



Matteo Costanzo

Date of birth: **Nationality:** Italian **Phone number:**

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Address: Department of Human Neurosciences, Sapienza University of Rome,
Viale dell'Università 30, 00185, Rome, Italy (Work)

Address: Department of Neuroscience, Istituto Superiore di Sanità, Viale
Regina Elena 299, 00161, Rome, Italy (Work)

WORK EXPERIENCE

01/11/2023 – CURRENT Rome, Italy

RESEARCH COLLABORATOR – “STARTING GRANT FOR YOUNG RESEARCHERS” ISTITUTO SUPERIORE DI SANITÀ

01/10/2021 – CURRENT Rome, Italy

FREELANCE CONSULTANT NEUROLOGIST NEUROLOGICAL CENTRE OF LATIUM

01/05/2023 – 30/05/2024 Rome, Italy

RESEARCH FELLOW FOR THE PROJECT TITLED “ACUTE ISCHEMIC STROKE RELATED TO CANCER: INVESTIGATION OF PATHOPHYSIOLOGICAL MECHANISMS” DEPARTMENT OF HUMAN NEUROSCIENCES, “LA SAPIENZA” UNIVERSITY OF ROME

01/01/2021 – 01/2023 Pozzilli, Italy

CONSULTANT NEUROLOGIST – CLINICAL NEUROPHYSIOLOGY SERVICE ISTITUTO NEUROLOGICO MEDITERRANEO NEUROMED

01/2020 – 01/12/2021 Rome, Italy

FREELANCE CONSULTANT NEUROLOGIST – ADULT NEUROREHABILITATION UNIT REHABILITATION CENTER VACLAV VOJTA

01/01/2020 – 01/03/2022 Rome, Italy

FREELANCE CONSULTANT NEUROLOGIST ISTITUTO DI NEUROSCIENZE NEOMESIA

EDUCATION AND TRAINING

2015 Rome, Italy

MEDICAL DEGREE Sapienza University of Rome

Final grade 110 with honors/110 |

Thesis "Studio del tremore nella malattia di Parkinson: caratteristiche cliniche ed epidemiologiche del tremore ri-emergente"

2013 – 2014 Madrid, Spain

VISITING ERASMUS STUDENT Università autonoma de Madrid

2020 Rome, Italy

SPECIALIZATION IN NEUROLOGY Sapienza University of Rome

Final grade 70 with honors/70 |

Thesis "Caratteristiche cliniche e fisiopatologiche del tremore ri-emergente nella malattia di Parkinson"

2020 – 25/09/2024 Rome, Italy

PHD IN "SENSORIMOTOR NEUROSCIENCES" Sapienza University of Rome

Thesis Impact of non-motor symptoms on clinical heterogeneity and treatment strategies in patients with cervical dystonia

2019 Padova, Italy

PARTICIPATION: "MDS-ES 12TH SUMMER SCHOOL FOR YOUNG NEUROLOGISTS" International Parkinson and Movement Disorder Society

12/10/2020 – 19/01/2021 Rome, Italy

FAD, EEG AND EVOKED POTENTIALS Lega Italiana contro l'epilessia e dalla Società Italiana di Neurofisiologia clinica

05/11/2021 – 06/11/2021 Roma, Italy

PARTICIPATION: "VALUTAZIONE E TRATTAMENTO ECOGUIDATO DEL PAZIENTE AFFETTO DA SPASTICITÀ FOCALE" Struttura Riabilitativa Residenziale Poggio Mirteto

05/2021 – 06/2021 Cagliari/Genova, Italy

PARTICIPATION: "SCUOLA SUI DISTURBI DEL MOVIMENTO" Società Italiana Parkinson e Disordini del Movimento/LIMPE-DISMOV

25/11/2022 Napoli, Italy

PARTICIPATION: "LA SCIALORREA NEL PAZIENTE NEUROLOGICO"

02/11/2023 – 05/11/2023 Catania, Italy

PARTICIPATION: "11TH ADVANCED COURSE ON DIAGNOSIS AND TREATMENT OF MOVEMENT DISORDERS" Movement Disorder Society

17/11/2023 – 18/11/2023 Praga, Czechia

PARTICIPATION: "8TH ADVANCED PARKINSON'S DISEASE (APD) SUMMIT"

● **FUNDING INFORMATION [GRANTS AS PI-PRINCIPAL INVESTIGATOR OR I-INVESTIGATOR]**

2018

Salivary caffeine: a potential biomarker for early Parkinson's disease [I]

Bando Ateneo

Grant value (euro): 1.000

2021

The Theta-Gamma Coupling as predictive neurophysiological marker of cognitive decline in Parkinson's disease [I]

Bando Ateneo

Grant value (euro): 1.250

2021

Investigating the role of non-motor symptoms in cervical dystonia [I]

Bando Ateneo

Grant value (euro): 12.500

2022

Identification and neuromodulation of cortical biomarkers in patients with focal dystonia [I]

Bando Ateneo

Grant value (euro): 12.500

2023

A panel of saliva biomarkers for the differential diagnosis of atypical parkinsonisms [PI]

"Starting Grant" Call for young researchers
Istituto Superiore di Sanità

Grant value (euro): 100.000

● SOCIETY MEMBERSHIPS

Member of the Italian Society of Parkinson and Movement Disorders – LIMPE-DISMOV

Member of the Italian Society of Neurology - SIN

● EDITORIAL POSITIONS

Review Editor - Frontiers in Aging Neuroscience - Section: Parkinson's disease and aging-related Movement Disorders

Guest Editor - Toxins - Special Issue : "Botulinum Neurotoxin as a Novel Therapy for Parkinson's Disease"

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
SPANISH	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● PUBLICATIONS

1. Belvisi, D., Conte, A., Bologna, M., Bloise, M. C., Suppa, A., Formica, A., Costanzo, M., Cardone, P., Fabbrini, G., & Berardelli, A. (2017). Re-emergent tremor in Parkinson's disease. *Parkinsonism & related disorders*, 36, 4146. <https://doi.org/10.1016/j.parkreldis.2016.12.012>

2. Belvisi, D., Conte, A., Cutrona, C., Costanzo, M., Ferrazzano, G., Fabbrini, G., & Berardelli, A. (2018). Re-emergent tremor in Parkinson's disease: the effect of dopaminergic treatment. *European journal of neurology*, 25(6), 799804. <https://doi.org/10.1111/ene.13619>

3. Berardelli, I., Belvisi, D., Corigliano, V., Costanzo, M., Innamorati, M., Fabbrini, G., Berardelli, A., & Pompili, M. (2018). Suicidal ideation, perceived disability, hopelessness and affective temperaments in patients affected by Parkinson's disease. *International journal of clinical practice*, e13287. Advance online publication. <https://doi.org/10.1111/ijcp.13287>

4. Belvisi, D., Berardelli, I., Ferrazzano, G., Costanzo, M., Corigliano, V., Fabbrini, G., Berardelli, A., & Pompili, M. (2019). The clinical correlates of suicidal ideation in Parkinson's disease. *Parkinsonism & related disorders*, 63, 5459. <https://doi.org/10.1016/j.parkreldis.2019.02.047>

5. Vivacqua, G., Suppa, A., Mancinelli, R., Belvisi, D., Fabbrini, A., Costanzo, M., Formica, A., Onori, P., Fabbrini, G., & Berardelli, A. (2019). Salivary alpha-synuclein in the diagnosis of Parkinson's disease and Progressive Supranuclear Palsy. *Parkinsonism & related disorders*, 63, 143148. <https://doi.org/10.1016/j.parkreldis.2019.02.014>

6. Belvisi, D., Fabbrini, A., De Bartolo, M. I., Costanzo, M., Manzo, N., Fabbrini, G., Defazio, G., Conte, A., & Berardelli, A. (2020). The Pathophysiological Correlates of Parkinson's Disease Clinical Subtypes. *Movement disorders : official journal of the Movement Disorder Society*, 10.1002/mds.28321. Advance online publication. <https://doi.org/10.1002/mds.28321>

7. Leodori, G., Belvisi, D., De Bartolo, M. I., Fabbrini, A., Costanzo, M., Vial, F., Conte, A., Hallett, M., & Berardelli, A. (2020). Re-emergent Tremor in Parkinson's Disease: The Role of the Motor Cortex. *Movement disorders : official journal of the Movement Disorder Society*, 35(6), 10021011.
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8. Belvisi, D., Pellicciari, R., Fabbrini, A., Costanzo, M., Pietracupa, S., De Lucia, M., Modugno, N., Magrinelli, F., Dallochio, C., Ercoli, T., Terravecchia, C., Nicoletti, A., Solla, P., Fabbrini, G., Tinazzi, M., Berardelli, A., & Defazio, G. (2020). Risk factors of Parkinson disease: Simultaneous assessment, interactions, and etiologic subtypes. *Neurology*, 95(18), e2500e2508. <https://doi.org/10.1212/WNL.000000000010813>
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9. Tofani, M., Ranieri, A., Fabbrini, G., Berardi, A., Pelosin, E., Valente, D., Fabbrini, A., Costanzo, M., & Galeoto, G. (2020). Efficacy of Occupational Therapy Interventions on Quality of Life in Patients with Parkinson's Disease: A Systematic Review and Meta-Analysis. *Movement disorders clinical practice*, 7(8), 891901. <https://doi.org/10.1002/mdc3.13089>
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10. Leodori, G., Fabbrini, A., De Bartolo, M. I., Costanzo, M., Asci, F., Palma, V., Belvisi, D., Conte, A., & Berardelli, A. (2021). Cortical mechanisms underlying variability in intermittent theta-burst stimulation-induced plasticity: A TMS-EEG study. *Clinical neurophysiology : official journal of the International Federation of Clinical Neurophysiology*, 132(10), 2519–2531. <https://doi.org/10.1016/j.clinph.2021.06.021>
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11. Leodori, G., De Bartolo, M. I., Belvisi, D., Ciogli, A., Fabbrini, A., Costanzo, M., Manetto, S., Conte, A., Villani, C., Fabbrini, G., & Berardelli, A. (2021). Salivary caffeine in Parkinson's disease. *Scientific reports*, 11(1), 9823. <https://doi.org/10.1038/s41598-021-89168-6>
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12. Costanzo, M., Belvisi, D., Berardelli, I., Maraone, A., Baione, V., Ferrazzano, G., Cutrona, C., Leodori, G., Pasquini, M., Conte, A., Fabbrini, G., Defazio, G., & Berardelli, A. (2021). Effect of Botulinum Toxin on Non-Motor Symptoms in Cervical Dystonia. *Toxins*, 13(9), 647. <https://doi.org/10.3390/toxins13090647>
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13. Costanzo, M., Belvisi, D., Berardelli, I., Maraone, A., D'Antonio, F., Baione, V., Toscano, A., Ferrazzano, G., Pasquini, M., Conte, A., Fabbrini, G., Defazio, G., & Berardelli, A. (2021). Motor and non-motor subtypes of cervical dystonia. *Parkinsonism & related disorders*, 88, 108–113. <https://doi.org/10.1016/j.parkreldis.2021.06.008>
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14. Ferrazzano, G., Zingaropoli, M. A., Costanzo, M., Belvisi, D., Dominelli, F., Pasculli, P., Ciardi, M. R., Fabbrini, G., Defazio, G., Berardelli, A., & Conte, A. (2022). Neurofilament assessment in patients with cervical dystonia. *Parkinsonism & related disorders*, 98, 70–71. <https://doi.org/10.1016/j.parkreldis.2022.04.013>
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15. Leodori, G., Rocchi, L., Mancuso, M., De Bartolo, M. I., Baione, V., Costanzo, M., Belvisi, D., Conte, A., Defazio, G., & Berardelli, A. (2022). The effect of stimulation frequency on transcranial evoked potentials. *Translational neuroscience*, 13(1), 211–217. <https://doi.org/10.1515/tnsci-2022-0235>
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16. Ferrazzano, G., Belvisi, D., De Bartolo, M. I., Baione, V., Costanzo, M., Fabbrini, G., Defazio, G., Berardelli, A., & Conte, A. (2022). Longitudinal evaluation of patients with isolated head tremor. *Parkinsonism & related disorders*, 94, 10–12. <https://doi.org/10.1016/j.parkreldis.2021.11.018>
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17. Belvisi, D., Costanzo, M., Pellicciari, R., Modugno, N., Nicoletti, A., Fabbrini, G., Tinazzi, M., Defazio, G., & Berardelli, A. (2022). Reply to "Risk reduction of Parkinson's disease by caffeinated beverage consumption". *Parkinsonism & related disorders*, 103, 15–16.
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18. Belvisi, D., Canevelli, M., Costanzo, M., Giangrosso, M., Fabbrini, A., Borraccino, A., Bruno, G., Berardelli, A., & Fabbrini, G. (2022). The role of frailty in Parkinson's disease: a cross-sectional study. *Journal of neurology*, 269(6), 3006–3014. <https://doi.org/10.1007/s00415-021-10873-3>
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19. De Bartolo, M. I., Vivacqua, G., Belvisi, D., Mancinelli, R., Fabbrini, A., Manzo, N., Costanzo, M., Leodori, G., Conte, A., Fabbrini, G., Morini, S., & Berardelli, A. (2022). A Combined Panel of Salivary Biomarkers in de novo Parkinson's Disease. *Annals of neurology*, 10.1002/ana.26550. Advance online publication. <https://doi.org/10.1002/ana.26550>
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20. Belvisi, D., Pellicciari, R., Fabbrini, A., Costanzo, M., Ressa, G., Pietracupa, S., De Lucia, M., Modugno, N., Magrinelli, F., Dallochio, C., Ercoli, T., Nicoletti, A., Zappia, M., Solla, P., Bologna, M., Fabbrini, G., Tinazzi, M., Conte, A., Berardelli, A., & Defazio, G. (2022). Relationship between risk and protective factors and clinical features of Parkinson's disease. *Parkinsonism & related disorders*, 98, 80–85. <https://doi.org/10.1016/j.parkreldis.2022.04.017>
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21. Leodori, G., De Bartolo, M. I., Fabbrini, A., Costanzo, M., Mancuso, M., Belvisi, D., Conte, A., Fabbrini, G., & Berardelli, A. (2022). The Role of the Motor Cortex in Tremor Suppression in Parkinson's Disease. *Journal of Parkinson's disease*, 12(6), 1957–1963. <https://doi.org/10.3233/JPD-223316>
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22. Belvisi, D., Leodori, G., Costanzo, M., Conte, A., & Berardelli, A. (2023). How does botulinum toxin really work?. *International review of neurobiology*, 169, 441–479. <https://doi.org/10.1016/bs.irn.2023.05.003>
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23. Costanzo, M., Cutrona, C., Leodori, G., De Bartolo, M. I., Fabbrini, A., Vivacqua, G., Conte, A., Fabbrini, G., Berardelli, A., & Belvisi, D. (2023). Distal Upper Limb Tremor during Walking in Parkinson's Disease. *Movement disorders clinical practice*, 10(8), 1198–1202. <https://doi.org/10.1002/mdc3.13814>
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24. Costanzo, M., Leodori, G., Cutrona, C., Marchet, F., De Bartolo, M. I., Mancuso, M., Belvisi, D., Conte, A., Berardelli, A., & Fabbrini, G. (2023). Motor Cortical Correlates of Paired Associative Stimulation Induced Plasticity: A TMS-EEG Study. *Brain sciences*, 13(6), 921. <https://doi.org/10.3390/brainsci13060921>
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25. Pietracupa, S., Belvisi, D., Piervincenzi, C., Tommasin, S., Pasqua, G., Petsas, N., De Bartolo, M. I., Fabbrini, A., Costanzo, M., Manzo, N., Berardelli, A., & Pantano, P. (2023). White and gray matter alterations in de novo PD patients: which matter most?. *Journal of neurology*, 270(5), 2734–2742. <https://doi.org/10.1007/s00415-023-11607-3>
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26. Cutrona, C., Marchet, F., Costanzo, M., De Bartolo, M. I., Leodori, G., Ferrazzano, G., Conte, A., Fabbrini, G., Berardelli, A., & Belvisi, D. (2023). Exploring the Central Mechanisms of Botulinum Toxin in Parkinson's Disease: A Systematic Review from Animal Models to Human Evidence. *Toxins*, 16(1), 9. <https://doi.org/10.3390/toxins16010009>
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27. Costanzo, M., Galosi, E., De Bartolo, M. I., Gallo, G., Leodori, G., Belvisi, D., Conte, A., Fabbrini, G., Truini, A., Berardelli, A., & Vivacqua, G. (2024). Evaluating the Diagnostic Potential of Combined Salivary and Skin Biomarkers in Parkinson's Disease. *International journal of molecular sciences*, 25(9), 4823. <https://doi.org/10.3390/ijms25094823>
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28. De Bartolo, M. I., Belvisi, D., Mancinelli, R., Costanzo, M., Caturano, C., Leodori, G., Berardelli, A., Fabbrini, G., & Vivacqua, G. (2024). A systematic review of salivary biomarkers in Parkinson's disease. *Neural regeneration research*, 19(12), 2613–2625. <https://doi.org/10.4103/NRR.NRR-D-23-01677>
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29. Costanzo, M., Aiello, F., Poggi, A., Li Voti, P., Fabbrini, G., & Belvisi, D. (2024). Progressive supranuclear palsy phenotype as an atypical clinical presentation of Creutzfeldt-Jakob disease: A case report and review of the literature. *Clinical parkinsonism & related disorders*, 10, 100247. <https://doi.org/10.1016/j.prdoa.2024.100247>
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30. De Michele, M., Piscopo, P., Costanzo, M., Lorenzano, S., Crestini, A., Rivabene, R., Manzini, V., Petraglia, L., Iacobucci, M., Berto, I., Schiavo, O. G., Conte, A., Belvisi, D., Berardelli, A., & Toni, D. (2024). Can Repetitive Transcranial Magnetic Stimulation (rTMS) Promote Neurogenesis and Axonogenesis in Subacute Human Ischemic Stroke?. *Biomedicines*, 12(3), 670. <https://doi.org/10.3390/biomedicines12030670>
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31. Fabbri, M., Ledda, C., Schirinzi, T., Artusi, C.A., Avallone, A.R., Zenuni, H., De Micco, R., Aloisio, S., Cani, I., Malaguti, M.C., Di Biasio, F., Calandra-Buonaura, G., Stefani, A., Lopiano, L., Barone, P., Picillo, M.; PSP-NET study group. (2024). Multidisciplinary care use in neurodegenerative complex diseases: The example of progressive supranuclear palsy and advanced Parkinson's disease in real-life. *Parkinsonism Relat Disord*, 125:107047. doi: 10.1016/j.parkreldis.2024.107047.
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32. Leodori, G., De Bartolo, M. I., Piervincenzi, C., Mancuso, M., Ojha, A., Costanzo, M., Aiello, F., Vivacqua, G., Fabbrini, G., Conte, A., Pantano, P., Berardelli, A., & Belvisi, D. (2024). Mapping Motor Cortical Network Excitability and Connectivity Changes in De Novo Parkinson's Disease. *Movement disorders : official journal of the Movement Disorder Society*, 39(9), 1523–1532. <https://doi.org/10.1002/mds.29901>

33. Xu, J., Costanzo, M., Avanzino, L., Martino, D., Salehi, P., Standal, S., Manzo, N., Alizadeh, P., Terranova, S., Bonassi, G., Oh, J., Conte, A., & Konczak, J. (2024). Vibro-tactile stimulation of the neck reduces pain in people with cervical dystonia: a proof-of-concept study. *Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology*, 45(10), 4847–4856. <https://doi.org/10.1007/s10072-024-07561-1>

34. Pietracupa S, Ojha A, Belvisi D, Piervincenzi C, Tommasin S, Petsas N, De Bartolo MI, Costanzo M, Fabbrini A, Conte A, Berardelli A, Pantano P. Understanding the role of cerebellum in early Parkinson's disease: a structural and functional MRI study. *NPJ Parkinsons Dis*. 2024 Jun 19;10(1):119. doi: 10.1038/s41531-024-00727-w.

35. Costanzo, M., Cutrona, C., Leodori, G., Malimpensa, L., D'antonio, F., Conte, A., & Belvisi, D. (2024). Exploring easily accessible neurophysiological biomarkers for predicting Alzheimer's disease progression: a systematic review. *Alzheimer's research & therapy*, 16(1), 244. <https://doi.org/10.1186/s13195-024-01607-4>
