

CURRICULUM VITAE

Personal information:

Name: Magnifico Maria Chiara

Date of birth: 26-07-1983

Institution: Biosciences, Biotechnology and Biopharmaceutic at the University of Bari Aldo Moro

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SSD: BIO 10

Position: Researcher Fellow

Career and titles:

29.07.2019-ongoing Research Fellow in the Department of Biosciences, Biotechnology and Biopharmaceutic at the University of Bari Aldo Moro, laboratory of Prof. L. Palmieri.

01.02.2019-28.07.2019 Postdoctoral researcher in the Institute Experimental Endocrinology and Oncology "Gaetano Salvatore", National Council of Research of Naples.

01.03.2018-31.01.2019 Postdoctoral researcher in Biochemistry, "Sapienza" University of Rome, laboratory of Prof. F. Cutruzzolà.

01.06.2017-31.07.2017 - 01.10.2017-28.02.2018 Fellow researcher in Biochemistry, "Sapienza" University of Rome.

01.06.2014-31.05.2017 Postdoctoral researcher in Biochemistry, "Sapienza" University of Rome, laboratory of Prof. P. Sarti.

03.03.2014 - PhD in Biochemistry at "Sapienza" University of Rome.

23.07.2010 - Laurea Magistrale (MSc) cum laude, in Medical, Molecular and Cellular Biotechnology.

Area of specialization:

Bioenergetics, nitric oxide metabolism, hypoxia, nitro-oxidative stress, cell respiration, molecular biology, mitochondrial function.

Skills:

Technical skills: cell culturing and biochemical techniques: eukaryotic cell culturing, viability and mortality assays, separation techniques (TLC, column chromatography, distillation, analytic ultracentrifugation), RNA isolation, cDNA cloning and RT-PCR, protein quantification assays, Western blotting, gel electrophoresis, spectrophotometry, spectrofluorimetry, citofluorimetry, molecular transfection, bioenergetic measurements (ATP, Lactate), O₂ consumption measurements (Oxygraph-2k, Oroboros Instruments; Agilent Seahorse XF Instruments). Biochemical analysis under hypoxic conditions.

Computer skills: advanced knowledge of Windows OS and Office suite; working knowledge of image manipulation software (Adobe Illustrator, Adobe Photoshop, Kodak, ImageJ); knowledge of statistical analysis (ANOVA, t-test student).

Language skills: Italian: native language. English: good speaking and writing.

Additional information:

International research experiences: Educational and practical training at the Dep. of Biological Sciences, University of Buenos Aires, Argentina in the laboratory of Prof. G.C. Calabrese (11th May 2015 to 24th May 2015).

Professional affiliations: EACR - European Association for Cancer Research (2018); GIBB – Gruppo Italiano di Biomembrane e Bioenergetica (2013); SIB - Società Italiana di Biochimica e Biologia Molecolare (2012).

Workshops and courses: MiPsummer 2012 - FEBS Workshop (2012 – Cambridge, UK); Workshop on High-Resolution Respirometry (2011 - Schröcken, Austria).

Scientific Communication:

1. “Biological role and inhibition of Serine hydroxymethyltransferase, a key enzyme in metabolic reprogramming of cancer cells” Magnifico MC, Paone A, Giardina G, Rinaldo S, Bouzidi A, Guiducci G, Contestabile R, Tramonti A, Paiardini A and Cutruzzolà F. Mechanisms to Therapies: Innovations in Cancer Metabolism. European Association for Cancer Research Conference 2018. Bilbao, Spagna, 09-11/10/2018.
2. “Nitric Oxide signalling in HUVEC cells undergoing VLDL stress” Magnifico MC, Arese M, Oberkersch RE, Calabrese G and Sarti P. European Bioenergetics Conference-2016 (EBEC-2016), Riva del Garda (TN) 2-7/07/2016. Abstract in: BBA Bioenergetics.
3. “Relevance of reactive oxygen and nitrogen species interaction in Leber’s hereditary optic neuropathy”. Falabella M, Forte E, **Magnifico MC**, Santini P, Arese M, Giuffrè A, Radić K, Chessa L, Coarelli G, Buscarinu MC, Mechelli R, Salvetti M And Sarti P. European Bioenergetics Conference-2016 (EBEC-2016). Riva del Garda (TN) 2-7 /07/2016. Abstract in: BBA Bioenergetics.
4. “Melatonin, Nitric Oxide and the Warburg Effect” Magnifico MC, Arese M, Mastronicola D, Blanck TJJ and Sarti P. Congresso BIT’s 5th Annual World Congress of Molecular & Cell Biology - 2015 (CMBC-2015), Nanjing (Cina) 25-28/04/2015.
5. “Mitochondria and Melatonin: a new interaction involving nitric oxide chemistry” Magnifico MC, Arese M, Mastronicola D, Forte E., Giuffrè A., Falabella M. and Sarti P. Riunione Annuale del Gruppo Italiano di Biomembrane e Bioenergetica (G.I.B.B.), Padova 20-23/06/2013.
6. “The effects of Melatonin on Nitric Oxide metabolism in HaCaT cells.” Magnifico MC, Arese M, Mastronicola D, Forte E Giuffrè A and Sarti P. Riunione Annuale del Gruppo Italiano di Biomembrane e Bioenergetica (G.I.B.B.), Arcavacata (Rende-Cosenza) 21-23/06/ 2012.
7. “Cell bioenergetics, nitric oxide and melatonin” Magnifico MC, Arese M, Mastronicola D, Forte E, Giuffrè A and Sarti P. MiPsummer 2012 - FEBS Workshop, Cambridge (UK) 7-13/07/2012.
8. “NO-signalling and cell bioenergetics” **Magnifico MC**, Arese M, Mastronicola D, Forte E, Giuffrè A, Testa F, Sarti P. “Workshop on High-Resolution Respirometry”, Schröcken, Austria 26-04-2011/01-05-2011.

Publications:

1. “Linking infection and prostate cancer progression: Toll-like receptor3 stimulation rewires glucose metabolism in prostate cells”. **Magnifico MC**, Macone A, Marani M, Bouzidi A, Giardina G, Rinaldo S, Cutruzzolà F, Paone A. Anticancer Research 2019 Oct;39(10):5541-5549. doi: 10.21873/anticancer.13747. IF: 1.935.
2. “The moonlighting RNA-binding activity of cytosolic serine hydroxymethyltransferase contributes to control compartmentalization of serine metabolism.” Guiducci G, Paone A, Tramonti A, Giardina G, Rinaldo S, Bouzidi A, **Magnifico MC**, Marani M, Menendez JA, Fatica A, Macone A, Armaos A, Tartaglia GG, Contestabile R, Paiardini A, Cutruzzolà F. Nucleic Acids Research 2019; doi: 10.1093/nar/gkz129. IF: 11.561
3. “The catalytic activity of serine hydroxymethyltransferase is essential for de novo nuclear dTMP synthesis in lung cancer cells.” Giardina G *, Paone A *, Tramonti A, Lucchi R, Marani M, **Magnifico MC**, Bouzidi A, Pontecorvi V, Guiducci G, Zamparelli C, Rinaldo S, Paiardini A, Contestabile R, Cutruzzolà F. FEBS J. 2018; doi: 10.1111/febs.14610. IF: 4.53
4. “Differential inhibitory effect of a pyrazolopyran compound on human serine hydroxymethyltransferase-amino acid complexes.” Tramonti A, Paiardini A, Paone A, Bouzidi A,

- Giardina G, Guiducci G, **Magnifico MC**, Rinaldo S, McDermott L, Menendez JA, Contestabile R, Cutruzzolà F. Arch Biochem Biophys. 2018;653:71-79. doi: 10.1016/j.abb.2018.07.001. IF: 3.118
5. "Nonylphenol and octylphenol affect the cell (HepG2) redox balance by differently controlling the eNOS and iNOS activity." **Magnifico MC***, Khani M*, Popov M, Saso L, Sarti P and Arese M. *Oxid Med Cell Long* 2018; doi: 10.1155/2018/1684827. IF: 4.936
 6. "Administration of the Antioxidant N-Acetyl-Cysteine in Pregnant Mice Has Long-Term Positive Effects on Metabolic and Behavioral Endpoints of Male and Female Offspring Prenatally Exposed to a High-Fat Diet." Berry A, Bellisario V, Panetta P, Raggi C, **Magnifico MC**, Arese M, Cirulli F. *Front Behav Neurosci*. 2018; 15;12:48. doi: 10.3389/fnbeh.2018.00048. IF: 3.138
 7. "VLDL Induced Modulation of Nitric Oxide Signalling and Cell Redox Homeostasis in HUVEC Cells". **Magnifico MC***, Oberkersch RE*, Mollo A, Giambelli L, Grooten Y, Sarti P, Calabrese GC and Arese M. *Oxid Med Cell Long* 2017; doi: 10.1155/2017/2697364. IF: 4.936
 8. "Cardiovascular mitochondrial dysfunction induced by cocaine: biomarkers and possible beneficial effects of modulators of oxidative stress". Graziani M, Sarti P, Arese M, Badiani A, **Magnifico MC** and Saso L. *Oxid Med Cell Long* 2017; doi: 10.1155/2017/3034245. IF: 4.936
 9. "Evidence for Detrimental Cross Interactions between Reactive Oxygen and Nitrogen Species in Leber's Hereditary Optic Neuropathy Cells". Falabella M*, Forte E*, **Magnifico MC**, Santini P, Arese M, Giuffrè A, Radić K, Chessa L, Coarelli G, Buscarinu MC, Mechelli R, Salvetti M And Sarti P. *Oxid Med Cell Long* 2016; doi: 10.1155/2016/3187560. IF: 4.936
 10. "Characterization of mitochondrial dysfunctions in the 7PA2 cell model of Alzheimer's Disease" **Magnifico MC***, Krako N*, Arese M, Meli G, Forte E, Lecci A, Manca A, Giuffrè A, Mastronicola D, Sarti P and Cattaneo A. *JAD* 2013; 37, 747-758. doi: 10.3233/JAD-130728. IF: 3.476
 11. "New Evidence for Cross Talk between Melatonin and Mitochondria Mediated by a Circadian-Compatible Interaction with Nitric Oxide". Sarti P, **Magnifico MC**, Altieri F, Mastronicola D, Arese M. *Int. J. Mol. Sci.* 2013; 14, 11259-11276. doi: 10.3390/ijms140611259. IF: 3.687
 12. "The Chemical Interplay between Nitric Oxide and Mitochondrial Cytochrome c Oxidase: Reactions, Effectors and Pathophysiology". Sarti P, Forte E, Giuffrè A, Mastronicola D, **Magnifico MC**, Arese M. *Int J Cell Biol.* (2012); 2012:571067. doi: 10.1155/2012/571067.
 13. "Nanomolar melatonin enhances nNOS expression and controls HaCaT-cells bioenergetics". Arese M, **Magnifico MC**, Mastronicola D, Altieri F, Grillo C, Blanck TJ, Sarti P. *IUBMB Life.* (2012); 64(3):251-8. doi: 10.1002/iub.603. IF: 3.236

¹ These authors have contributed equally to this work.

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Firma

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