

CURRICULUM VITAE: Prof. Vittorio Calabrese, M.D.. PhD.

Nato a Ragusa l'8 Settembre 1959.

POSIZIONE ATTUALE: **PROFESSORE ORDINARIO DI BIOCHIMICA CLINICA**, Facoltà di Medicina, Università di Catania, DIPARTIMENTO SCIENZE CHIMICHE, UNIVERSITÀ DI CATANIA.

Studi: 4/9/1984 **Laurea in Medicina**, *with magna cum laude*, Università di Catania. Tesi: Modifications of brain lipid metabolism during aging
7/8/1988 **Specializzazione in Neurologia**, *with magna cum laude*, Università di Catania. Tesi: Oxidative stress in central nervous system.
4/8/1996 **Ricercatore Universitario**
17/9/2001 **Professore Associato**
5/9/2006 **Idoneità Professore di Prima Fascia SSD BIO12** (DR n. 10144 del 5.09.2006 Università di Bari).

Attività Accademica:

Direttore Scuola Specializzazione in Biochimica Clinica, Università di Catania, Messina e Palermo.

Docente di Biochimica Clinica e Biologia Molecolare Clinica, CL Magistrale in Medicina e Chirurgia, Polo di Catania e Polo di Ragusa.

Docente di Biochimica Clinica e Biologia Molecolare Clinica, CL specialistica in Odontoiatria e protesi dentaria, Polo di Catania.

Docente di Biochimica Clinica e Biologia Molecolare Clinica, CL Magistrale in Medicina e Chirurgia, Polo di Catania e Polo di Ragusa.

Docente di Biochimica Clinica e Biologia Molecolare Clinica, CL Professioni sanitarie.

Docente nel Dottorato in Neurobiologia, sede Amministrativa Università di Catania e sedi consorziate Università di Roma "La Sapienza" e Università di Pavia.

Docente di Enzimologia Clinica, indirizzo diagnostico e indirizzo analitico, nella scuola di specializzazione in Biochimica e Chimica Clinica

Awards: 1987 **Post-Doctoral fellow in Neurobiology** at the New York University Medical School, (N.Y.);
1989 **Post-Doctoral fellow in Neuropharmacology** at the Thomas Jefferson University Medical School (Philadelphia, PA.);
2000-2005: **Visiting Professor** University College London, Department of Neurochemistry, funded by Wellcome Trust Grant on "The role of antioxidants in L-DOPA induced damage to the Substantia Nigra".
i. **Visiting Professor** Northwick Park Institute for Medical Research, Department of Surgical Research, University of London;
ii. **Visiting Professor** University of Kentucky, Department of Chemistry.
iii. **Visiting Professor** Blanchette Rockefeller Neuroscience Institute, West Virginia University (MD).
iv. **Coordinatore** Euro-Mediterranean- Academy of Antiaging Medicine
v. **Visiting Professor** Biomedical Research Centre, University of Dundee (UK).

Editorial Board:

1. Journal of Neuroscience Research
2. Neurochem Research
3. Journal Neurochemistry.
4. Current Neurovascular Disorders.
5. Antioxidant Redox Signaling
6. Journal Neuroscience Research
7. Faseb Journal
8. Journal of Biological Chemistry
9. Mechanisms of Ageing and Development

PUBBLICAZIONI RAPPRESENTATIVE:

1. Ragusa N., Sfogliano L., **Calabrese V.**, and Rizza V. (1981). Effects of multivitamin treatment on the activity of rat liver triptophan pyrrolase during ethanol administration. *Acta Vitaminologica et Enzimologica* 3,(4), 199-204.
2. **Calabrese V.**, Guerrero F., Avitabile M., Famà M., and Rizza V. (1984). Superoxide dismutase and reduced glutathione: possible defense operating in hyperoxic swimbladder of fish. In: *Toxin, drugs and pollutants in marine animals*. (eds. Bolis et al.) pp. 130-136. Springer-Verlag, Berlin.
3. **Calabrese V.**, Fariello R.G. (1988). Regional distribution of malonaldehyde in mouse brain. *Biochemical Pharmacology*, 37,11, 2287-2288.
4. Rizza V., Lorefice R., Rizza N., and **Calabrese V.** (1992). Pharmacokinetics of L-carnitine in human subjects. In: *L-carnitine and its role in medicine: from function to therapy*, (eds. Ferrari R., Dimauro S., Sherwood G.) pp. 63-77. Academic Press, New York.
5. **Calabrese V.**, Renis M., Calderone A., Russo A., Barcellona M.L., Rizza V. (1996) Stress proteins and SH-groups in oxidant-induced cell damage after acute ethanol administration in rat. *Free Radical Biology and Medicine* 20, 391-397.
6. Renis M., **Calabrese V.**, Russo A., Calderone A., Barcellona M.L., Rizza V. (1996) Nuclear DNA strand breaks during ethanol-induced oxidative stress in rat brain. *FEBS Letters* 390, 153-156.
7. **Calabrese V.**, Renis M., Calderone A., Russo A., Reale S., Barcellona M.L., Rizza V. (1998) Stress proteins and SH-groups in oxidant-induced cell injury after chronic ethanol administration in rat. *Free Radical Biology and Medicine* 24, 1159-1167.
8. **Calabrese V.**, Rizza V. (1999) Formation of propionate after short-term ethanol treatment and its interaction with the carnitine pool in rat. *Alcohol* 19, 169-176.
9. Pennisi G., Rapisarda G., Bella R., **Calabrese V.**, Maertens de Noordhout A., Delwaide P.J. (1999) Absence of response to early transcranial magnetic stimulation in ischemic stroke patients. *Stroke* 30, 2666-2670.
10. **Calabrese V.**, Rizza V. (1999) Effects of L-carnitine on the formation of fatty acid ethyl esters in brain and peripheral organs after short-term ethanol administration in rat. *Neurochem. Res.* 24, 79-84.
11. **Calabrese V.**, Testa D., Ravagna A., Bates T.E., A.M. Giuffrida Stella. (2000) HSP70 induction in the brain following ethanol administration in the rat: regulation by glutathione redox state. *Biochem. Biophys. Res. Comm.* 269, 397-400.
12. **Calabrese V.**, Copani A., Testa D., Ravagna A., Spadaro F., Tendi E., Nicoletti V., A.M. Giuffrida Stella. (2000) Nitric oxide synthase induction in astroglial cell cultures: Effect on heat shock protein 70 synthesis and oxidant / antioxidant balance. *J. Neurosci. Res.* 60, 613-622.
13. Motterlini R., Foresti R., Bassi R., **Calabrese V.**, Clark J.E., Green C.J. (2000) Endothelial Heme oxygenase-1 induction by hypoxia: modulation by inducible nitric oxide synthase (iNOS) and S-nitrosothiols. *J. Biol. Chem.* 275, 13613-13620.
14. **Calabrese V.**, Scapagnini G., Catalano C., Dinotta F., Geraci D., Morganti P. (2000) Biochemical studies of a natural antioxidant isolated from rosemary and its application in cosmetic dermatology. *Int. J. Tissue Reactions* 22, 5-13.
15. **Calabrese V.**, Bates T.E., Giuffrida Stella A.M. (2000) NO synthase and NO-dependent signal pathways in brain aging and neurodegenerative disorders: the role of oxidant/antioxidant balance. *Neurochem Res.* 65, 1315-1341.
16. Calandra C., Musumeci G., Mangiameli A., **Calabrese V.** (2000) Perception of alcoholism problem among young people between 13 and 30 years old. *Eur. J. of Alcohol Studies* 12, 85-89.
17. Scapagnini G., Dinotta F., **Calabrese V.** (2000) Oxidative stress and Neurodegenerative Disorders: The role of Vitamin E in Nutritional Neuroscience. *Int. J. Immunopathol. Immunopharmacology* 1, 97-107.
18. **Calabrese V.**, Scapagnini G., Catalano D., Dinotta F., Bates T.E., Calvani M, Giuffrida Stella A.M. (2001) Effects of acetyl-L-carnitine on the formation of fatty acid ethyl esters in brain and peripheral organs after short-term ethanol administration in rat. *Neurochem. Res.* 26, 167-174.
19. **Calabrese V.**, Scapagnini G., Catalano C., Bates T.E., Dinotta F., Micali G., A.M. Giuffrida Stella (2001) Induction of heat shock protein synthesis in human skin fibroblasts in response to oxidative stress: regulation by a natural antioxidant from rosemary extract. *Int. J. Tissue Reactions* 23, 51-58.
20. **Calabrese V.**, Scapagnini G., Giuffrida Stella A.M., Bates T.E., Clark J.B., (2001) Mitochondrial involvement in brain function and dysfunction: relevance to aging, neurodegenerative disorders and longevity. *Neurochem. Res.* 26, 739-764.
21. **Calabrese V.**, Scapagnini G., Catalano C., Bates T.E., Geraci D., Pennisi G., Giuffrida Stella A.M. (2001) Induction of heat shock protein synthesis in human skin fibroblasts in response to oxidative stress: regulation by Vitamin E. *Int. J. Tissue Reactions* 23, 127-135.
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23. **Calabrese V.**, Scapagnini G., Ravagna A., Giuffrida Stella A., Butterfield A. (2002) Molecular chaperones and their roles in neural cell differentiation. *Dev. Neurosci.* 24, 40-56.
24. **Calabrese V.**, Scapagnini G., Ravagna A., Fariello R.G., Giuffrida Stella A.M. and Abraham N. (2002) Regional distribution of heme oxygenase, hsp70, and glutathione in brain: relevance for endogenous oxidant / antioxidant balance and stress tolerance. *J. Neurosci. Res.* 68, 65-75.
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29. **Calabrese V.**, Scapagnini G., Ravagna A., Bella R., Foresti R., Bates T.E., Giuffrida Stella A.M., Pennisi G. (2002) Nitric oxide synthase is present in the cerebrospinal fluid of patients with active multiple sclerosis and is associated with increases in CSF protein nitrotyrosine, S-nitrosothiols and with changes in glutathione levels. *J. Neurosci. Res.* 70, 580-587.
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39. **Calabrese V.**, Butterfield D.A., Giuffrida Stella A.M. 2003 Nutritional antioxidants and the heme oxygenase pathway of stress tolerance: novel targets for neuroprotection in Alzheimer's disease. *Ital. J. of Biochemistry* 52, 72-76.
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47. **Calabrese V.**, Boyd-Kimball D, Scapagnini G, Butterfield DA. 2004 Nitric oxide and cellular stress response in brain aging and neurodegenerative disorders: the role of vitagenes. *In Vivo.* 18, 245-268.
48. **Calabrese V.**, Calvani M, Butterfield DA. 2004. Increased formation of short-chain organic acids after chronic ethanol administration and its interaction with the carnitine pool in rat. *Arch. Biochem. Biophys.* 431, :271-278.
49. **Calabrese V.**, Ravagna A., Colombrita C., Guagliano E., Scapagnini G., Calvani M., Butterfield D.A., Giuffrida Stella A.M. (2005) Acetylcarnitine induces heme oxygenase in rat astrocytes and protects against oxidative stress: involvement of the transcription factor Nrf2. *J. Neuroscience Research* 79, 509-521.
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53. Perluigi M., Poon H.F., Hensley K., Pierce W.M., Klein J.B., **Calabrese V.**, De Marco C., Butterfield D.A. (2005) .Proteomic analysis of 4-hydroxy-2-nonenal-modified proteins in G93A-SOD1 transgenic mice--A model of familial amyotrophic lateral sclerosis. *Free Radic. Biol. Med.* 38, 960-968.
54. Poon H.F., Frasier M., Shreve N., **Calabrese V.**, Wolozin B., Butterfield D.A. (2005) Mitochondrial associated metabolic proteins are selectively oxidized in A30P alpha-synuclein transgenic mice--a model of familial Parkinson's disease. *Neurobiol. Dis.* 18, 492-498.
55. **Calabrese V.**, Ravagna A., Scapagnini G., Catalano C., Pennisi G., Butterfield D.A., Giuffrida Stella A.M. (2005) Oxidative stress, mitochondrial dysfunction and cellular stress response in Friedreich Ataxia. *J. Neurol Sci.* 233, 145-162.
56. Calabrese V., Colombrita C., Guagliano E., Sapienza M., Ravagna A., Tomaselli G., Cardile V. Scapagnini G., Butterfield D.A., Giuffrida Stella A.M., and Rizzarelli E.. (2005) Protective effect of carnosine during nitrosative stress in astroglial cell cultures. *Neurochem. Res.* 30, 797-807.
57. Perluigi M., Poon H.F., Maragos W., Pierce WM., JB Klein JB, Calabrese V., Cini C., De Marco C., Butterfield D.A., (2005). Proteomic Analysis of Protein Expression and Oxidative Modification in R6/2 Transgenic Mice-- A Model of Huntington's Disease. *Molecular and Cellular Proteomics*, 4, 1849-1861.
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61. Perluigi M., Joshi G, Sultana R., **Calabrese V.**, De Marco C., Coccia R., Butterfield D.A. (2006) In vivo protection by the xanthate tricyclodecan-9-yl-xanthogenate against amyloid beta-peptide (1-42)-induced oxidative stress. *Neuroscience* 138, 1161-1170.
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63. **Calabrese V.**, Butterfield D.A., Scapagnini G., Stella A.M., Maines M.D. (2006) Redox regulation of heat shock protein expression by signaling involving nitric oxide and carbon monoxide:

- relevance to brain aging, neurodegenerative disorders, and longevity. *Antioxid Redox Signal*. 8, 444-477.
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 65. **Calabrese V.**, Colombrita C., Sultana R., Scapagnini G., Calvani M., Butterfield D.A., Stella A.M. (2006) Redox modulation of heat shock protein expression by acetylcarnitine in aging brain: relationship to antioxidant status and mitochondrial function. *Antioxid Redox Signal*. 8, 404-416.
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 73. Mancuso C., Pani G., **Calabrese V.** (2006) Bilirubin: an endogenous scavenger of nitric oxide and reactive nitrogen species. *Redox Rep*. 11, 207-213.
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 75. **Calabrese V.**, Guagliano E., Sapienza M., Panebianco M., Calafato S., Puleo E., Pennisi G., Mancuso C., Butterfield A.D., Giuffrida Stella A.M. (2007) Redox regulation of cellular stress response in aging and neurodegenerative disorders: role of vitagenes. *Neurochem Research* 32, 757-773.
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