

**BIOGRAPHICAL SKETCH**

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NAME: Maurizio Memo

POSITION TITLE: Full Professor of Pharmacology, University of Brescia, Brescia, Italy

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Cagliari, Italy	Graduated in Chemistry and Pharmaceutical Technologies,	1977	Pharmacology
University of Milan, Italy	Residency in Pharmacology	1980	Neuropharmacology
National Heart, Lung and Blood Institute, NIH, Bethesda, MD, USA	Research Fellow	1980-1982	Neuropharmacology
University of Cagliari, Italy	Researcher in Pharmacology	1983-1988	Neuropharmacology
Georgetown University Medical School, Washington D.C., USA	Visiting Professor Pharmacology	1988-1990	Neuropharmacology
University of Brescia, Italy	Associate Professor of Pharmacology	1988-2000	Pharmacology
Cornell University Medical School, White Plains, NY, USA	Visiting Scientist	1996	Pharmacology
University of Brescia, Italy	Full Professor of Pharmacology,	2001-present	Pharmacology

#### A. Personal Statement

##### *Other Experience and Professional Membership*

Present – Founder and Board Member of DIADEM, University Spin-Off on neurodegenerative diseases biomarkers

Present - Director of the Residency Course in Medical Pharmacology, University of Brescia

Present - Director of the Drug Research Centre (DIFF), University of Brescia

Present - Director of the Section of Pharmacology, Department of Molecular Medicine, University of Brescia

Present - Chief Molecular Neuropharmacology Laboratory, University of Brescia, Italy

Present Faculty Member, PhD program in Neuroscience

Present Faculty Member, Medicine and Surgery Course

Present Faculty Member, Biotechnology Course

Present President of the Scientific Committee of Lorenzini Foundation

Present Member of the International Advisory Board of G.I.O.S.E.G. (Glucocorticoid Induced Osteoporosis Skeletal Endocrinology Group)

2010-2016 Vice Chancellor, University of Brescia

2009-2012 Director of the Department of Biomedical Sciences and Biotechnologies

2007-present Associated Editor of "BMC Pharmacology"

2005-present Member of the Editorial Board of "CNS Neuroscience & Therapeutics"

1998-2001 Associate Editor of "Functional Neurology"

1995- Founder and Vice-President of the European School of Molecular Medicine

1991- Founder and President of the Italian Group of Molecular Neurobiology

Owner of 3 patents: "Useful compound for the treatment of neurodegenerative disease" (2002); "Method for early identification of Alzheimer's Disease" (2005); "P53 antibody" (2014)

## **B. Positions and Honors**

Winner of the Roussel Price for Gerontological Research (1987)

Winner of the Sandoz Foundation Price (1994).

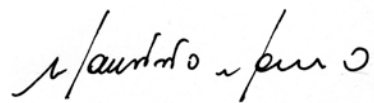
## **C. Contributions to Science**

Author of more than 300 full scientific papers all published in recognized international Journals. Organizer of 12 International Symposia. Principal Investigator of several research projects sponsored by national and international Institutions and supervisor of a research group with a total of 12 post-Doc.s, PhD students and technicians.

H Index: 44 (Scopus); Citations > 6.000 (Scopus). [orcid.org/0000-0002-7543-0289](https://orcid.org/0000-0002-7543-0289)

Main interest: Since 1980 Prof. Memo's research projects focused on neuropharmacology, in particular on the role of Dopamine systems in schizophrenia and Parkinson's disease, the molecular mechanisms of neurodegeneration, and the genetic and molecular risk factors for Alzheimer's disease. More recently, he has been involved in several basic and clinical studies including neuronal structural plasticity, drug development in oncology and pharmacogenomics.

**Brescia Jan 29<sup>th</sup>, 2019**



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Maurizio Memo

## List of the most cited papers (Scopus)

Grilli, M., Pizzi, M., Memo, M., Spano, P.

Neuroprotection by aspirin and sodium salicylate through blockade of NF- $\kappa$ B activation  
(1996) *Science*, 274 (5291), pp. 1383-1385. Cited 711 times.

Sánchez-Danés, A., Richaud-Patin, Y., Carballo-Carbajal, I., Jiménez-Delgado, S., Caig, C., Mora, S., Di Guglielmo, C., Ezquerra, M., Patel, B., Giralt, A., Canals, J.M., Memo, M., Alberch, J., López-Barneo, J., Vila, M., Cuervo, A.M., Tolosa, E., Consiglio, A., Raya, A.

Disease-specific phenotypes in dopamine neurons from human iPS-based models of genetic and sporadic Parkinson's disease  
(2012) *EMBO Molecular Medicine*, 4 (5), pp. 380-395. Cited 275 times.

Copani, A., Uberti, D., Sortino, M.A., Bruno, V., Nicoletti, F., Memo, M.

Activation of cell-cycle-associated proteins in neuronal death: A mandatory or dispensable path?  
(2001) *Trends in Neurosciences*, 24 (1), pp. 25-31. Cited 199 times.

Grilli, M., Memo, M.

Nuclear factor- $\kappa$ B/Rel proteins: A point of convergence of signalling pathways relevant in neuronal function and dysfunction  
(1999) *Biochemical Pharmacology*, 57 (1), pp. 1-7. Cited 152 times.

Grilli, M., Goffi, F., Memo, M., Spano, P.

Interleukin-1 $\beta$  and glutamate activate the NF- $\kappa$ B/Rel binding site from the regulatory region of the amyloid precursor protein gene in primary neuronal cultures  
(1996) *Journal of Biological Chemistry*, 271 (25), pp. 15002-15007. Cited 122 times.

Perluigi, M., Sultana, R., Cenini, G., Di Domenico, F., Memo, M., Pierce, W.M., Coccia, R., Butterfield, D.A.

Redox proteomics identification of 4-hydroxynonenal-modified brain proteins in Alzheimer's disease: Role of lipid peroxidation in Alzheimer's disease pathogenesis  
(2009) *Proteomics - Clinical Applications*, 3 (6), pp. 682-693. Cited 117 times.

Grilli, M., Memo, M.

Possible role of NF- $\kappa$ B and p53 in the glutamate-induced pro-apoptotic neuronal pathway  
(1999) *Cell Death and Differentiation*, 6 (1), pp. 22-27. Cited 100 times.

Pizzi, M., Fallacara, C., Arrighi, V., Memo, M., Spano, P.

Attenuation of Excitatory Amino Acid Toxicity by Metabotropic Glutamate Receptor Agonists and Aniracetam in Primary Cultures of Cerebellar Granule Cells  
(1993) *Journal of Neurochemistry*, 61 (2), pp. 683-689. Cited 99 times.

Denis-Donini, S., Dellarole, A., Crociara, P., Francese, M.T., Bortolotto, V., Quadrato, G., Canonico, P.L., Orsetti, M., Ghi, P., Memo, M., Bonini, S.A., Ferrari-Toninelli, G., Grilli, M.

Impaired adult neurogenesis associated with short-term memory defects in NF- $\kappa$ B p50-deficient mice  
(2008) *Journal of Neuroscience*, 28 (15), pp. 3911-3919. Cited 96 times.

Valerio, A., Paterlini, M., Boifava, M., Memo, M., Spano, P.

Metabotropic glutamate receptor mRNA expression in rat spinal cord  
(1997) *NeuroReport*, 8 (12), pp. 2695-2699. Cited 89 times.

Bovolin, P., Santi, M.-R., Memo, M., Costa, E., Grayson, D.R.

Distinct Developmental Patterns of Expression of Rat  $\alpha$ 1,  $\alpha$ 5,  $\gamma$ 2S, and 2L GABA-A Receptor Subunit mRNAs In Vivo and In Vitro  
(1992) *Journal of Neurochemistry*, 59 (1), pp. 62-72. Cited 83 times.

Memo, M., Kleinman, J.E., Hanbauer, I.

Coupling of dopamine D1 recognition sites with adenylate cyclase in nuclei accumbens and caudatus of schizophrenics  
(1983) *Science*, 221 (4617), pp. 1304-1307. Cited 78 times.

## List of the most recent papers (last 2 years by Scopus)

1: Rungratanawanich W, Memo M, Uberti D.

Redox Homeostasis and Natural Dietary Compounds: Focusing on Antioxidants of Rice (*Oryza sativa* L.).  
Nutrients. 2018 Nov 1;10(11). pii: E1605. doi: 10.3390/nu10111605. Review.

2: Fragni M, Fiorentini C, Rossini E, Fisogni S, Vezzoli S, Bonini SA, Dalmiglio C, Grisanti S, Tiberio GAM, Claps M, Cosentini D, Salvi V, Bosisio D, Terzolo M, Missale C, Facchetti F, Memo M, Berruti A, Sigala S.

In vitro antitumor activity of progesterone in human adrenocortical carcinoma.

Endocrine. 2018 Oct 26. doi:10.1007/s12020-018-1795-x.

3: Tramutola A, Abate G, Lanzillotta C, Triani F, Barone E, Iavarone F, Vincenzoni F, Castagnola M, Marziano M, Memo M, Garrafa E, Butterfield DA, Perluigi M, Di Domenico F, Uberti D.

Protein nitration profile of CD3(+) lymphocytes from Alzheimer disease patients: Novel hints on immunosenescence and biomarker detection.

Free Radic Biol Med. 2018 Dec;129:430-439. doi:10.1016/j.freeradbiomed.2018.10.414.

4: Bonini SA, Premoli M, Tambaro S, Kumar A, Maccarinelli G, Memo M, Mastinu A.

Cannabis sativa: A comprehensive ethnopharmacological review of a medicinal plant with a long history.

J Ethnopharmacol. 2018 Dec 5;227:300-315. doi: 10.1016/j.jep.2018.09.004.

5: Dungen HD, Petroni R, Correale M, Coiro S, Monitillo F, Triggiani M, Leone M, Antohi EL, Ishihara S, Sarwar CMS, Sabbah HN, Memo M, Metra M, Butler J, Nodari S, Gheorghide M.

A new educational program in heart failure drug development: the Brescia international master program.

J Cardiovasc Med (Hagerstown). 2018 Aug;19(8):411-421. doi: 10.2459/JCM.0000000000000669.

6: Bettinsoli P, Ferrari-Toninelli G, Bonini SA, Guarienti M, Cangelosi D, Varesio L, Memo M.

Favorable prognostic role of tropomodulins in neuroblastoma.

Oncotarget. 2018 Jun 5;9(43):27092-27103. doi: 10.18632/oncotarget.25491.

7: Rungratanawanich W, Abate G, Serafini MM, Guarienti M, Catanzaro M, Marziano M, Memo M, Lanni C, Uberti D.  
Characterization of the Antioxidant Effects of  $\gamma$ -Oryzanol: Involvement of the Nrf2 Pathway.

Oxid Med Cell Longev. 2018 Mar 14;2018:2987249. doi: 10.1155/2018/2987249.

8: Mastinu A, Premoli M, Ferrari-Toninelli G, Tambaro S, Maccarinelli G, Memo M, Bonini SA.

Cannabinoids in health and disease: pharmacological potential in metabolic syndrome and neuroinflammation.

Horm Mol Biol Clin Investig. 2018 Mar 30. pii: /j/hmbci.ahead-of-print/hmbci-2018-0013/hmbci-2018-0013.xml. doi: 10.1515/hmbci-2018-0013.

9: Mastinu A, Premoli M, Maccarinelli G, Grilli M, Memo M, Bonini SA.

Melanocortin 4 receptor stimulation improves social deficits in mice through oxytocin pathway.

Neuropharmacology. 2018 May 1;133:366-374. doi: 10.1016/j.neuropharm.2018.02.007.

10: Basnet RM, Zizioli D, Guarienti M, Finazzi D, Memo M.

Methylxanthines induce structural and functional alterations of the cardiac system in zebrafish embryos.

BMC Pharmacol Toxicol. 2017 Nov 15;18(1):72. doi: 10.1186/s40360-017-0179-9.

11: Mazziotti G, Formenti AM, Frara S, Olivetti R, Banfi G, Memo M, Maroldi R, Giubbini R, Giustina A.

High Prevalence of Radiological Vertebral Fractures in Women on Thyroid-Stimulating Hormone-Suppressive Therapy for Thyroid Carcinoma. J Clin Endocrinol Metab. 2018 Mar 1;103(3):956-964. doi: 10.1210/jc.2017-01986.

12: Bonini SA, Mastinu A, Ferrari-Toninelli G, Memo M.

Potential Role of Microtubule Stabilizing Agents in Neurodevelopmental Disorders.

Int J Mol Sci. 2017 Jul 26;18(8). pii: E1627. doi: 10.3390/ijms18081627. Review.

13: Mazzeo G, Cimmino A, Masi M, Longhi G, Maddau L, Memo M, Evidente A, Abbate S.

Importance and Difficulties in the Use of Chiroptical Methods to Assign the Absolute Configuration of Natural Products: The Case of Phytotoxic Pyrones and Furanones Produced by *Diplodia corticola*.

J Nat Prod. 2017 Sep 22;80(9):2406-2415. doi: 10.1021/acs.jnatprod.7b00119.

- 14: Bedussi F, Galli D, Fragni M, Valcamonico F, Rossini E, Dalla Volta A, Vezzoli S, Roca E, Ferrari V, Lazzari B, Memo M, Sigala S, Berruti A. Amiloride Is Effective in the Management of Abiraterone-Induced Mineralocorticoid Excess Syndrome without Interfering with Its Antineoplastic Activity. *Pharmacology*. 2017;100(5-6):261-268. doi: 10.1159/000477547.
- 15: Sereni MI, Baldelli E, Gambarà G, Ravaggi A, Hodge KA, Alberts DS, Guillen-Rodriguez JM, Dong T, Memo M, Odicino F, Angioli R, Liotta LA, Pecorelli SL, Petricoin EF, Pierobon M. Kinase-driven metabolic signalling as a predictor of response to carboplatin-paclitaxel adjuvant treatment in advanced ovarian cancers. *Br J Cancer*. 2017 Aug 8;117(4):494-502. doi: 10.1038/bjc.2017.195.
- 16: Gaudissard J, Ginger M, Premoli M, Memo M, Frick A, Pietropaolo S. Behavioral abnormalities in the Fmr1-KO2 mouse model of fragile X syndrome: The relevance of early life phases. *Autism Res*. 2017 Oct;10(10):1584-1596. doi: 10.1002/aur.1814.
- 17: Bettinsoli P, Ferrari-Toninelli G, Bonini SA, Prandelli C, Memo M. Notch ligand Delta-like 1 as a novel molecular target in childhood neuroblastoma. *BMC Cancer*. 2017 May 19;17(1):352. doi: 10.1186/s12885-017-3340-3.
- 18: Basnet RM, Guarienti M, Memo M. Zebrafish Embryo as an In Vivo Model for Behavioral and Pharmacological Characterization of Methylxanthine Drugs. *Int J of Sci*. 2017 Mar 9;18(3). pii: E596. doi: 10.3390/ijms18030596.
- 19: Fiorentini C, Fragni M, Tiberio GAM, Galli D, Roca E, Salvi V, Bosisio D, Missale C, Terzolo M, Memo M, Berruti A, Sigala S. Palbociclib inhibits proliferation of human adrenocortical tumor cells. *Endocrine*. 2018 Jan;59(1):213-217. doi: 10.1007/s12020-017-1270-0.
- 20: Ingrassia R, Memo M, Garavaglia B. Ferrous Iron Up-regulation in Fibroblasts of Patients with Beta Propeller Protein-Associated Neurodegeneration (BPAN). *Front Genet*. 2017 Feb 17;8:18. doi: 10.3389/fgene.2017.00018.
- 21: Mora C, Serzanti M, Consiglio A, Memo M, Dell'Era P. Clinical potentials of human pluripotent stem cells. *Cell Biol Toxicol*. 2017 Aug;33(4):351-360. doi: 10.1007/s10565-017-9384-y. Epub 2017 Feb 8. Review. PubMed PMID: 28176010.
- 22: Abate G, Marziano M, Rungratanawanich W, Memo M, Uberti D. Nutrition and AGE-ing: Focusing on Alzheimer's Disease. *Oxid Med Cell Longev*. 2017;2017:7039816. doi: 10.1155/2017/7039816. Epub 2017 Jan 12. Review. PubMed
- 23: Rossi D, Nasti R, Collina S, Mazzeo G, Ghidinelli S, Longhi G, Memo M, Abbate S. The role of chirality in a set of key intermediates of pharmaceutical interest, 3-aryl-substituted- $\gamma$ -butyrolactones, evidenced by chiral HPLC separation and by chiroptical spectroscopies. *J Pharm Biomed Anal*. 2017 Sep 10;144:41-51. doi: 10.1016/j.jpba.2017.01.007.
- 24: Arce-Varas N, Abate G, Prandelli C, Martínez C, Cuetos F, Menéndez M, Marziano M, Cabrera-García D, Fernández-Sánchez MT, Novelli A, Memo M, Uberti D. Comparison of Extracellular and Intracellular Blood Compartments Highlights Redox Alterations in Alzheimer's and Mild Cognitive Impairment Patients. *Curr Alzheimer Res*. 2017;14(1):112-122.