984-92
- 86) S. Reina, A. Magri, M. Lolicato, F. Guarino, A. Impellizzeri, E. Maier, R. Benz, M. Ceccarelli, **V. De Pinto**, A. Messina *Deletion of β -strands 9 and 10 converts VDAC1 voltage dependence in an asymmetrical process* (2013) *Biochim. Biophys. Acta Bioenergetics* 1827, 793-805

- 85) AM. Amorini, M. Tuttobene, F.M. Tomasello, F. Biazzo, S. Gullotta, **V. De Pinto**, G. Lazzarino, B. Tavazzi. *Glucose ameliorates the metabolic profile and mitochondrial function of platelet concentrates during storage in autologous plasma* (2012) *Blood Transfusion*, 13, 1-10
- 84) A. Messina, S.Reina, F. Guarino and **V. De Pinto** *VDAC isoforms from mammals* (2012) *Biochim Biophys Acta*, 1818, 1466-1476
- 83) D. De Stefani, A.Bononi, A. Romagnoli, A. Messina, **V. De Pinto**, P. Pinton and R. Rizzuto *VDAC1 selectively transfers apoptotic Ca(2+) signals to mitochondria* (2012) *Cell Death and Differentiation* 19, 267-273
- 82) A.M. Pappalardo, F. Guarino, S. Reina, A. Messina and **V. De Pinto** *Geographically widespread swordfish barcode stock identification: a case study of its application* (2011) *PLOS ONE* 6, 10: e25516
- 81) M. Lolicato, S. Reina, A. Messina, F. Guarino, M. Winterhalter, R. Benz and **V. De Pinto** *Generation of artificial channels by multimerization of β -strands from natural porin.* (2011) *Biol. Chem.* 392, 617-24
- 80) **V. De Pinto**, S. Reina, F. Tomasello, F. Guarino, A. Messina *Investigations on N-Terminal Chimeras of VDAC Isoforms* (2011) *Bioph. J.* 100, S. 1, 250a-251a
- 79) S. Reina, V. Palermo, A. Guarnera, F. Guarino, A. Messina, C. Mazzoni, **V. De Pinto**. *Swapping of the N-terminus of VDAC1 with VDAC3 restores full activity of the channel and confers anti-aging features to the cell.* *FEBS Letters* (2010) 584, 2837-44
- 78) V. Shoshan-Barmatz, **V. De Pinto**, M. Zweckstetter, Z. Raviv, N. Keinan, N. Arbel. *VDAC, a multi-functional mitochondrial protein regulating cell life and death.* (2010) *Mol. Aspects Med.* 31, 227-85
- 77) **V. De Pinto**, A. Messina, D.J. Lane, A. Lawen. *Voltage-dependent anion-selective channel (VDAC) in the plasma membrane.* (2010) *FEBS Lett.* 584, 1793-9
- 76) **V. De Pinto**, S. Reina, A. Guarnera, F. M. Tomasello, F. Guarino, A. Messina. *Role of the N-terminal moiety in VDAC isoforms* (2010) *Bioph. J.* 98, 3, Supp. 1, 208a
- 75) **V. De Pinto**, F. Guarino, A. Guarnera, A. Messina, S. Reina, F. Tomasello, V. Palermo, C. Mazzoni. *Characterization of human VDAC isoforms: A peculiar function for VDAC3?* (2010) *Biochim Biophys Acta.* 1797, 1268-75
- 74) F. Tomasello, A. Messina, L. Lartigue, L. Schembri, C. Medina, S. Reina, D. Thoraval, M. Crouzet, F. Ichas, **V. De Pinto**, F. De Giorgi. *Outer membrane VDAC1 controls permeability transition of the inner mitochondrial membrane in cellulo during stress-induced apoptosis.* (2009) *Cell Res.* 19, 1363-76
- 73) F. Bellia, V. Calabrese, F. Guarino, M. Cavallaro, C. Cornelius, **V. De Pinto**, E. Rizzarelli *Carnosinase levels in aging brain: redox state induction and cellular stress response.* (2009) *Antioxid Redox Signal.* 11, 2759-75
- 72) F. Perosa, E. Favoino, C. Vicenti, A. Guarnera, **V. De Pinto**, F. Dammacco *Two structurally different rituximab-specific cd20 mimotope peptides reveal that Rituximab recognizes two different cd20-associated epitopes.* (2009) *J. Immunology* 182, 416-422
- 71) V. A. Menzel, M. C. Cassarà, R. Benz, **V. De Pinto**, A. Messina, V. Cunsolo, R. Saletti, K. D. Hinsch, E. Hinsch *Molecular and functional characterization of VDAC2 purified from mammal spermatozoa* (2009) *Bioscience Reports* 29, 351-62
- 70) V. Specchia, F. Guarino, A. Messina, M.P. Bozzetti, **V. De Pinto**, *Porin isoform 2 has a different localization in Drosophila melanogaster ovaries than porin 1* (2008) *J. Bioenerg. Biomembr.*, 40, 219-226
- 69) **V. De Pinto**, S. Reina, F. Guarino, A. Messina *The structure of Voltage-Dependent Anion selective Channel: state of the art* (2008) Invited review in *J. Bioenerg. Biomembr.*, 40, 139-147
- 68) A.M. Pappalardo, V. Ferrito, A. Messina, F. Guarino, T. Patarnello **V. De Pinto** and C. Tigano *Genetic structure of the killifish Aphanius fasciatus, Nardo 1827 (Teleostei,*

- Cyprinodontidae*), results of mitochondrial DNA analysis (2008) *J. of Fish Biology*, 72, 1154-1173
- 67) F. Guarino, A. Messina, A. Guarnera, G. Puglia, F. Bellia, S. Reina, **V. De Pinto**, V. Specchia and M.P. Bozzetti *The Voltage Dependent Anion selective Channel family in Drosophila melanogaster* (2007) *It. J. Biochem.* 56, 279-284
 - 66) **V. De Pinto**, F. Tomasello, A. Messina, F. Guarino, R. Benz, D. La Mendola, A. Magri, D. Milardi and G. Pappalardo *Determination of the conformation of the human VDAC-1 N-terminal peptide, a protein moiety essential for the functional properties of the pore* (2007) *Chembiochem.*, 8, 744-756
 - 65) **V. De Pinto** *Evolutionary Methods in Biotechnologies: Clever tricks for directed evolution.* Book review (2006) *Eur. J. Med. Chem.* 41, 283
 - 64) F. Guarino, V. Specchia, G. Zapparoli, A. Messina, R. Aiello, M. P. Bozzetti and **V. De Pinto** *Expression and localization in spermatozoa of the mitochondrial porin isoform 2 in Drosophila melanogaster* (2006) *Biochem. Biophys. Res. Comm.* 346, 665-670
 - 63) A. Lawen, J.D. Ly, D.J.R. Lane, K. Zarshler, A. Messina and **V. De Pinto** *Voltage-dependent anion-selective channel 1 (VDAC 1)- a mitochondrial protein, rediscovered as a novel enzyme in the plasma membrane* (2005) *Int J Biochem Cell Biol* 37, 277-282
 - 62) R. Aiello, A. Messina, B. Schiffler, R. Benz, G. Tasco, R. Casadio, **V. De Pinto** *Functional characterization of a second porin isoform in Drosophila melanogaster. DmPorin2 forms voltage-independent cation-selective pores* (2004) *J. Biol. Chem.* 279, 25364-73
 - 61) R. Accardi, E. Oxelmark, N. Jauniaux, **V. De Pinto**, A. Marchini and M. Tommasino *High levels of the mitochondrial large ribosomal subunit protein 40 prevent loss of mitochondrial DNA in null mmf1 Saccharomyces cerevisiae cells* (2004) *Yeast* 21, 539-48
 - 60) **V. De Pinto** and A. Messina *Gene family expression and multitopological localization of eukaryotic porin/VDAC - Intracellular trafficking and alternative splicing of mitochondrial porin/VDAC* (2004) in "Structure and Function of Bacterial and Eukaryotic Porins" Wiley-VCH, R. Benz editor, pag. 309-337
 - 59) K.D. Hinsch, **V. De Pinto**, V.A. Aires, X. Schneider, A. Messina and E. Hinsch *Voltage-dependent anion selective channels VDAC2 and VDAC3 are abundant proteins in bovine outer dense fibers, a cytoskeletal component of the sperm flagellum* (2004) *J. Biol. Chem.* 279, 15281-15288
 - 58) M. A. Baker, D.J. Lane, J.D. Ly, **V. De Pinto** and A. Lawen *Voltage dependent anion channel 1 is an NADH:ferricyanide reductase* (2004) *J. Biol. Chem.* 279, 4811-4819
 - 57) **V. De Pinto**, R. Accardi, R. Aiello, F. Guarino, M. Tommasello, A. Messina, M. Tommasino, I. Jacoboni, R. Casadio, R. Benz, F. De Giorgi, F. Ichas, M. Baker, A. Lawen *New functions of an old protein: the eukaryotic porin or voltage dependent anion selective channel (VDAC)* (2003) *It. J. Biochem.*, 52, 17-24, invited review
 - 56) Marchini A, Accardi R, Malanchi I, Schyr E, Oxelmark E, **De Pinto V**, Jauniaux JC, Maundrell K, Tommasino M. *Schizosaccharomyces pombe Pmf1p is structurally and functionally related to Mmf1p of Saccharomyces cerevisiae* (2002) *Yeast* 19, 703-11
 - 55) M.Oliva, **V. De Pinto**, P. Barsanti and C. Caggese *A genetic analysis of the porin gene encoding a Voltage-dependent Anion Channel Protein in Drosophila melanogaster* (2002) *Mol.Gen.Genomics* 267, 746-756
 - 54) Casadio R, Jacoboni I, Messina A, **De Pinto V.** (2002). *A 3D model of the Voltage Dependent Anion-selective Channel* *FEBS Lett.* 520, pp. 1-7
 - 53) I. Jacoboni, P. L. Martelli, P. Fariselli, **V. De Pinto** and R. Casadio *Prediction of the transmembrane regions of b-barrel membrane proteins with a neural network-based predictor* (2001) *Protein Science*, 10, 779-87
 - 52) R. Massa, L.N.J.L Marlier, A. Martorana, S. Cicconi, D. Pierucci, P. Giacomini, **V. De Pinto** and L. Castellani *Intracellular localization and isoform expression of the voltage-dependent*

- anion channel (VDAC) in normal and dystrophic skeletal muscle* (2000) *J. Muscle research and Cell Motility*, 21, 433-42
- 51) **V. De Pinto**, A. Messina, A. Schmid, S. Simonetti, F. Carnevale and R. Benz *Characterization of channel-forming activity in muscle biopsy from a porin-deficient human patient*, (2000) *J. Bioenergetics Biomemb.*, 32, 585-593
 - 50) A. Messina, F. Guarino, M. Oliva, L. P. van den Heuvel, J. Smeitink and **V. De Pinto** *Characterization of the human porin isoform 1 (HVDAC1) gene by amplification on the whole human genome: a tool for porin deficiency analysis* (2000) *Biochem. Biophys. Res. Comm.*, 270, 787-792
 - 49) G. B athori, I. Parolini, I. Szab o, F. Tombola, A. Messina, M. Oliva, M. Sargiacomo, **V. De Pinto** and M. Zoratti *Extramitochondrial porin: facts and hypotheses* (2000) *J. Bioenergetics Biomemb.*, 32, 79-89
 - 48) G. Bathori, I. Parolini, F. Tombola, I. Szab o, A. Messina, M. Oliva, **V. De Pinto**, M. Lisanti, M. Sargiacomo and M. Zoratti *Porin is present in caveolae and caveolae-related domain* (1999) *J. Biol. Chem.*, 274, 29607-12
 - 47) G. Ragone, R. Caizzi, R. Moschetti, P. Barsanti, **V. De Pinto** and C. Caggese, *The Drosophila melanogaster gene for NADH:ubiquinone oxidoreductase acyl carrier protein: developmental expression analysis and evidence for alternatively spliced forms* (1999) *Mol. Gen. Genetics*, 261, 690-7
 - 46) Jung-Il Moon, Yong Wook Jung, Bok Hyun Ko, **V. De Pinto**, Ingyol Jin, and Il Soo Moon *Presence of a voltage-dependent anion channel 1 in the rat postsynaptic density fraction* (1999) *Neuroreport*, 10, 443-447
 - 45) C. Caggese, G. Ragone, B. Perrini, R. Moschetti, **V. De Pinto**, R. Caizzi and P. Barsanti *A strategy for the identification of nuclear genes encoding mitochondrial proteins: isolation of a collection of D. melanogaster cDNAs homologous to sequences in the Human Gene Index database* (1999) *Mol. Gen. Genetics* 261, 64-70
 - 44) Messina, A., Oliva, M., Rosato, C., Huizing, M., van der Heuvel, L.P., Forte, M., Rocchi, M. and **De Pinto, V.** *Mapping of the Human Voltage Dependent Anion Channel (VDAC) isoforms 1 and 2 reconsidered* (1999) *Biochem. Biophys. Res. Comm.* 255, 707-10
 - 43) F. Perosa, G. Luccarelli, M. Neri, **V. De Pinto**, S. Ferrone and F. Dammacco *Evaluation of biotinylated cells as a source of antigens for characterization of their molecular profile* (1998) *Int. J. Clin. Lab. Res.* 28, 246-251
 - 42) Trijbels F, Huizing M, Ruitenbeek W, Sengers R, Smeitink J, **De Pinto V**, Wendel U *Disturbances in mitochondrial transport systems leading to encephalomyopathies* (1998) *Biofactors* 7, 225-7
 - 41) M. Oliva, A. Messina, G. Ragone, C. Caggese, R. Caizzi and **V. De Pinto** *Sequence of the Drosophila melanogaster mitochondrial porin gene: evidence of a conserved protein domain between fly and mouse* (1998) *FEBS Lett.* 430, 327-332
 - 40) G. B athori, I. Szabo, I. Schmehl, F. Tombola, A. Messina, **V. De Pinto** and Mario Zoratti *Novel aspects of the electrophysiology of mitochondrial porin* (1998) *Biochem. Biophys. Res. Comm.* 243, 258-263
 - 39) I. Szabo, G. B athori, F. Tombola, A. Coppola, I. Schmehl, M. Brini, A. Ghazi, **V. De Pinto** and Mario Zoratti *Double-stranded DNA can be translocated across a planar membrane containing purified mitochondrial porin* (1998) *FASEB J.* 12, 495-502
 - 38) G. B athori, I. Szabo, F. Tombola, M. Brini, A. Coppola, M. Zoratti and **V. De Pinto** *DNA can be translocated across planar bilayer membranes containing mitochondrial porin* (1997) *Biophys. J.* 72, A348
 - 37) A. Messina, M. Neri, F. Perosa, C. Caggese, M. Marino, R. Caizzi and **V. De Pinto** *Cloning and chromosomal localization of a cDNA encoding a mitochondrial porin from Drosophila melanogaster* (1996) *FEBS Lett.* 384, 9-13

- 36) M. Huizing, W.Ruitenbeek, F.Thinnes, **V. De Pinto**, U. Wendel, J.M.F. Trijbels, L.M.E. Smit and L.P. van den Heuvel *Deficiency of the Voltage-Dependent Anion Channel: clinical and biochemical aspects of a new mitochondriopathy* (1996) *Ped. Research* 39, 1-6
- 35) M. Huizing, **V. De Pinto**, W.Ruitenbeek, J.M.F. Trijbels, L.P. van den Heuvel and U. Wendel *Importance of mitochondrial transmembrane processes in human mitochondriopathies* (1996) *J. Bioenergetics and Biomembranes* 28, 107-112
- 34) W.Ruitenbeek, M. Huizing, **V. De Pinto**, F.Thinnes, J.M.F. Trijbels, U. Wendel and R.C.A. Sengers *Defects of mitochondrial membrane-bound transport proteins in human mitochondriopathies: a biochemical approach* (1995) in "Progress in Cell Research" (F.Palmieri et al. eds.) Elsevier, Amsterdam, 225-229
- 33) M. Huizing, W.Ruitenbeek, F.Thinnes and **V. De Pinto** *Deficiency of the Voltage-Dependent Anion Channel (VDAC): a novel cause of mitochondrial myopathies* (1994) *The Lancet* 344, 762
- 32) M.Zoratti, I.Szabò and **V. De Pinto** *The mitochondrial permeabilization pore* (1994) in "Molecular Biology of Mitochondrial Transport Systems" (Colombini, M. and Forte, M., eds.), Springer Verlag, New York, 153-168
- 31) **V. De Pinto**, R.Caizzi, J.A.Al Jamal, C.Caggese, and F.Palmieri, F. *Experimental supports to a sixteen-strands model of transmembrane arrangement of mitochondrial porin and Preliminary results concerning a multigene family in Drosophila melanogaster related to human mitochondrial porin* (1994) in "Molecular Biology of Mitochondrial Transport Systems" (Colombini, M. and Forte, M., eds.), Springer Verlag, New York, 265-280
- 30) I.Szabo, **V. De Pinto** and M. Zoratti *The mitochondrial permeability transition pore may comprise VDAC molecules. II. The electrophysiological properties of VDAC are compatible with those of the mitochondrial megachannel* (1993) *FEBS Lett.* 330, 206-210
- 29) J.A.Aljamal, G.Genchi, **V. De Pinto**, L.Stefanizzi, A.DeSantis, R.Benz and F.Palmieri *Purification and characterization of porin from corn (Zea mays L.) mitochondria* (1993) *Plant Physiol.* 102, 615-621
- 28) **V. De Pinto**, J.A.Al Jamal, and F.Palmieri *Location of the dicyclohexylcarbodiimide-reactive glutamate residue in bovine heart mitochondrial porin* (1993) *J. Biol. Chem.*, 268, 12977-12982
- 27) **V. De Pinto** and F.Palmieri *Topology of the mitochondrial porin* (1992) in "Molecular mechanisms of transport" Elsevier Science Publ. Amsterdam pag. 165-172
- 26) **V. De Pinto** and F.Palmieri *MINI-REVIEW Transmembrane arrangement of mitochondrial porin or Voltage-Dependent Anion Channel* (1992) *J. Bioenergetics and Biomembranes* 24, 21-26
- 25) **V. De Pinto**, J.A.Al Jamal, R.Benz and F.Palmieri *Characterization of SH-groups in porin of bovine heart mitochondria: porin cysteines are localized in the channel walls* (1991) *Eur. J. Biochem.* 202, 903-911
- 24) **V. De Pinto**, F.Thinnes, T.Link and F.Palmieri *Peptide-specific antibodies and proteases as probes of the transmembrane topography of the bovine heart mitochondrial porin* (1991) *Biochemistry* 30, 10191-10200
- 23) **V. De Pinto**, F.Thinnes, T.Link and F.Palmieri *Probing the transmembrane topography of the bovine heart mitochondrial porin* (1991) *Biophys. J.* 59, 596a
- 22) **V. De Pinto**, V.Zara, R.Benz, G.V.Gnoni and F.Palmieri *Characterization of pore-forming activity in liver mitochondria from Anguilla anguilla. Two porins in mitochondria?* (1991) *Biochim. Biophys. Acta*, 1061, 279-286
- 21) **V. De Pinto**, J.A.Al Jamal, R.Benz and F.Palmieri *Positive residues involved in the voltage-gating of the mitochondrial porin-channel are localized in the external moiety of the pore* (1990) *FEBS Lett.* 274, 122-126
- 20) **V. De Pinto** *La Porina* (1990) *Le Scienze* (italian edition of Scientific American) 260, 34-42

- 19) **V. De Pinto**, A.Jalal and F.Palmieri *Localization of positive residues on the mouth of porin pore* Biophys. J. (1990) 57, 324a
- 18) **V. De Pinto**, R.Benz, C.Caggese and F.Palmieri *Characterization of the mitochondrial porin from *Drosophila melanogaster** (1989) Biochim. Biophys. Acta, 987, 1-7
- 17) J.A.Towbin, M.Minter, D.Brdiczka, V.Adams, **V. De Pinto**, F.Palmieri and E.R.B. McCabe *Demonstration and characterization of human cardiac porin: a voltage-dependent channel involved in adenine nucleotide movement across the outer mitochondrial membrane* (1989) Biochemical Medicine and Metabolic Biology 42, 161-169
- 16) M.C.Sorgato, O.Moran, **V. De Pinto**, B.U.Keller and W.Stuehmer *Further investigation on the high conductive ion channel of the inner membrane of mitochondria* (1989) J. Bioenergetics and Biomembranes 21, 485-496
- 15) F.Palmieri and **V. De Pinto** MINI-REVIEW *Purification and properties of the voltage-dependent anion channel of the outer mitochondrial membrane* (1989) J. Bioenergetics and Biomembranes 21, 417-425
- 14) **V. De Pinto**, R.Benz and F.Palmieri *Interaction of non-classical detergents with the mitochondrial porin* (1989) Eur. J. Biochem. 183, 179-187
- 13) **V. De Pinto**, L.Gaballo, R.Benz and F.Palmieri *Purification of mammalian porins* (1988) in "Anion Carriers of Mitochondrial Membranes" Springer-Verlag Berlin pag. 237-248
- 12) **V. De Pinto**, G.Prezioso and F.Palmieri *A simple and rapid method for the purification of the mitochondrial porin from mammalian tissues* (1987) Biochim. Biophys. Acta 905, 499-502
- 11) **V. De Pinto**, C.Caggese, G.Prezioso and F.Ritossa *Purification of Glutamine Synthetase II isozyme of *Drosophila melanogaster* and structural and functional comparison of Glutamine Synthetase I and II* (1987) Biochemical Genetics 25, 821-836
- 10) F.Palmieri, G.Prezioso, F.Bisaccia, C.Indiveri, V.Zara, **V. De Pinto** and G.Genchi *Isolation and reconstitution of substrate carriers from mitochondria: an overview* (1987) in "Advances in Myochemistry: 1" John Libbey Eurotext Ltd. pag. 87-104
- 9) **V. De Pinto**, O.Ludwig, J.Krause, R.Benz and F.Palmieri *Porin pores of mitochondrial outer membranes from high and low eukaryotic cells: biochemical and biophysical characterization* (1987) Biochim. Biophys. Acta 894, 109-119
- 8) O.Ludwig, **V. De Pinto**, F.Palmieri and R.Benz *Pore formation by the mitochondrial porin of rat brain in lipid bilayer membranes* (1986) Biochim. Biophys. Acta 860, 268-276
- 7) **V. De Pinto** and F.Palmieri *Identification and characterization of the 35 kDa DCCD-binding protein from pig heart mitochondria* (1985) Ital. Journ. of Biochem. 34, 391-391B
- 6) R.Benz, O.Ludwig, **V. De Pinto** and F.Palmieri *Permeability properties of mitochondrial porins of different eukaryotic cells* in "Achievements and Perspectives in Mitochondrial Research" (1985) Elsevier Amsterdam pag. 317-327
- 5) **V. De Pinto**, M.Tommasino, R.Benz and F.Palmieri *The 35 kDa DCCD-binding protein from pig heart mitochondria is the mitochondrial porin* (1985) Biochim. Biophys. Acta 813, 230-242
- 4) **V. De Pinto**, M.Tommasino, F. Bisaccia and F.Palmieri *Separation of the 35000 Mr DCCD-reactive protein from the phosphate carrier and its purification from heart mitochondria* in "Structure and Function of Membrane Proteins" (1983) Elsevier Amsterdam pag. 347-350
- 3) F.Palmieri, M.Tommasino, **V. De Pinto**, P.Mende and B.Kadenbach *Isolation and reconstitution of mitochondrial phosphate carrier* (1982) International Workshop on Membranes and Transport in Biosystems, Laterza Litostampa Bari, 167-170
- 2) **V. De Pinto**, M.Tommasino, F.Palmieri and B.Kadenbach *Purification of the active mitochondrial phosphate carrier by affinity chromatography with an organomercurial agarose column* (1982) FEBS Lett. 148, 103-106

- 1) C.Caggese, **V. De Pinto** and A.Ferrandino *Purification and genetic control of NAD-dependent Glutamate Dehydrogenase from Drosophila melanogaster* (1982) *Biochemical Genetics* 20, 449-460