

## Dr. Caterina Maria Leone – Short Curriculum Vitae

### **Personal data**

Place and date of birth

February 1983 Nationality

Work Address

*Department of Human Neuroscience,  
Sapienza University, Viale dell'Università 30,00185, Rome, Italy*

Phone

E-mail

ORCID

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### **Qualifications**

MD; PhD (Neuroscience)

### **Education**

1997-2001 High School ("liceo scientifico"), (91/100).

Sept 2009 MD (110/110 *cum laude*) "Sapienza" University  
"Neuropathic itch: pruriceptors distribution and  
physiopathology"

2011-2016 PhD in Neuroscience cum laude, "Sapienza"  
University  
Tutor: Prof. Giorgio Cruccu  
Thesis: "What's behind neuropathic pain?  
Neurophysiological diagnostic tests investigating  
mechanisms underlying neuropathic pain"

### **Academic appointments** (in reverse chronological order)

#### May 2023-Nov 2023 **Research fellow**

Università degli Studi di Roma "La Sapienza", Roma (Italy)

Department of Human Neuroscience

Research project: "Collezione ed analisi dei dati di threshold tracking  
in pazienti con neuropatia dolorosa".

#### Jan 2023-March 2023 **Research fellow**

Università degli Studi di Roma "La Sapienza", Roma (Italy)

Department of Human Neuroscience

Research project: "IMI- PainCare (BioPain subtopic)".

#### Feb 2022-Feb 2023 **Research fellow**

Università degli Studi di Roma "La Sapienza", Roma (Italy)

Department of Human Neuroscience

Research project: “IMI- PainCare (BioPain subtopic)”.

Jan 2019–Dec 2021 **Post Doc**

Università degli Studi di Roma “La Sapienza”, Roma (Italy)

Department of Human Neuroscience

Research project: “IMI- PainCare (BioPain subtopic)”.

Oct 2017–Sept 2018 **Post Doc**

Università degli Studi di Roma “La Sapienza”, Roma (Italy)

Department of Human Neuroscience

Research project: “Neurophysiological tests to disentangle the pathophysiological mechanisms underlying neuropathic pain symptoms”.

Jun 2016–May 2017 **Post Doc**

Università degli Studi di Roma “La Sapienza”, Roma (Italy)

Department of Human Neuroscience

Research project: “Breaking dogmas: neurophysiological and neuroimaging study on non- nociceptive A $\beta$  fibres mediating pain in healthy humans”.

Jan 2015–Dec 2015 **Post Doc**

Università degli Studi di Roma “La Sapienza”, Roma (Italy)

Department of Human Neuroscience

Research project: “Nociceptive-motor integration in patients with central and peripheral pain”

Jan 2011–Oct 2011 **Collaboration Bursary**

Fondazione Don Carlo Gnocchi ONLUS, roma (Italy)

Research activity focused on pathophysiological mechanisms behind neuropathic pain

Jul 2010–Dec 2010 **Collaboration Bursary**

Fondazione Don Carlo Gnocchi ONLUS, roma (Italy)

Research activity focused on pathophysiological mechanisms behind neuropathic itch

2008–2021

**Pre degree trainee/post degree trainee**

Azienda ospedaliera Policlinico Umberto I- UOC patologie neuromuscolari, Roma (Italy) Fields of research:

-Assessment, diagnosis and therapy of neuropathic pain.

-Clinical and neurophysiological evaluation of peripheral neuropathies

-Craniofacial pain: trigeminal neuralgia, atypical facial pain, etc.

-Application of functional neuroimaging in patients with neuropathic pain

-Neurophysiology: ssep, lep, cheps, ceps, mep, baeps, eng, emg, trigeminal reflexes

-Threshold tracking

-Certificate for ICH E6 GCP Investigator site training

-ECCN Hands-on Teaching Course on Nerve and Muscle Excitability Studies, including MScan MUNE, Warsaw Poland

**Total post graduate research experience: 13 years**

**International experience**

October 2021

Visiting researcher at the Mannheim Faculty of Medicine c/o Prof. Rolf-Detlef Treede  
Heidelberg University

Sept 2018-Dec 2021	Research Member (Investigator) of the European project IMI-Paincare Biopain Subtopic (project RCT 1,2 and 3)
Feb 2019-Jul 2019	UCL-Rome project on minimal thermo-nociceptive interactions (MTNIs): 6 months collaboration with Prof. P. Haggard Lab in ICN, London UK
04/06/2017-11/06/2017	European Pain School, Pontignano, Italy

### **Summary of Publications (2011-2023)**

<i>Articles in peer-reviewed journals:</i>	<b>45</b>
<i>As first or senior author:</i>	<b>12</b>
<i>Number of citations (Scopus):</i>	<b>646</b>
<i>H-index (Scopus):</i>	<b>16</b>

### **Funding**

1. University Project 2021 as PI: 3.000 EUR
2. University Project 2020 as participant: 10.500 EUR
3. IMI PainCare Biopain subtopic as participant: 558.000 EUR
4. University Project 2016 as co-PI: 4.000 EUR
5. University Project 2015 as participant: 14.000 EUR
6. University Project 2014 as participant: 10.000 EUR
7. University Project 2013 as participant: 8.500 EUR

### **Main scientific awards**

1. Young investigator best scientific contribution, SINC conference, Milano (2014)
2. IFCN Young Investigator Fellowship (2014)
3. Young investigator best scientific contribution, SINC conference, Verona (2015)
4. SIN Young Investigator Fellowship (2015)
5. YAP project, Young Against Pain (2016)
6. IASP Young Investigator Fellowship (2018)
7. IASP/NeuPSIG Young Investigator Fellowship (2019)
8. Best Ph.D thesis 2015/2016 award "Sapienza" (2019)

### **Roles in scientific journals**

Section Editor for the section Neuroscience of Pain for Brain Sciences journal  
 Editorial Board Member of Clinical Neurophysiology  
 Editor for Pain Reports  
 Reviewer Editor for Cognitive Neuroscience section in Frontiers  
 Editorial board member of EC Neurology (ECNE) and Journal of Psychiatry and Psychiatric Disorders;  
 Reviewer for many impacted journals in the pain field (Frontiers; European Journal of pain; Pain Reports; Neuroscience Letters, Neurological Sciences; Clinical Neurophysiology)

### **Presentation at International Congresses**

- Cooling the skin for assessing small-fibres function (poster)  
*ECCN, Warsaw, Poland, 04-07 Jun 2019*
- Cooling the skin for assessing small-fibres function (oral)  
*Laser and Pain Talks in Europe, Lyon, France, 23-25 May, 2019*
- Nociceptive system evaluation in patients with Non Suicidal Self Injury Syndrome. Does the vertex N2 component of the laser evoked potentials may serve as a biomarker of suicidal risk? (poster)  
*NeuPSIG, London, UK, 9-11 May, 2019*

- Trigeminal small-fibers function assessed with cold evoked potentials in humans (poster)  
*IASP Congress, Boston, USA, 13-16 Sept 2018*
- Nociceptive system evaluation in patients with Non Suicidal Self Injury Syndrome (oral)  
*Laser and Pain Talks, Bruxelles, Belgium, 04-06 May, 2017*
- Dronabinol inhibits nociceptive transmission in humans. A double-blind randomized control study (poster) *ECCN, Brno, Czech Republic, 30sept-3 oct, 2015*
- Small fibre neuropathy related to bulbar and spinal onset in patients with SLA (poster)  
*ECCN, Brno, Czech Republic, 30sept-3 oct, 2015*
- Paroxysmal Pain is mediated by non-nociceptive large-myelinated fibres. A neurophysiological study in normal humans. (poster)  
*ICCN-IFCN, Berlin, Germany, 21-23 March, 2014*
- Painful neuropathy related to gastric bypass surgery for obesity (poster)  
*ECCN, Rome, Italy, 21-25 Jun, 2011*

### **Invited Presentations**

Symposium on “Spinal biomarkers of nociceptive system function: new insights on treatment response and reliability”, EFIC 2023

Workshop on “Modality-specific evoked potentials – methods to objectify the quality of our somatosensory system”, EFIC 2023

Teaching Course on “Updates on the neurophysiological assessment of thermo-nociceptive pathway function”, ECCN 2023

Symposium on “New neurophysiological methods in research and the clinic”, ECCN 2023

Invited Speaker at the EU Parliament, Bruxelles during the event “The future of European Pain research”, 2023

Symposium on “New insights on human models and neurophysiological biomarkers of central sensitization” ICCN 2022

Workshop on “Neurophysiological biomarkers for central sensitization in humans” EFIC 2022

Invited Lecture on “Novel neurophysiological biomarkers in pain research” Nocions, UC Louvain 2021

Invited Lecture on Neurophysiological Diagnosis of Pain at the IV Course on EEG and Evoked Potentials (SINC 2021)

Invited Lecture on Neurophysiological Diagnosis of Pain at the Course on EEG and Evoked Potentials (SINC 2020)

Workshop on the Quantitative sensory testing among the CASCADE project: Clinical-diagnostic framework of the peripheral nervous system disease and new therapeutic evidences. (2018)

Invited Lecture on Trigeminal reflexes at the XVII Course on EMG and Evoked Potentials (SINC 2018)

Invited Lecture on Trigeminal reflexes at the XVIII Course on EMG and Evoked Potentials (SINC 2019)

Speaker. Pain and Neuroinflammation. *36 National Congress on General Medicine (2019)*

### **Academic supervision**

#### *Undergraduate students*

Supervision of 9 bachelor theses at the faculty of Medicine and Surgery, Sapienza University

#### *Graduate students*

Supervision of 1 master thesis in Neurology, Department of Human Neuroscience, Sapienza University

#### *Phd student*

Supervision of 1 Phd thesis at the Ph.d course on innovative technologies in Diseases of skeleton, skin and oro-cranio-facial district, Sapienza University

Member of the Ph.D committee for CSID 2022-11-03, Neurosciences et Cognition ED 476  
Université Catholique de Lyon

#### Teaching Activity

Mar 2013-Present	Master in Neuropathic pain management at Azienda Ospedaliera S.Andrea Lecture: Diagnosis of neuropathic pain: focus on clinical usefulness of trigeminal reflexes and laser evoked potentials
Oct 2018-Present	Bachelor's degree course in Medicine and Surgery, Nervous system's disease, Sapienza University Lecture: Neurophysiological diagnosis

#### **Memberships of scientific societies**

Member of the Clinical Neurophysiology Panel of the EAN, since October 2023  
Member of the Research Committee of the IFCN, since October 2023  
President of the Special Interest Group on Pain (PAINterest) of the IFCN, since June 2023  
International Association for the study of pain (IASP), since January 2017  
Neuropathic Pain Special Interest Group (NeuPSIG), since January 2017  
Italian Society of Clinical Neurophysiology (SINC), since 2013  
Italian Society of Neurology (SIN), since 2013

#### **Major collaborations**

Prof. Rolf-Detlef Treede, Department of Neurophysiology, Mannheim Center for Translational Neurosciences (MCTN), Medical Faculty Mannheim, University of Heidelberg, Mannheim, Germany.  
Prof. André Mouraux, Institute of Neuroscience (IoNS), UCLouvain, Brussels, Belgium.  
Prof. Luis Garcia-Larrea, Lyon Neurosciences Center Research Unit Inserm U 1028, Pierre Wertheimer Hospital, Hospices Civils de Lyon, Lyon 1 University, Lyon, France  
Prof. Valery Legrain, Institute of Neuroscience (IoNS), UCLouvain, Brussels, Belgium  
Prof. Giandomenico Iannetti, Italian Institute of technology (IIT), Rome, Italy  
Prof. Massimiliano Valeriani, Ospedale pediatrico Bambin Gesù (OPBG), Rome Italy  
Prof. Massimo Leandri, Dipartimento di scienze chirurgiche e diagnostiche integrate, Genova  
Prof. André Dufour, Laboratoire d'Imagerie et de Neurosciences Cognitives (LINC), University of Strasbourg (UNISTRA), Strasbourg

Rome, 04/02/2024