Thomas J. HUREAU, PhD

Born January 5th, 1988 in Laval (France)

Current position

Associate Professor at the faculty of sport sciences, University of Strasbourg since 2017
Member of the Mitochondria, Oxidative Stress and Muscular Plasticity Laboratory (UR 3072) and the CEERIPE (French acronym for: European Centre for Education, Research and Innovation in Exercise Physiology)

Adjunct Professor at the University of Verona, Italy (since 2023)
Department of Neuroscience, Biomedicine and Movement Sciences

International mobility

Visiting professor: University of Utah, USA (2018), Università di Verona, Italy (2019, 2020, 2023), Ghent University, Belgium (2022)

Post-doctoral fellowship (2015 – 2017): Utah Vascular Research Laboratory, University of Utah, USA. Supervisor: Prof. Markus Amann; Laboratory head: Prof. Russell S Richardson

Education

2020 **Habilitation to direct Research (HDR)***, Université de Strasbourg
**Habilitation to Direct Research is a French postdoctoral degree*
Title: Mechanisms of exercise-induced neuromuscular fatigue using an integrative approach and applications from athletes to patients.

2015 **PhD in Exercise Physiology,** Université Côte d'Azur (Nice)
Title: The regulation of exercise-induced peripheral fatigue: implications on exercise performance and applications to exercise on an elispherical platform.

2011 **MSc in Exercise Physiology with honours**, Université de Lille 2
2010 D.U. Mental training and Sport Psychology, Université de Lille 2
2009 D.U. Physical training – Strength & Conditioning, Université de Bourgogne (Dijon)
2008 **BSc in Exercise Physiology with honours**, Université de Bourgogne (Dijon)

Research output

Research interests: human integrative physiology, neuromuscular fatigue, exercise (in)tolerance, group III-IV muscle afferents, metaboreflex, cancer-related fatigue.

Research grants: 553 656 € as Principal investigator; **1 446 655€** as Co-investigator

Publications: 48 articles published in international journals (77% in Q1, 23% in Q2)
https://pubmed.ncbi.nlm.nih.gov/?term=hureau+tj&sort=date

Invited speaker: 14 presentations in France and abroad (Belgium, Brazil, Greece, Italy)

Communications in conferences: 20 oral presentations, **27** posters in France and abroad (ECSS, ACSM, ACAPS, Experimental Physiology…)

Conferences to a general audience: **3**

Awards

2021 **'Espoirs de l'Université de Strasbourg' scientific award for excellence in research** (10 000 €)

2020 ***Eur J Sport Sci* Best Paper Award** (TOP 10).

2017 **NCARnation** (Neural Control and Autonomic Regulation) **Trainee Presentation Award** finalist at Experimental Biology, Chicago, IL, USA.

The 10 most significant publications

1. Hucteau E, Mallard J, Barbi C, Venturelli M, Schott R, Trensz P, Pflumio C, Kalish-Weindling M, Pivot X, Favret F, Ducrocq GP, Dufour SP, Pagano AF, **Hureau TJ** (2024). Impact of eccentric versus concentric cycling exercise on neuromuscular fatigue and muscle damage in breast cancer patients. *Med Sci Sports Exerc* Online ahead of print.
2. Ducrocq GP, Al Assad SH, Kouzkouz N, **Hureau TJ** (2023). The Role of Contraction Mode in Determining Exercise Tolerance, Torque-Duration Relationship, and Neuromuscular Fatigue. *Med Sci Sports Exerc* 55(7):1218-1231.
3. **Hureau TJ**, Broxterman RM, Weavil JC, Lewis MT, Layec G, Amann M (2022). On the role of skeletal muscle acidosis and inorganic phosphates as determinants of central and peripheral fatigue: a ^{31}P-MRS study. *J Physiol* 600(13):3069-3081.
4. Massamba A, Hucteau E, Mallard J, Ducrocq GP, Favret F, **Hureau TJ** (2022). Exercise-induced Fatigue in Hamstring versus Quadriceps Muscles and Consequences on the Torque-Duration Relationship in Men. *Med Sci Sports Exerc* 54(12):2099-2108.
5. **Hureau TJ**, Weavil JC, Sidhu SK, Thurston TS, Nelson AD, Birgenheier NM, Richardson RS, Amann A (2021). Ascorbate attenuates neuromuscular fatigue but fails to improve exercise tolerance in patients with COPD. *J Appl Physiol* 130(1):69-79.
6. Zarzissi S, Bouzid MA, Zghal F, Rebai H, **Hureau TJ** (2020). Aging reduces the maximal level of peripheral fatigue tolerable and impairs exercise capacity. *Am J Physiol Regul Integr Comp Physiol* 319(6):R617-R625.
7. **Hureau TJ**, Weavil JC, Thurston TS, Wan HY, Gifford JR, Jessop JE, Buys MJ, Richardson RS, Amann M (2019). Pharmacological attenuation of group III/IV muscle afferents improves endurance performance when oxygen delivery to locomotor muscles is preserved. *J Appl Physiol* 127(5):1257-1266.
8. **Hureau TJ,** Weavil JC, Thurston TS, Broxterman RM, Nelson AD, Bledsoe AD, Jessop JE, Richardson RS, Wray DW, Amann M (2018). Identifying the role of Group III/IV muscle afferents in the carotid baroreflex control of mean arterial pressure and heart rate during exercise. *J Physiol* 596(8):1373-1384.
9. **Hureau TJ**, Romer LM, Amann M (2018). The 'sensory tolerance limit': A hypothetical construct determining exercise performance? *Eur J Sport Sci* 18(1):13-24.
10. **Hureau TJ**, Ducrocq GP, Blain GM (2016). Peripheral and central fatigue development during all-out repeated sprints. *Med Sci Sports Exerc* 48(3):391-401.

Scientific duties

2019 – Present **Head of the "Neuromuscular fatigue and exercise" team** at the European Centre for Education, Research and Innovation in Exercise Physiology (CEERIPE) https://ceeripe.unistra.fr

Supervision of graduate students: 3 PhDs and **28** Msc

PhD examiner: 6 PhDs (France, Canada, Italy)

Jury for the Habilitation to Direct Research (HDR): **1**

Member of PhD monitoring committees ('CSI'): 7 as external and **2** as internal member

Review editor: *Frontiers in Physiology* (2022 – Present)

Reviewer for 15 journals (+75 papers reviewed to date)

Grant reviewer (3): *Natural Sciences and Engineering Research Council of Canada, Université Catholique de l'Ouest, Ligue contre le cancer.*

Administrative and pedagogical duties

2023 – 2027 **Elected member at the National University Council** (CNU 74)

2018 – Present **Head of the Master 2 in Training and optimization of exercise performance** at the University of Strasbourg (25 students)

2021 – Present **Elected member of the Faculty Council**, Faculty of sport sciences, University of Strasbourg