

November 2019 to date - Full Professor of Human Physiology, Department of Biomedical sciences, University of Padova. From June 2021 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	2000-2005
Senior Lecturer, Scottish School of Sport Studies, University of Strathclyde	1999-2000
Lecturer, Scottish School of Sport Studies, University of Strathclyde	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
Abilitazione 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)	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)

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
Irish Research Council (IRC), Physical Activity and cognitive stress induced alterations in people living with diabetes: Improving treatment and quality of life, €71,500	2016-2019

Publications (selected from a total of 159 full papers).

- 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 neurotrophin (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.

- Pratt J, De Vito G, Narici M, Boreham CAG (2020). Neuromuscular Junction Aging: A Role for Biomarkers and Exercise. *J Gerontol A Biol Sci Med Sci*. 2021 Mar 31;76(4):576-585.
- Forte R, De Vito G, Boreham CAG (2020). Reliability of walking speed in basic and complex conditions in healthy, older community-dwelling individuals. *Aging Clin Exp Res*. 2020 Apr 10. doi: 10.1007/s40520-020-01543-x. Online ahead of print.
- Wu R, De Vito G, Delahunt E, Ditroilo M (2020). Age-related Changes in Motor Function (I). Mechanical and Neuromuscular Factors. *Int J Sports Med*. 2020 May 4. doi: 10.1055/a-1144-3408. Online ahead of print.
- Cronin K, Foley S, Cournane S, De Vito G, Delahunt E. Hamstring muscle architecture assessed sonographically using wide field of view: A reliability study. *PLoS One*. 2022 Nov 10;17(11):e0277400. doi: 10.1371/journal.pone.0277400.
- 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
- R Forte, G De Vito (2019). Comparison of Neuromotor and Progressive Resistance Exercise Training to Improve Mobility and Fitness in Community-Dwelling Older Women. *Journal of Science in Sport and Exercise* 1 (2), 124-131
- 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.
- Wu, R., Delahunt, E., Ditroilo, M., Ferri Marini, C., & De Vito, G. (2019). Torque steadiness and neuromuscular responses following fatiguing concentric exercise of the knee extensor and flexor muscles in young and older individuals. *Experimental Gerontology*, 124. doi:[10.1016/j.exger.2019.110636](https://doi.org/10.1016/j.exger.2019.110636)
- Wu, R., Delahunt, E., Ditroilo, M., Lowery, M. M., Segurado, R., & De Vito, G. (2019). Changes in knee joint angle affect torque steadiness differently in young and older individuals. *Journal of Electromyography and Kinesiology*, 47, 49-56. doi:[10.1016/j.jelekin.2019.05.010](https://doi.org/10.1016/j.jelekin.2019.05.010)
- Minnock, D., Krause, M., Le Roux, C. W., & De Vito, G. (2019). Effects of acute exercise on glucose control in type 1 diabetes: A systematic review. *Translational Sports Medicine*, 2(2), 49-57. doi:[10.1002/tsm2.64](https://doi.org/10.1002/tsm2.64)
- 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)
- Krause, M., Crognale, D., Cogan, K., Contarelli, S., Egan, B., Newsholme, P., & De Vito, G. (2019). The effects of a combined bodyweight-based and elastic bands resistance training, with or without protein supplementation, on muscle mass, signaling and heat shock response in healthy older people. *Experimental Gerontology*, 115, 104-113. doi:[10.1016/j.exger.2018.12.004](https://doi.org/10.1016/j.exger.2018.12.004)
- Kemp, G. J., Birrell, F., Clegg, P. D., Cuthbertson, D. J., De Vito, G., Van Dieën, J. H., . . . Mathers, J. C. (2018). Developing a toolkit for the assessment and monitoring of musculoskeletal ageing. *Age and Ageing*, 47, iv1-iv19. doi:[10.1093/ageing/afy143](https://doi.org/10.1093/ageing/afy143)

- de Lemos Muller, C. H., Rech, A., Botton, C. E., Schroeder, H. T., Bock, P. M., Farinha, J. B., . . . Krause, M. (2018). Heat-induced extracellular HSP72 release is blunted in elderly diabetic people compared with healthy middle-aged and older adults, but it is partially restored by resistance training. *Experimental Gerontology*, 111, 180-187. doi:[10.1016/j.exger.2018.07.014](https://doi.org/10.1016/j.exger.2018.07.014)
- Kennelly, M. A., Ainscough, K., Lindsay, K. L., O'Sullivan, E., Gibney, E. R., McCarthy, M., . . . McAuliffe, F. M. (2018). Pregnancy exercise and nutrition with smartphone application support a randomized controlled trial. *Obstetrics and Gynecology*, 131(5), 818-826. doi:[10.1097/AOG.0000000000002582](https://doi.org/10.1097/AOG.0000000000002582)
- Patrizio, F., Ditroilo, M., Felici, F., Duranti, G., De Vito, G., Sabatini, S., . . . Bazzucchi, I. (2018). The acute effect of Quercetin on muscle performance following a single resistance training session. *European Journal of Applied Physiology*, 118(5), 1021-1031. doi:[10.1007/s00421-018-3834-y](https://doi.org/10.1007/s00421-018-3834-y)
- Cogan, K. E., Evans, M., Iuliano, E., Melvin, A., Susta, D., Neff, K., . . . Egan, B. (2018). Co-ingestion of protein or a protein hydrolysate with carbohydrate enhances anabolic signaling, but not glycogen resynthesis, following recovery from prolonged aerobic exercise in trained cyclists. *European Journal of Applied Physiology*, 118(2), 349-359. doi:[10.1007/s00421-017-3775-x](https://doi.org/10.1007/s00421-017-3775-x)
- Moran, C., Scotto di Palumbo, A., Bramham, J., Moran, A., Rooney, B., De Vito, G., & Egan, B. (2018). Effects of a Six-Month Multi-Ingredient Nutrition Supplement Intervention of Omega-3 Polyunsaturated Fatty Acids, vitamin D, Resveratrol, and Whey Protein on Cognitive Function in Older Adults: A Randomised, Double-Blind, Controlled Trial. *The journal of prevention of Alzheimer's disease*, 5(3), 175-183. doi:[10.14283/jpad.2018.11](https://doi.org/10.14283/jpad.2018.11)
- Barnouin, Y., McPhee, J. S., Butler-Browne, G., Bosutti, A., De Vito, G., Jones, D. A., . . . Degens, H. (2017). Coupling between skeletal muscle fiber size and capillarization is maintained during healthy aging. *Journal of Cachexia, Sarcopenia and Muscle*, 8(4), 647-659. doi:[10.1002/jcsm.12194](https://doi.org/10.1002/jcsm.12194)
- Brocca, L., McPhee, J. S., Longa, E., Canepari, M., Seynnes, O., De Vito, G., . . . Bottinelli, R. (2017). Structure and function of human muscle fibres and muscle proteome in physically active older men. *Journal of Physiology*, 595(14), 4823-4844. doi:[10.1113/JP274148](https://doi.org/10.1113/JP274148)
- Byrne, H., Caulfield, B., & De Vito, G. (2017). Effects of Self-directed Exercise Programmes on Individuals with Type 2 Diabetes Mellitus: A Systematic Review Evaluating Their Effect on HbA^{1c} and Other Metabolic Outcomes, Physical Characteristics, Cardiorespiratory Fitness and Functional Outcomes. *Sports Medicine*, 47(4), 717-733. doi:[10.1007/s40279-016-0593-y](https://doi.org/10.1007/s40279-016-0593-y)
- Wu, R., Delahunt, E., Ditroilo, M., Lowery, M. M., & De Vito, G. (2017). Effect of knee joint angle and contraction intensity on hamstrings coactivation. *Medicine and Science in Sports and Exercise*, 49(8), 1668-1676. doi:[10.1249/MSS.0000000000001273](https://doi.org/10.1249/MSS.0000000000001273)
- Wang, D., De Vito, G., Ditroilo, M., & Delahunt, E. (2017). Different Effect of Local and General Fatigue on Knee Joint Stiffness. *Medicine and Science in Sports and Exercise*, 49(1), 173-182. doi:[10.1249/MSS.0000000000001086](https://doi.org/10.1249/MSS.0000000000001086)
- Wu, R., Delahunt, E., Ditroilo, M., Lowery, M., & De Vito, G. (2016). Effects of age and sex on neuromuscular-mechanical determinants of muscle strength. *Age*, 38(3). doi:[10.1007/s11357-016-9921-2](https://doi.org/10.1007/s11357-016-9921-2)
- Mair, J. L., Nevill, A. M., De Vito, G., & Boreham, C. A. (2016). Personalised prescription of scalable high intensity interval training to inactive female adults of different ages. *PLoS ONE*, 11(2). doi:[10.1371/journal.pone.0148702](https://doi.org/10.1371/journal.pone.0148702)
- Delahunt, E., McGroarty, M., De Vito, G., & Ditroilo, M. (2016). Nordic hamstring exercise training alters knee joint kinematics and hamstring activation patterns in young men. *European Journal of Applied Physiology*, 116(4), 663-672. doi:[10.1007/s00421-015-3325-3](https://doi.org/10.1007/s00421-015-3325-3)

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