



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 5778

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di Scienze Biomediche Chirurgiche e Odontoiatriche.  
Scientist- in - charge: Prof.ssa Daniela Galimberti.

**MARIA TERESA GOLIA**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	GOLIA
Name	MARIA TERESA

### PRESENT OCCUPATION

Appointment	Structure
Postdoc researcher	

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Neurobiology	SAPIENZA University of Rome	2015
PhD	Clinical and Experimental Neuroscience and Psychiatry curriculum Neurophysiology	SAPIENZA University of Rome	2020

### FOREIGN LANGUAGES

Languages	level of knowledge
English	B1

### AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2017	Progetti per avvio alla ricerca – Tipo 1, SAPIENZA University of Rome
2018	Progetti per avvio alla ricerca – Tipo 1, SAPIENZA University of Rome
2019	Progetti per avvio alla ricerca – Tipo 1, SAPIENZA University of Rome



## RESEARCH ACTIVITY

Year	Research activity
2022	Postdoc researcher at CNR Institute of Neuroscience in Dr Verderio's lab Main activity: Immunocytochemical techniques and confocal microscopy for image collection in different projects. The main ones investigate i) the role of senescent microglia-derived extracellular vesicles in mediating senescent traits and ii) synaptic pruning deficits in C9ORF72 knock-out mouse model.
2020-2022	Postdoc researcher at CNR Institute of Neuroscience in Dr Verderio's lab Main activity: Concentration and size measurements of extracellular vesicles isolated from biological fluids and supernatant of cell cultures taking advantage of Tunable Resistive Pulse Sensing and Nanoparticle Tracking Analysis techniques. Evaluation of EVs cellular origin by Western blotting.
2016-2019	PhD student at La Sapienza University of Rome in Prof. Limatola's lab under the supervision of Dr. Laura Maggi. Main activity: extracellular electrophysiological recordings on acute hippocampal slices in different projects. The main one investigates the role of microglial cells in modulating hippocampal synaptic plasticity under neuroinflammatory conditions.
2013-2015	Training period for the Master program in Neurobiology at La Sapienza University of Rome in Prof. Limatola's lab under the supervision of Prof. Silvia Di Angelantonio. Main activity: intracellular electrophysiological recordings on neurons and microglia in different projects. The main one regards analyses of potassium channels in the different microglial phenotypes.

## CONGRESSES AND SEMINARS

Date	Title	Place
17 October 2016	International workshop 'Gene targeting and new Frontiers in Neuroscience'	European Brain Research Institute (Rome)
26-27 January 2017	First Annual Scientific Meeting of SynaNet Project - Neurologic and Psychiatric Disorders: from synapses to networks	Lisbon
19 April 2017	International Workshop on "Navigation" in Memory of Rita Levi-Montalcini	European Brain Research Institute (Rome).
17-18 January 2018	2nd Annual Meeting of SynaNet Project - Neurologic and Psychiatric Disorders: the fundamental research perspective	Lisbon
18-21 March 2018	EMBO Workshop: MICROGLIA 2018	Heidelberg
11-15 June 2018	SynaNet 2018 Summer School: "Signals from the Brain"	Rome
20-22 September 2021	2nd Evita Symposium	Lucca



15-17 December 2022	III edition MORE THAN NEURONS	Turin
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## PUBLICATIONS

Articles in reviews
Minocycline treatment improves cognitive and functional plasticity in a preclinical mouse model of major depressive disorder. <i>Behav Brain Res.</i> 2023 Mar 12; 441:114295. Poggini S, Lopez MB, Albanese NC, <u>Golia MT</u> , Ibáñez FG, Limatola C, Furhmann M, Lalowski M, Tremblay ME, Maggi L, Kaminska B, Branchi I. DOI: 10.1016/j.bbr.2023.114295
Plasma microglial-derived extracellular vesicles are increased in frail patients with Mild Cognitive Impairment and exert a neurotoxic effect. <i>GeroScience</i> 2023 Feb 1. Visconte C, <u>Golia MT</u> , Fenoglio C, Serpente M, Gabrielli M, Arcaro M, Sorrentino F, Busnelli M, Arighi A, Fumagalli G, Rotondo E, Rossi P, Arosio B, Scarpini E, Verderio C, Galimbert D. DOI: 10.1007/s11357-023-00746-0
Microglial diversity along the hippocampal longitudinal axis impacts synaptic plasticity in adult male mice under homeostatic conditions. <i>Journ of Neuroinfl.</i> 2022, 19(1), 292. De Felice E, Gonçalves de Andrade E, <u>Golia MT</u> , González Ibáñez F, Khakpour M, Di Castro MA, Garofalo S, Di Pietro E, Benat C, Brunello N, Tascetta F, Kaminska B, Limatola C, Ragozzino D, Tremblay ME, Alboni S, Maggi L. DOI: 10.1186/s12974-022-02655-z
miR-150-5p and let7b-5p in blood myeloid extracellular vesicles track cognitive symptoms in patients with multiple sclerosis. <i>Cells</i> 2022 May 5;11(9):1551. Scaroni F, Visconte C, Serpente M, <u>Golia MT</u> , Gabrielli M, Huiskamp M, Hulst HE, Carandini T, De Riz M, Pietroboni A, Rotondo E, Scarpini E, Galimbert D, Teunissen CE, van Dam M, de Jong BA., Fenoglio C, Verderio C. DOI: 10.3390/cells11091551
Microglia control glutamatergic synapses in the adult mouse hippocampus. <i>Glia.</i> 2022 Jan; 70(1):173-195. Basilico B, Ferrucci L, Ratano P, <u>Golia MT</u> , Grimaldi A, Rosito M, Ferret V, Reverte I, Sanchini C, Marrone MC, Giubetini M, De Turrís V, Salerno D, Garofalo S, St-Pierre MK, Carrier M, Renzi M, Pagani F, Modi B, Raspa M, Scavizzi F, Gross CT, Marinelli S, Tremblay ME, Caprioli D, Maggi L, Limatola C, Di Angelantonio S, Ragozzino D. DOI: 10.1002/glia.24101
Microglia modulate hippocampal synaptic transmission and sleep duration along the light/dark cycle. <i>Glia.</i> 2022 Jan; 70(1):89-105. Corsi G, Picard K, di Castro MA, Garofalo S, Tucci F, Chece G, Del Percio C, <u>Golia MT</u> , Raspa M, Scavizzi F, Decoeur F, Lauro C, Rigamont M, Iannello F, Ragozzino DA, Russo E, Bernardini G, Nadjar A, Tremblay ME, Babiloni C, Maggi L, Limatola C. DOI: 10.1002/glia.24090
Microglial-glucocorticoid receptor depletion alters the response of hippocampal microglia and neurons in a chronic unpredictable mild stress paradigm in female mice. <i>Brain Behav Immun.</i> 2021 Oct; 97:423-439. Picard K, Bisht K, Poggini S, Garofalo S, <u>Golia MT</u> , Basilico B, Abdallah F, Ciano Albanese N, Amrein I, Vernoux N, Sharma K, Hui CW, C Savage J, Limatola C, Ragozzino D, Maggi L, Branchi I, Tremblay ME. DOI: 10.1016/j.bbi.2021.07.022
Selecting antidepressants according to a drug-by-environment interaction: A comparison of fluoxetine and minocycline effects in mice living either in enriched or stressful conditions <i>Behav Brain Res.</i> 2021 Jun 25; 408:113256. Poggini S, Mate Bon G, <u>Golia MT</u> , Ciano Albanese N, Viglione A, Poleggi A, Limatola C, Maggi



L, Branchi I. DOI: 10.1016/j.bbr.2021.113256
Interplay between inflammation and neural plasticity: Both immune activation and suppression impair LTP and BDNF expression. <i>Brain Behav Immun</i> . 2019 Oct; 81:484-494. <u>Golia MT*</u> , Poggini S*, Alboni S, Garofalo S, Ciano Albanese N, Viglione A, Ajmone-Cat MA, StPierre A, Brunello N, Limatola C, Branchi I, Maggi L. DOI: 10.1016/j.bbi.2019.07.003
Combined Fluoxetine and Metformin Treatment Potentiates Antidepressant Efficacy Increasing IGF2 Expression in the Dorsal Hippocampus. <i>Neural Plast</i> . 2019 Jan; 2019:4651031. Poggini S*, <u>Golia MT*</u> , Alboni S, Milior G, Sciarria LP, Viglione A, Mate Bon G, Brunello N, Puglisi-Allegra S, Limatola C, Maggi L, Branchi I. DOI: 10.1155/2019/4651031
KCa3.1 inhibition switches the phenotype of glioma-infiltrating microglia/macrophages. <i>Cell Death Dis</i> . 2016 Apr; 7(4):e2174. Grimaldi A, D'Alessandro G, <u>Golia MT</u> , Grössinger EM, Di Angelantonio S, Ragozzino D, Santoro A, Esposito V, Wulff H, Catalano M, Limatola C. DOI: 10.1038/cddis.2016.73
* Co-authors

## TECHNICAL AND SCIENTIFIC SKILLS

Cell culture: preparation of primary cultures of hippocampal and cortical neurons; preparation of astrocyte cultures and microglial cell isolation and maintenance; maintenance of cell lines.
Microsurgery: brain dissection and isolation of hippocampus, cortex, and other brain regions from adult mice; extraction of hippocampus from rodent embryos (E18) and pups (P0-P2); preparation of brain slices using cryostat and vibratome.
Biochemistry: cell lysis, protein quantification using BCA protein assay and Western blotting technique.
Cell biology: gene overexpression in primary cultured cells using infection (lentivirus) and transfection methods.
Extracellular vesicles: isolation of extracellular vesicles from biological fluids and supernatant of cell cultures; analysis of size and concentration particles with TRPS (tunable resistive pulse sensing) using qNano instrument and by NTA (Nanoparticle Tracking Analysis) using NanoSight instrument.
Immunofluorescence: immunostaining on fixed cultures and free-floating immunohistochemistry.
Confocal Microscopy.
Electrophysiology: patch-clamp recordings (whole-cell configuration, gramicidin perforated patch-clamp) on neuronal and microglial cultures; spontaneous and miniature excitatory and inhibitory postsynaptic current analysis. Extracellular field recordings on hippocampal acute brain slices (measurements of basal responses, long-term potentiation and depression, short-term synaptic plasticity, and input-output relations).
Animal handling.
Data analysis and statistics: a priori statistics for calculation of sample size in animal studies, criterion, and post-hoc statistics; statistical software (SigmaStat, GraphPad Prism and Origin); pCLAMP software for acquisition and analysis of electrophysiological data. Image analysis (ImageJ/Fiji).
Informatic skills: Windows, Android, iOS, Microsoft Office, Med line on PubMed, Internet Explorer, Mozilla Firefox, Google Chrome, Social Networks, EndNote, and Mendeley.



Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: Inverigo, 29/05/2023