



UNIVERSITÀ
degli STUDI
di CATANIA



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

Catania, Maggio 2019

CURRICULUM VITAE: prof. NICOLETTI Vincenzo Giuseppe

Department of Biomedical and Biotechnological Sciences (BIOMETEC), Section of Medicinal Biochemistry.

University of Catania (Italy). Tel.+39-0954781160 – mobile +39 3200543972. Email: nicovigi@unict.it.

Academic appointments and education:

- Since 2002 Nov. 1st. **present position: Associate Professor:** Biochemistry, School of Medicine, department of Biomedical and Biotechnological Sciences (BIOMETEC), Section of Medicinal Biochemistry. University of Catania (Italy). Tel.+39-0954781160 – mobile +39 3200543972. Email: nicovigi@unict.it.
- 1997/3/24, **Researcher** at University of Catania, Italy, Faculty of Medicine.
- 1993-1994, **Post-Doctoral fellow in Neurobiology:** "Studies on the regulation of tissue specific expression of glial fibrillary acidic protein (GFAP) gene".
- 1990-1992, **Biennial fellowship by C.N.R.** (National Italian Council of Research): "Isolation and nucleic acid sequence characterization of glial fibrillary acidic protein (GFAP) gene".
- 1988-1989, **Research fellow** at the Molecular Biology Department of the "**Institute for Basic Research in developmental disabilities**", Staten Island, New York (USA), Prof. David Soifer's laboratory: "studies on the expression of neurofilament subunits in transfected non neural cell cultures".
- 1987-1989 **Ph.D. in Neurobiology** University of Catania (Italy). Institute of Biochemistry, Faculty of Medicine. Thesis: "*Biosynthesis of specific proteins in the central and peripheral nervous system*".
- 1985/Dec./20 **Degree of Specialist in Marine Biochemistry**, with *magna cum laude*, University of Messina (Italy).
- 1985 qualification as **Professional Biologist**, University of Catania (Italy).
- 1983/Nov./22 **Graduation** in Biological Sciences, with *magna cum laude*, University of Catania (Italy).



UNIVERSITÀ
degli STUDI
di CATANIA



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

Membership of scientific societies:

Italian Society of Biochemistry (SIB).

European Society for Neurochemistry (ESN).

Consorzio Interuniversitario di Ricerca dei Metalli nei Sistemi Biologici (CIRCMSB).

Consorzio Interuniversitario Biotecnologie (CIB).

Consorzio Interuniversitario Istituto Nazionale Biostrutture e Biosistemi (INBB).

Teaching and responsibilities:

- at Faculty of Medicine: course of Biochemistry and Molecular Biology; course of Nutritional Biochemistry; course of General Chemistry and Propedeutic Biochemistry.
- at Faculty of Science: course of Advanced Biochemistry (Biomolecular Chemistry).
- at School of specialization in Clinical Biochemistry: course of Biochemistry.
- at School of specialization in Infectivology: course of Biochemistry.
- at School of specialization in Clinical Microbiology: courses of Molecular Biology, and Biochemistry.
- 1998-2017: Component of International Doctorate in Neurobiology.
- Academic years 2004/15 to 2017/18, component of the Department Directory Council at department of Chemical Sciences, University of Catania.
- Since 2015-11-1st to October 2019: President of the Master degree in Biomolecular Chemistry (at Department of Chemical Sciences, University of Catania, Italy).
- Academic years 2014/15 to 2017/18, component of the Department Directory Council at the department of Biomedical and Biotechnological Sciences (BIOMETEC), University of Catania.
- Since 2017: Component of International Doctorate in Biotechnology.



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

PUBLICATIONS

1. D.F. Condorelli, R. Avola, N. Belluardo, L. Insirello, V.G. Nicoletti, P. Carpano, M. Bindoni and A.M. Giuffrida-Stella. (1988). *Astroglial response to injury of hippocampal neurons*. Senile Dementias II International Symposium Eds. (A. Agnoli, J. Cahn, N. Lassen, R. Mayeux) John Libbey Eurotext, Paris. pp. 27-39.
2. D.F. Condorelli, R. Avola, N. Ragusa, L. Insirello, V.G. Nicoletti, P. Carpano, N. Belluardo, M. Bindoni and A.M. Giuffrida-Stella. (1988). *Astrocyte mitogenic factors from rat hippocampus after toxin induced neuronal degeneration*. *Int. J. Biochem.* 38: 118A-121A. (IF 0.379)
3. D.F. Condorelli, N. Belluardo, R. Avola, L. Insirello, P. Carpano, V. Nicoletti, M. Bindoni and A.M. Giuffrida-Stella. (1989). *Effect of trophic factors, released after hippocampal injury, on astroglial cell proliferation*. *Metabolic Brain Disease* 4: 41-46. (IF 1.029)
4. D.F. Condorelli, V. Nicoletti, P. Carpano, L. Insirello, R. Avola and A.M. Giuffrida-Stella. (1990). *Epidermal growth factor treatment during early postnatal development: glutamine synthetase and glutamate decarboxylase activities in mouse brain*. *Int. J. Dev. Neurosci.* 8: 1-8. (IF 1.557)
5. V. Spina-Purrello, R. Avola, D.F. Condorelli, V. Nicoletti, L. Insirello, S. Reale, A. Costa, N. Ragusa and A.M. Giuffrida-Stella. (1990). *ADP-ribosylation of proteins in brain regions of rats during postnatal development*. *Int. J. Dev. Neurosci.* 8: 167-174. (IF 1.557)
6. D. Soifer, V. Nicoletti, K. Cabane, K. Mack, and B. Poulos. (1991). *Expression of the Neurofilament Protein NF-H in L-cells*. *J. Neurosci. Res.* 30: 63-71. (IF 3.637)
7. R. Avola, P. Carpano, F. Ingrao, G. Magrì, L. Insirello, V.G. Nicoletti, D.F. Condorelli, N. Ragusa, and A.M. Giuffrida-Stella. (1991). *Epidermal growth factor stimulates the proliferation of cerebellar immature astrocytes, maintained under different culture conditions*. *Int. J. Biochem.* 40: 79A-82A. (IF 0.379)
8. Avola R., Magrì G., Ingrao F., Insirello L., Carpano P., Nicoletti V.G., Condorelli D.F., Ragusa N., and Giuffrida Stella A.M. (1991). *Effect of EGF on DNA labeling in rat cerebellar immature astrocytes, maintained under different culture conditions: presence or absence of polylysine and/or serum*. *Annals of the New York Academy of Sciences*, 633: 540-542. (IF 1.030)
9. Nicoletti V. G. and D. F. Condorelli (1992). *Optimized PEG-method for rapid purification of high-quality plasmid DNA: high yield from "midi-prep"*. *BioTechniques*, 14: 532, 536. (IF 2.251)
10. Nicoletti V.G., Condorelli D.F., Dell'Albani P., Bonanno G., Giuffrida Stella AM (1992). *Expression and structure of the rat GFAP gene*. *Int. J. Biochem.* 41, 366A-368A. (IF 0.379)
11. Nicoletti V.G., Dell'Albani P., Condorelli D.F., Giuffrida Stella A.M. (1994). *Glutamate receptor expression during aging in rat brain*. *Int. J. Biochem.*, 43: 43A. (IF 0.379)
12. Nicoletti V.G., Barresi V., Caruso A., Conticello S., Condorelli D.F., Giuffrida Stella A.M. (1994). *Methylation status and tissue-specific expression of the rat GFAP gene*. *Int. J. Biochem.*, vol 43, N° 5, 247A-249A. (IF 0.379)



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

13. Condorelli D.F., Nicoletti V.G., Barresi V., Caruso A., Conticello S., de Vellis J.*, Giuffrida Stella A.M. (1994). *Tissue-specific DNA Methylation Patterns of the Rat Glial Fibrillary Acidic Protein Gene*. Journal of Neuroscience Research, 39: 694-707. (IF 3.637)
14. Nicoletti V.G., Condorelli D.F., Dell'Albani P., Ragusa N., Giuffrida-Stella A.M. (1995). *α -amino-3-hydroxy-5-methylisoxazolepropionate-selective glutamate receptor subunits in rat hippocampus during aging*. Journal of Neuroscience Research 40: 220-224. (IF 3.377)
15. V. G. Nicoletti, E. A. Tendi, C. Lalicata, S. Reale, A. Costa, R. F. Villa, N. Ragusa, and A. M. Giuffrida Stella (1995) *Changes of mitochondrial cytochrome c oxidase and FoF1 ATP synthase subunits in rat cerebral cortex during aging*. Neurochem. Res. vol. 20, 1465-1470. (IF 1.577)
16. Nicoletti V. G., Tendi E. A., Lalicata C., Reale S., Costa A., Villa R. F., Guerrieri F., Ragusa N., and Giuffrida Stella A. M. (1995) *Modifications of mitochondrial cytochrome c oxidase and FoF1 ATP synthase subunits content in rat cerebral cortex during aging*. It. J. Biochem. vol. 44, 329A-331A. (IF 0.379)
17. Nicoletti V. G., Tendi E. A., Lalicata C., Reale S., Costa A., Villa R.F., Ragusa N., and Giuffrida Stella A. M. (1996) *Age-related changes of mitochondrial cytochrome c oxidase and FoF1 ATP synthase subunit contents in rat cerebral cortex*. Arch. Gerontol.Geriatr., Suppl.5, 509-514. (IF 0.779)
18. Nicoletti V. G., Tendi E. A., Console A., Privitera A., Ragusa N., and Giuffrida Stella A. M. (1996) *Gene expression of cytochrome c oxidase and FoF1-ATPase subunits in rat brain during aging*. It. J. Biochem. vol. 45, 176. (IF 0.379)
19. Condorelli D.F., Dell'Albani P., Conticello S., Barresi V., Nicoletti V.G., Caruso A., Kahn M., Vacanti M., Albanese V., de Vellis J., Giuffrida Stella A.M. (1997) *A neural-specific demethylated domain in the distal promoter of the glial fibrillary acidic protein gene*. Developmental Neuroscience 19: 446-456. (IF 1.596)
20. Nicoletti V. G., Tendi E. A., Console A., Privitera A., Villa R.F., Ragusa N., and Giuffrida Stella A. M. (1998) *Regulation of cytochrome c oxidase and FoF1-ATPase subunits expression in rat brain during aging*. Neurochem. Res. vol. 23, 55-61. (IF 1.677)
21. Nicoletti V.G., Caruso A., Tendi E.A., Privitera A., Console A., Calabrese V., Spadaro F., Ravagna A., Copani A. and Giuffrida Stella A.M.* (1998) *Effect of NO synthase induction in mixed cortical and astroglial cell cultures on the expression of mitochondrial respiratory chain enzyme subunits*. Biochimie 80, 871-881. (IF 1.617)
22. Condorelli D.F., Nicoletti V.G., Barresi V., Conticello S.G., Caruso A., Tendi E.A., Giuffrida Stella A.M. (1999) *Structural features of the rat GFAP gene and identification of a novel alternative transcript*. Journal of Neuroscience Research. Vol. 56(3):219-28. (IF 2.874)
23. Condorelli D.F., Nicoletti V.G., Dell'Albani P., Barresi V., Caruso A., Conticello S.G., Belluardo N., Giuffrida Stella A.M. (1999) *GFAP mRNA expression in the normal rat brain and after brain injury*. Neurochem. Res., 24 (5), 709-714. (IF 1.677)



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

24. Calabrese V., Copani A., Testa D., Ravagna A., Spadaro F., Tendi E., Nicoletti V.G. and Giuffrida Stella A.M. (2000) *Nitric oxide synthase induction in astroglial cell cultures: effect on Heat shock protein 70 synthesis and oxidant/antioxidant balance*. Journal of Neuroscience Research. 60: 613-622. (IF 2.874)
25. Dell'Albani P., Santangelo R., Torrisi L., Nicoletti V.G., de Vellis J. and Giuffrida Stella A.M. (2001) *JAK/STAT signaling pathway mediates cytokine-induced iNOS expression in primary astroglial cell cultures*. Journal of Neuroscience Research. 65: 417-424. (IF 2.874)
26. Nicoletti VG, Meli GA, Marino VM, Copani A, Giuffrida-Stella AM (2001) *NMDA-induced neuroprotection in cerebellar granule cells: correlation with mitochondrial respiratory enzyme expression*. Mitochondrion 1 (Suppl. 1) S70.
27. V.G. Nicoletti, V. Spina-Purrello, D. Patti, R. Santangelo and A.M. Giuffrida Stella. (2001) *Dual role of PARP expression after iNOS induction in astroglial cell: proapoptotic or rescuing*. J. Neurochem. 77 (suppl. 1): 47.
28. Dell'Albani P., Santangelo R., Torrisi L., Nicoletti V.G., Albanese V., De Vellis J. and Giuffrida-Stella A.M. (2001) *Inducible nitric oxide synthase expression in astroglial cells: role of JAK2 and STAT1 α / β* . J. Neurochem. 78 (suppl. 1): 149.
29. Nicoletti VG, Nicoletti R, Ferrara N, Meli G, Reibaldi M, Reibaldi A. (2003) *Diabetic patients and retinal proliferation: an evaluation of the role of vascular endothelial growth factor (VEGF)*. Exp. Clin. Endocrinol. Diabetes. 111: 209-14.
30. Nicoletti VG and Giuffrida Stella AM (2003) *Role of PARP under Stress Conditions: Cell Death or Protection?* Neurochemical Research. 28: 187-194.
31. Dell'Albani P, Santangelo R, Torrisi L, Nicoletti VG, Giuffrida Stella AM. (2003) *Role of the JAK/STAT signal transduction pathway in the regulation of gene expression in CNS*. Neurochem Res. 28: 53-64.
32. C. Cuppari, V. Spina-Purrello, D. Patti, D. Licciardello, P. Perticone, A.M. Giuffrida-Stella, V.G. Nicoletti. (2004) *A β 25-35 toxicity in primary astroglial cell cultures is correlated with status of aggregation*. The Italian Journal of Biochemistry vol. 53 n.3:275.
33. Nicoletti V. G., Marino V. M., Cuppari C., Licciardello D., Patti D., Spina Purrello V., and A. M. Giuffrida Stella (2005) *Effect of Antioxidant Diets on Mitochondrial Gene Expression in Rat Brain During Aging* Neurochem. Res. 30: 737-752.
34. Attanasio F, Cascio C, Fisichella S, Nicoletti VG, Pignataro B, Savarino A, Rizzarelli E. (2007) *Trehalose effects on alpha-crystallin aggregates*. Biochem. Biophys. Res. Commun. 354(4):899-905. (Epub 2007 Jan 22). IF 2,749
35. Nicoletti V. G., Santoro A. M., Grasso G., Vagliasindi L. I., Giuffrida M. L., Cuppari C., Spina Purrello V., Giuffrida Stella A., Rizzarelli E. (2007) *Carnosine Interaction with Nitric Oxide and Astroglial Cells Protection*. Journal of Neuroscience Research, 85:2239-2245. IF 3,268
36. V. Spina-Purrello, D. Patti, A. M. Giuffrida-Stella, V. G. Nicoletti (2008) *PARP and cell death or protection in rat primary astroglial cell cultures under LPS/IFN γ induced proinflammatory conditions*. Neurochem Res. 33:2583-92. IF 2,187
37. Attanasio F, Cataldo S, Fisichella S, Nicoletti S, Nicoletti VG, Pignataro B, Savarino A, Rizzarelli E. (2009) *Protective Effects of L- and D-Carnosine on alpha-Crystallin Amyloid Fibril Formation: Implications for Cataract Disease*. Biochemistry. 48: 6522-6531. IF 3,379



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

38. Vittoria Spina-Purrello, Salvatrice Giliberto, Vincenza Barresi, Vincenzo G. Nicoletti, Anna Maria Giuffrida Stella, Enrico Rizzarelli (2010) *Modulation of PARP-1 and PARP-2 Expression by L-carnosine and Trehalose After LPS and INF γ -Induced Oxidative Stress*. *Neurochem Res* 35:2144–2153. IF1,576.
39. Travaglia A, Arena G, Fattorusso R, Isernia C, La Mendola D, Malgieri G, Nicoletti VG, Rizzarelli E. (2011). *The inorganic perspective of Nerve Growth Factor: interactions of Cu $^{2+}$ and Zn $^{2+}$ with the N-terminus fragment of Nerve Growth Factor encompassing the recognition domain of the TrkA receptor*. *CHEMISTRY - A EUROPEAN JOURNAL* Mar 21;17(13):3726-38. doi: 10.1002/chem.201002294. Epub 2011 Feb 25. IF 5,382
40. Travaglia A, Pietropaolo A, La Mendola D, **Nicoletti VG**, Rizzarelli E. (2012) The inorganic perspectives of neurotrophins and Alzheimer's disease. *J Inorg Biochem*. 111:130-7. doi: 10.1016/j.jinorgbio.2011.10.017. Epub 2011 Dec 1.
41. Travaglia A, La Mendola D, Magrì A, **Nicoletti VG**, Pietropaolo A, Rizzarelli E. (2012) *Copper, BDNF and Its N-terminal domain: inorganic features and biological perspectives*. *Chemistry* 18(49):15618-31. doi: 10.1002/chem.201202775. Epub 2012 Nov 7.
42. Chillemi R, Greco V, **Nicoletti VG**, Sciuto S. (2013) *Oligonucleotides conjugated to natural lipids: synthesis of phosphatidyl-anchored antisense oligonucleotides*. *Bioconjug Chem*. 24(4):648-57. doi: 10.1021/bc300602g. Epub 2013 Mar 15.
43. Travaglia A, La Mendola D, Magrì A, Pietropaolo A, **Nicoletti VG**, Grasso G, Malgieri G, Fattorusso R, Isernia C, Rizzarelli E. (2013) *Zinc(II) interactions with brain-derived neurotrophic factor N-terminal peptide fragments: inorganic features and biological perspectives*. *Inorg Chem*. 52(19):11075-83. doi: 10.1021/ic401318t. Epub 2013 Sep 26.
44. Sinopoli A, Magrì A, Milardi D, Pappalardo M, Pucci P, Flagiello A, Titman JJ, **Nicoletti VG**, Caruso G, Pappalardo G, Grasso G. (2014) *The role of copper(II) in the aggregation of human amylin*. *Metallomics*. 2014 6(10):1841-52. doi: 10.1039/c4mt00130c. Epub 2014 Aug 1.
45. Tabbì G, Magrì A, Giuffrida A, Lanza V, Pappalardo G, Naletova I, **Nicoletti VG**, Attanasio F, Rizzarelli E. (2015) *Semax, an ACTH4-10 peptide analog with high affinity for copper(II) ion and protective ability against metal induced cell toxicity*. *J Inorg Biochem*. 142:39-46. doi: 10.1016/j.jinorgbio.2014.09.008. Epub 2014 Sep 28.
46. Travaglia A, Pietropaolo A, Di Martino R, **Nicoletti VG**, La Mendola D, Calissano P, Rizzarelli E. (2015) *A small linear peptide encompassing the NGF N-terminus partly mimics the biological activities of the entire neurotrophin in PC12 cells*. *ACS Chem Neurosci*. 6(8):1379-92. doi: 10.1021/acschemneuro.5b00069. Epub 2015 May 15.
47. Kornblatt AP, **Nicoletti VG**, Travaglia A. (2016) *The neglected role of copper ions in wound healing*. *J Inorg Biochem*. 161:1-8. doi: 10.1016/j.jinorgbio.2016.02.012. Epub 2016 Feb 11.
48. Naletova I, **Nicoletti VG**, Milardi D, Pietropaolo A, Grasso G. (2016) *Copper, differently from zinc, affects the conformation, oligomerization state and activity of bradykinin*. *Metallomics*. 8:750-761, ISSN: 1756-591X, doi: 10.1039/c6mt00067c.
49. Magrì A, La Mendola D, **Nicoletti VG**, Pappalardo G, Rizzarelli E. (2016) *New Insight in Copper-Ion Binding to Human Islet Amyloid: The Contribution of Metal-Complex Speciation To Reveal the Polypeptide Toxicity*. *Chemistry*. 5;22(37):13287-300. doi: 10.1002/chem.201602816. Epub 2016 Aug 5.



Sezione di Biochimica Medica

Via S. Sofia, 97 - 95125 CATANIA

Prof. Nicoletti Vincenzo Giuseppe

Tel +39 095 4781160 email: nicovigi@unict.it

50. Magri A, Tabbi G, Giuffrida A, Pappalardo G, Satriano C, Naletova I, **Nicoletti VG**, Attanasio F. (2016) *Influence of the N-terminus acetylation of Semax, a synthetic analog of ACTH(4-10), on copper(II) and zinc(II) coordination and biological properties*. J Inorg Biochem. 164:59-69. doi: 10.1016/j.jinorgbio.2016.08.013. Epub 2016 Aug 27.
51. Pandini G, Satriano C, Pietropaolo A, Gianì F, Travaglia A, La Mendola D, **Nicoletti VG**, Rizzarelli E. (2016) *The Inorganic Side of NGF: Copper(II) and Zinc(II) Affect the NGF Mimicking Signaling of the N-Terminus Peptides Encompassing the Recognition Domain of TrkA Receptor*. Front Neurosci. 10:569. doi: 10.3389/fnins.2016.00569. eCollection 2016.
52. Caruso G, Distefano DA, Parlascino P, Fresta CG, Lazzarino G, Lunte SM, **Nicoletti V.G.** (2017). *Receptor-mediated toxicity of human amylin fragment aggregated by short and long-term incubations with copper ions*. MOLECULAR AND CELLULAR BIOCHEMISTRY, 425:85-93, ISSN: 0300-8177, doi: 10.1007/s11010-016-2864-1.
53. Naletova I, Satriano C, Curci A, Margiotta N, Natile G, Arena G, La Mendola D, **Nicoletti VG**, Rizzarelli E. (2018) *Cytotoxic phenanthroline derivatives alter metallostasis and redox homeostasis in neuroblastoma cells*. Oncotarget. 9(91):36289-36316. doi: 10.18632/oncotarget.26346.
54. Bellia F, Lanza V, García-Viñuales S, Ahmed IMM, Pietropaolo A, Iacobucci C, Malgieri G, D'Abrosca G, Fattorusso R, **Nicoletti VG**, Sbardella D, Tundo GR, Coletta M, Pirone L, Pedone E, Calcagno D, Grasso G, Milardi D. (2019) *Ubiquitin binds the amyloid β peptide and interferes with its clearance pathways*. Chem Sci. 10(9):2732-2742. doi: 10.1039/c8sc03394c.
55. Naletova I, Satriano C, Pietropaolo A, Gianì F, Pandini G, Triaca V, Amadoro G, Latina V, Calissano P, Travaglia A, **Nicoletti VG**, La Mendola D, Rizzarelli E. (2019) *The Copper(II)-Assisted Connection between NGF and BDNF by Means of Nerve Growth Factor-Mimicking Short Peptides*. Cells. 8(4). pii: E301. doi: 10.3390/cells8040301.