Ainoa Roldán Aliaga

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Dr Ainoa Roldan began her career at the Universitat de València in 2015 and is currently Lecturer. Her interest in the functioning of the human body and specifically the respiratory system led her to study a master's degree in physiology and complete her doctoral thesis entitled *Respiratory training: changes in maximum inspiratory pressure and its relationship with the functionality of healthy older adults*.

She is a member of the UIRFIDE research group at the Universitat de València and her main line of research is related to inspiratory muscle training in active and healthy older adults, as well as in performance field. She participates as a member of the team in projects related to the prescription of physical activity in older adults, mental health and healthy lifestyles, and the development of training methodologies in the field of older adults. Her main motivation is related to how respiratory muscle training can help prevent the effect of age and how it can enhance the effects of other training programs.

ACADEMIC DEGREES

2025 University expert diploma in statistics applied to health sciences

2023 Master´s Degree in Research and Intervention in Physical Activity and Sports Sciences

2019 PhD Physical Activity and Sport Science, Universitat de València

2016 Master´s Degree in Physiology, Universitat de València

2010 BSc Physical Activity and Sport Science, Universitat de València

EMPLOYMENTS

2023 - Now Lecturer, Department of Physical Education and Sports, Universitat de València

2015 - 2023 Associate lecturer, Department of Physical Education and Sports, Universitat de València

MEMBERSHIPS

2010 – Now Ilustre Colegio oficial de Licenciados en Educación Física y en Ciencias de la Actividad Física y Deporte de la Comunidad Valenciana

2022 – Now European College of Sport Science

2023 – Now Sociedad Española de Medicina del Deporte

RESEARCH EXPERIENCE

Member of the research team in the following projects:

- 2020 - 2021. Research contract between the Training with the Elderly association and the University of Valencia for the development of a neuromotor cognitive functional training method for application in small spaces.
- 2021. Expert advisory service to provide content to the projects that emerged after the needs analysis phase of the Intelligence Cities Challenge (ICC) initiative program.
- 2021 - 2023. Benefits of a training program in a young woman with hip dystrophy due to calpain deficiency (LGMDR1-2A). Case study.
- 2021 - Now. Analysis of inspiratory muscle training on performance in tennis players.
- 2021 - Now. Collaboration agreement between the GESMED Foundation, the Illustrious Official College of Graduates in CAFyD and the Universitat de València Estudi General for the development of physical exercise prescription programs and the promotion of active aging in older adults in the province of Valencia.

RELEVANT PUBLICATIONS IN LAST 5 YEARS

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., Zhou, Y., **Roldan, A.**, & Edris, R. (2025). Multimodal respiratory muscle training and tai chi intervention with healthy older adults: a double-blind randomised placebo control trial. Journal of Bodywork and Movement Therapies. https://doi.org/10.1016/j.jbmt.2025.01.046

Monferrer-Marín, J., **Roldán, A**., Helge, J. W., & Blasco-Lafarga, C. (2024). Metabolic flexibility and resting autonomic function in active menopausal women. *European Journal of Applied Physiology*, 1-11.

Monferrer-Marín, J; **Roldán, A**; Monteagudo, P; Chulvi_Medrano, I; Blasco-Lafarga, C. 2022. Impact of ageing on female metabolic flexibility: a cross-sectional pilot study in over-60 active women. Sports Medicine Open.

Blasco-Lafarga, C; Monferrer-Marín, J; Ricart, B; **Roldán, A**; Monteagudo, P; Chulvi-Medrano, I. 2022. Metabolic flexibility and mechanical efficiency in women over-60. Frontiers in physiology 2022 Apr 6;13:869534.

Monferrer-Marín, J; **Roldán, A**; Monteagudo, P; Blasco-Lafarga, C. 2022. Comment on: "Assessment of metabolic flexibility by means of measuring blood lactate, fat and carbohydrate oxidation responses to exercise in professional endurance athletes and less-fit individuals". Sports Medicine pp 1-2

Roldán, A; Forte, A; Monteagudo, P; Cordellat, A; Monferrer-Marín, J; Blasco-Lafarga, C. 2021. Determinants of dynamic inspiratory muscle strength in healthy trained elderly. Postgraduate Medicine 2021 133:7, 807-816

Roldán, A; Monteagudo, P; Cordellat, A; Sanchis-Soler; G; Blasco-Lafarga; C. 2021. Inspiratory muscle strength and cardiorespiratory fitness association with health-related quality of life in healthy older adults. Frontiers in Sports and Active Living 3.