

November 2019 to date - Full Professor of Human Physiology, Department of Biomedical sciences, University of Padova. Until June 2024 Director of the Vallisneri biomedical campus.

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Overview

Professor Giuseppe De Vito was born in 1958 in Blantyre (Malawi). He then grew up in Italy where he graduated in Medicine and Surgery in 1986 at the medical school of the University of Rome la Sapienza. At the same university he completed firstly a specialization in Sports Medicine (1989) and then a PhD in Human and Exercise physiology (1994) presenting a thesis on exercise training adaptations in the older individual. He previously held academic positions in Glasgow (1996-2005; University of Strathclyde), in Rome at the University Institute of Movement Science (2005-2007) and from 2007 to 2019 in Dublin at the University College Dublin. As specialist in Sports Medicine he has acted as Team Physician to the Italian Olympic Committee, being from 1994 to 1996 the physician/physiologist of the Italian Olympic Sailing team. In the past, he represented Italy in the World Championships as a Modern Pentathlete. He is a member of Italian Physiological Society and Associate Editor of the Journal of Science in Sports and Journal Frontiers Physiology. He has published widely on aspects of neuromuscular function and cardiovascular control across the lifespan.

Experience**Past Academic Appointments**

Head of School, UCD School of Public Health, Physiotherapy and Sports Science	2014-2019
Full Professor of Performance Science, School of Public Health Physiotherapy and Sports Science, University College Dublin	2007-2019
Associate professor of Human Physiology, Department of Human Movement and Sports Science., Istituto Universitario di Scienze Motorie (IUSM) Rome, Italy	2005-2007

Reader of Human and Exercise Physiology, Department of Applied Physiology., University of Strathclyde, Glasgow (UK)	2000-2005
Senior Lecturer, Scottish School of Sport Studies, University of Strathclyde Glasgow (UK)	1999-2000
Lecturer, Scottish School of Sport Studies, University of Strathclyde Glasgow (UK)	1996-1999

Education

Degrees

PhD Uni Rome 'La Sapienza Italy	1994
Specialisation in Sports Medicine, Uni Rome 'La Sapienza Italy	1989
MD Uni Rome 'La Sapienza Italy	1986

Language Competencies

Can read, write, speak and understand spoken English

Can read, write, speak and understand spoken Italian

Can read, write, speak and understand spoken Spanish

Distinctions

Adjunct Full Professor, University College Dublin	2020 up to now
<i>Abilitazione</i> (Italy) to Full Professorship in Physiology	2014
Guest Professor for 3 years University of Tianjin (China)	2010-2013
Chair in Exercise Medicine (University of Stirling, Scotland; part-time)	2007-2010
Winner of the annual prize for his dissertation in Sports Medicine, <i>Awarding Agency: Italian Olympic committee</i>	1990
Italian delegate to the annual session of Olympic Academy, Olympia, Greece, <i>Awarding Agency: International Olympic committee</i>	1987

Main Grants (last 5 years)

Progetti di rilevante interesse nazionale (Prin), Unravelling the neural mechanisms underlying muscle weakness: the importance of early detection and treatment through a novel home-based intervention. (CoPi) € 236,875 2024-2026

Prin, Motoneuron plasticity throughout human life: (MOPLAST) €240,000 Pi 2023-2025

JPI (Prevnut) EU Appetite project €214,000 CoPI 2021-2023

Irish Research Council (IRC), An investigation into the determinants of sarcopenia and muscle function, €72,000 2019-2022

University College Dublin (UCD), UCD EQUIP Scheme 2018, €91,511 2019-2020

Genomics Medicine Ireland, Investigating the Genomic Basis of Fitness and Health, €367,297 2017-2022

Publications (selected from a total of 168 full papers).

Pratt J, Motanova E, Narici Marco, Boreham CA, and **De Vito G**. Plasma brain-derived neurotrophic factor (BDNF) concentrations are elevated in community-dwelling adults with sarcopenia. In press on *Age and Ageing* accepted on 09.01.2025.

Franchi MV, Candia J, Sarto F, Sirago G, Valli G, Paganini M, Hartnell L, Giacomello E, Toniolo L, Monti E, Nogara L, Moro T, Paoli A, Msosturgia M, Brocca L, Pellegrino MA, Grassi B, Bottinelli R, **De Vito G**, Ferrucci L, Narici MV. Previous short-term disuse dictates muscle gene expression and physiological adaptations to subsequent resistance exercise. *J Physiol*. 2025 Jan 10. doi: 10.1113/JP287003. Online ahead of print.

Pratt J, Motanova E, Pessanha L, Narici M, Boreham C, **De Vito G**. Plasma C-terminal agrin fragment concentrations across adulthood: Reference values and associations with skeletal muscle health. *J Cachexia Sarcopenia Muscle*. 2024 Aug;15(4):1501-1510. doi: 10.1002/jcsm.13507.

Sarto F, Franchi MV, McPhee JS, Stashuk DW, Paganini M, Monti E, Rossi M, Sirago G, Zampieri S, Motanova ES, Valli G, Moro T, Paoli A, Bottinelli R, Pellegrino MA, **De Vito G**, Blau HM, Narici MV. Neuromuscular impairment at different stages of human sarcopenia. *J Cachexia Sarcopenia Muscle*. 2024 Oct;15(5):1797-1810. doi: 10.1002/jcsm.13531. Epub 2024 Sep 5.

Martino G, Valli G, Sarto F, Franchi MV, Narici MV, **De Vito G**. Neuromodulatory Contribution to Muscle Force Production after Short-Term Unloading and Active Recovery. *Med Sci Sports Exerc*. 2024 Sep 1;56(9):1830-1839. doi: 10.1249/MSS.0000000000003473. Epub 2024 May 1.

Valli G, Wu R, Minnock D, Sirago G, Annibalini G, Casolo A, Del Vecchio A, Toniolo L, Barbieri E, **De Vito G**. Can non-invasive motor unit analysis reveal distinct neural strategies of force production in young with uncomplicated type 1 diabetes? *Eur J Appl Physiol*. 2024 Aug 30. doi: 10.1007/s00421-024-05595-z. Online ahead of print.

- Krause M, **De Vito G**. Type 1 and Type 2 Diabetes Mellitus: Commonalities, Differences and the Importance of Exercise and Nutrition. *Nutrients*. 2023 Oct 7;15(19):4279. doi: 10.3390/nu15194279.
- Pratt J, Paolucci N, Boreham C, **De Vito G**. Grip strength positively correlates with blood pressure in individuals with abnormal adiposity. *J Hum Hypertens*. 2023 Sep 9. doi: 10.1038/s41371-023-00862-6. Epub ahead of print. PMID: 37689823.
- Pratt J, Pessanha L, Narici M, Boreham C, **De Vito G**. Handgrip strength asymmetry as a new biomarker for sarcopenia and individual sarcopenia signatures. *Aging Clin Exp Res*. 2023 Sep 2. doi: 10.1007/s40520-023-02539-z. Epub ahead of print. PMID: 37658983.
- Valli G, Sarto F, Casolo A, Del Vecchio A, Franchi MV, Narici MV, **De Vito G**. Lower limb suspension induces threshold-specific alterations of motor units properties that are reversed by active recovery. *J Sport Health Sci*. 2023 Jun 17:S2095-2546(23)00059-5. doi: 10.1016/j.jshs.2023.06.004. Epub ahead of print. PMID: 37331508.
- Sirago G, Candia J, Franchi MV, Sarto F, Monti E, Toniolo L, Reggiani C, Giacomello E, Zampieri S, Hartnell LM, **De Vito G**, Sandri M, Ferrucci L, Narici MV. Upregulation of Sarcolemmal Hemichannels and Inflammatory Transcripts with Neuromuscular Junction Instability during Lower Limb Unloading in Humans. *Biology* (Basel). 2023 Mar 10;12(3):431. doi: 10.3390/biology12030431. PMID: 36979123; PMCID: PMC10044797.
- de Lemos Muller CH, Moritz CEJ, Schroeder HT, Battastini AMO, Reischak-Oliveira A, de Bittencourt Júnior PIH, **De Vito G**, Krause M. Influence of body composition and cardiorespiratory fitness on plasma HSP72, norepinephrine, insulin, and glucose responses to an acute aerobic exercise bout performed in the fed state. *Cell Stress Chaperones*. 2023 Jul 18. doi: 10.1007/s12192-023-01364-7. Epub ahead of print. PMID: 37462825.
- Pratt J, Whitton L, Ryan A, Juliusdottir T, Dolan J, Conroy J, Narici M, **De Vito G**, & Boreham C. Genes encoding agrin (AGRN) and neurotrypsin (PRSS12) are associated with muscle mass, strength and plasma C-terminal agrin fragment concentration. *Geroscience*. 2023 Jan 7. doi: 10.1007/s11357-022-00721-1. Online ahead of print.
- Sarto F, Stashuk DW, Franchi MV, Monti E, Zampieri S, Valli G, Sirago G, Candia J, Hartnell LM, Paganini M, McPhee JS, **De Vito G**, Ferrucci L, Reggiani C, Narici MV. Effects of short-term unloading and active recovery on human motor unit properties, neuromuscular junction transmission and transcriptomic profile. *J Physiol*. 2022 Nov;600(21):4731-4751. doi: 10.1113/JP283381. Epub 2022 Sep 27. PMID: 36071599; PMCID: PMC9828768.
- Pratt J, **De Vito G**, Segurado R, Pessanha L, Dolan J, Narici M, & Boreham C. Plasma neurofilament light levels associate with muscle mass and strength in middle-aged and older adults: findings from GenoFit. *J Cachexia Sarcopenia Muscle*. 2022 Jun;13(3):1811-1820.
- Minnock D, Annibalini G, Valli G, Saltarelli R, Krause M, Barbieri E, & **De Vito G**. Altered muscle mitochondrial, inflammatory and trophic markers, and reduced exercise training adaptations in type 1 diabetes. *J Physiol*. 2022 Mar;600(6):1405-1418. doi: 10.1113/JP282433. Epub 2022 Jan 24.
- Minnock D, Annibalini G, Le Roux CW, et al. Effects of acute aerobic, resistance and combined exercises on 24-h glucose variability and skeletal muscle signalling responses in type 1 diabetics. *Eur J Appl Physiol*. 2020 Dec;120(12):2677-2691.

- Pratt J, **De Vito G**, Narici M, Segurado R, Pessanha L, Dolan J, Conroy J, Boreham C. Plasma C-Terminal Agrin Fragment as an Early Biomarker for Sarcopenia: Results From the GenoFit Study. *J Gerontol A Biol Sci Med Sci*. 2021 Nov 15;76(12):2090-2096.
- Wu R, Ditroilo M, Delahunt E, **De Vito G**. Age Related Changes in Motor Function (II). Decline in Motor Performance Outcomes. *Int J Sports Med*. 2020 Nov 2. doi: 10.1055/a-1265-7073.
- Forte R, Tocci N, & **De Vito G**. The Impact of Exercise Intervention with Rhythmic Auditory Stimulation to Improve Gait and Mobility in Parkinson Disease: An Umbrella Review. *Brain Sci*. 2021 May 22;11(6):685. doi: 10.3390/brainsci11060685.
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- Narici M, **De Vito G**, Franchi M, et al (2020). Impact of sedentarism due to the COVID-19 home confinement on neuromuscular, cardiovascular and metabolic health: Physiological and pathophysiological implications and recommendations for physical and nutritional countermeasures. *Eur J Sport Sci*. 2020 May 12:1-22. doi: 10.1080/17461391.2020.1761076. Online ahead of print.
- Ainscough, K.M., O'Brien, E.C., Lindsay, K.L., (...), De Vito, G., & McAuliffe, F.M.(2020). Nutrition, Behavior Change and Physical Activity Outcomes From the PEARS RCT—An mHealth-Supported, Lifestyle Intervention Among Pregnant Women With Overweight and Obesity. *Frontiers in Endocrinology* 10,938
- Pratt J, Boreham C, Ennis S, Ryan AW, & **De Vito G**. Genetic Associations with Aging Muscle: A Systematic Review. *Cells*. 2019 Dec 19;9(1). pii: E12. doi:10.3390/cells9010012. Review.
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- Mair, J. L., **De Vito, G.**, & Boreham, C. A. (2019). Low Volume, Home-Based Weighted Step Exercise Training Can Improve Lower Limb Muscle Power and Functional Ability in Community-Dwelling Older Women.. *Journal of clinical medicine*, 8(1). doi:[10.3390/jcm8010041](https://doi.org/10.3390/jcm8010041)
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