

BIOGRAPHICAL SKETCH

NAME: Samanta Mazzetti, PhD

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: PhD researcher

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 Milan, Milan, Italy	Master degree in Biological Sciences (104/110)	07/2000	Neuroanatomy
University of Pavia, Pavia, Italy	Master in Microscopic analysis techniques in Biology	12/2001	Microscopy
University of Pavia, Pavia, Italy	PhD in Cellular and Molecular Biology	03/2003	Brain Inflammation
University of Milan, Milan, Italy	Postdoctoral research with Prof. Laura Vitellaro-Zuccarello	06/2006	Spinal cord trauma
Foundation IRCCS Neurological Institute C. Besta	Continual Coordinate Collaboration with C. Besta Neurologic Institute with SD Fabrizio Tagliavini	04/2015	Neuropathology
University of Milan, Milan, Italy	Limited contract with Fondazione Grigioni per il morbo di Parkinson	5/2015	Neuropathology and Parkinsonisms
University of Milan, Milan, Italy	Unlimited contract with Fondazione Grigioni per il morbo di Parkinson	12/2023	Neuropathology and Parkinsonisms
Foundation IRCCS Neurological Institute C. Besta	Limited contract (5 years)	01/2024	Movement disorders unit (neurologia 1)

A. Personal Statement

In my career I have co-authored 25 publications, almost all as first, last or corresponding author (total citations 589, H-index 13, FWCI 1.49). I have a long and passionate experience in neuroanatomy, microscopy and

neuropathology that arised since my master student thesis. During my PhD, I was involved in the study of two important elements in brain inflammation: the molecular anatomy of the blood brain barrier (Mazzetti S. et al. Brain Res 999:81-90, 2004 and Mazzetti S. et al. Eur J Histochem 48(4):423-428, 2004) and its interaction with leucocytes (Mazzetti S. et al. Neuroscience137(4):1211-9, 2006). During my postdoctoral research I consolidated my experience in neuroanatomy also using advanced microscopy techniques (electron microscopy, confocal and super resolution microscopy). My short period (2 years) at Besta Institute was of great importance for acquiring the neuropathological expertise and to improve my personal interest on clinical study (Annovazzi et al., Oncology letters15: 998-1006, 2018) with the important contribution of my training by Scientific Director Fabrizio Tagliavini,

MD Giorgio Giaccone, Prof. Davide Schiffer and MD Bianca Pollo. Thanks also to the commitment of Prof. Gianni Pezzoli, my interest about application of basic research to clinical aspect continued on the actual field of study, which is focused on Parkinsonisms with the collaboration of university of Milan (Prof. Graziella Cappelletti Department of Biosciences, Milan, Italy) Besta Institute (MD Giorgio Giaccone), Niguarda hospital (MD Emanuela Bramerio) and Parkinson's institute (Prof. Gianni Pezzoli). On this field, I have recently published two original papers as a first author: the first is focused on alpha-Synuclein oligomers in skin biopsy of Parkinson's disease patients (Mazzetti et al., 2020, Brain 143(3): 920-931), the second is focused on acetylated-alpha tubulin and alpha-synuclein aggregation in post-mortem human brains (Mazzetti et al., 2024, NPJ 10(1): 2).

B. Positions and Honors

01/2024-now Limited contract (5 years) with Foundation IRCCS Neurological Institute C. Besta

06/2016-12/2023 Unlimited contract with Fondazione Grigioni per il morbo di Parkinson to work with Prof. Graziella Cappelletti at University of Milan, Department of Biosciences, Milan, Italy.

08/2013-04/2015 Continual Coordinate Collaboration with Foundation IRCCS Neurological Institute C. Besta with SD Fabrizio Tagliavini.

C. Peer-reviewed Publications

Most relevant in the current application

1. **Mazzetti, S**, Giampietro, F, Calogero, AM, Isilgan, HB, Gagliardi, G, Rolando, C, Cantele, F, Ascagni, M., Bramerio, M, Giaccone, G, Isaias, IU, Pezzoli, G, Cappelletti, G Linking acetylated α -Tubulin redistribution to α -Synuclein pathology in brain of Parkinson's disease patients (2024) npj Parkinson's Disease, 10 (1): 2.
2. Prymaczok NC, De Francesco PN, Mazzetti S, Humbert-Claude M, Tenenbaum L, Cappelletti G, Masliah E, Perello M, Riek R, Gerez JA. Cell-to-cell transmitted alpha-synuclein recapitulates experimental Parkinson's disease. NPJ Parkinsons Dis. 2024 Jan 6;10(1):10.
3. **Mazzetti S**, Contaldi E, Basellini MJ, Novello C, Calogero AM, Straniero L, Garri F, Ferri V, Calandrella D, Del Sorbo F, Asselta R, Cereda E, Cappelletti G, Isaias IU, Pezzoli G. Comparing GBA1-Parkinson's disease and idiopathic Parkinson's disease: α -Synuclein oligomers and synaptic density as biomarkers in the skin biopsy. Brain Pathol. 2024 Nov;34(6):e13284. doi: 10.1111/bpa.13284. Epub 2024 Sep 1. PMID: 39219308; PMCID: PMC11483590.
4. **Mazzetti S**, Calogero AM, Pezzoli G, Cappelletti G. *Cross-talk between α -Synuclein and the microtubule cytoskeleton in neurodegeneration*. Exp Neurol. 2023 Jan;359:114251.
5. **Mazzetti S***, Barichella M*, Giampietro F*, Giana A., Calogero AM., Amadeo A., Palazzi N., Comincini A., Giaccone G., Bramerio M., Caronni S., Cereda V., Cereda E., Cappelletti G*, Rolando C*, Pezzoli G*. *Astrocytes expressing Vitamin D-activating enzyme identify Parkinson's disease*, CNS Neurosci Ther, accepted in May 2022.

6. Amadeo A, Pizzi S, Comincini A, Modena D, Calogero AM, Madaschi L, Faustini G, Rolando C, Bellucci A, Pezzoli G, **Mazzetti S.***, Cappelletti G.* *The Association between α -Synuclein and α -Tubulin in Brain Synapses*. Int J Mol Sci. 2021 Aug 25;22(17):9153.
7. Salemi M.*, **Mazzetti S.***, De Leonardis M., Giampietro F., Medici V., Poloni T.E., Cannarella R., Giaccone G., Pezzoli G., Cappelletti G.*, Ferri R.* *Poly (ADP-ribose) polymerase 1 and Parkinson's disease: a study in post-mortem human brain*, Neurochem int, accepted January 2021.
8. **Mazzetti S.**, De Leonardis M., Gagliardi G., Calogero A.M.E., Basellini M.J., Madaschi L., Costa I., Cacciatore F., Spinello S., Bramerio M., Cilia R., Rolando C., Giaccone G., Pezzoli G., Cappelletti G., **2020**. *Phospho-HDAC6 Gathers Into Protein Aggregates in Parkinson's Disease and Atypical Parkinsonisms*, Frontiers Neurosci, 14:624.
9. **Mazzetti S.**, Basellini M.J., Ferri V., Cassani E., Cereda E., Paolini M., Calogero A.M., Bolliri C., De Leonardis M., Sacilotto G., Cilia R., Cappelletti G., Pezzoli G. 2020. *α -Synuclein oligomers in skin biopsy of idiopathic and monozygotic twin patients with Parkinson's disease*. Brain 143(3): 920-931.
10. Calogero A.M., **Mazzetti S.**, Pezzoli G., Cappelletti G. 2019. *Neuronal microtubules and proteins linked to Parkinson's disease: a relevant interaction?* Biol Chem 400 (9): 1099-1112.
11. Annovazzi L., Mellai M., Bovio E., **Mazzetti S.**, Pollo B., Schiffer D. 2018 *Microglia immunophenotyping in gliomas*. Oncology letters15: 998-1006.
12. **Mazzetti S.**, Ortino B., Inverardi F., Frassoni C., Amadeo A. 2007 *PSA-NCAM in the developing and mature thalamus*. Brain Res Bull. 71(6):578-86.
13. Vitellaro-Zuccarello L., **Mazzetti S.**, Madaschi L., Bosisio P., Gorio A., De Biasi S. 2007 *Erythropoietin-mediated preservation of the white matter in rat spinal cord injury*. Neuroscience 144(3):865-77.
14. Vitellaro-Zuccarello L., **Mazzetti S.**, Bosisio P., Monti C., De Biasi S. 2005 *Distribution of aquaporin 4 in rodent spinal cord: relationship with astrocyte markers and chondroitin sulfate proteoglycans*. GLIA 51:148159.

*the authors equally contributed to the work.