Naomi Bevacqua



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Education

 November 2023 – ongoing PhD student Cognitive, Social & Affective Neuroscience Program, Department of Psychology University of Rome "Sapienza", Italy.

Supervisor: Matteo Candidi Co-supervisor: Alessio Avenanti

 November 2022 – November 2023 Post-graduate research internship, Center for Studies and Research in Cognitive

Neuroscience, University of Bologna, Italy.

Supervisor: Alessio Avenanti

- 2019-2021 MSc in Neuroscience and Neuropsychological Rehabilitation, University of Bologna, Italy
 - Thesis Title: "Depono memoriam doloris mei": the crucial role of prefrontal cortex in consolidation of fear memory
 - Supervising professor: Borgomaneri Sara
 - Final grade: 110/110 with honors
- 2016-2019 BSc in Psychological sciences and techniques
 - O Thesis Title: The reconsolidation mechanism in the extinction of fear memories
 - o Supervising professor: di Pellegrino Giuseppe
 - o Final grade: 107/110

Technical skills and competencies

- Research techniques and methodologies:
 - o TMS (repetitive TMS, dual-coil TMS and ccPAS)
 - o Recording and analysis of EMG signal
 - o Recording and analysis of ECG signal
 - o Recording and analysis of EEG signal
 - EEG and TMS co-recording
- Programming language: MATLAB and R
- Statistical analysis software: SPSS, Statistica, GPower, Jamovi
- Lab management, undergraduate students' supervising
- Language spoken: Italian (first language), English

Participation in conference

September 4-6, 2024 XXXII SIPF National Congress in Cesena (Italy)

Oral presentation "rTMS highlights the role of ventral and dorsal fronto-parietal regions on automatic imitation"

May 22-25, 2024 7th bi-annual ESCAN meeting in Ghent (Belgium)

Poster presentation "State-Dependent interactions between right inferior frontal gyrus and primary motor area during a Go/NoGo Task: a Paired Associative Stimulation study"

November 9-11, 2023 XXXI SIPF National Congress in Siena (Italy)

Poster presentation "Cortico-cortical stimulation in ventral vs. dorsal motor route highlights dissociable mechanisms for automatic imitation and its control"

September 17-19, 2022 XXX SIPF National Congress in Udine (Italy)

Poster presentation "To stay or to go? Paired associative stimulation highlights state-dependent causal interactions from right IFG to left M1 during a Go/NoGo task"

Research grant:

2023 - Progetti per Avvio alla Ricerca, University of Rome "Sapienza" (Role: PI)

Publications

Turrini, S., Bevacqua, N., Cataneo, A., Chiappini, E., Fiori, F., Battaglia, S., ... & Avenanti, A. (2023). Neurophysiological Markers of Premotor–Motor Network Plasticity Predict Motor Performance in Young and Older Adults. *Biomedicines*, 11(5), 1464.

Turrini, S., Bevacqua, N., Cataneo, A., Chiappini, E., Fiori, F., Candidi, M., & Avenanti, A. (2023). Transcranial cortico-cortical paired associative stimulation (ccPAS) over ventral premotor-motor pathways enhances action performance and corticomotor excitability in young adults more than in elderly adults. *Frontiers in Aging Neuroscience*, 15.

Bevacqua, N., Turrini, S., Fiori, F., Saracini, C., Lucero, B., Candidi, M., & Avenanti, A. (2024). Cortico-cortical paired associative stimulation highlights asymmetrical communication between rostral premotor cortices and primary motor cortex. *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation.*

Turrini, S., Fiori, F., **Bevacqua, N.**, Saracini, C., Lucero, B., Candidi, M., & Avenanti, A. (2024). Spike-timing-dependent plasticity induction reveals dissociable supplementary—and premotor—motor pathways to automatic imitation. *Proceedings of the National Academy of Sciences*, 121(27), e2404925121.

Teaching experience

Academic year 2022/23

- Invited lecture on 'Non-Invasive Brain Stimulation: Methods and Applications' course for MSc in Neurosciences and neuro-psychological rehabilitation, University of Bologna (Italy), Prof. Simone Battaglia
- Invited lecture on 'Functional Neuroanatomy of the Central Nervous System and Elements of Neurology use of Non-Invasive Brain Stimulation' course, for First Level master's degree in Music therapy, Conservatory Maderna (Italy), Prof. Simone Battaglia

Academic year 2023/24

- Invited lecture on 'Functional Neuroanatomy of the Central Nervous System and Elements of Neurology use of Non-Invasive Brain Stimulation' course, for First Level master's degree in Music therapy, Conservatory Maderna (Italy), Prof. Simone Battaglia
- Invited lecture on 'Tirocinio pratico-valutativo', for BSc in Psychological sciences and techniques, University of Bologna (Italy), Prof. Francesco Di Gregorio

Links

 $\underline{https://phd.uniroma1.it/web/NAOMI-BEVACQUA_nP2076136_IT.aspx}$