Dr Francesco V Ferraro

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Research profile

Dr Francesco V Ferraro has made significant strides in Physiology, Biomechanics, and Pedagogy, leveraging his extensive training in the UK to become a leading researcher. His academic journey has been marked by a deep commitment to exploring the intersections of these disciplines, particularly in respiratory physiology and its applications in artificial intelligence (AI). Francesco's foundational education began with a Bachelor of Science in Sports Science from the University of Rome Foro Italico, where he developed a robust understanding of human physiology and biomechanics. He further honed his expertise by earning a Master of Science (Hons) in Sports Science for Prevention and Wellness from the University of Naples Parthenope, which emphasised the importance of health and wellness strategies. His academic pursuits culminated in a Doctor of Philosophy from Bournemouth University, where he delved into cutting-edge research that would lay the groundwork for his future explorations. Currently a Lecturer in Sports Therapy and Rehabilitation at the University of Derby, Dr Ferraro brings a wealth of clinical and academic experience to his teaching and research. His interest in the application of AI in healthcare is particularly noteworthy. He aims to enhance the understanding of respiratory physiology and its implications for clinical practice by employing machine learning algorithms and data analysis techniques. Francesco has held prominent positions, including Clinical Trial Manager for Nuffield Health and the Orthopaedic Research Institute, where he developed and managed clinical studies aimed at improving patient outcomes. His role in these organisations has given him invaluable insights into the practical applications of research findings in real-world settings. In his current role, he has actively pursued projects that merge AI with respiratory physiology. For instance, he is investigating how AI can be utilised to analyse respiratory patterns and predict the outcomes of various therapeutic interventions. By integrating advanced computational models, he aims to identify personalised treatment strategies that enhance respiratory function in individuals with chronic respiratory conditions. Dr Ferraro's commitment to advancing the field of respiratory physiology is exemplified by his recent research on the effects of inspiratory muscle training on balance and functional mobility in older adults. He also holds the position of visiting scholar at the University of Naples Parthenope (ITA) and Riphah International University in Islamabad (PAK), where he actively collaborates with international colleagues to foster innovative research initiatives. His work has garnered support from funding bodies such as UKRI and the EU, enabling the development of international collaborations. In summary, Dr. Ferraro stands at the forefront of research in respiratory physiology and AI, committed to bridging the gap between theoretical knowledge and practical application. His ongoing projects reflect a dedication to improving health outcomes through innovative research, and his contributions are poised to have a lasting impact on physiology, biomechanics, and health sciences.

Academic degrees

- 2019 - PhD Physiology and Biomechanics (Bournemouth University, UK)
- 2023 - Master's degree in Data Analysis and Artificial Intelligence (University of Liverpool, UK)
- 2021 - Master's Course in EU Project Planning and Management (Venice International University, ITA)
- 2015 - Master`s degree in physical education for Prevention and Wellness (University of Naples Parthenope, ITA)

Employment

- *2021/Current* - Lecturer Sports Therapy and Rehabilitation, University of Derby (UK)
- *2020/Current* - Chief Executive Officer, Filosofia Fuori le Mura, (ITA)
- *2020/Current* - Guest Lecturer and PGR External Advisor, University of Naples Parthenope (ITA)
- *2019/21*- Clinical Trial Manager, Nuffield Health, Bournemouth (UK)

Recent Publications

- Zhou, Y., Edris, R., Roldán, A., & Ferraro, F. V. (2025). Exploring the challenges, facilitators, and changes with older adults taking part in a randomized inspiratory muscle training Tai Chi trial: A reflexive thematic analysis. Journal of Physical Activity and Health. Advance online publication. https://doi.org/10.1123/jpah.2024-0794
- Ferraro, F. V., Roldán, A., & Faghy, M. A. (2025). Accuracy of equations for calculating normal values of maximal inspiratory mouth pressure in older men and women. Sport Sciences for Health, 1-9. https://doi.org/10.1007/s11332-025-01433-7
- Ferraro, F. V., Edris, R., & Wainwright, T. W. (2025). Inspiratory Muscle Training: A Theoretical Framework for its selected application in Orthopaedic Enhancing Recovery pathways. International Journal of Orthopaedic and Trauma Nursing, 101193. https://doi.org/10.1016/j.ijotn.2025.101193
- Sheraz, S., Malik, A. N., Ferraro, F. V., & Siddiqi, F. A. (2024). Does multifactorial inspiratory muscle training improve postural stability and quality of life of patients with diabetes in Pakistan? A randomised controlled trial. BMJ open, 14(9), e080718. https://doi.org/10.1136/bmjopen-2023-080718
- Sheraz, S., Malik, A. N., Ferraro, F. V., & Siddiqi, F. A. (2024). Multifactorial inspiratory muscle training and its impact on respiratory and functional parameters of patients with diabetic polyneuropathy—A Randomized Controlled Trial. Physiotherapy Research International, 29(4), e2127. https://doi.org/10.1002/pri.2127
- Owen, R., Ashton, R., Phillips, B., Ferraro, F.V., Bewick, T., Thomas, C., & Faghy, M. (2024). Time to re-define 'normal'in the context of Post-Acute COVID-19 biomarkers in the assessment of patient outcomes?. Physiology, 39(S1), 515. https://doi.org/10.1152/physiol.2024.39.S1.515
- Owen, R., Ashton, R. E., Ferraro, F. V., Phillips, B. E., Skipper, L., & Faghy, M. A. (2023). Acute COVID-19, the Lived Experience, and Lessons to Learn for Future Pandemics. Disaster Medicine and Public Health Preparedness, 17, e534. https://doi.org/10.1017/dmp.2023.197
- Sheraz, S., Ferraro, F. V., Siddiqui, F. A., Tariq, H., Anthony Faghy, M., & Malik, A. N. (2023). The effects of inspiratory muscle training on balance and functional mobility: a systematic review. Postgraduate Medicine https://doi.org/10.1080/00325481.2023.2253136

Conferences

- N. Mansouryar, M Mina, F.V. Ferraro. The effects of Blood Restriction Training and Inspiratory Muscle Training on performance with healthy individuals. (20-21 November 2024) BASES Conference, CBS Arena, Coventry, UK.
- Ferraro F.V. Oluwarotimi W. Harnessing the Power of Artificial Intelligence for Musculoskeletal Conditions: A Proposed Project at the University of Derby. (2-4 July 2024) Physiology Focus. Northumbria University, Newcastle-upon-Tyne, UK
- Ferraro F.V. Oluwarotimi W. S. Leveraging Artificial Intelligence for Efficient Characterisation of Musculoskeletal Conditions: A Pilot Study (24 April 2024). Physiological Symposium, University of Derby (UK)
- Owen R.; Faghy M.; Ashton R.; Phillips B.; Bewick T.; Ferraro F.V. Time to re-define 'normal' in the context of Post-Acute COVID-19 biomarkers in the assessment of patient outcomes? (4-7 April 2024). American Physiology Summit. Long Beach, California (USA)