# ELENA TAMAGNO

Born in Turin (Italy), July 14, 1967.

INSTITUTIONS
Dipartimento di Neuroscienze, Università di Torino; Neuroscience Institute Cavalieri Ottolenghi (NICO);
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1990. Doctor in Biology. University of Turin, Turin, Italy
1994 Specialization on Clinical Pathology. University of Turin, Turin, Italy.
1998 PhD in Hepatological Sciences at University of Modena. Thesis: Study of the transcription factor AP-1 in a model of hepatocellular damage mediated by pro-oxidant agents".
1998-2003 Technician at Department of Experimental Medicine and Oncology, University of Turin.
2004-today Researcher of the Faculty of Medicine and Surgery.

SCIENTIFIC COLLABORATIONS**:**

-Prof. Massimo Tabaton, Department of Internal Medicine, Unit of Geriatric Medicine, University of Genoa, Genoa, Italy
-Prof. Giuseppe Poli, Department of Clinical and Biological Sciences, University of Turin, Turin, Italy.
-Dr. Julien Puyal, Department of Fundamental Neurosciences, University of Lausanne, Lausanne, Switzerland.
-Prof. Ottavio Arancio, Department of Pathology and Cell Biology, Taub Institute for Research on Alzheimer's Disease and the Aging Brain, Columbia University, New York, USAù
-Prof. Luciano D'Adamio, Department of Microbiology and Immunology. Albert Einsten College of Medicine of Yeshiva University, New York, USA.

TRAINING AND ABROAD EXPERIENCE

2006: Fellow visiting at the Albert Einstein College of Medicine, New York, USA. 2 months training on the technique of the primary neuronal cultures.
Supervisors. Prof. Luciano D'Adamio.

ACADEMIC TEACHING ACTIVITIES

2006- today Course of Immunology, Faculty of Science in Nursing at the University of Turin, Turin.
2006- 2010. Course of Immunology, Faculty of Science in Nursing at the University of Turin, Cuneo.
2006- today Course of General Pathology, Faculty of Radiotherapy at the University of Turin, Cuneo.
2008- 2011 Course of Immunology, Faculty of Science in Nursing at the University of Turin, Ivrea.
2010-today Course of Fisiopathology, Faculty of Biomedical Laboratory Tecniques, University of Turin, Cuneo.
2014-today Course of General Pathology, Faculty of Neurophisiopathology, U/niversity of Turin Turin.

RESEARCH

I am currently working as Researcher at the Turin University, in Neuroscience Institute of Cavalieri Ottolenghi Foundation (NICO). In the last ten year, I have been investigated some of the potential mechanisms that could mediate the up-regulation of β-secretase (BACE1), the key enzyme involved in the pathogenesis of Alzheimers Disease (AD). Our research has been focused on the role of oxidative stress and on the pathogenic effects of oxidative stress-related risk factors predisposing to the development of AD. Recently, we focused our attention on the different states of aggregation of β amyloid and the respective effect on the induction of oxidative stress, apoptosis and autophagy. Very, recently, results on this last topic have been published on Autophagy (Guglielmotto et al., 2014). I attended more than 30 national and international conferences giving both poster and oral presentation. I have been referee for peer-reviewed journals.
H index (scopus) = 27. Total Citations: 2426 Total IF 264,61

**PUBLICATIONS 2005-today**

1) Klionsky DJ et al. (2016) Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition) Autoiphagy 12:1-122. IF= 11.753; R=15/184; Times cited= 4

2) Guglielmotto M, Monteleone D, Piras A, Valsecchi V, Tropiano M, Ariano S, Fornaro M, Vercelli A, Puyal J, Arancio O, Tabaton M, Tamagno E. (2014) Aβ1-42 monomers or oligomers have different effects on autophagy and apoptosis. Autophagy. 10 :1827-1843. IF= 11.753; R=15/184; Times cited= 3

3) Gamba P, Guglielmotto M, Testa G, Monteleone D, Zerbinati C, Gargiulo S, Biasi F, Iuliano L, Giaccone G, Mauro A, Poli G, Tamagno E, Leonarduzzi G. (2014) Up-regulation of β-amyloidogenesis in neuron-like human cells by both 24- and 27-hydroxycholesterol: protective effect of N-acetyl-cysteine. Aging Cell. 13:561-72. IF= 6,34; R=2/50; 36/184; Times cited= 13

4) Tamagno E, Guglielmotto M, Monteleone D, Vercelli A, Tabaton M. (2012) Transcriptional and post-transcriptional regulation of β-secretase. IUBMB Life. 64:943-950. IF= 3,143; R= 115/290; 102/184; Times cited= 7

5) Guglielmotto M, Monteleone D, Boido M, Piras A, Giliberto L, Borghi R, Vercelli A, Fornaro M, Tabaton M, Tamagno E. (2012) Aβ1-42-mediated down-regulation of Uch-L1 is dependent on NF-κB activation and impaired BACE1 lysosomal degradation. Aging Cell. 11:834-844. IF= 6,34; R= 2/50; 36/184; Times cited= 14

6) Piccini A, Borghi R, Guglielmotto M, Tamagno E, Cirmena G, Garuti A, Pollero V, Cammarata S, Fornaro M, Messa M, Colombo L, Salmona M, Perry G, Tabaton M. (2012) β-amyloid 1-42 induces physiological transcriptional regulation of BACE1. J Neurochem. 122:1023-1031. IF=4,281; R= 72/290; 56/252; Times cited= 11

7) Tamagno E, Guglielmotto M, Monteleone D, Tabaton M. (2012) Amyloid-β production: major link between oxidative stress and BACE1. Neurotox Res. 22(3):208-219. IF= 3,538; R= 90/252; Times cited= 20

8) Guglielmotto M, Monteleone D, Giliberto L, Fornaro M, Borghi R, Tamagno E, Tabaton M. (2011) Amyloid-$\beta_{42}$ activates the expression of BACE1 through the JNK pathway. J Alzheimers 27:871-883. IF=4,151; R= 58/252; Times cited= 16

9) Mastrocola R, Guglielmotto M, Medana C, Catalano MG, Cutrupi S, Borghi R, Tamagno E, Boccuzzi G, Aragno M. (2011) Dysregulation of SREBP2 induces BACE1 expression. Neurobiol Dis. 44:116-124. IF= 5,013; R= 4/50; 42/252; Times cited= 8

10) Gamba P, Leonarduzzi G, Tamagno E, Guglielmotto M, Testa G, Sottero B, Gargiulo S, Biasi F, Mauro A, Viña J, Poli G. (2011) Interaction between 24-hydroxycholesterol, oxidative stress, and amyloid-β in amplifying neuronal damage in Alzheimer's disease: three partners in crime. Aging Cell. 10:403-417. IF=6,34; R=2/50; 36/184; Times cited= 28

11) Novo E, Busletta C, Bonzo LV, Povero D, Paternostro C, Mareschi K, Ferrero I, David E, Bertolani C, Caligiuri A, Cannito S, Tamagno E, Compagnone A, Colombatto S, Marra F, Fagioli F, Pinzani M, Parola M. (2011) Intracellular reactive oxygen species are required for directional migration of resident and bone marrow-derived hepatic pro-fibrogenic cells. J Hepatol. 54:964-974. IF= 11,336; R= 4/76; Times cited= 32

12) Borghi R, Piccini A, Barini E, Cirmena G, Guglielmotto M, Tamagno E, Fornaro M, Perry G, Smith MA, Garuti A, Tabaton M. (2010) Upregulation of presenilin 1 in brains of sporadic, late-onset Alzheimer's disease. J Alzheimers Dis. 22:771-775. IF=4,151; R= 58/252; Times cited= 7

13) Guglielmotto M, Aragno M, Tamagno E, Vercellinatto I, Visentin S, Medana C, Catalano MG, Smith MA, Perry G, Danni O, Boccuzzi G, Tabaton M. (2010) AGEs/RAGE complex upregulates BACE1 via NF-κB pathway activation. Neurobiol Aging. 33:196.e13-27. IF= 5,013; R= 4/50; 42/252; Times cited= 8

14) Guglielmotto M, Giliberto L, Tamagno E, Tabaton M. (2010) Oxidative stress mediates the pathogenic effect of different Alzheimer's disease risk factors. Front Aging Neurosci. 9;2:3. IF= 4,725 ; R= 8/50; 66/252; Times cited= 40

15) Guglielmotto M, Tamagno E, Danni O. (2009) Oxidative stress and hypoxia contribute to Alzheimer's disease pathogenesis: two sides of the same coin. ScientificWorldJournal. 9:781-791. IF= 1,301; R= 13/59 Times cited= 29

16) Giliberto L, Borghi R, Piccini A, Mangerini R, Sorbi S, Cirmena G, Garuti A, Ghetti B, Tagliavini F, Mughal MR, Mattson MP, Zhu X, Wang X, Guglielmotto M, Tamagno E, Tabaton M. (2009) Mutant presenilin 1 increases the expression and activity of BACE1. J Biol Chem. 284:9027-9038. IF= 4,693; R= 61/290; Times cited= 29

17) Guglielmotto M, Aragno M, Autelli R, Giliberto L, Novo E, Colombatto S, Danni O, Parola M, Smith MA, Perry G, Tamagno E, Tabaton M. (2009) The up-regulation of BACE1 mediated by hypoxia and ischemic injury: role of oxidative stress and HIF1alpha. J Neurochem. 108:1045-1056. IF= 3,974; R= 72/290; 56/252; Times cited= 106

18) Tamagno E, Guglielmotto M, Giliberto L, Vitali A, Borghi R, Autelli R, Danni O, Tabaton M. (2009) JNK and ERK1/2 pathways have a dual opposite effect on the expression of BACE1. Neurobiol Aging. 30:1563-1573. IF= 5,224; R= 4/50; 42/252; Times cited= 41

19) Giliberto L, Zhou D, Weldon R, Tamagno E, De Luca P, Tabaton M, D'Adamio L. (2008) Evidence that the Amyloid beta Precursor Protein-intracellular domain lowers the stress threshold of neurons and has a "regulated" transcriptional role. Mol Neurodegener. 3:12. IF= 5,709; R= 23/252; Times cited= 38

20) Tamagno E, Guglielmotto M, Aragno M, Borghi R, Autelli R, Giliberto L, Muraca G, Danni O, Zhu X, Smith MA, Perry G, Jo DG, Mattson MP, Tabaton M. (2008) Oxidative stress activates a positive feedback between

the gamma- and beta-secretase cleavages of the beta-amyloid precursor protein. J Neurochem. 104:683-695. IF= 3,974; R= 72/290; 56/252; Times cited= 186

21) Tabaton M, Tamagno E. (2007) The molecular link between beta- and gamma-secretase activity on the amyloid beta precursor protein. Cell Mol Life Sci. 64:2211-2218. IF= 6,005; R= 37/290; 40/184; Times cited= 35

22) Tamagno E, Bardini P, Guglielmotto M, Danni O, Tabaton M. (2006) The various aggregation states of beta-amyloid 1-42 mediate different effects on oxidative stress, neurodegeneration, and BACE-1 expression. Free Radic Biol Med. 41:202-212. IF= 5,885; R= 40/290; 16/128; Times cited= 75

23) Strocchi P, Smith MA, Perry G, Tamagno E, Danni O, Pession A, Gaiba A, Dozza B. (2006) Clusterin up-regulation following sub-lethal oxidative stress and lipid peroxidation in human neuroblastoma cells. Neurobiol Aging. 27:1588-1594. IF= 5,224; R= 4/50; 42/252; Times cited= 17

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25) Laurora S, Tamagno E, Briatore F, Bardini P, Pizzimenti S, Toaldo C, Reffo P, Costelli P, Dianzani MU, Danni O, Barrera G. (2005) 4-Hydroxynonenal modulation of p53 family gene expression in the SK-N-BE neuroblastoma cell line. Free Radic Biol Med. 38:215-225. IF= 5,855; R= 40/290; 16/128; Times cited= 38