

MARCHIOTTO FEDERICA

Curriculum vitae

EDUCATION

Since 2020: PhD SCHOOL –NEUROSCIENCES, BIOMEDICINE and MOVEMENT SCIENCES - Physiology section, Univr

2017- March 2020: INTERNATIONAL MASTER'S DEGREE IN NEUROSCIENCE

University of Trieste – Life Science department

Master's degree (2 years); mark: 110L/110.

A year of internship with professor Luigi Cattaneo, CIMEC of Trento, Italy.

2014-2017: BACHELOR'S DEGREE IN BIOTECHNOLOGIES

University of Verona – Biotechnologies department Bachelor's degree (3 years); mark: 106/110.

A year of internship with professor Mario Rosario Buffelli, University of Verona – Department of Neuroscience, Biomedicine and Movement, Italy.

2007-2012: SCIENTIFIC HIGH SCHOOL

Aleardo Aleardi Institute, Verona (VR), Italy mark: 100L/100.

LABORATORY EXPERIENCE

Since 2020: PhD IN NEUROSCIENCE

Topics: Morphological dendritic plasticity; Microglia/macrophages in Glioblastoma models; Stroke in murine models; Serotonin in Dorsal Raphe Nucleus in 3xTg-AD murine models.

Techniques: transcranial direct current stimulation (tDCS); phototrombotic stroke induction; behavioral tests for anxiety and depression, motor tests. Glioma cells culture, preparation and implantation in mouse. Local Field Potential recordings. Golgi-Cox technique, immunofluorescence analysis, Western Blot.

2019-2020: INTERNSHIP-THESIS MASTER'S DEGREE IN NEUROSCIENCE

Title of the thesis: the contribution of the dorsal and medial premotor cortices to the production of rhythmic movements: a transcranial magnetic stimulation (TMS) study.
Professor Luigi Cattaneo, CIMEC Trento, Italy

Stimulation with an on-line TMS protocol of the dorsal premotor cortex and the supplementary motor cortex whilst volunteers reproduce a previously heard rhythmic sequence. Kinematics' recording of the rhythmic hand movement and consequent analysis of the accuracy, interactions between parameters and velocity.

2016-2017: INTERNSHIP-THESIS BACHELOR'S DREGREE IN BIOTECHNOLOGIES

Title of the thesis: Application of Golgi's technique in the study of dendritic spines' plasticity in pathological murine models.
Professor Mario Rosario Buffelli, Department of Neuroscience, Biomedicine and Movement, University of Verona, Italy.

Study of the hippocampal synaptic plasticity, through the use of Golgi-Cox staining, in 3xTg-AD mice after the administration of agonists and antagonists of glucocorticoids' receptors. Analysis of dendritic spine density between a murine model of Autism and healthy mice in two cortical areas (Analysis for Rovereto's research group).

LANGUAGES

First language Italian

Other languages English

Level: B2

Certificate of University of Cambridge, ESOL Examinations (2011) Verona University course (2015), CLA, level B2

Spanish

Level: B2

Certificate of DELE, Cervantes Institute (2011)

Chinese

Level: 1

HSK Examination, Hanban/Confucius Institute (2012)

Linguistic courses via High School programs in Santa Barbara, California, USA; Harrow House, Swanage, UK.

Stage of Mathematics and Computer Science for high school's students, University of Parma (13-15 June 2011)

SCIENTIFIC ACTIVITY

PAPERS:

Pedrazzoli M., Medelin M., Marchiotto F., Cisterna B., Malatesta M., Buffelli M.: “*An improved and simplified protocol to combine Golgi-Cox staining with immunofluorescence and transmission electron microscopy techniques*”, Neurochemistry International, 2021.

ABSTRACTS:

Pedrazzoli M., Borin M., Antolini M: Marchiotto F., Buffelli M.: “*Role of Glucocorticoids on Dendritic Spine Plasticity during onset and progression of Alzheimer's Disease in 3xTg-AD Mice*” poster #110, Life Science PhD Meeting Innsbruck 2017, Austria

Pedrazzoli M., Borin M., Antolini M: Marchiotto F., Avesani A., Buffelli M.: “*Dissecting the effects of glucocorticoids on dendritic spine plasticity, neurogenesis and inflammation in 3xTg-AD mice hippocampus*” - 68th Congress of Italian Physiology Society, Pavia, Italy.

Pedrazzoli M., Borin M., Antolini M: Marchiotto F., Avesani A., Buffelli M.: “*Evaluation of Glucocorticoids Effects on Dendritic Spine Plasticity, Neurogenesis and Inflammation in 3xTg-AD Mice Hippocampus*” - 17th Congress of Italian Society for Neuroscience, Ischia, Italy

Pedrazzoli M., Borin M., Antolini M: Marchiotto F., Losurdo M., Coco S., Buffelli M.: “*Modulation of dendritic spine plasticity, neuroinflammation and neurogenesis in 3XTG-AD mice hippocampus through glucocorticoid receptors*”. AAT-AD/PD Focus Meeting 2018, Torino, Italy.

Signoriello E., Marchiotto F., Lega C., Cattaneo L.: “*A study of the rhythmic auditory-motor behavior with focal TMS: rhythmic proportions are encoded in the dorsal but not in the medial premotor cortex and duration of the rhythmic pattern is encoded only in the medial premotor cortex*”. Neuroscience and Music VII: connecting with music across the lifespan. Aarhus, Denmark. 2020

IN PAPERS’ ACKNOWLEDGEMENTS:

Pedrazzoli M., Losurdo M., Paolone G., Medelin M., Jaupaj L., Cisterna B., Slanzi A., Malatesta M., Coco S., Buffelli M., 2019. “*Glucocorticoids receptors modulate dendritic spine plasticity and microglia activity in an animal model of Alzheimer’s disease*”. *Neurobiology of Disease*. <https://doi.org/10.1016/j.nbd.2019.104568>.