Personal Information

Name Surname: Marco Capogrosso **Date of Birth:** 31.07.1985
Université de Fribourg, Département de médecine,
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Nationality: Italian
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Education

Ph. D. in Engineering, Institute of Biorobotics, Scuola Superiore Sant'Anna **2013**
Pisa, Italy. Supervisor: Prof. Silvestro Micera

Master of Science in Applied Physics (cum laude) Università di Pisa, Italy **2009**
Pisa, Italy

Bachelor degree in Physics (cum laude) Università di Pisa, Italy **2007**

Employment History

Research Group Leader **11.2016 to date**
Swiss National Science Foundation Ambizione Fellow
Platform of Translational Neuroscience, Department of Neuroscience and Movement Science,
University of Fribourg, Switzerland

Post-Doctoral Research Scientist **09.2013 – 11.2013**
Center for Neuroprosthetics, **Ecole Polytechnique Fédérale de Lausanne (EPFL),**
Lausanne, Switzerland. Mentors: prof. G. Courtine, and prof. S. Micera.

Phd Fellow **11.2009 – 09.2013**
Institute of Biorobotics, **Scuola Superiore Sant'Anna**, Pisa, Italy.
Mentor: prof. S. Micera

Research Internship **11.2008 –09.2009**
Institute of Clinical Physiology, **National Center for Research, Pisa**, Italy
Mentors: prof. Michele Emdin and prof. Nicola Vanello

Institutional responsibilities:

Member of the **managing committee** of the Platform of Translational Neuroscience, at the department of Medicine**, University of Fribourg** **2017- present**

University of Fribourg, direction of an independent research group **2016-present**

Approved Research Projects

Bertarelli Foundation Catalyst Fund: 300'000 CHF **2018**
in collaboration with Dr. Milekovic. Brain controlled neuromodulation of the cervical spinal cord for the restoration of arm and hand movement in tetraplegia

Wyss Center for Bio and Neuroengineering project grant: 350'000 CHF **2018**
Design of neuromodulation technologies for the recovery of arm movements after spinal cord injury in non-human primates

Industrial Research Grant with G-Therapeutics: 57'500 CHF **2018**
Design of closed-loop control algorithm for spinal cord neuromodulation systems

University of Fribourg Research Pool Grant: 50'000 CHF **2017**
Computational analysis of sensory-motor brain signals during motor recovery in non-human primates

Swiss National Science Foundation Ambizione Grant: 600'000 CHF **2016**
Computational model of the spinal cord for the design of cervical neuromodulation technologies in non-human primates

Wings for Life Research Grant: 300'000 EUR **2016**
Computer model-based design of electrical stimulation protocols for the recovery of upper limb movements after spinal cord injury in non-human primates

ETH summer school program, 30'000 CHF **2015**
Grant for the organization of a summer school in neural engineering.

PhD Fellowship of the Scuola Superiore Sant'Anna: 37'500 EUR **2009**
Computational models for the design of neurotechnologies in sensorimotor disorders

Supervision of junior researchers:

Co-Supervision of Sara Conti, PhD Student in Biomedical Engineering
Supervision of Beatrice Barra, PhD Student in Neuroscience
Co-Supervision of Nathan Greiner, PhD Student of Life Science Doctoral School, EPFL
Supervision of Master and Bachelor Students of Engineering, Physics and Neuroscience

Teaching

Teacher of "Translational Neuroscience" ME.3033, 1.5 ECTS. Bachelor program in Neuroscience, University of Fribourg. Since 2017
Language: French

Lecture at the Summer School: 1st Swiss Break on Neural Engineering, "School on neurophysiology for neural and biomedical engineering". Zermatt, Switzerland, August 2015.
Language: English

Teaching assistant for the courses held by prof. Silvestro Micera at EPFL. 2013 to 2015
Language: English

Boards, commissions and reviewing activities:

Grant Reviewer for CONICYT, Chile

Grant Reviewer for Wings for Life

Member of the steering committee of the Wyss-ETH-Brown summer schools program in Translational Neuroscience

Reviewer for Scientific Reports

Review Editor Frontiers in Neuroscience, in Bioengineering and Biotechnology and in Robotics and AI

Reviewer for The Journal of Neural Engineering

Reviewer for PLoS One

Active Memberships:

Society for Neuroscience, since 2011

Organization of Conferences

Organizer of the IBSA foundation international forum on: "New technologies to treat neuromotor disorders: neuroprosthetics", Campus Biotech, Geneva, Switzerland Sept. 9, 2016

Organizer of the 1st Swiss Break on Neural Engineering, "School on neurophysiology for neural and biomedical engineering". Zermatt, Switzerland, August 2015

Awards

Winner of Lupicaia del Terriccio Prize. International career prize for technological advances in spinal cord injury research. Pisa, Italy, May 2018

Best post-doc Paper award of the NCCR Robotics for the work "Mechanisms Underlying the Neuromodulation of Spinal Circuits for Correcting Gait and Balance Deficits after Spinal Cord Injury", Novemeber 2016

Finalist of the Tomorrow's PI prize from the Swiss Life Science Annual Meeting.

Best post-doc Paper award of the NCCR Robotics, for the work "Restoring natural sensory feedback in real-time bidirectional hand prostheses", October 2014