Curriculum vitae

Martino V. Franchi
ORCID: 0000-0003-3165-4536; **Scopus ID**: 56026602500
DOB: 23/10/1984, Italian

EDUCATION

2010-2014 **PhD in skeletal muscle physiology**
Institute for Biomedical Research into Human Movement and Health, Manchester Metropolitan University, UK.
PhD Supervisor: Prof Marco Narici. Thesis: "Mechanisms of human skeletal muscle remodeling in response to concentric and eccentric loading paradigms".

2008-2010 **Master by Research (MRes) in skeletal muscle physiology**
IRM, Manchester Metropolitan University, UK

2003-2008 **BSc (2003-2006) and MSc (2006-2008) in Exercise & Sports Sciences**
Università Cattolica del Sacro Cuore, Milan (UCSC), IT

EMPLOYMENT

- **CURRENT POSITIONS**

2019- **Assistant Professor (Tenure Track) – to become Associate Professor from 2026**
Department of Biomedical Sciences, University of Padua, IT

Special Graduate Faculty (2021-) Department of Human Health & Nutritional Sciences, University of Guelph, CAN

- **PREVIOUS POSITIONS**

2017-2019 **Postdoctoral Research Fellow in skeletal muscle plasticity & sports medicine**
Balgrist University Hospital, Department of Orthopedics, University of Zürich (UZH) and Swiss Federal Institute of Technology (ETH), Zürich, CH

2013 - 2017 **Postdoctoral Research Associate (2013-2014), Postdoctoral Fellow (2014-2017)**
MRC/ARUK Centre for Musculoskeletal Ageing Research, University of Nottingham, UK

TEACHING ACTIVITIES

2019– Degree of *Sports Sciences*, Subject: Human Physiology (**Subject Leader**), **University of Padua, IT**
2023- Degree of *Nursing Sciences,* Subject: Human Physiology, **University of Padua, IT**
2020–2021 Lecturer- "Muscles as motors" modules- **English Institute of Sport**
2019– Lecturer- **Football Science Institute** Master in *Football injury, reconditioning and prevention* - "Tendon and muscle adaptations in response to eccentric training"
2017 – 2019 Postdoctoral Research Fellow - Classes: "Phenotypic adaptations of skeletal muscle to different training stimuli" and "Concentric vs. Eccentric exercise modalities", Prof Flück's course in *Tissue Engineering for skeletal muscle,* **University of Zürich**, CH.
2014 – 2017 Postdoctoral Fellow - Classes: "Methods to assess body composition and Muscle structure" and "Methods to quantify skeletal muscle function", course in *Medical Physiology and Therapeutics,* **University of Nottingham**, UK.
Guest Lecturer: Saarland University (Germany), University of Aalborg (Denmark), UCSC Milan (Italy).

RESEARCH METRICS TRACK RECORD

Total number of publications (started in 2014): (*Scopus*) **92**
Total number of **first authorship** publications: (*Scopus*) **27** (18 first, 9 co-first)
Total number **last authorship** publications: (*Scopus*) **8**

Total Citations Number (from 2014): (*Scholar*) **4809 -** (*Scopus*) **2841**
h-index (*Scholar*) **32 -** (*Scopus*) **26**
i10-index (*Scholar*) **57 -** (*Scopus*) **48**
Total number of articles with **>100 citations** = (*Scholar*) **10 -** (*Scopus*) **8**

SciVal (*Scopus*)
Number of articles in top quartile (25%, Q1) **= 65 (72.2%)**
Cumulative share Q1 to Q2 = **85 (94.4%)**
Number of International co-authorships = 74 (80.4%)
Average Field Weighted Citations Impact **(FWCI)** 2014-2024 **= 2.76**

Top research outputs

1. **Franchi MV** et al. Architectural, functional and molecular responses to concentric and eccentric loading in human skeletal muscle *Acta Physiol* ,2014, CN 269
2. **Franchi MV** et al. Regional regulation of focal adhesion kinase after concentric and eccentric loading is related to remodelling of human skeletal muscle *Acta Physiol.*,2018, CN 66
3. **Franchi MV** et al. Skeletal muscle remodeling in response to eccentric vs. concentric loading: Morphological, molecular, and metabolic adaptations. *Front Physiol*.,2017, CN 237
4. **Franchi MV** et al. Ultrasound-derived Biceps Femoris Long Head Fascicle Length: Extrapolation Pitfalls *Med Sci Sport Exerc*,2020, CN 69
5. Pincheira P, Boswell M, **Franchi MV**, Delp SL, Lichtwark G. Biceps femoris long head sarcomere and fascicle length adaptations after three weeks of eccentric exercise training *J Sport Heal Sci*,2021, CN 42
6. Sarto F, Spörri J, Fitze DP, Quinlan JI, Narici MV, **Franchi MV.** Implementing Ultrasound Imaging for the Assessment of Muscle and Tendon Properties in Elite Sports : Practical Aspects , Methodological Considerations and Future Directions. *Sport. Med.* 2021
7. Ritsche P, Wirth P, Cronin N, Sarto F, Narici M V., Faude O, **Franchi MV.** DeepACSA: Automatic Segmentation of Cross-sectional Area in Ultrasound Images of Lower Limb Muscles Using Deep Learning. *Med Sci Sport Exerc* , 2022.
8. **Franchi MV** et al. Muscle thickness correlates to muscle cross-sectional area in the assessment of strength training-induced hypertrophy. *Scand J Med Sci Sport* 28: 846–853, 2018.

SUPERVISION (Graduate and PhD students, Postdoctoral Research Associates - PDRAs)

2016 – present Co-supervision of **6 PhD students** (*3 completed - University of Nottingham, University of Padua; 3 on-going - University of Guelph, Hungarian University of Sports Science, University of Auburn*), **5 MSc students** (*University of Nottingham, Balgrist University Hospital*) and **9 BSc final projects** (University of Nottingham, University of Padua).

2022 – present Main supervision of **3 PDRAs** (University of Padua) – all recruited by securing external funding (*please see funding/grants awarded section*).
Dr Clarissa Müller Brusco, working on the Trajector-AGE project (*funding: Ministry of University and Research*), Dr Maíra Camargo Scarpelli working on the ReActiveAGE project (*funding: Ministry of University and Research*) and Dr Giuseppe Cerullo working on NeoMuscleMap project (*funding: Ministry of University and Research*).

Amongst the 5 MSc students supervised, *Mr Daniel Fitze* after his MSc at Balgrist *(now a PhD candidate)*, is now the head of the musculoskeletal imaging (Ultrasound) Unit at "On Your Marks (OYM)" in Zug, CH. OYM is a private centre for top level sports training and research, where functional, morphological, and molecular aspects of cutting-edge research in muscle physiology lead training decisions for elite Swiss athletes.

Amongst the 6 PhD students co-supervised, *Dr Jonathan Quinlan* (University of Nottingham**)** is a National Institute of Health Research (NIHR) Postdoctoral Fellow in the School of Sports, Exercise and Rehabilitation Sciences at the University of Birmingham, UK.

GRANTS AWARDED (Total so far- 1'351'137.54 Euros / £1'115'742.36)

Project Title	*Funding source*	*Amount (Euros/GBP)*	*Period*	*Role of the I*
Neuromuscular impairment in aging: a longitudinal study of structural and functional mechanistic bases of age-related alterations- TRAJECTOR-AGE	Ministry of Italian Education and Research (Projects of National Interest 2020 call)	678.305,00 / ~£ 560k	2022-2025	CO-PI and Unit Head
Mapping the development of the neural control and functional structure of muscles in very preterm and full-term neonates: new tools for understanding motor ontogenesis and early diagnosis of neuromotor diseases - NEO-MUSCLE-MAP	Ministry of Italian Education and Research (Projects of National Interest 2022 call)	205.229,00 / ~£ 170k	2023-2025	CO-PI and Unit Head
The countermeasures to the neuromuscular impairments induced by inactivity and disuse across different ages – *ReActive-AGE*	Ministry of Italian Education and Research (Projects of National Interest 2022 PNRR call)	245.196,00 / ~£ 202k	2023-2026	**PI**
Application of ultrasound and shear wave elastography to quantify morphological and mechanical properties of muscles and tendons: new opportunities for addressing unmet clinical needs in sports medicine	Balgrist Stiftung (CH)	222.407,54 / ~£ 184k	Oct 2019-2022	Single CO-PI
The use of Ultrafast Ultrasound technique to investigate the main determinants of longitudinal and lateral force transmission in the ageing muscle-tendon unit.	University of Padua, Grant BIRD21	25.179,61 / ~£ 21k	April 2021-2023	**PI**

REVIEWING ACTIVITIES

2022– **Editorial board member** of "The Journal of Physiology" and "Medicine & Science in Sports & Exercise"

2020– Associate Editor for "Translational Sports Medicine", "Biology (Basel)", "Science & Medicine in Football" journals

2015– Reviewer for **50+** peer reviewed international journals including *Science Advances, Journal of Cachexia Sarcopenia and Muscle, Sports Medicine*

Examined 2 PhD Theses and 1 MRes thesis.

ORGANISATION OF SCIENTIFIC MEETINGS

2019– European College of Sports Science (ECSS) 2025 "*Sport and Wellness in Riviera*", Rimini, IT. **Local organisational committee** and **Head of Volunteers**. ECSS Annual Conference is the biggest European scientific conference for Muscle & Exercise Physiology

INSTITUTIONAL RESPONSIBILITIES

2021– Special Graduate Faculty, Department of Human Health & Nutritional Sciences, University of Guelph, Canada
2020– School of Doctorate in Biomedical Sciences committee, University of Padua, Italy
2019– Faculty member, Football Science Institute, Granada, Spain

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2011– **Member & Fellow of the European College of Sport Science (ECSS)**
2023– **Member of ECSS Reviewing Panel**
2018– Member of the American College of Sports Medicine (ACSM)
2018– Member of the UK Physiological Society (PhySoc)
2020– Member of the International Society of Electrophysiology and Kinesiology (ISEK)
2023– Member of the American Physiological Society (APS)

PROFESSIONAL SERVICES

- Member, UEFA Expert Group on Head Injuries and Heading (2022-2023)
- External Consultant, English Institute of Sport (2020)
- External Consultant, Leistungssport Austria (2022)
- Member, Local Organizing Committee, ECSS 2025 Conference

Invited presentations to internationally established conferences and/or international advanced schools:

Total number of invited presentations: 30
Noteworthy:
2022 & 2024 **European College of Sports Science invited symposium** (as main proponent).
2022 & 2024 International Society of Electrophysiology and Kinesiology Invited Symposium.
2021 European College of Sports Science webinar. The art of Ultrasound for imaging muscle-tendon
2020 & 2021 ASPETAR Orthopaedic & Sports Medicine Hospital, Qatar. Muscle adaptations to exercise
2019 Berlin Autumn PhD School 2019, HUB, GER. From molecules to morphology and function: an overview of skeletal muscle adaptations to eccentric loading

PRIZES/AWARDS

University of Padova Teaching Award 2024 – amongst the top 10% lecturers of the whole university.
Acta Physiologica Award 2020 Finalist (top 20 articles)- Franchi et al. Acta Physiol 2018. Winner yet to be decided (2022)
European College of Sports Science Fellow (FECSS, from 2017) supporting the goals of ECSS by distinguished activities. FECSS made a significant contribution to the development of sports science through research
Mognoni Prize 2013, 1st place for young investigator in exercise physiology (1500 € prize). 10th National Sports Medicine Conference, Saronno, IT
Article of the month, Balgrist University Hospital (Zürich, CH) (x2) – Franchi et al. *Scientific Reports* 2020, Sarto et al. *Sports Med* 2021 (Last Author)