

CURRICULUM VITAE

FRANCESCO PALLOTTI MD PhD

Associate Professor in Clinical Biochemistry and Clinical Molecular Biology

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Birthplace and date of birth: Bologna, April 14,1966

DEGREE, Ph.D., RESIDENCY

2006 Post -Degree Specialization (Residency) In Clinical Biochemistry, cum laude, University of Insubria.

1997 PhD: in Cytomorphology, University of Bologna.

1992 Degree: in Medicine and Surgery cum laude, University of Bologna.

ACADEMIC POSITIONS

2015- present Head of Residency Program in Clinical Biochemistry and Clinical Pathology, School of Medicine, University of Insubria, Varese.

2009- present Head of Residency Program in Clinical Biochemistry, School of Medicine, University of Insubria, Varese.

2008- present Associate Professor in Clinical Biochemistry and Clinical Molecular Biology, School of Medicine, University of Insubria, Varese.

2002-2007 Assistant Professor in Clinical Biochemistry and Clinical Molecular Biology, School of Medicine, University of Insubria, Varese

1998-2002 Postdoctoral Research Scientist, Dept of Neurology, Columbia University, New York City, USA

1996-1997 Graduate fellow, Institute of Histology and General Embryology, University of Bologna

1996 Graduate fellow, Institute of Nutrition and Food Technology, University of Granada, Spain.

1994-1995 Graduate fellow, Dept of Neurology, Columbia University, New York City, USA

1990-1992 Internship at the Biochemistry Dept, Bioenergetics Laboratory, University of Bologna.

SCHOLARSHIP, AWARDS E PROJECTS AS PRINCIPAL INVESTIGATOR

2010 Research University Funding (FAR) (€ 2574,43)

2009 Research University Funding (FAR) (€ 2047,57).

2007 Research University Funding (FAR) “Search for D-loop germinal polymorphisms in a LHON G3460A family”, march 2007-january 2008 (€ 2976,84).

2006 Research University Funding (FAR) “Quantification of the G3460A mutation in different pedigrees”.

2005 Research University Funding (FAR) “ A new real time PCR method for heteroplasmy quantification of the G3460A mitochondrial DNA mutation responsible for LHON”.

1998-2001 Muscular Dystrophy Association (MDA) Development Grant on “RNA-based gene therapy for mitochondrial myopathies”.

1997-1998 Telethon fellowship within the Project “Possible Autoimmune Pathogenesis for Leber’s Hereditary Optic Neuropathy: Molecular Mimicry Involving Mitochondrial Autoantigens”.

1994 Fellowship of the Italian Society of Biochemistry (SIB) .

OTHER ACTIVITIES

- Member of the Scientific Committee of the Conference “Mitochondrial DNA in aging and pathology”, Bologna, june 3, 1997.
- Reviewer for the journals “Cancer Research” , “International Journal of Nanomedicine” , “BBA- Bioenergetics”, “Journal of Membrane Biology”, “Journal of Translational Medicine”
- Reviewer in 2012, 2013 and 2014 for The Portuguese Foundation for Science and Technology (FCT)
- Reviewer for the Evaluation of projects for Italian Ministry of Education, University and Research and for the Evaluation of Research Products (VQR 2004-2010) for the ANVUR (National Agency for the Evaluation of University System and Research

CLINICAL ACTIVITY

October 2012- present, Executive Academic Doctor at the Service of Laboratory Medicine for Cytogenetics and Medical Genetics- Ospedale di Circolo_ Fondazione Macchi, Varese Head of the Molecular Diagnostics and Oncohematology section.

April 2005- September 2012, Executive Academic Doctor at the Clinical Chemistry Laboratory- Ospedale di Circolo- Fondazione Macchi, Varese.

December 2010- present, High Professionalism Appointment for Molecular Diagnostics - Ospedale di Circolo- Fondazione Macchi, Varese.

PUBLICATIONS WITH IMPACT FACTOR (from Journal Citation Reports; the reported IF is related to the year of publication of the cited article)

50. E. Mattarucchi, F. Pallotti, R. Casalone. Technical issues behind molecular monitoring in chronic myeloid leukemia. Mol Diagn Ther Apr 9 Epub ahead of print (2015) **IF (2013) 2,589**

49. F.Pallotti, L. Elli, P. Maroni, P. Chelazzi, M. Agosti, R. Casalone. FTL gene mutation and persistent hyperferritinemia without iron deficiency anemia after phlebotomy. Clin Chem Lab Med, Feb 6 Epub ahead of print (2015) **IF (2013) 2,955**

48. F. Pallotti, G. Binelli, R. Fabbri, M.L. Valentino, R. Vicenti, M. Macciocca, S. Cevoli, A. Baruzzi, S. DiMauro, V. Carelli. A wide range of 3243°>G/tRNA^{Leu}(UUR) (MELAS) mutation loads may segregate in offspring through the female germline bottleneck. PLoS One 9, e96663 (2014) **IF (2013) 3,534**

47. E. Karousou, X. Stachtea, P. Moretto, M. Viola, D. Vigetti, M.L. D'Angelo, L. Raio, F. Ghezzi, F. Pallotti, G. De Luca, N.K. Karamanos, A. Passi. New insights into the pathobiology of Down syndrome--hyaluronan synthase-2 overexpression is regulated by collagen VI α 2 chain. FEBS J. 280, 2418-30 (2013) **IF 3,986**

46. S. Cevoli, F.Pallotti, C. La Morgia, M.L.Valentino, G.Pierangeli, P.Cortelli, A.Baruzzi, P. Montagna, V. Carelli. High frequency of migraine-only patients negative for the 3243 A>G tRNA^{Leu} mtDNA mutation in two MELAS families. Cephalalgia. 30:919-27 (2010). **IF 4,265**

45. L. Campiotti, S. Uccella, L. Appio, F. Pallotti, S. La Rosa, C. Capella, A. Venco. JAK2 mutation and atypical chronic myeloid leukemia. Leukemia Res 33, e166-167 (2009). **IF 2,358**

44. D. Vigetti, P. Moretto, M. Viola, A. Genasetti, M. Rizzi, E. Karousou, M. Clerici, B. Bartolini, F. Pallotti, G. De Luca, A. Passi. Aortic smooth muscle cells migration and the role of metalloproteinases and hyaluronan. Connect Tissue Res 49, 189-192 (2008). **IF 1,113**

43. A. Genasetti, D. Vigetti, M. Viola, E. Karousou, P. Moretto, M. Rizzi, B. Bartolini, M. Clerici, F. Pallotti, G. De Luca, A. Passi. Hyaluronan and human endothelial cell behavior. *Connect Tissue Res* 49, 120-123 (2008) **IF 1,113**
42. M. Viola, D. Vigetti, A. Genasetti, M. Rizzi, E. Karousou, P. Moretto, M. Clerici, B. Bartolini, F. Pallotti, G. De Luca, A. Passi. Molecular control of the hyaluronan biosynthesis. *Connect Tissue Res* 49, 111-114 (2008) **IF 1,113**
41. M. Viola, D. Vigetti, E. Karousou, B. Bartolini, A. Genasetti, M. Rizzi, M. Clerici, F. Pallotti, G. De Luca, A. Passi. New electrophoretic and chromatographic techniques for analysis of heparin and heparan sulfate. *Electrophoresis* 29, 3168-3174 (2008). **IF 3,509**
40. S. D'Aguanno, A. Barassi, S. Lupisella, G.V.Melzi d'Eril, P. Del Boccio, D. Pieragostino, F. Pallotti, V. Carelli, M.L.Valentino, R.Liguori, P. Avoni, S.Bernardini, D. Gambi, A.Urbani, G.Federici. Differential cerebro spinal fluid proteome investigation of Leber hereditary optic neuropathy (LHON) and multiple sclerosis. *J Neuroimmunol* 193, 156-160 (2008) **IF 3,159**
39. A.Genasetti, M.L.Valentino, V.Carelli, D.Vigetti, M.Viola, E.G.Karousou, G.V.Melzi d'Eril, G.De Luca, A.Passi, F.Pallotti. Assessing heteroplasmic load in Leber's hereditary optic neuropathy mutation 3460 G > A/MT-ND1 with a real time PCR quantitative approach. *J. Mol. Diagn.* 9, 538-545 (2007). **IF 3,478**
38. R.Pezzilli, A.Barassi, G. Melzi d'Eril, L.Fantini, F.Pallotti, P.Tomassetti, R.Corinaldesi. The search of the stool and blood K-ras mutations in patients with pancreatic mass. *Pancreas* 33, 199-200 (2006). **IF 2,121**
37. D.Vigetti, P.Moretto, M.Viola, A.Genasetti, M.Rizzi, E.Karousou, F.Pallotti, G.De Luca, A.Passi. Matrix metalloproteinase 2 and tissue inhibitors of metalloproteinases regulate human aortic smooth muscle cell migration during in vitro aging. *FASEB J.* 20, 1118-1130 (2006). **IF 6,721**
36. V.Carelli, A.Achilli, M.L.Valentino, C.Rengo, O.Semino, M.Pala, A.Olivieri, M.Mattiazzi, F.Pallotti, F.Carrara, M.Zeviani, V.Leuzzi, C.Carducci, G.Valle, B.Simionati, L.Mendieta, S.Salomao, R.Belfort Jr, A.A.Sadun, A.Torroni. Haplogroup effects and recombination of mitochondrial DNA: novel clues from the analysis of Leber hereditary optic neuropathy pedigrees. *Am.J.Hum.Genet.* 78, 564-574 (2006). **IF 12,629**
35. D.Vigetti, M. Ori, M.Viola, A.Genasetti, E. Karosou, M.Rizzi, F.Pallotti, I.Nardi, V.C.Hascall, G.De Luca, A.Passi. Molecular cloning and characterization of UDP-glucose dehydrogenase from the amphibian *Xenopus laevis* and its involvement in hyaluronan synthesis. *J.Biol.Chem.* 281, 8254-8263 (2006) **IF 5,808**
34. M.Viola, E.G. Karousou, D.Vigetti, A. Genasetti, F. Pallotti, G.F. Guidetti, E. Tira, G. De Luca, A. Passi. Decorin from different bovine tissues: Study of glycosaminoglycan chain by PAGEFS. *J Pharm Biomed Anal.* 41, 36-42 (2006). **IF 2,032**

33. A. Barassi, G. Merlini, S. Finazzi, F. Pallotti, V. Mantovani, A. Sala, G.V. Melzi d'Eril. Comparison of three strategies for myocardial protection during coronary artery bypass graft surgery based on markers of cardiac damage. *Clin Biochem* 38, 504-508 (2005). **IF 2,359**
32. F. Pallotti, A. Baracca, E. Hernandez-Rosa, W.F. Walker, G. Solaini, G. Lenaz, G.V. Melzi d'Eril, S. DiMauro, E.A. Schon, M.M. Davidson. Biochemical analysis of respiratory function in cybrid cell lines harboring mtDNA mutations. *Biochem J* 384, 287-293 (2004). **IF 4,278**
31. A. Barassi, F. Pallotti, G.V. Melzi d'Eril. Biological Variation of Procalcitonin in Healthy Individuals. *Clin Chem* 50, 1878 (2004). **IF 6,501**
30. S. DiMauro, K. Tanji, E. Bonilla, F. Pallotti, E.A. Schon. Mitochondrial abnormalities in muscle and other aging cells: Classification, causes, and effects. *Muscle Nerve*, 26, 597-607 (2002). **IF 2,450**
29. J. Guy, X. Qi, F. Pallotti, E.A. Schon, G. Manfredi, V. Carelli, A. Martinuzzi, W.W. Hauswirth, A.S. Levin. Rescue of a mitochondrial deficiency causing Leber hereditary optic neuropathy. *Ann Neurol*, 52, 534-542 (2002). **IF 8,603**
28. M.L. Valentino, P. Avoni, P. Barboni, F. Pallotti, C. Rengo, A. Torroni, M. Bellan, A. Baruzzi, V. Carelli. Mitochondrial DNA nucleotide changes C14482G and C14482A in the ND6 gene are pathogenic for Leber's hereditary optic neuropathy. *Ann Neurol*, 51, 774-778 (2002). **IF 8,603**
27. C. Giordano, F. Pallotti, W.F. Walker, N. Checcarelli, O. Musumeci, F. Santorelli, G. d'Amati, E.A. Schon, S. DiMauro, M. Hirano, M.M. Davidson. Pathogenesis of the deafness-associated A1555G mitochondrial DNA mutation. *Biochem Biophys Res Commun*, 293, 521-529 (2002). **IF 2,935**
26. A. Naini, O. Musumeci, L. Hayes, F. Pallotti, M. Del Bene, H. Mitsumoto. Identification of a novel mutation in Cu/Zn superoxide dismutase gene associated with familial amyotrophic lateral sclerosis. *J Neurol Sci*, 198, 17-19 (2002). **IF 2,080**
25. R. Lodi, V. Carelli, P. Cortelli, S. Iotti, M.L. Valentino, P. Barboni, F. Pallotti, P. Montagna, B. Barbiroli. Phosphorus MR spectroscopy shows a tissue specific in vivo distribution of biochemical expression of the G3460A mutation in Leber's hereditary optic neuropathy. *J Neurol Neurosurg Psychiatry*, 72, 805-807 (2002). **IF 2,939**
24. V. Carelli, A. Baracca, S. Barogi, F. Pallotti, M.L. Valentino, P. Montagna, M. Zeviani, A. Pini, G. Lenaz, A. Baruzzi, G. Solaini. Biochemical-clinical correlation in patients with different loads of the mitochondrial DNA T8993G mutation. *Arch Neurol*. 59, 264-270 (2002). **IF 4,336**
23. E.A. Schon, S. Santra, F. Pallotti, M.E. Girvin. Pathogenesis of primary defects in mitochondrial ATP synthesis. *Semin. Cell Dev Biol*, 12, 441-448 (2001). **IF 5,537**
22. M. D'Aurelio, F. Pallotti, A. Barrientos, C.D. Gajevski, J.Q. Kwong, C. Bruno, M. Flint Beal, G. Manfredi. In vivo regulation of oxidative phosphorylation in cells harboring a stop-codon mutation in mitochondrial DNA-encoded cytochrome c oxidase subunit I. *J. Biol. Chem*, 276, 46925-46932 (2001). **IF 7,258**

21. F.Pallotti, G.Lenaz. Isolation and subfractionation of mitochondria from animal cells and tissue culture lines. *Method Cell Biol.* 65, 1-35 (2001). **IF 2,270**
20. C.M.Sue, C.Karadimas, N.Checcarelli, K.Tanji, L.C.Papadopoulou, F.Pallotti, F.L.Guo, S.Shanske, M.Hirano, D.C.De Vivo, R.Van Coster, P.Kaplan, E.Bonilla, S.DiMauro. Differential features of patients with mutations in two COX assembly genes, SURF-1 and SCO2. *Ann. Neurol.* 47, 589-595 (2000). **IF 8,480**
19. T.H.Vu, K.Tanji, F.Pallotti, V.Golzi, M.Hirano, S.DiMauro, E.Bonilla. Analysis of mtDNA deletions in muscle by in situ hybridization. *Muscle Nerve* 23, 80-85 (2000). **IF 1,969**
18. A.L.Andreu, M.G.Hanna, H.Reichmann, C.Bruno, A.S.Penn, K.Tanji, F.Pallotti, S.Iwata, E.Bonilla, B.Lach, J.Morgan-Hughes, S.DiMauro. Exercise intolerance due to mutations in the cytochrome b gene of mitochondrial DNA. *N. Engl. J. Med.* 341, 1037-1044 (1999). **IF 28,857**
17. C.Bruno, A.Martinuzzi, Y.Tang, A.L.Andreu, F.Pallotti, E.Bonilla, S.Shanske, J.Fu, C.M.Sue, C.Angelini, S.DiMauro, G.Manfredi. A stop-codon mutation in the human mtDNA cytochrome c oxidase gene disrupt the functional structure of complex IV. *Am. J. Hum. Genet.* 65, 611-620 (1999). **IF 10,426**
16. A.Pugnaloni, F.Pallotti, M.L.Genova, C.Zucchini, S.Amati, M.Tesei, G.Biagini, G.Lenaz. Histomorphometric studies in rat cerebral cortex: normal aging and cell loss. *Cell. Mol. Biol.* 44, 597-604(1998). **IF 1.151**
15. G.Biagini, F.Pallotti, S.Carraro, G.Sgarbi, M.Merlo Pich, G.Lenaz, F.Anzivino, G.Gualandi, D.Xin. Mitochondrial DNA in platelets from aged subjects. *Mech. Ageing Dev.*, 101, 269-275 (1998). **IF 1,583**
14. F.Pallotti, M.L.Genova, M.Merlo Pich, C.Zucchini, S.Carraro, M.Tesei, C.Bovina, G.Lenaz. Mitochondrial dysfunction and brain disorders. *Arch. Gerontol. Geriat., Suppl.* 6, 385-392 (1998). **IF 0.333**
13. G.Manfredi, D.Thyagarajan, L.C.Papadopoulou, F.Pallotti, E.A.Schon. The fate of human sperm-derived mtDNA in somatic cells. *Am. J. Hum. Genet.* 61, 953-960 (1997). **IF 10,244**
12. G.Lenaz, C.Bovina, C.Castelluccio, R.Fato, G.Formiggini, M.L.Genova, M.Marchetti, M.Merlo Pich, F.Pallotti, G.Parenti Castelli, G.Biagini. Mitochondrial Complex I defects in aging. *Mol. Cell. Biochem.* 174,329-333(1997). **IF 1.345**
11. M.L.Genova, C.Bovina, M.Marchetti, F.Pallotti, C.Tietz, G.Biagini, A.Pugnaloni, C.Viticchi, A.Gorini, R.F.Villa, G.Lenaz. Decrease of rotenone inhibition is a sensitive parameter of Complex I damage in brain nonsynaptic mitochondria of aged rats. *FEBS Lett* 410, 467-469 (1997). **IF 3.504**
10. M.L.Genova, C.Bovina, F.Pallotti, S.Carraro, G.Sgarbi, C.Castaldini, G.Biagini, C.Viticchi, A.Gorini R.F.Villa, G.Lenaz. Age-related changes in nonsynaptic and synaptic mitochondria from rat cerebral cortex. *It. J. Biochem* 46 (suppl. 1) 148-153 (1997). **IF 0,288**

9. F.Pallotti, X.Chen, E.Bonilla, E.A.Schon. Evidence that specific mtDNA point mutations may not accumulate in skeletal muscle during normal human aging. *Am. J. Hum. Genet.* 59, 591-602 (1996). **IF 9,366**
8. R.Fato, E.Estornell, S.DiBernardo, F.Pallotti, G.Parenti Castelli, G.Lenaz. Steady-state kinetics of the reduction of Coenzyme Q analogs by Complex I (NADH: ubiquinone oxidoreductase) in bovine heart mitochondria and submitochondrial particles. *Biochemistry-US* 35, 2705-2716 (1996). **IF 4,818**
7. C.Zucchini, A.Pugnaloni, F.Pallotti, R.Solmi, M.Crimi, C.Castaldini, G.Biagini, G.Lenaz. Human skeletal muscle mitochondria in aging: lack of detectable morphological and enzymic defects. *Biochem. Mol. Biol. Int.* 37, 607-616 (1995). **IF 0,596**
6. G.Lenaz, C.Bovina, C.Castelluccio, M.Cavazzoni, E.Estornell, R.Fato, J.R.Huertas, M. Merlo Pich, F.Pallotti, G.Parenti Castelli, H.Rauchova. Modes of Coenzyme Q Functions in Electron Transfer. *Protoplasma* 184, 50-62 (1995). **IF 1,487**
5. C.Castelluccio, A.Baracca, R.Fato, F.Pallotti, M.Maranesi, V.Barzanti, A.Gorini, R.F.Villa, G.Parenti Castelli, M.Marchetti, G.Lenaz. Mitochondrial activities of rat heart during ageing. *Mech. Ageing Dev.* 76, 73-88 (1994). **IF 1,124**
4. G.Lenaz, R.Fato, M.Battino, C.Castelluccio, M.Cavazzoni, E.Estornell, J.F.R.Huertas, F.Pallotti, G.Parenti Castelli, H.Rauchova. An updating of the biochemical function of Coenzyme Q in mitochondria. *Molec. Aspects Med.* 15 (Supplement), s29-s36 (1994). **IF 1,321**
3. R.Solmi, F.Pallotti, M.Rugolo, M.L.Genova, E.Estornell, P.Ghetti, A.Pugnaloni, G.Biagini, C.Rizzoli, G.Lenaz. Lack of major mitochondrial bioenergetic changes in cultured skin fibroblast from aged individuals. *Biochem. Mol. Biol. Int.* 33, 477-484 (1994). **IF 0,566**
2. E.Estornell, R.Fato, F.Pallotti, G.Lenaz. Assay conditions for the mitochondrial NADH:Coenzyme Q oxidoreductase. *FEBS Lett.* 332, 127-131 (1993) **IF 3,339**
1. G.Lenaz, R.Fato, C.Castelluccio, M.L.Genova, C.Bovina, E.Estornell, V.Valls, F.Pallotti, G.Parenti Castelli. The function of Coenzyme Q in mitochondria. *Clin. Investigator* 71, S66-S70 (1993). **IF 0,479**

Total IF **213,458**
h-index: **25**

OTHER PUBLICATIONS

5. F.Pallotti, G.Lenaz. Isolation and subfractionation of mitochondria from animal cells and tissue culture lines. *Methods Cell Biol* 80, 3-44 (2007).

4. F.Pallotti, A.Barassi, G. Melzi d'Eril. La siero amiloide A: biologia ed applicazioni cliniche. Riv. Med. Lab.-JLM, 4, 53-60 (2003).
3. G.Lenaz, M.Cavazzoni, M.L.Genova, M.D'Aurelio, M.Merlo Pich, F.Pallotti, G.Formiggini, M.Marchetti, G.Parenti Castelli, C Bovina. Oxidative stress, antioxidant defences and aging. Biofactors 8, 195-204 (1998).
2. S.Faenza, R.Fato, S.Lari, G.Lenaz, N.Maraldi, F.Pallotti, S.Perin, P.Sabatelli, C.Uguccioni, A.Zanoni, A.Zanoni. Experimental isovolemic hemodilution. Study of tissue perfusion with Hb 3% in swine. Minerva Anesthesiol. 63, 229-236 (1997).
1. F.Pallotti, R.Fato, E.Estornell, M.Crimi, M.Degli Esposti, M.Merlo Pich, G.Biagini, G.Lenaz. Osservazioni metodologiche nel dosaggio della NADH Coenzima Q ossidoreduttasi mitocondriale. Il Patologo Clinico 5, 351-354 (1993).

BOOK CHAPTERS

2. A.Passi, L.Raio, E Cereda, F.Ghezzi, F.Pallotti, G.Porta, A.Cromi, P.Bolis, G.De Luca. Hyaluronan content of umbilical cords of healthy and Down Syndrome fetuses. In "Hyaluronan -Structure, Metabolism, Biological Activities, Therapeutic Applications", (E.A.Balazs and VC Hascall eds), Volume II, Matrix Biology Institute, Edgewaters, New Jersey, 713- 717 (2005).
1. E.A.Schon, M.Sciacco, F.Pallotti, X.Chen, E.Bonilla. Mitochondrial DNA mutations and aging. In "Cellular Aging and Cell Death" (N.J.Holbrook, G.R.Martin, R.A.Lockshin eds.), John Wiley & Sons, New York, 19-34 (1996).