

Curriculum Vitae - Elena Monti, PhD

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EDUCATION

- 09/2017-04/2021 **Ph.D.** (cum laude) in Biomedical Sciences, University of Padova, Padova, Italy
Supervisor: Prof. Marco V. Narici
Human neuromuscular system plasticity in response to training, unloading and aging.
- 09/2015-07/2017 **M.Sc.** (cum laude) in Sport Science and Rehabilitation, University of Milano, Milan, Italy
- 09/2012-07/2015 **B.Sc.** (cum laude) in Sport Science, University of Milano, Milan, Italy
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ACADEMIC PROFESSIONAL EXPERIENCE

- 02/2022 – Present **Postdoctoral Scholar**, Stanford University, Stanford, CA
Supervisor: Prof. Helen M. Blau
Human and murine neuromuscular system physiological and molecular adaptations in response to muscle unloading and aging, with a focus on the role of prostaglandinE2 and its degrading enzyme 15-PGDH.
- 04/2021 – 01/2022 **Postdoctoral Scholar**, University of Chieti, G. D'Annunzio, Italy
Supervisor: Prof. Feliciano Protasi
Electron microscopy and molecular biology of cancer cachexia with a focus on the neuromuscular system.
- 01/2017 – 06/2017 **Internship** for M.Sc. project, University of Nottingham, Derby (UK)
Supervisor: Prof. Marco V. Narici
Human neuromuscular system plasticity in response to training and aging.
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ACADEMIC TEACHING AND MENTORING EXPERIENCE

- 02/2022-Present Officially training and mentoring **high school students** (junior, senior) during summer internship (SIMR Stanford program), **undergraduate students** during summer program (BioX Stanford program, CVI Stanford program) and during thesis of honour preparation
Training **graduate technicians** in wet lab techniques. Training **postdoctoral scholars** on single cell and multiplex imaging techniques (wet lab and bioinformatics).
- 09/2017-04/2021 Training and mentoring M.Sc., B.Sc. students during thesis project.
Training and mentoring MD resident students in Sports Medicine to use ultrasound tools in exploring skeletal muscle morphology in-vivo.
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PRIZES & AWARDS

- 2020 Best oral presentation at "Integrative Physiology of Exercise" international conference
- 2015 "Exploit your talent" scholarship, for 20 talented students (over 60000+ students) of the University of Milan
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GRANTS & FELLOWSHIPS

- 2024 Marie Curie postdoctoral global fellowship (April 2024-March 2027, 15% acceptance rate). *A novel role for PGE2 signalling in promoting aged neuromuscular junction reinnervation and counteracting sarcopenia.*
- 2023 Wu Tsai Human Performance Alliance fellowship (July 2023-April 2024). *Elucidation of the molecular determinants of muscle weakness and diminished performance in human aging.*

2021 Associazione Italiana per la Ricerca sul Cancro (AIRC) fellowship (10% acceptance rate), 3 years (declined to start postdoctoral position in Stanford). *Neuromuscular junction morphology in human pancreatic and oesophageal cancer-related skeletal muscle loss and weakness.*

CERTIFICATIONS & COURSES

2024 Stanford Mentoring certificate, Stanford University

2023 Stanford Biosciences Grant Academy, Stanford University

2023 Python course advanced level (PCAP), Stanford University

2022 Python course entry level (PCEP) and PCEP certification, Stanford University

SCIENTIFIC PUBLICATIONS (Selected list)

Publications (total, Scopus): 28 | **Citations** (total, Scopus): 499 | **H-index** (Scopus): 13

1. Sarto F, Franchi MV, McPhee JS, Stashuk DW, Paganini M, **Monti E**, et al., Narici MV. Neuromuscular impairment at different stages of human sarcopenia. *JCSM*. 2024
 2. A. Bakooshli M#, Wang XY#, **Monti E**, et. al., Blau, HM. Regeneration of neuromuscular synapses after acute and chronic denervation by inhibiting the gerozyme 15-prostaglandin dehydrogenase. *Sci Trans Med*. 2023.
 3. **Monti E**#, Tagliaferri S#, et al., Narici MV. Effects of a 2-year exercise training on neuromuscular system health in older individuals with low muscle function. *JCSM*. 2023.
 4. **Monti, E.**; et al., Narici MV. C-Terminal Agrin Fragment as a biomarker of muscle wasting and weakness: a narrative review. *JCSM*. 2023.
 5. Murgia M, Brocca L, **Monti E**, et al., Narici MV. Plasma proteome profiling of healthy subjects undergoing bed rest reveals unloading-dependent changes linked to muscle atrophy. *JCSM*. 2022.
 6. Sarto F, Valli G, **Monti E**. Motor unit alterations with muscle disuse: what's new? *J Physiol*. 2022.
 7. Sarto F, Stashuk DW, Franchi MV, **Monti E**, et al., Narici MV. Effects of short-term unloading and active recovery on human motor unit properties, neuromuscular junction transmission and transcriptomic profile. *J Physiol*. 2022.
 8. **Monti E**, et al., Narici MV. Muscle in Variable Gravity: "I Do Not Know Where I Am, But I Know What to Do". *Front Physiol*. 2021.
 9. Marcolin G, Franchi MV, **Monti E**, et al., Narici M. Active older dancers have lower C-terminal Agrin fragment concentration, better balance and gait performance than sedentary peers. *Exp Gerontol*. 2021.
 10. Narici M, McPhee J, et al., **Monti E**, et al., Butler-Browne GS. Age-related alterations in muscle architecture are a signature of sarcopenia: the ultrasound sarcopenia index. *JCSM*. 2021.
 11. **Monti E**, et al., Narici MV. Neuromuscular junction instability and altered intracellular calcium handling as early determinants of force loss during unloading in humans. *J Physiol*. 2021.
 12. **Monti E**, et al., Reggiani C. Are muscle fibres of body builders intrinsically weaker? A comparison with single fibres of aged-matched controls. *Acta Physiol (Oxf)*. 2021.
 13. **Monti E**#, Franchi MV#, et al., Narici MV. The Time-Course of Changes in Muscle Mass, Architecture and Power During 6 Weeks of Plyometric Training. *Front Physiol*. 2020.
 14. Franchi MV, **Monti E**, et al., Narici MV. Bouncing Back! Counteracting Muscle Aging with Plyometric Muscle Loading. *Front Physiol*. 2019.
 15. Esposito F, Cè E, Rampichini S, **Monti E**, et al., Meola G. Electromechanical delays during a fatiguing exercise and recovery in patients with myotonic dystrophy type 1. *Eur J Appl Physiol*. 20
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OTHER PROFESSIONAL EXPERIENCE

2023-To date **Trainee Leadership Committee** of the Wu Tsai Human Performance Alliance at Stanford University (organizing events, research updates and panels for the students of the alliance)

2018 and 2024 **Volunteer** in Ivory Coast abandoned children community

2009 – 2017 Artistic Gymnastics **Coach** at A.S.D. Artistica Cassina, Milan, Italy, for competitive (elite) and non-competitive athletes

2015 – 2017. Swim **Instructor, Coordinator**, at Enjoy Center, Milan, Italy