

Curriculum Vitæ Luca Tiano, Ph.D.



Scientific interests

Since 1997, Dr. Luca Tiano has been involved in research on oxidative stress and the use of antioxidants in cellular models or *in vivo* both under physiological conditions or in pathologies associated with an altered redox status. During his Ph.D. training at the University of Camerino, Luca utilized a model of oxidative DNA damage and mitochondrial dysfunction involving fish erythrocytes to test the protective effects of natural and synthetic antioxidants. Moreover, he has been involved in eco-toxicological research regarding oxidative damage induced by environmental xenobiotics. Within this area of research, Luca was selected to conduct a European Community research project at the Marie Curie Training Site held by The University of Aberdeen and FRS, in Scotland.

Since 2002 Luca has been a researcher at the Department of Biochemistry, Biology and Genetics at the Polytechnic University of Marche, Ancona, Italy. He is involved in joint research projects with Children's Hospital, Salesi and the Heart Institute, Lancisi. His main research activities presently concern the health effects of Coenzyme Q₁₀ in healthy subjects and under pathological conditions associated with enhanced oxidative stress. Recently Luca has been involved in research on bioavailability and biological effects of vitamins and antioxidants in nutritional supplements and functional foods, including racemic and R-(+)-lipoic acid. Luca has authored 43 peer reviewed

articles, to date and has been an invited speaker to several international Coenzyme Q₁₀ conferences.

Born in Genova, Italy 10th April 1971

1996 Degree in Biological Sciences– University of Genova

1997 /2001 PhD training at the University of Camerino Department of Molecular, cellular and animal Biology. Dissertation title: *Trout erythrocyte as a model to study oxidative stress: evaluation of ROS damage, ageing and environmental pollution.*

2001/2002 Marie Curie Fellowship: Analysis of stress-induced gene expression in fish red blood cells after in vivo exposure to organotin pollutants, Marine Laboratory – Fisheries Research Service, Aberdeen University, Scozia.

2002/2003 Researcher at the Department of Biology MCA – University of Camerino presso il Dipartimento di Biologia MCA – Field of investigation: *Nitroxide radical as antioxidants in biological systems.*

2003/2011 Researcher at the Institute of Biochemistry – Marche Polytechnic University – Fields of investigation: : *Modulation of apoptosis in cellular cultures, effect of lypophilic antioxidants; Role of oxidative stress in endothelial dysfunction, effect of lypophilic antioxidants*

2002-2006 Contract Professor in *Recombinant Technologies* at the Pharmacy Faculty of the University of Camerino.

Publications

1. **TIANO L.**, PADELLA L., SANTORO L., CARNEVALI P., PRINCIPI F., BRUGÈ F., GABRIELLI O., LITTARRU GP. (2011) Prolonged CoQ10 treatment in Down syndrome patients, effect on DNA oxidation NEUROBIOLOGY OF AGING, *in press.*

2. BRUGÈ F, BACCHETTI T, PRINCIPI F, LITTARRU GP, **TIANO L.** (2011) Olive oil supplemented with menaquinone-7 significantly affects osteocalcin carboxylation. BRITISH JOURNAL OF NUTRITION, *in press.*

3. VARGIU R, LITTARRU GP, FRASCHINI M, PERINU A, **TIANO L.**, CAPRA A, MANCINELLI R (2010). Enhancement of shortening velocity, power, and actomyosin crossbridge (CB) kinetics following long-term treatment with propionyl-L-carnitine, coenzyme Q10, and omega-3 fatty acids in BIO TO-2 cardiomyopathic Syrian hamsters papillary muscle. BIOFACTORS, vol. 36; p. 229-239

4. **TIANO L.**, ARMENI T, VENDITTI E, BARUCCA G, MINCARELLI L, DAMIANI E (2010). Modified TiO(2) particles differentially affect human skin fibroblasts exposed to UVA light. *FREE RADICAL BIOLOGY & MEDICINE* *in press*
5. VENDITTI E, BACCHETTI T, **TIANO L.**, CARLONI P, GRECI L. AND DAMIANI E (2010). Hot vs cold water steeping of different teas: do they affect antioxidant activity?. *FOOD CHEMISTRY*, vol. 119; p. 1597-1604
6. **TIANO L.**, CARNEVALI P, PADELLA L, SANTORO L, BRUGÉ F, PRINCIPI F, CARLE F, GESUITA R, GABRIELLI O, LITTARRU G.P (2010). Effect of coenzyme q10 in mitigating oxidative dna damage in down syndrome patients, a double blind randomized controlled trial. *NEUROBIOLOGY OF AGING* *in press*
7. LITTARRU GP, **TIANO L.** (2009). Clinical aspects of coenzyme Q(10): An update. *NUTRITION*.
8. BALERCIA G, BULDREGHINI E, VIGNINI A, **TIANO L.**, PAGGI F, AMOROSO S, RICCIARDO-LAMONICA G, BOSCARO M, LENZI A, LITTARRU G (2009). Coenzyme Q(10) treatment in infertile men with idiopathic asthenozoospermia: a placebo-controlled, double-blind randomized trial. *FERTILITY AND STERILITY*, vol. 91; p. 1785-1792
9. BALERCIA G, MANCINI A, PAGGI F, **TIANO L.**, PONTECORVI A, BOSCARO M, LENZI A, LITTARRU GP (2009). Coenzyme Q10 and male infertility. *JOURNAL OF ENDOCRINOLOGICAL INVESTIGATION*, vol. 32; p. 626-632
10. BRUGÈ F, LITTARRU GP, SILVESTRINI L, MANCUSO T, **TIANO L.** (2009). A novel Real Time PCR strategy to detect SOD3 SNP using LNA probes. *MUTATION RESEARCH*, vol. 669; p. 80-84
11. BELARDINELLI R, **TIANO L.**, LITTARRU GP (2008). Oxidative stress, endothelial function and coenzyme Q10. *BIOFACTORS*, vol. 32; p. 129-133
12. BRUGE F, VIRGILI S, CACCIAMANI T, PRINCIPI F, **TIANO L.**, LITTARRU GP (2008). NAD(P)H:quinone oxidoreductase (NQO1) loss of function in Burkitt's lymphoma cell lines. *BIOFACTORS*, vol. 32; p. 71-81
13. LITTARRU GP, **TIANO L.** (2008). Clinical aspects of Coenzyme Q10 in relation with its bioenergetic and antioxidant properties. In: *Mitochondrial Medicine*. (pp. 303-321)
14. VENDITTI E, SPADONI T, **TIANO L.**, ASTOLFI P, GRECI L, LITTARRU GP, DAMIANI E (2008). In vitro photostability and photoprotection studies of a novel

'multi-active' UV-absorber. FREE RADICAL BIOLOGY & MEDICINE, vol. 45; p. 345-354

15. A VIGNINI, L NANETTI, F RAFFAELLI, F PETRINI, **TIANO L.**, GP LITTARRU, L MAZZANTI (2008). Effect of supplementation with fortified olive oil on biochemical markers of bone turnover in healthy women. MEDITERRANEAN JOURNAL OF NUTRITION AND METABOLISM, vol. 1; p. 117-120

16. L. ARSENIO, S. CARONNA, E. DALLAGLIO, NG. FREGA, D PACETTI, E. BOSELLI, **TIANO L.**, F. PRINCIPI AND GP LITTARRU (2008). Effect of antioxidant-enriched foods on plasma Coenzyme Q10 and total antioxidant capacity. EUROPEAN JOURNAL OF LIPID SCIENCE AND TECHNOLOGY, vol. 110; p. 990-996

17. **TIANO L.**, PADELLA L, CARNEVALI P, GABRIELLI O, BRUGE F, PRINCIPI F, LITTARRU GP (2008). Coenzyme Q10 and oxidative imbalance in Down syndrome: biochemical and clinical aspects. BIOFACTORS, vol. 32; p. 161-167

18. NUKUI K, YAMAGISHI T, MIYAWAKI H, KETTAWAN A, OKAMOTO T, BELARDINELLI R, **TIANO L.**, LITTARRU GP, SATO K (2008). Blood CoQ10 levels and safety profile after single-dose or chronic administration of PureSorb-Q40: animal and human studies. BIOFACTORS, vol. 32; p. 209-219

19. **TIANO L.**, R. BELARDINELLI, P. CARNEVALI, F. PRINCIPI, G.SEDDAIU, G.P. LITTARRU (2007). Effect of coenzyme Q10 administration on endothelial function and extracellular superoxide dismutase in patients with ischemic heart disease. EUROPEAN HEART JOURNAL

20. LITTARRU GP, **TIANO L.** (2007). Bioenergetic and antioxidant properties of coenzyme Q10. MOLECULAR BIOTECHNOLOGY, vol. 37; p. 31-37

21. AMBROSINI, G. ZOLESE, S. AMBROSI, L. RAGNI, **TIANO L.**, G. LITTARRU, E. BERTOLI, F. MANTERO, M. BOSCARO, G. BALERCIA (2006). Oleoylethanolamide protects human sperm cells from oxidation stress: studies on cases of idiopathic infertility. BIOLOGY OF REPRODUCTION

22. R. BELARDINELLI, A. MUCAJ, F. LACALAPRICE, M. SOLENGHI, F. G. SEDDAIU, PRINCIPI, **TIANO L.**, G.P. LITTARRU (2006). Coenzyme Q10 and exercise training in chronic heart failure. EUROPEAN HEART JOURNAL

23. S. PASSI, S. CATAUDELLA, **TIANO L.**, GP LITTARRU (2005). Dynamics of lipid oxidation and antioxidant depletion in Mediterranean fish stored at different temperatures. BIOFACTORS

24. R. BELARDINELLI, A. MUCAJ, F. LACALAPRICE, M. SOLENGHI, F. PRINCIPI, **TIANO L.**, G.P. LITTARRU (2005). Coenzyme Q10 improves contractility of dysfunctional myocardium in chronic heart failure. BIOFACTORS
25. GP LITTARRU **TIANO L.** (2005). Clinical aspects of Coenzyme Q10: an update. CURRENT OPINION IN CLINICAL NUTRITION AND METABOLIC CARE
26. **TIANO L.**, GP LITTARRU, F. PRINCIPI, M. ORLANDI, L. SANTORO, P. CARNEVALI, O. GABRIELLI (2005). Assessment of DNA damage in Down Syndrome patients by means of a new, optimised single cell gel electrophoresis technique. BIOFACTORS
27. **TIANO L.**, I.DAVIES, J. CRAFT, G.FALCIONI (2004). Analysis of stress induced gene expression in trout red blood cells following tributyltin chloride exposure. FISH PHYSIOLOGY AND BIOCHEMISTRY
28. F. BRUGE', **TIANO L.**, T. CACCIAMANI, F. PRINCIPI, G.P. LITTARRU (2003). Effect of UV-C mediated oxidative stress in leukemia cell lines and its relation to ubiquinone content. BIOFACTORS
29. **TIANO L.**, D. FEDELI, G.SANTONI, I.DAVIES, G.FALCIONI (2003). Effect of tributyltin on trout blood cells: changes in mitochondrial morphology and functionality. BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH
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32. M.G. CHESSA, L. GALLUS, **TIANO L.**, F. TRIELLI, M.U. DELMONTE CORRADO (2001). Variations in macronuclear chromatin and chromatin extrusion in excystment from resting cysts of Colpoda inflata. EUROPEAN JOURNAL OF PROTISTOLOGY
33. **TIANO L.**, D. FEDELI, P.BALLARINI, G.SANTONI, G.FALCIONI (2001). Mitochondrial membrane potential in density-separated trout erythrocytes exposed to oxidative stress in vitro. BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS

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36. **L.TIANO**, D.FEDELI, M.MORETTI, G.FALCIONI, 2001. Mutagenic Effect of organotin on trout nucleated erythrocytes. Italian J.Biochem. 49 (3-4)

37. A.KANTAR, D.FEDELI, **L.TIANO**, R.GABBIANELLI, G.FALCIONI, M.WOZIANK, 2001 – Antioxidant activity of nitroxide stable radicals:a chemiluminescence evaluation. In S.Albrecht, T.Zimmermann, H. Brandl Eds. Chemiluminescence at the turn of the millennium. Dresden:Schweda-Werbedruck GmbH: 196-199

38. **TIANO L.**, A.KANTAR, G. FALCIONI, G.P. LITTARRU, V. CHERUBINI, R. FIORINI (2000). Oxidative response and membrane modification of diabetic platelets challenged with PAF. PROSTAGLANDINS & OTHER LIPID MEDIATORS

39. **TIANO L.**, P.BALLARINI, G.SANTONI, M.WOZNIAK AND G.FALCIONI (2000). Morphological and functional changes of mitochondria from density separated trout erythrocytes. BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS

40. **TIANO L.**, D.FEDELI, A.M. SANTRONI, M.VILLARINI, L.ENGMAN AND G.FALCIONI (2000). Effect of some diaryl tellurides on trout erythrocytes exposed to oxidative stress. MUTATION RESEARCH

41. **TIANO L.**, M.G. CHESSA, S. CARRARA, G. TAGLIAFIERRO, M.U. DELMONTE CORRADO (1999). Macronuclear chromatin structure dynamics in *Colpoda inflata* (Protista, ciliophora) resting encystment. EUROPEAN JOURNAL OF HISTOCHEMISTRY

42. A.KANTAR, **TIANO L.**, FALCIONI G, G.P. LITTARRU, R.FIORINI, G.V. COPPA, O.GABRIELLI (1999). DNA damage in Down syndrome: Contribution of reactive oxygen species. NEOPLASMA

43. **TIANO L.**, G. SERRATO-VALENTI AND A. CORALLO (1998). The aril of *Chamaecytisus proliferus* (L. fil.) Link (Leguminosae): its structure, histochemistry

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