Orlando Laitano, PhD

Assistant Professor (Tenure Track)
University of Florida
College of Health and Human Performance
Department of Applied Physiology and Kinesiology
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Education/Training:

- Ph.D. in Human Movement Sciences, Federal University of Rio Grande do Sul, Porto Alegre, Brazil, 2007-2010 (Internship at Brunel University, UK, Advisor: Professor Jose Gonzalez-Alonso).
- Postdoc in Applied Physiology and Kinesiology, University of Florida, Gainesville, USA, 2016-2019 (Advisor: Dr Thomas Clanton).

Professional Experience (Academic):

- Assistant Professor (tenure track), Department of Applied Physiology and Kinesiology, University of Florida, August 2022-current.
- Assistant Professor (tenure track), Department of Nutrition and Integrative Physiology, Florida State University, August 2020- July 2022.
- Research Assistant Professor (non-tenure track), Department of Applied and Kinesiology, University of Florida, 2019-2020.
- Postdoctoral Research Scholar, Department of Applied Physiology and Kinesiology, University of Florida, 2016-2019.

Professional Experience (other):

- Member of the Advocacy Committee, Shock Society, USA, 2020-current.
- Member of the Awards Committee, FASEB, USA, 2022-current.
- International Advisor, Gatorade Sports Science Institute (GSSI), USA, 2013-current.

Professional Societies:

- American Heart Association
- American Physiological Society
- American College of Sports Medicine
- Shock Society
- European College of Sports Science

Honors and Awards:

- New Investigator Award, American Physiological Society, 2025.
- UF Excellence Award for Assistant Professors, 2025.
- Ten Years of Service at the Gatorade Sports Science Institute (GSSI), 2023.
- First Year Assistant Professor (FYAP) Award, Florida State University, 2020.
- Military Physiology Postdoctoral Research Award, American Physiological Society, 2018.

Research Support:

Active:

- NIH/NIAMS R01 grant (R01AR085126). Targeting Myofiber NAD(P)H Oxidases in Sepsis-Induced Myopathy. 2025-2028. $1,829,773.00 (total cost). Role (**Principal Investigator**).
- DoD/US Army Medical Research and Development Command (MDRC) grant (HT94252310769): Hormonal Biomarkers of Exertional Heat Stroke Susceptibility in Females, 2023-2026. $1,843,677 (total cost). Role (**Principal Investigator**).

Past:

- DoD/US Army (W81XWH21C0073): The role of estrogen deficiency on heat acclimation and organ damage in exertional heat stroke in mice. 2020-2022. $87,597.00 (total cost). Role (**Principal Investigator**).
- University of Florida Clinical and Translational Science Institute's Precision Health Initiative. Sepsis-induced myopathy: development of a myotube avatar assay for precision medicine. 2021-2022. $44,582.00 (total cost). Role (**Principal Investigator**).
- NIH/NIA R21 grant (R21AG072011): Sepsis-induced myopathy with disuse in aging. 2021-2024. $423,500.00 (total cost). Role (**Principal Investigator**).

Reviewing Activities:

- **Associate Editor:** Journal of Applied Physiology (2023-current).
- **Member of the Editorial Board:** International Journal of Sports Medicine (2021-current), International Journal of Hyperthermia (2022-current).
- **Journal Review:** Various journals including American Journal of Physiology, Shock, Journal of Physiology.
- **Ad Hoc Grant Reviewer:** NIH (2022-current), DoD (2022-current), Wellcome Trust Foundation (2021), NIHCR/UK (2022).

Teaching and Mentoring Experience (number of trainees):

- Courses taught at UF include Undergraduate and Graduate Levels Advanced Exercise Physiology (APK4112, APK6170) and Exercise Metabolism (APK7117).
- Mentored post-doctoral fellows (3), Ph.D. students (4), Master students (6), and Undergraduate Students (12).

Publications:

Over 70 peer-reviewed articles in high-impact journals such as American Journal of Physiology, Shock, Journal of Applied Physiology, Journal of Physiology, Nature Review Disease Primers, Physiological Reviews. Selected publications relevant to this proposal below:

- Moraes MM, Reis G, Boeno FP, Müller DC, Aldakkan A, Li Z, Finley CL, Kiros Y, Leon LR, **Laitano O**. Impact of the Estrous Cycle on Loss of Consciousness and Survival in Exertional Heat Stroke in Mice. Med Sci Sports Exerc. 2025 Nov 1;57(11):2429-2436.
- Rentería LI, Zheng X, Valera I, Machin DR, Garcia CK, Leon LR, **Laitano O**. Ovariectomy aggravates the pathophysiological response to exertional heat stroke in mice. *J Appl Physiol* (1985). **2023** May 1;134(5):1224-1231. (**Editor's pick for Editorial**).
- Murray KO, Brant JO, Spradlin RA, Thome T, **Laitano O**, Ryan TE, Riva A, Kladde MP, Clanton TL. Exertional heat stroke causes long-term skeletal muscle epigenetic reprogramming, altered gene expression, and impaired satellite cell function in mice. Am J Physiol Regul Integr Comp Physiol. **2024** Feb 1;326(2):R160-R175 (**Editor's Choice Article**).
- Cramer MN, Gagnon D, **Laitano O**, Crandall CG. Human temperature regulation under heat stress in health, disease, and injury. *Physiol Rev.* **2022** Oct 1;102(4):1907-1989. (Impact Factor 37.31, **cited 389 times in Google Scholar**). Expert Invited Review.
- Bouchama A, Abuyassin B, Lehe C, **Laitano O**, Jay O, O'Connor FG, Leon LR. Classic and exertional heatstroke. *Nat Rev Dis Primers.* **2022** Feb 3;8(1):8. (Impact Factor 81.5, **cited 401 times in Google Scholar**) Expert Invited Review.

Complete list of publications: https://pubmed.ncbi.nlm.nih.gov/?term=Laitano%20O&sort=date