

PROF. G. LAZZARINO - SHORT CV

Biography

Prof. Giuseppe Lazzarino has received his Degree in Biological Sciences at the State University of Rome "La Sapienza", Rome, Italy in 1979. In 1980 he joined an Italian pharmaceutical company, becoming head of the Biochemistry and Pharmacology Research Laboratory. In 1986 he became Researcher in Biochemistry at the University of Rome "Tor Vergata", Rome, Italy. Since 1994 he is Full Professor of Biochemistry at the School of Biology of the University of Catania, Catania, Italy (Department of Biomedical and Biotechnological Sciences, Division of Medical Biochemistry). During his career he collaborated with different national and international research groups carrying out research projects of common interest. Since the end of 2010 he established a spin-off company mainly aimed to evidence biochemical markers of clinical interests and to develop proper diagnostic kits, particularly dedicated to male infertility and neurodegenerations (multiple sclerosis), as well as to perform metabolic screenings of biological fluids for prenatal and postnatal diagnosis of IEM. He authored more than 130 papers (Scopus) in the field of biochemistry and, mostly, of translational medicine (neurotraumatology, cardiology, neurodegeneration, male infertility). He holds 8 patents.

Research interests

Biochemistry, clinical biochemistry and translational medicine are the main areas of interest in our laboratory. In particular, we are interested in studying: 1) energy metabolism and free radical damage in animals and human beings; 2) biochemical and molecular mechanisms of cell damages in traumatic brain injury; 3) biochemical aspects of male infertility; 4) biochemical markers of clinical relevance in acute and chronic neurodegenerations, and in male and female infertilities; 5) set up of analytical methods for low molecular weight compounds in biological samples; 6) biochemical and molecular evaluation of IEM (inborn errors of metabolism).



Giuseppe Lazzarino record scores

Data obtained from Scopus on the 20th of July 2020

Total number of papers :	139
h-index:	39
Total number of citations:	4889
Mean number of citations:	35.17

FULL LENGTH IMPACTED PAPERS

1. Giallongo C, Tibullo D, Puglisi F, Barbato A, Vicario N, Cambria D, Laura Parrinello NL, Romano A, Conticello C, Forte S, Parenti R, Amorini AM, Lazzarino G, Li Volti G, Palumbo GA, Di Raimondo F. Inhibition of TLR4 Signaling Affects Mitochondrial Fitness and Overcomes Bortezomib Resistance in Myeloma Plasma Cells. *Cancers* 2020, 12, 1999; doi:10.3390/cancers12081999.
2. Caruso G, Musso N, Grasso M, Costantino A, Lazzarino G, Tascetta F, Gulisano M, Lunte SM, Caraci F. Microfluidics as a Novel Tool for Biological and Toxicological Assays in Drug Discovery Processes: Focus on Microchip Electrophoresis. *Micromachines (Basel)*. 2020 Jun 15;11(6):593. doi: 10.3390/mi11060593.
3. Tibullo D, Giallongo C, Romano A, Vicario N, Barbato A, Puglisi F, Parenti R, Amorini AM, Wissam Saab M, Tavazzi B, Mangione R, Brundo MV, Lazzarino G, Palumbo GA, Volti GL, Raimondo FD, Lazzarino G. Mitochondrial Functions, Energy Metabolism and Protein Glycosylation are Interconnected Processes Mediating Resistance to Bortezomib in Multiple Myeloma Cells. *Biomolecules*. 2020 Apr 30;10(5):696. doi: 10.3390/biom10050696.
4. Di Pietro V, Yakoub KM, Caruso G, Lazzarino G, Signoretti S, Barbey AK, Tavazzi B, Lazzarino G, Belli A, Amorini AM. Antioxidant Therapies in Traumatic Brain Injury. *Antioxidants (Basel)*. 2020 Mar 22;9(3):260. doi: 10.3390/antiox9030260.
5. Fresta CG, Fidilio A, Lazzarino G, Musso N, Grasso M, Merlo S, Amorini AM, Bucolo C, Tavazzi B, Lazzarino G, Lunte SM, Caraci F, Caruso G. Modulation of Pro-Oxidant and Pro-Inflammatory Activities of M1 Macrophages by the Natural Dipeptide Carnosine. *Int J Mol Sci*. 2020;21(3). doi: 10.3390/ijms21030776. **I.F. = 4.183**
6. Lazzarino G, Amorini AM, Signoretti S, Musumeci G, Lazzarino G, Caruso G, Pastore FS, Di Pietro V, Tavazzi B, Belli A. Pyruvate Dehydrogenase and Tricarboxylic Acid Cycle Enzymes Are Sensitive Targets of Traumatic Brain Injury Induced Metabolic Derangement. *Int J Mol Sci*. 2019;20(22). doi: 10.3390/ijms20225774. **I.F. = 4.183**
7. Caruso G, Fresta CG, Fidilio A, O'Donnell F, Musso N, Lazzarino G, Grasso M, Amorini AM, Tascetta F, Bucolo C, Drago F, Tavazzi B, Lazzarino G, Lunte SM, Caraci F. Carnosine Decreases PMA-Induced Oxidative Stress and Inflammation in Murine Macrophages. *Antioxidants (Basel)*. 2019 Aug 6;8(8). pii: E281. doi: 10.3390/antiox8080281. **I.F. = 4.504**

8. Caruso G, Fresta CG, Grasso M, Santangelo R, Lazzarino G, Lunte SM, Caraci F. Inflammation as the common biological link between depression and cardiovascular diseases: Can carnosine exert a protective role? *Curr Med Chem*. 2019 doi: 10.2174/0929867326666190712091515. **I.F. = 3.894**
9. Musumeci G, Ravalli S, Amorini AM, Lazzarino G. Concussion in sports. *J Funct Morphol Kinesiol*. 2019; 4, 37; doi:10.3390/jfmk4020037.
10. Yakoub KM, Lazzarino G, Amorin AM, Caruso G, Scazzone C, Ciaccio M, Tavazzi B, Lazzarino G, Belli A, Di Pietro V. Fructose-1,6-Bisphosphate Protects Hippocampal Rat Slices from NMDA Excitotoxicity. *Int J Mol Sci*. 2019; 20, 2239; doi:10.3390/ijms20092239. **I.F. = 3.878**
11. Lazzarino G, Listorti I, Bilotta G, Capozzolo T, Amorini AM, Longo S, Caruso G, Lazzarino G, Tavazzi B, Bilotta P. Water- and Fat-Soluble Antioxidants in Human Seminal Plasma and Serum of Fertile Males. *Antioxidants (Basel)*. 2019 Apr 11;8(4). pii: E96. doi: 10.3390/antiox8040096. **I.F. = 4.504**
12. Caruso G, Fresta CG, Musso N, Giambirtone M, Grasso M, Spampinato SF, Merlo S, Drago F, Lazzarino G, Sortino MA, Lunte SM, Caraci F. Carnosine Prevents A β -Induced Oxidative Stress and Inflammation in Microglial Cells: A Key Role of TGF- β 1. *Cells*. 2019; doi: 10.3390/cells8010064. **I.F. = 4.829**
13. Caruso G, Fresta CG, Lazzarino G, Distefano DA, Parlascino P, Lunte SM, Lazzarino G, Caraci F. Sub-Toxic Human Amylin Fragment Concentrations Promote the Survival and Proliferation of SH-SY5Y Cells via the Release of VEGF and HspB5 from Endothelial RBE4 Cells. *Int J Mol Sci*. 2018; doi: 10.3390/ijms19113659. **I.F. = 3.878**
14. Lazzarino G, Listorti I, Muzii L, Amorini AM, Longo S, Di Stasio E, Caruso G, D'Urso S, Puglia I, Pisani G, Lazzarino G, Tavazzi B, Bilotta P. Low molecular weight compounds in human seminal plasma as potential biomarkers of male infertility. *Hum Repr*. 2018;33:1817-1828. **I.F. = 4.990**
15. Fresta CG, Chakraborty A, Wijesinghe MB, Amorini AM, Lazzarino G, Lazzarino G, Tavazzi B, Lunte SM, Caraci F, Dhar P, Caruso G. Non-toxic engineered carbon nanodiamond concentrations induce oxidative/nitrosative stress, imbalance of energy metabolism, and mitochondrial dysfunction in microglial and alveolar basal epithelial cells. *Cell Death Dis*. 2018;9:245. doi: 10.1038/s41419-018-0280-z. **I.F. = 5.965**

16. Lazzarino G, Longo S, Amorini AM, Di Pietro V, D'Urso S, Lazzarino G, Belli A, Tavazzi B. Single-step preparation of selected biological fluids for the high performance liquid chromatographic analysis of fat-soluble vitamins and antioxidants. *J Chromatogr A*. 2017;1527:43-52. **I.F. = 3.981**
17. Lazzarino G, Amorini AM, Petzold A, Gasperini C, Ruggieri S, Quartuccio ME, Lazzarino G, Di Stasio E, Tavazzi B. Serum Compounds of Energy Metabolism Impairment Are Related to Disability, Disease Course and Neuroimaging in Multiple Sclerosis. *Mol Neurobiol*. 2017;54:7520-7533 **I.F. = 5.397**
18. Di Pietro V, Lazzarino G, Amorini AM, Signoretti S, Hill LJ, Porto E, Tavazzi B, Lazzarino G, Belli A. Fusion or Fission: The Destiny of Mitochondria In Traumatic Brain Injury of Different Severities. *Sci Rep*. 2017;7(1):9189. doi: 10.1038/s41598-017-09587-2. **I.F. = 4.259**
19. Caruso G, Fresta CG, Martinez-Becerra F, Antonio L, Johnson RT, de Campos RP, Siegel JM, Wijesinghe MB, Lazzarino G, Lunte SM. Carnosine modulates nitric oxide in stimulated murine RAW 264.7 macrophages. *Mol Cell Biochem*. 2017;431:197-210.. **I.F. = 2.699**
20. Caruso G, Distefano DA, Parlascino P, Fresta CG, Lazzarino G, Lunte SM, Nicoletti VG. Receptor-mediated toxicity of human amylin fragment aggregated by short- and long-term incubations with copper ions. *Mol Cell Biochem*. 2017;425:85-93. **I.F. = 2.699**
21. Fresta CG, Hogard ML, Caruso G, Melo Costa,EE, Lazzarino G, Lunte SM. Monitoring carnosine uptake by RAW 264.7 macrophage cells using microchip electrophoresis with fluorescence detection. *Anal Met* 2017;9:402-408. **I.F. = 1.900**
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24. Amorini AM, Lazzarino G, Di Pietro V, Signoretti S, Lazzarino G, Belli A, Tavazzi B. Metabolic, enzymatic and gene involvement in cerebral glucose dysmetabolism after traumatic brain injury. *Biochim Biophys Acta Mol Basis of Dis*. 2016;1862:679-687. **I.F. = 4.882**

25. Petzold A, Nijland PG, Balk LJ, Amorini AM, Lazzarino G, Wattjes MP, Gasperini C, van der Valk P, Tavazzi B, Lazzarino G, van Horssen J. Visual pathway neurodegeneration winged by mitochondrial dysfunction. *Ann Clin Transl Neurol.* 2015;2:140-150. **I.F. = 4.656**
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29. Signoretti S, Tavazzi B, Lazzarino G, Vagnozzi R. The relevance of assessing cerebral metabolic recovery for a safe return to play following concussion. In: SM Slobounov, WJ Sebastianelli (eds.) *Concussions in Athletics From Brain to Behaviour.* 2014; p. 89-112, New York, Springer.
30. Amorini AM, Nociti V, Petzold A, Gasperini C, Quartuccio E, Lazzarino G, Di Pietro V, Belli A, Signoretti S, Vagnozzi R, Lazzarino G, Tavazzi B. Serum lactate as a novel potential biomarker in multiple sclerosis. *Biochim Biophys Acta Mol Basis of Dis.* 2014;1842:1137-1143. **I.F. = 4.882**
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32. Di Pietro V, Amorini AM, Tavazzi B, Vagnozzi R, Logan A, Lazzarino G, Signoretti S, Lazzarino G, Belli A. The molecular mechanisms affecting N-acetylaspartate homeostasis following experimental graded traumatic brain injury. *Mol Med.* 2014;20:147-157. **I.F. = 4.508**
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35. Di Pietro V, Amorini AM, Tavazzi B, Hovda DA, Signoretti S, Giza CC, Lazzarino G, Vagnozzi R, Lazzarino G, Belli A. Potentially neuroprotective gene modulation in an in vitro model of mild traumatic brain injury. *Mol Cell Biochem.* 2013;375:185-198. **I.F. = 2.393**
36. Verachia W, Lazzarino G, Niven B, Bremer PJ. The effect of holding live sea urchins (*Evechinus chloroticus*) in air prior to gonad removal on gonad adenine nucleotide profiles during storage at 4°C. *Food Chem.* 2013;141:841-846. **I.F. = 3.391**
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40. Lazzarino G, Amorini AM, Di Pietro V, Tavazzi B. HPLC analysis for the clinical-biochemical diagnosis of inborn errors of metabolism of purines and pyrimidines. *Methods Mol Biol.* 2011;708:99-117.
41. Tavazzi B, Batocchi AP, Amorini AM, Nociti V, D'Urso S, Longo S, Gullotta S, Picardi M, Lazzarino G. Serum metabolic profile in multiple sclerosis patients. *Mult Scler Int.* 2011;2011:1-8. doi: 10.1155/2011/167156.
42. Cozzolino M, Augello B, Carella M, Palumbo O, Tavazzi B, Amorini AM, Lazzarino G, Merla G, Brunetti-Pierri N. Chromosomal 17p13.3 microdeletion unmasking recessive Canavan disease mutation. *Mol Gen Metab.* 2011;104:706-707. **I.F. = 2.625**

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59. Di Pietro V, Gambacurta A, Amorini AM, Finocchiaro A, D'Urso S, Ceccarelli L, Tavazzi B, Giardina B, Lazzarino G. A new T677C mutation of the aspartoacylase gene encodes for a protein with no enzymatic activity. *Clin Biochem.* 2008;41:611-615. **I.F. = 2.275**

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