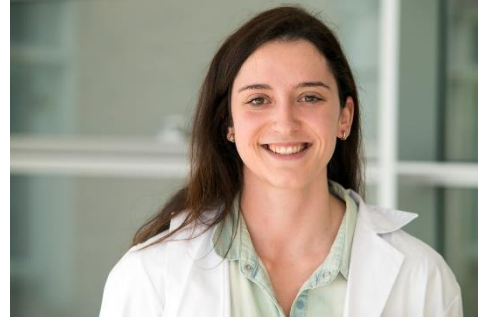


## **Curriculum Vitae**

**Natalia Comino Suárez**

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## PROFILE

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### **1. Main Research Interests and Current Projects**

I am Physiotherapist and I work for Neural Rehabilitation Group (CSIC). I develop my work at the Biomechanics and Technical Aids Department (Hospital Nacional de Paraplégicos, Toledo, Spain) since 2019. I hold my Master degree in The Autonomous University of Madrid (UAM) about Orthopedic Manipulative Therapy and I study my PhD degree in University of Castilla-La Mancha (Toledo). My main research field at the Biomechanics and Technical Aids Department is related with Exoskeleton rehabilitation therapy and nervous system stimulation therapies for patients with neurological diseases. Currently, the research project where I am involved is about transcutaneous spinal cord stimulation (tSCS) combined with robotic-assisted gait training (Lokomat) in patients with spinal cord injury. This noninvasive treatment gives the possibility of stimulating the lumbosacral centers of the spinal cord and evoking muscle activation patterns corresponding to stimulated spinal levels as well as increasing voluntary control of the lower limbs. My work also involves the analysis and extraction of neurophysiological data with electromyography of the motor evoked potential (MEP) with transcranial magnetic stimulation (TMS) and the variation of the posterior root muscle reflexes (PRM) with tSCS in different positions with discharged of body weight. The main objective is to optimize the parameters of the tSCS and the location of the electrodes for the application of this therapy.

## 2. Academic Degrees

- Degree in Physiotherapy at the University of Castilla-La Mancha (UCLM) (2012-2016).
- Master's in Orthopedic Manipulative Therapy at The Autonomous University of Madrid (UAM) (2017-2018).

## 3. Current Position

- Physiotherapist and research lab technician at Biomechanics and Technical Aids Department, National Hospital for Spinal Cord Injury, Toledo, Spain. (2019 - Present).
- Associate Professor at University of Castilla-La Mancha. Subject Biophysics and Biomechanics. (2020)

## 4. Congress Collaborations

- Comparison of intramuscular and surface electromyography recordings towards the use of wearable robots for incomplete spinal cord injury rehabilitation. 8<sup>th</sup> IEEE RAS/EMBS International Conference on Biomedical Robotics & Biomechatronics (BioRob).
- Modificación del reflejo muscular de la raíz posterior debido a cambios en el porcentaje de peso corporal en sujetos voluntarios sanos. X Congreso Iberoamericano de Tecnologías de Apoyo a la Discapacidad. (2019)