



Curriculum Vitae

Personal information **Letizia Leocani**

Work experience

(2015 – present) - Associate Professor of Neurology, University Vita-Salute San Raffaele, Milan

(2006 – present) - Group Leader, Experimental Neurophysiology Unit, Hospital San Raffaele

(2010 – present) - Head, MagICS (Magnetic IntraCerebral Stimulation) Center, Hospital San Raffaele

(2018 – 2020) - Director, Neurorehabilitation Unit, Hospital San Raffaele, Milan

(2017 – 2018) - Senior MD, Neurorehabilitation Unit, Hospital San Raffaele

(2000 – 2006) - Supervisor, High Resolution EEG laboratory and Psychophysiology Research Unit, Neuroscience Department, Hospital San Raffaele

(2002 - 2015) - Senior Researcher, Hospital San Raffaele

(1999 – 2002) - Research Assistant, Hospital San Raffaele

(1998 – 1999) - Clinical Assistant, Hospital San Raffaele

Education and training

(1997 – 2000) - Residency in Neurology, University of Milan

(1993 – 1997) - PhD in Human Physiology, University of Milan

(1994 – 1995) - Research Fellow, Human Motor Control Section, NIH, Bethesda (Head: Dr. Mark Hallett)

(1996 – 1992) - Degree in Medicine and Surgery, State University of Milan, Italy

Additional information

Publications

The scientific activity is summarized in the production of 150 full articles on peer reviewed journals (total impact factor up to 2019: 571,433), 18 book chapters and more than 300 abstracts in peer reviewed journals.

▪ Sun S, Folarin AA, Ranjan Y, Rashid Z, Conde P, Stewart C, Cummins N, Matcham F, Dalla Costa

G, Simblett S, Leocani L, Lamers F, Sørensen PS, Buron M, Zabalza A, Guerrero Pérez AI, Penninx BW, Siddi S, Haro JM, Myin-Germeys I, Rintala A, Wykes T, Narayan VA, Comi G, Hotopf M, Dobson RJ; RADAR-CNS Consortium. Using Smartphones and Wearable Devices to Monitor Behavioral Changes During COVID-19. *J Med Internet Res.* 2020 Sep 25;22(9):e19992.

▪ Klistorner A, Chai Y, Leocani L, Albrecht P, Aktas O, Butzkueven H, Ziemssen T, Ziemssen F, Frederiksen J, Xu L, Cadavid D; RENEW MF-VEP Investigators. Assessment of Opicinumab in Acute Optic Neuritis Using Multifocal Visual Evoked Potential. *CNS Drugs.* 2018; 32: 1159-1171.

▪ Chieffo R, Scopelliti G, Fichera M, Santangelo R, Guerrieri S, Zangen A, Comi G, Leocani L. Bihemispheric repetitive transcranial magnetic stimulation for upper limb motor recovery in chronic stroke: A feasibility study. *Brain Stimul.* 2018;11:932-934.

- Pisa M, Guerrieri S, Di Maggio G, Medagliani S, Muiola L, Martinelli V, Comi G, Leocani L. No evidence of disease activity is associated with reduced rate of axonal retinal atrophy in MS. *NEUROLOGY* 2017, 89, 2469-2475.
- Ferrari L, Huang SC, Magnani G, Ambrosi A, Comi G, Leocani L. Optical Coherence Tomography Reveals Retinal Neuroaxonal Thinning in Frontotemporal Dementia as in Alzheimer's Disease. *J Alzheimers Dis* 2017;56(3):1101-1107
- Chieffo R, De Prezzo S, Houdayer E, Nuara A, Di Maggio G, Coppi E, Ferrari L, Straffi L, Spagnolo F, Velikova S, Sessa M, Comola M, Zangen A, Comi G, Leocani L. Deep repetitive transcranial magnetic stimulation with H-coil on lower limb motor function in chronic stroke: a pilot study. *Arch Phys Med Rehabil* 2014;95:1141-7.
- Cambiaghi M, Teneud L, Velikova S, Gonzalez-Rosa JJ, Cursi M, Comi G, Leocani L. Flash visual evoked potentials in mice can be modulated by transcranial direct current stimulation. *Neuroscience*. 2011;185:161-5.
- Leocani L et al. Multimodal evoked potentials to assess the evolution of multiple sclerosis: a longitudinal study. *J Neurol Neurosurg Psychiatry* 2006;77:1030-5.
- Leocani L et al. Fatigue in multiple sclerosis is associated with abnormal cortical activation to voluntary movement-EEG evidence. *Neuroimage* 2001;13:1186-92.
- Leocani L et al. Human corticospinal excitability evaluated with transcranial magnetic stimulation during different reaction time paradigms. *Brain* 2000;123:1161-73.

Projects

-Supervisor of spontaneous studies within the Neurological Department IRCCS San Raffaele: 1- Repetitive magnetic stimulation for treatment of tinnitus, 2- Repetitive magnetic stimulation for treatment of Parkinson's Disease, 3- Repetitive magnetic stimulation for treatment of Alzheimer's disease, 4- Repetitive magnetic stimulation for treatment of chronic migraine, 5- Repetitive magnetic stimulation for treatment of pain, 6- Repetitive magnetic stimulation for treatment of depression e fatigue in multiple sclerosis, 7- Repetitive magnetic stimulation for treatment of deficits resulting from ictus cerebri, 8- Reproducibility of visual evoked potentials and OCT, 9- reproducibility of measurements of quantitative EEG and transcranial magnetic stimulation of motor pathways, 10- Validation of psychophysiological valuation techniques in multiple sclerosis.-PI for Hospital San Raffaele Scientific Institute for the spontaneous institutional study conducted in collaboration with three international centers (Basel, Dusseldorf, Ottawa) co-funded by Biogen MA "Reproducibility of motor or somatosensory evoked potentials in healthy subjects and patients affected by multiple sclerosis" 07/2016-ongoing

-Participant to COST Action BM1306 (2014): Tinnitus Research Network [MC Substitute - BM1306 IT]

-Lead Researcher- Co-Principal Investigator: International Progressive MS Alliance Collaborative Network Award Planning Grants (call 2015) - Project that will drive initiate clinical trials of new interventions for progressive MS within the 4-year funding period – Network title: "Cognitive rehabilitation and exercise for people with progressive MS: a multicenter, multidisciplinary study" 09/2015-ongoing

-Assessment group Coordinator, Consensus Conference on Treatment of Spasticity in MS, Task Force of the European Charcot Foundation (2014-2017)

-Participation to 2 European Community IMI project: RADAR-CNS "Remote Assessment of disease and relapse in central nervous system disorders" (2016 –2021) and MOBILISE-D "Connecting digital mobility assessment to clinical outcomes for regulatory and clinical outcomes" (2019-2024)

-Activated several international collaborations with Ben Gurion University (Israel), Vrije Universiteit Amsterdam (Netherlands), Charité - Universitätsmedizin Berlin (Germany), New York University School of

Medicine (USA), IDIBAPS - Hospital Clinic, University of Barcelona (Spain), Clinique Neuro-Outauais, Ottawa (Canada), University Hospital Basel (Switzerland); on-going collaboration with Fukushima Medical University School of Medicine (Japan), Shanghai Huashan Hospital (China).

Memberships

- Since 2020: member of the network Rehabilitation in Multiple Sclerosis (RIMS)
- Since 2014: member of European Academy of Neurology (EAN)
- Since 2013: member of Italian Society of Neurology (SIN)
- 2010-2014: member of European Neurological Society (ENS)
- Since 2002: member of Italian Society of Neurophysiology (SINC)
- Since 2000: member of the Italian Society of Psychophysiology (SIPF)

Other Relevant Information

Honours and awards (current)

- Since 2020: Board member of the network Rehabilitation in Multiple Sclerosis (RIMS)
- Coordinator of Study Group of Neurostimulation and diagnostic-therapeutic neuromodulation, Italian Society of Clinical Neurophysiology (SINC) (2016-present)
- Training and certification in Clinical Neurophysiology Committee Member, Italian Society of Clinical Neurophysiology (SINC) (2014-present)
- Member of Scientific Panel Multiple Sclerosis, European Academy of Neurology (EAN) (2018-present)
- Co-Coordinator of Study Group Digital Technology, Web and Social Media Italian Society of Neurology (SIN) (2018-present)
- Member IMSVISUAL - International Multiple Sclerosis VISUAL System Consortium, international research network on application of visual pathways measurement techniques in Multiple Sclerosis (2014-present)
- Scientific Committee Member of Multiple Sclerosis Italian Foundation (FISM) (2014-2018)
- Training and certification in Clinical Neurophysiology Committee Member from 2014 to 2018 of International Federation of Clinical Neurophysiology-IFCN panel for Safety of Transcranial Magnetic Stimulation, and of IFCN Panel for Training in Transcranial Magnetic Stimulation.
- Selected in the European Commission for the Expert Panel on Medical Devices in Neurology (2020-)
- Panel member, Italian Working Group on Guidelines on TeleNeurophysiology (2020-).
- Clinical Ambassador, EIT Health-European Institute of Innovation and Technology (EIT) (2020-).

Honours and awards (previous)

- Head of Telethon Service for Experimental Neurophysiology in animal models (2010-2011)
- Secretary of the Italian Society of Psychophysiology (SIPF) (2002-2006)
- Board Member of the Italian Society of Clinical Neurophysiology (SINC) (2002-2006)
- Foreign Delegate, Italian Society of Clinical Neurophysiology (SINC) (2006-2008, 2011-2014)
- Secretary, Italian Society of Clinical Neurophysiology (SINC) (2014-2016)
- Member of Assembly of Delegates - European Academy of Neurology (EAN) (2014-2017)
- Co-chair of Scientific Panel Clinical Neurophysiology (2015-2017), European Academy of Neurology (EAN), now Management group member
- Board Member of the Italian Society of Neurology (SIN) (2015-2019)