

1. **GENERAL INFORMATION:**

Born in MONTEVIDEO (URUGUAY) il 24/04/1974. **Citizenship:** italian. **email:** luigi.cattaneo@univr.it. **telephone:** +39 348-7337670 **skype_ID:** luigicattaneoonskype **Spoken languages:** Italian (mother tongue); English, French, Spanish and Dutch.

2. **EDUCATION:**

- (15/10/1997) Degree in Medicine and Surgery at the University of Pavia (110/110 cum laude). Thesis title: “Excessive daytime sleepiness in epilepsy” – supervisor: Prof. A. Tartara
- (1998) Abilitation to the profession of Medical Doctor at the University of Pavia
- (20/11/2002) Specialization in Neurology at the University of Parma (50/50 cum laude). Thesis: “Trigemino-facial inhibitory reflex in hemifacial spasm” – supervisor: Prof. G. Pavesi.
- (10/03/2007) PhD in Neuroscience at the University of Parma (4-years track) Thesis: “Motor control of lower facial muscles” – Supervisor: Prof. G. Pavesi

3. **WORK EXPERIENCE:**

- (10/2008 – 09/2012) Research fellow at the University of Trento.
- (01/10/2012 – 20/12/2015) Assistant professor in psychobiology (sector M-PSI/02) at the University of Trento
- (21/12/2015 – 20/12/2018) tenure-track assistant professor in human physiology (sector BIO/09) at the University of Verona
- (21/12/2018 – 30/09/2019) Associate professor in physiology in human physiology (sector BIO/09) University of Verona
- (01/10/2018 – present) Associate professor in physiology in human psychobiology (sector M-PSI/02) University of Trento

4. **INTERNATIONAL FELLOWSHIPS:**

- (01/01/2004 – 1/07/2004): Marie-Curie training fellowship at the Institute of Neurology, Sobell Department of Motor Neurosciences, London (UK), supervised by Professor Roger N. Lemon.
- (01/10/2007 – 31/12/2007): research fellowship at the Neuroimaging center of UCSB - California supervised by Prof. Scott T. Grafton.

5. **RESEARCH INTERESTS AND TOOLS:**

I have been conducting research in the field of systems physiology and cognitive neuroscience for many years. The main theme of my research is to understand the biological and physiological correlates of behavior in humans, especially regarding the control of movement. The topics of my research are: sensorimotor transformations for movements of the upper limb and face. Particular attention is given to how complex categories such as the geometry of objects, the vision of biological movement, language and numerical quantities are represented in the motor system. Recently, I directed my attention to the ability of the human brain to establish flexible sensorimotor associations, based on abstract rules. In my research activity I have never lost sight of my clinical neurologist training

and I test my psychophysiological hypotheses also on groups of patients. My research activity is carried out in complete autonomy in all its phases, including the conception and execution of experiments and the interpretation of scientific data. Given my clinical background I am extremely motivated to test the theoretical models developed with my basic research in a clinical setting. I am convinced of the importance of reconciling the basic physiology with the clinical disciplines of neurosurgery, neurology, neuroradiology and clinical neurophysiology. I use as main research tool Transcranial Magnetic Stimulation (TMS), of which I have deep knowledge. I am familiar with and have used also other methods of non-invasive brain stimulation (tDCS), the study of motion kinematics, the spectral analysis of EEG and event-related evoked potentials and structural neuroimaging (tractography) and functional (fMRI) techniques.

6. AWARDED GRANTS:

- (10/2006-09/2007) – coordinator for the “Brain mapping of the cortical representation of facial movements in patients with congenital facial palsy undergoing surgical procedures of facial animation” project issued by the Telethon foundation - 40.000 €.
- (10/2018-11/2019) - local coordinator in the project "Progettazione di un'ortesi robotica per l'arto superiore con controllo mioelettrico e indirizzata a soggetti con debolezza muscolare" issued by the European Social Fund - 92.700 €
- (09/2020 – 08/2023) – local coordinator in the project “NEURO-CONNECT - Systems neuroscience meets clinical neurosurgery: development of novel multimodal monitoring indices of brain connectivity in patients with glioma issued by the Cassa di Risparmio di Verona foundation – 340.000 €.
- (09/2021 – 09/2024) – coordinator of the project “A swing between the inner and the outer worlds: exploring the function of the frontal aslant tract in with transcranial magnetic stimulation” issued by the BIAL foundation – 44.000 €.

7. EDITORIAL ACTIVITY:

- Academic Editor for PLOS One (since 2013). Ad-hoc reviewing editor for eLife (2016) Member of the Editorial Advisory Board del Journal of Cognitive Enhancement (since 2016).
- Ad-hoc reviewer for: Acta Psychologica; Annals of Clinical and Translational Neurology; Annals of Internal Medicine; Behavioral Brain Research; Brain; Brain Topography; Cerebral Cortex; Clinical Neurophysiology; Cognition; Consciousness and Cognition; Cortex; European Journal of Neurology; European Journal of Neuroscience; Frontiers in Human Neuroscience; Journal of Neurology, Neurosurgery and Psychiatry; Journal of Neurophysiology; Journal of Neuroscience; Journal of Psychiatry; JoVE - Journal of Video Experiments; Muscle and Nerve; Neuroimage; Neurology Research International; Neuropsychologia; Philosophical Transactions of the Royal Society B; PLOS One; Social Cognitive and Affective Neuroscience; Brain Stimulation, Nature Communications, Scientific Reports.

8. REVIEWER FOR RESEARCH GRANT AGENCIES: Research Foundation Flanders (FWO) (2012-2018); Marie Skłodowska-Curie actions - Research Fellowship Programme (2013); Manchester University; mental health and neurodegeneration research group. (2014); The Danish Council for Independent Research (2015); Member of the REPRISE board for grant review of the Italian ministry of University and Education (since 2017); the Vienna Science and Technology Fund (www.wwtf.at)

9. SOCIETY MEMEBERSHIPS:

The Brainstem Society; Società Italiana di Neurologia (SIN); Società Italiana di Psicofisiologia (SIPF); Società Italiana di Fisiologia (SIF).

9.1. AWARDS:

SIPF Price “Premio della Società Italiana di Psicofisiologia 2015 per la brillante attività di ricerca nell’ambito della psicofisiologia” awarded in Lucca, November 2015.

10. TEACHING ACTIVITY:

I held courses on the biological bases of behavior and cognition, human physiology, clinical neurophysiology, brain stimulation, neuropsychology and introduction to neuroscience at the BA and master courses in psychology, at the school of medicine, at the specialization schools in neurology and in neurosurgery. I have supervised 5 PhD students, and more than 40 students for internship and thesis in the tracks of Psychology, Cognitive Neuroscience, Bioinformatics, Neuroscience and Medicine.

11. SCIENTIFIC PRODUCTION:

As of January 2022 (Scopus database), I have published 97 peer-reviewed publications, 40 of which as corresponding author. *H-index*=27, Citations= 3684.