

CURRICULUM VITAE

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Educazione

1988 Laurea in Scienze Biologiche, Università di Genova.
1998 Dottorato in Neuroscienze “Università di “Tor Vergata” Roma..

Esperienza Professionale:

1990-1994 Post Doctoral Fellow, Fidia-Georgetown Institute for the
 Neurosciences, Georgetown University, Washington, D.C., U.S.A.
1994-1996 Visiting Research Scientist, Nathan S. Kline Institute for Psychiatric
 Research, Center for Neuropharmacology, New York University, NY,
 NY, U.S.A.
1996-1997 Research Associate, The Psychiatric Institute, Department of
 Psychiatry, The University of Illinois at Chicago, Chicago, Illinois,
 USA.
1998 Neuroscience Department, University of “Tor Vergata”, Rome, Italy.
1999 Senior Scientists Santa Lucia Foundation, Rome, Italy
2000-present Team leader Unità di Neurobiologia Molecolare, Fondazione Santa Lucia,
 Roma.

Lingue: Italian (native), English (spoken and written), French (scholar).

Iscrizione a società:

Society for Neuroscience (SFN), Società Italiana di Neuroscience (SINS), European Society For
Neuroscience (FENS).

Parole chiave

Neurodegeneration, Excitotoxicity, Neuronal Culture, Amyotrophic Lateral Sclerosis, Fronto
Temporal Dementia.

Revisore per le seguenti riviste:

Brain Research
Behavioural Brain Research
European Journal of Neuroscience
Free Radical Research
Neuroscience
Journal of Neurochemistry
PLoS ONE

Pubblicazioni

- 1.di Michele F, Luchetti S, Bernardi G, Romeo E, **Longone P.** Neurosteroid and neurotransmitter alterations in Parkinson's disease. *Front Neuroendocrinol.* 2013 Apr 4; pii: S0091-3022(13)00014-9. doi:10.1016/j.yfrne.2013.03.001. [Epub ahead of print]
- 2.Spalloni A, Nutini M, **Longone P.** Role of the N-methyl-d-aspartate receptors complex in amyotrophic lateral sclerosis. *Biochim Biophys Acta.* 2013 1832(2):312-322.
- 3.Middei S, Spalloni A, **Longone P**, Pittenger C, O'Mara SM, Marie H, Ammassari-Teule M. CREB selectively controls learning-induced structural remodeling of neurons. *Learn Mem.* 2012 Jul 18;19(8):330-6. doi: 10.1101/lm.025817.112.
4. D'Alessandro A, D'Aguanno S, Cencioni MT, Pieroni L, Diamantini A, Battistini L, **Longone P**, Spalloni A, De Laurenzi V, Bernardini S, Federici G, Urbani A. Protein repertoire impact of Ubiquitin-Proteasome System impairment: insight into the protective role of beta-estradiol. *J Proteomics.* 2012 75(4):1440-53.
5. Armogida M, Spalloni A, Amantea D, Nutini M, Petrelli F, **Longone P**, Bagetta G, Nisticò R, Mercuri NB. The protective role of catalase against cerebral ischemia in vitro and in vivo. *Int J Immunopathol Pharmacol.* 2011 24(3):735-47.
6. Nutini M, Spalloni A, Florenzano F, Westenbroek RE, Marini C, Catterall WA, Bernardi G, **Longone P.** Increased expression of the beta3 subunit of voltage-gated Na⁺ channels in the spinal cord of the SOD1G93A mouse. *Mol Cell Neurosci.* 2011;47(2):108-18.
7. D'Antoni S, Berretta A, Seminara G, **Longone P**, Giuffrida-Stella AM, Battaglia G, Sortino MA, Nicoletti F, Catania MV. A prolonged pharmacological blockade of type-5 metabotropic glutamate receptors protects cultured spinal cord motor neurons against excitotoxic death. *Neurobiol Dis.* 2011;42(3):252-64.
8. **Longone P**, di Michele F, D'Agati E, Romeo E, Pasini A, Rupprecht R. Neurosteroids as neuromodulators in the treatment of anxiety disorders. *Front Endocrinol (Lausanne).* 2011;2:55.
9. Nutini M, Frazzini V, Marini C, Spalloni A, Sensi SL, **Longone P.** Zinc pre-treatment enhances NMDAR-mediated excitotoxicity in cultured cortical neurons from SOD1(G93A) mouse, a model of amyotrophic lateral sclerosis. *Neuropharmacology.* 2011;60(7-8):1200-8.
10. Spalloni A, Origlia N, Sgobio C, Trabalza A, Nutini M, Berretta N, Bernardi G, Domenici L, Ammassari-Teule M, **Longone P.** Postsynaptic alteration of NR2A subunit and defective autophosphorylation of alphaCaMKII at threonine-286 contribute to abnormal plasticity and morphology of upper motor neurons in presymptomatic SOD1G93A mice, a murine model for amyotrophic lateral sclerosis. *Cereb Cortex.* 2011;21(4):796-805.
11. Farioli-Vecchioli S, Saraulli D, Costanzi M, Leonardi L, Cinà I, Micheli L, Nutini M, **Longone P**, Oh SP, Cestari V, Tirone F. Impaired terminal differentiation of hippocampal granule neurons and defective contextual memory in PC3/Tis21 knockout mice. *PLoS One.* 2009;4(12):e8339.
12. Ferrucci M, Spalloni A, Bartalucci A, Cantafiora E, Fulceri F, Nutini M, **Longone P**, Paparelli A, Fornai F. A systematic study of brainstem motor nuclei in a mouse model of ALS, the effects of lithium. *Neurobiol Dis.* 2010;37(2):370-83.
13. Pasquali L, **Longone P**, Isidoro C, Ruggieri S, Paparelli A, Fornai F. Autophagy, lithium, and amyotrophic lateral sclerosis. *Muscle Nerve.* 2009;40(2):173-94.

- 14.** Fornai F, **Longone P**, Ferrucci M, Lenzi P, Isidoro C, Ruggieri S, Paparelli A. Autophagy and amyotrophic lateral sclerosis: The multiple roles of lithium. *Autophagy*. 2008 4(4):527-30.
- 15.** Fornai F, **Longone P**, Cafaro L, Kastsuchenka O, Ferrucci M, Manca ML, Lazzeri G, Spalloni A, Bellio N, Lenzi P, Modugno N, Siciliano G, Isidoro C, Murri L, Ruggieri S, Paparelli A. Lithium delays progression of amyotrophic lateral sclerosis. *Proc Natl Acad Sci U S A*. 2008 12 105(6):2052-7.
- 16.** Sgobio C, Trabalza A, Spalloni A, Zona C, Carunchio I, **Longone P**, Ammassari-Teule M. Abnormal medial prefrontal cortex connectivity and defective fear extinction in the presymptomatic G93A SOD1 mouse model of ALS. *Genes Brain Behav*. 2008 7(4):427-34.
- 17.** **Longone P**, Rupprecht R, Manieri GA, Bernardi G, Romeo E, Pasini A. The complex roles of neurosteroids in depression and anxiety disorders. *Neurochem Int*. 2008 52(4-5):596-601.
- 18.** Florenzano F, Visconti MT, Mercaldo V, **Longone P**, Bernardi G, Bagni C, Molinari M, Carrive P. P2X2R purinergic receptor subunit mRNA and protein are expressed by all hypothalamic hypocretin/orexin neurons. *J Comp Neurol*. 2006 498(1):58-67.
- 19.** Luchetti S, di Michele F, Romeo E, Brusa L, Bernardi G, Cummings BJ, **Longone P**. Comparative non-radioactive RT-PCR assay: an approach to study the neurosteroids biosynthetic pathway in humans. *J Neurosci Methods*. 2006 153(2):290-8.
- 20.** Spalloni A, Geracitano R, Berretta N, Sgobio C, Bernardi G, Mercuri NB, **Longone P**, Ammassari-Teule M. Molecular and synaptic changes in the hippocampus underlying superior spatial abilities in pre-symptomatic G93A+/+ mice overexpressing the human Cu/Zn superoxide dismutase (Gly93 --> ALA) mutation. *Exp Neurol*. 2006 197(2):505-14.
- 21.** Federici M, Geracitano R, Tozzi A, **Longone P**, Di Angelantonio S, Bengtson CP, Bernardi G, Mercuri NB. Trace amines depress GABA B response in dopaminergic neurons by inhibiting G-betagamma-gated inwardly rectifying potassium channels. *Mol Pharmacol*. 2005 67(4):1283-90.
- 22.** Spalloni A, Pascucci T, Albo F, Ferrari F, Puglisi-Allegra S, Zona C, Bernardi G, **Longone P**. Altered vulnerability to kainate excitotoxicity of transgenic-Cu/Zn SOD1 neurones. *Neuroreport*. 2004 15(16):2477-80.
- 23.** Fusco FR, Martorana A, Giampà C, De March Z, Vacca F, Tozzi A, **Longone P**, Piccirilli S, Paolucci S, Sancesario G, Mercuri NB, Bernardi G. Cellular localization of TRPC3 channel in rat brain: preferential distribution to oligodendrocytes. *Neurosci Lett*. 2004 365(2):137-42.
- 24.** Ferri A, Nencini M, Casciati A, Cozzolino M, Angelini DF, **Longone P**, Spalloni A, Rotilio G, Carrì MT. Cell death in amyotrophic lateral sclerosis: interplay between neuronal and glial cells. *FASEB J*. 2004 18(11):1261-3.
- 25.** Spalloni A, Albo F, Ferrari F, Mercuri N, Bernardi G, Zona C, **Longone P**. Cu/Zn-superoxide dismutase (GLY93-->ALA) mutation alters AMPA receptor subunit expression and function and potentiates kainate-mediated toxicity in motor neurons in culture. *Neurobiol Dis*. 2004 5(2):340-50.
- 26.** Pieri M, Albo F, Gaetti C, Spalloni A, Bengtson CP, **Longone P**, Cavalcanti S, Zona C. Altered excitability of motor neurons in a transgenic mouse model of familial amyotrophic lateral sclerosis. *Neurosci Lett*. 2003 351(3):153-6.

- 27.** Tozzi A, Bengtson CP, **Longone P**, Carignani C, Fusco FR, Bernardi G, Mercuri NB. Involvement of transient receptor potential-like channels in responses to mGluR-I activation in midbrain dopamine neurons. *Eur J Neurosci*. 2003 18(8):2133-45.
- 28.** di Michele F, **Longone P**, Romeo E, Lucchetti S, Brusa L, Pierantozzi M, Bassi A, Bernardi G, Stanzione P. Decreased plasma and cerebrospinal fluid content of neuroactive steroids in Parkinson's disease. *Neurol Sci*. 2003 24(3):172-3.
- 29.** Pieri M, Gaetti C, Spalloni A, Cavalcanti S, Mercuri N, Bernardi G, **Longone P**, Zona C. alpha-Amino-3-hydroxy-5-methyl-isoxazole-4-propionate receptors in spinal cord motor neurons are altered in transgenic mice overexpressing human Cu,Zn superoxide dismutase (Gly93-->Ala) mutation. *Neuroscience*. 2003 122(1):47-58.
- 30.** Geracitano R, Paolucci E, Prisco S, Guatteo E, Zona C, **Longone P**, Ammassari-Teule M, Bernardi G, Berretta N, Mercuri NB. Altered long-term corticostriatal synaptic plasticity in transgenic mice overexpressing human CU/ZN superoxide dismutase (GLY(93)-->ALA) mutation. *Neuroscience*. 2003 118(2):399-408.
- 31.** Zona C, Tancredi V, **Longone P**, D'Arcangelo G, D'Antuono M, Manfredi M, Avoli M. Neocortical potassium currents are enhanced by the antiepileptic drug lamotrigine. *Epilepsia*. 2002 43(7):685-90.
- 32.** Auta J, **Longone P**, Guidotti A, Costa E. The regulation of hippocampal nicotinic acetylcholine receptors (nAChRs) after a protracted treatment with selective or nonselective nAChR agonists. *J Mol Neurosci*. 1999 13(1-2):31-45.
- 33.** **Longone P**, Impagnatiello F, Mienville JM, Costa E, Guidotti A. Changes in AMPA receptor-spliced variant expression and shift in AMPA receptor spontaneous desensitization pharmacology during cerebellar granule cell maturation in vitro. *J Mol Neurosci*. 1998 11(1):23-41.
- 34.** Uz T, Pesold C, **Longone P**, Manev H. Aging-associated up-regulation of neuronal 5-lipoxygenase expression: putative role in neuronal vulnerability. *FASEB J*. 1998 12(6):439-49.
- 35.** Uz T, **Longone P**, Manev H. Increased hippocampal 5-lipoxygenase mRNA content in melatonin-deficient, pinealectomized rats. *J Neurochem*. 1997 69(5):2220-3.
- 36.** Impagnatiello F, Oberto A, **Longone P**, Costa E, Guidotti A. 7-Chloro-3-methyl-3,4-dihydro-2H-1,2,4-benzothiadiazine S,S-dioxide: a partial modulator of AMPA receptor desensitization devoid of neurotoxicity. *Proc Natl Acad Sci U S A*. 1997 94(13):7053-8.
- 37.** Chen ZW, Bergman T, Jörnvall H, Bonetto V, Norberg A, Mutt V, **Longone P**, Costa E, Efendic S, Ostenson CG. Full-length and N-terminally truncated chicken intestinal diazepam-binding inhibitor. Purification, structural characterization and influence on insulin release. *Regul Pept*. 1997 69(2):63-8.
- 38.** Impagnatiello F, Pesold C, **Longone P**, Caruncho H, Fritschy JM, Costa E, Guidotti A. Modifications of gamma-aminobutyric acidA receptor subunit expression in rat neocortex during tolerance to diazepam. *Mol Pharmacol*. 1996 49(5):822-31.
- 39.** **Longone P**, Impagnatiello F, Guidotti A, Costa E. Reversible modification of GABA_A receptor subunit mRNA expression during tolerance to diazepam-induced cognition dysfunction. *Neuropharmacology*. 1996 35(9-10):1465-73.

- 40.** Oberto A, **Longone P**, Krueger KE. Identification of three transcriptional regulatory elements in the rat mitochondrial benzodiazepine receptor-encoding gene. *Gene*. 1995; 167(1-2):255-60.
- 41.** Costa E, Cheney DL, Grayson DR, Korneyev A, **Longone P**, Pani L, Romeo E, Zivkovich E, Guidotti A. Pharmacology of neurosteroid biosynthesis. Role of the mitochondrial DBI receptor (MDR) complex. *Ann N Y Acad Sci*. 1994; 746:223-42.
- 42.** **Longone P**, Mocchetti I, Riva MA, Wojcik WJ. Characterization of a decrease in muscarinic m₂ mRNA in cerebellar granule cells by carbachol. *J Pharmacol Exp Ther*. 1993; 265(1):441-6.
- 43.** Lanciotti M, **Longone P**, Cornaglia-Ferraris P, Ponzoni M. Retinoic acid inhibits phosphatidylinositol turnover only in RA-sensitive while not in RA-resistant human neuroblastoma cells. *Biochem Biophys Res Commun*. 1989; 161(1):284-9.
- 44.** Damonte G, Morelli A, Piu M, **Longone P**, De Flora A. "In situ" characterization of guanine nucleotide-binding properties of erythrocyte membranes. *Biochem Biophys Res Commun*. 1989; 159(1):41-7.