Matthieu GALLOU-GUYOT, PhD

The University of Tokyo - Postdoctoral Researcher

Tokyo, Japan

a: on requesta: matthieu.gallou.guyot@gmail.coma: https://matthieugg.github.iob: 0000-0002-2616-4850

Citizenship: French Age: 32 (1992/12/25) French: mother tongue English: full professional



I am a French researcher with a keen interest in both sports science and neuroscience to promote active ageing. As a physical therapist, I have a background in clinical research and have since shifted my focus towards data-driven research. In my role as lecturer, I emphasize the value of active learning and hands-on, project-based education. Curious and mobile, I have lived and worked in France and Japan.

[Curriculum Vitae]

【Professional Experience】

Period	Institution, affiliation, position
2024/04 \sim On-going	The University of Tokyo, Department of Applied Biological Chemistry, Tokyo, Japan → Postdoctoral Researcher (<u>link</u>)
2023/03 ~2024/04	Japan Society for the Promotion of Science – affiliated to Physical Behavior Assessment Team, Ochanomizu University, Tokyo, Japan → Postdoctoral Researcher Fellow (link)
2021/10 ~2023/02	URPS-MK (regional union of health professionals - physiotherapists), Nouvelle Aquitaine, France → Scientific Expert Consultant (<u>link</u>)
2019/04 ~2022/06	Municipality of Limoges, Limoges, France – affiliated to HAVAE Laboratory, Limoges University, Limoges, France → Research Project Manager (link)
2019/01 ~2019/04	HAVAE laboratory, Limoges University, Limoges, France → Research Engineer
2018/09 ~2023/02	French physiotherapy institutes, Paris and Limoges, France → Lecturer and Academic Coordinator (<u>link</u>)
2016/06 ~2019/01	Private practice, Sceaux, France → Physiotherapist (<u>link</u> / <u>link</u>)

【 Degrees and Certifications 】

Title	Institution, country	Date
State Certified Lecturer in Neuroscience (69), Sports Science (74), and Rehabilitation (91) (<u>link</u>)	French National Council ofUniversities (CNU), France	2023/03
PhD in Sports Science (<u>link</u>)	Sports Science Graduate School, Limoges University, Limoges, France	2022/06
Certificate of Good Clinical Practices (<u>link</u>)	GIRCI-SOHO institute, France	2020/12
Master's degree in Exercise and Health Sciences (<u>link</u>)	Sports Science Graduate School, Paris-Est University, France	2018/06
Certificate in Spinal Manual Therapy (<u>link</u>)	KPTEN institute, France	2017/06
State Certified Sports Instructor (<u>link</u>)	Ministry of Sports, France	2016/06
Bachelor's degree in Physiotherapy (<u>link</u>)	National French Physiotherapy Institute (ENKRE), Paris-Sud University, France	2016/06

[Research Achievements]

[Peer-Reviewed Research Publications]

REFEREED JOURNAL PAPERS

- Total number of papers: 11
- [1] Grosboillot, N., Gallou-Guyot, M., Lamontagne, A., Bonnyaud, C., Perrot, A., Allali, G., & Perrochon, A. (2024). Towards a Comprehensive Framework for Complex Walking tasks: Characterization, Behavioral Adaptations, and Clinical Implications in Ageing and Neurological Populations. *Ageing Research Reviews*, 102458. https://doi.org/10.1016/j.arr.2024.102458
- [2] Laplaud, N., Perrochon, A., Gallou-Guyot, M., Moens, M., Goudman, L., David, R., Rigoard, P., & Billot, M. (2023). Management of post-traumatic stress disorder symptoms by yoga: An overview. *BMC Complementary Medicine and Therapies*, 23(1), 258. https://doi.org/10.1186/s12906-023-04074-w
- [3] Gallou-Guyot M., Mandigout S., Marie R., Robin L., Daviet J.-C., & Perrochon A. (2023). Feasibility and potential cognitive impact of a cognitive-motor dual-task training program using a custom exergame in older adults a pilot study. *Frontiers in Aging Neuroscience*. https://doi.org/10.3389/fnagi.2023.1046676
- [4] Gallou-Guyot M., Perrochon, A., Marie, R., Bourgeois, M., Mandigout S. (2023). Measured and perceived exercise intensity during the performance of single-task, cognitive-motor dual-task and exergame training: a transversal study. *JMIR Serious Games*. https://doi.org/10.2196/36126
- [5] Gallou-Guyot, M., Nuic, D., Mandigout, S., Compagnat, M., Welter, M.-L., Daviet, J.-C., & Perrochon, A. (2022). Effectiveness of home-based rehabilitation using active video games on quality of life, cognitive and motor functions in people with Parkinson's disease: a systematic review. *Disability and Rehabilitation*. https://doi.org/10.1080/09638288.2021.2022780
- [6] Gallou-Guyot M., Mandigout S., Almeida-Prado P.S., Marie R., Daviet J.C., Perrochon A. (2022). Exergame and cognitive-motor dual-task training in the healthy elderly (INCOME): a study protocol. *European Rehabilitation Journal*. https://doi.org/10.52057/erj.v2i1.8
- [7] Dalmazane, M., Gallou-Guyot, M., Compagnat, M., Magy, L., Montcuquet, A., Daviet, J.-C., & Perrochon, A. (2021). Effects on gait and balance of home-based active video game interventions in persons with multiple sclerosis: A systematic review. *Multiple Sclerosis and Related Disorders*. https://doi.org/10.1016/j.msard.2021.102928
- [8] Kronovsek, T. Hermand, E., Berthoz, A., Castilla, A., Gallou-Guyot, M., Daviet, J.-C., & Perrochon, A. (2020). Agerelated decline in visuo-spatial working memory is reflected by dorsolateral prefrontal activation and cognitive capabilities. *Behavioural Brain Research*. https://doi.org/10.1016/j.bbr.2020.112981
- [9] Gallou-Guyot, M., Mandigout, S., Combourieu-Donnezan, L., Bherer, L. & Perrochon, A. (2020). Cognitive and physical impact of cognitive-motor dual-task in cognitively impaired older adults: an overview. *Neurophysiologie Clinique / Clinical Neurophysiology*. https://doi.org/10.1016/j.neucli.2020.10.010
- [10]Gallou-Guyot, M., Mandigout, S., Bherer, L., & Perrochon, A. (2020). Effects of exergames and cognitive-motor dual-task training on cognitive, physical and dual-task functions in cognitively healthy older adults: An overview. Ageing Research Reviews. https://doi.org/10.1016/j.arr.2020.101135
- [11]Gallou-Guyot, M., Mandigout, S., Lacroix, J., Ricard, D., Buffat, S., Archambeau, D., Guéguin, G., & Perrochon, A. (2020). Biopsychosocial determinants of visuospatial memory performance according to different spaces. Neuroscience Research. https://doi.org/10.1016/j.neures.2020.07.012

REFERED CONFERENCE PROCEEDINGS

- •Total number of proceedings: 5
- [12] Gallou-Guyot, M., Miyachi M. Physical activity volume and intensity may not be associated with vaso-occlusive crises in sickle cell anemia patients. Kyoto: *J-Stage*; 2023. https://doi.org/10.20693/jspehssconf.73.0 463
- [13]Gallou-Guyot, M., Mandigout, S., Almeida Prado, P. S., & Perrochon, A. (2022). Participants' characteristics of an exergaming training program: The INCOME project. *The Journal of the International Society of Physical and Rehabilitation Medicine*, *5*(2), 249–250. https://doi.org/10.4103/2349-7904.351394
- [14] Gallou-Guyot, M., Lacroix, J., Goyat, V., Mandigout, S., & Perrochon, A. (2019). Effets d'un programme d'activité physique en double-tâche sur différentes composantes de double-tâche. *Neurophysiologie Clinique / Clinical Neurophysiology*, 49(6), 422. https://doi.org/10.1016/j.neucli.2019.10.045
- [15] Gallou-Guyot, M., Mandigout, S., Lacroix, J., Buffat, S., Archambeau, D., Guéguin, G., & Perrochon, A. (2019). Déterminants biopsychosociaux des performances de mémoire visuospatiale selon l'espace. *Neurophysiologie Clinique / Clinical Neurophysiology*, 49(6), 436. https://doi.org/10.1016/j.neucli.2019.10.082
- [16] Gallou-Guyot M., Pallot A., Bisserier A. (2017) Evaluation fonctionnelle du patient BPCO en postopératoire immédiat: intérêt du test assis-debout. *Kinésithérapie, la Revue*, 17(184), 64-65. https://doi.org/10.1016/j.kine.2017.02.066

[Peer-reviewed Communications]

INTERNATIONAL CONFERENCE TALKS

- Total number of talks: 5
- [17] Gallou-Guyot M., Mansigout S., Almeida Prado P.S., Perrochon A., (2022) Participant's characteristics of an exergaming training program: the INCOME project. 16th Congress of International Society of Physical and Rehabilitation Medicine ISPRM Lisboa, Portugal (link)
- [18] Gallou-Guyot M., Perrochon A., Marie R., Digbeu-Labbe E., Mandigout S. (2021) Dual-task training in elderly: the Limoges INCOME project. 4th congress of the international network Latin America, Africa, Europe, Caribbean ALEC Limoges, France (link)
- [19] Gallou-Guyot M., Perrochon A., Marie R., Digbeu-Labbe E., Mandigout S. (2021) Comparison of exercise intensity during exergame, dual-task or single-task training sessions: a pilot transversal study. 15th Congress of International Society of Physical and Rehabilitation Medicine ISPRM online (link)
- [20] Gallou-Guyot M., Mandigout S., Lacroix J., Archambeau D., Guéguin G., Perrochon A. (2019) Déterminants biopsychosociaux des performances de mémoire visuospatiale selon l'espace. 26th congress of the French society of postural control, balance, and locomotion SOFPEL Montreal, Canada (link)
- [21] Gallou-Guyot M., Lacroix J., Goyat V., Mandigout S, Perrochon A. (2019) Effets d'un programme d'activité physique en double tâche sur différentes composantes de double tâche. 26th congress of the French society of postural control, balance, and locomotion SOFPEL Montreal, Canada (link)

NATIONAL CONFERENCE TALKS

- •Total number of talks: 5
- [22] Gallou-Guyot, M. (2023). Existe-t-il un lien temporel entre le volume d'activité physique vigoureuse et l'apparition de douleur chez les patients drépanocytaires? *Journee Francophone de la Recherche* Tokyo, Japon (link)
- [23]Gallou-Guyot, M., Motohiko M. (2023). Physical activity volume and intensity may not be associated with vaso-occlusive crises in sickle cell anemia patients A new approach in sickle cell anemia patients physical activity management? 73rd Conference of the Japan Society of Physical Education, Health and Sport Sciences Kyoto, Japon (link)
- [24] Rousseau, C., Demont, A., Rulleau, T., Duclos, N., Gallou-Guyot M., Kinésithérapie et doctorat (2020). 7ème congrès international francophone pour les étudiants en physiothérapie et kinésithérapie CIFEPK Bordeaux, France (link)
- [25] Gallou-Guyot M., Mandigout S., Lacroix J., Archambeau D., Guéguin G., Perrochon A. (2019) Visuospatial memory in navigation is associated with physical activity level and psychosocial factors. 34ème congrès de la société française de médicine physique et de réhabilitation SOFMER Bordeaux, France (link)
- [26] Gallou-Guyot M., Pallot A., Bisserier A. (2017) Evaluation fonctionnelle du patient BPCO en postopératoire immédiat : intérêt du test assis-debout. 34ème congrès des journées francophones en kinésithérapie JFK Paris, France (link)

【Professional Communications & Publications】

REFEREED JOURNAL PAPERS

- Total number of papers: 4
- [27] Deneuville JP, Gallou-Guyot M, Guémann M. (2024). Analysis of the reliability of the evaluation and scoring process for abstract submissions for the "Journées Francophones de la Kinésithérapie 2023." European Rehabilitation Journal. http://dx.doi.org/10.52057/erj.v4i1.46
- [28] Gallou-Guyot, M., Rousseau C., & Perrochon A. (2024) Les limites des revues systématiques de la littérature quand le trop d'information devient délétère. *Kinésithérapie, la Revue*. 24, 267 : 60–65. https://doi.org/10.1016/j.kine.2023.11.004.
- [29] Brika, M., Maguet, C., Desramault, F., Duveau Hoarau, M., Cagnard, A., Mourey, F., & Gallou-Guyot, M. (2023). Soutien ou maintien à domicile des personnes âgées. *EMC Kinésithérapie-Médecine Physique-Réadaptation*. https://doi.org/0.1016/S1283-0887(23)69392-2
- [30] Gallou-Guyot M., Perrochon A., Thomas F., Mandigout S. (2021). Réentrainer les séniors à faire deux choses à la fois : le projet INCOME. *Revue TraHs n°11*. https://doi.org/10.25965/TRAHS.3945

BOOKS CHAPTER

- •Total number of chapters: 1
- [31]Gallou-Guyot, M., & Quijoux, F. (2022). Neurophysiologie du vieillissement: Du cognitif à la chute. In A. Pallot (Ed.), Rééducation en neurologie: Eléments pour une pratique clinique raisonnée (Elsevier Masson, pp. 488–498). Elsevier Health Sciences. ISBN: 978-2-294-77123-1

EDITORIALS

- •Total number of editorials: 1
- [32] Quentin, J., Bozon-Verduraz, A., Cervantes, A., Deneuville, J.-P., Gallou-Guyot, M., Martin, J., Saltarelli, O., & Guemann, M. (2023). Bienvenue au 9e congrès des JFK! Kinésithérapie, la Revue. https://doi.org/10.1016/j.kine.2022.12.176

THESIS

- Total number of theses: 1
- [33]Gallou-Guyot, M. (2022). Conception, développement et évaluation d'un exergame personnalisé sur les capacités cognitivo-motrices de séniors: le projet INCOME. Université de Limoges (Unilim), Limoges, FRA. https://tel.archives-ouvertes.fr/tel-03715392

INVITED TALKS

- •Total number of talks: 4
- [34] Complex Systems approaches for Molecular Robotics (CSMR2023), Ashida Hakkano, Japan (December 2023) (link)
- [35]49th congres of the French Sport Physiotherapy Society (SFMKS), Limoges, France (November 2022)
- [36] Active Aging 2.0 Chaire, Marseilles University, France (Mars 2022)
- [37] Physical Activity and Sports Sciences Seminar, Poitiers University, France (October 2021)

【Others】

DATABASE

Total number of database: 1

[38]Gallou-Guyot M., Perrochon A., Mandigout S. (2022). INCOME Research Project. OSF. https://doi.org/10.17605/OSF.IO/KT54B

SOFTWARES - CODES - SCRIPTS

- •Total number of sharing: 3
- [39] Dual-Task Calculator. https://dualtaskcalculator.streamlit.app/
- [40]Gallou-Guyot, M. (2023). GPAQ-scoring. Zenodo. https://doi.org/10.5281/zenodo.10060405
- [41]Gallou-Guyot M. (2023). SF36-scoring. Zenodo. https://doi.org/10.5281/zenodo.10060411

PREPRINTS

- Total number of preprints: 2
- [42] Laplaud, N., Perrochon, A., Gallou-Guyot, M., Moens, M., Goudman, L., David, R., Rigoard, P., & Billot, M. (2022). Management of post-traumatic stress disorder symptoms by yoga: an overview. PREPRINT (Version 1) available at Research Square. https://doi.org/10.21203/rs.3.rs-1834126/v1

[43]Gallou-Guyot, M., Perrochon, A., Marie, R., Bourgeois, M., & Mandigout, S. (2022). *Measured and Perceived Exercise Intensity During the Performance of Single-Task, Cognitive-Motor Dual-Task, and Exergame Training: Transversal Study (Preprint)*. https://doi.org/10.2196/preprints.36126

[External Funds]

FELLOWSHIPS

- Total acquired: 2
- Total amount awarded: ~74.000 USD
- [1] Name of the fund: Japan Society for the Promotion of Science Postdoctoral Fellowship Short term program (<u>link</u>)

 <u>Project title</u>: "Physical activity in patients with sickle cell disease: Effect on the vascular function, frequency of painful episodes and clinical course of the disease"

Amount: 4.600.000¥ (~35.000 USD)
Period of research: 2023/03 – 2024/03

Role: Research collaborator – Postdoctoral researcher

[2] Name of the fund: Industrial Convention for training through Research (CIFRE) – French National Technology Research Association (ANRT) (link)

Project title: "Interference Cognitivo-Motrice Exercise"

<u>Amount</u>: 36.000 € (~39.000 USD) <u>Period of research</u>: 2019/04 – 2022/06

Role: Research collaborator - Doctoral candidate

GRANTS

- Total acquired: 4
- Total amount awarded: ~8.700 USD
- [3] Name of the fund: Japan Society for the Promotion of Science Research grant

<u>Project title</u>: "Physical activity in patients with sickle cell disease: Effect on the vascular function, frequency of painful episodes and clinical course of the disease"

Amount: 860.000¥ (~6.200 USD)

Period of research: 2023/03 – 2024/03

[4] Name of the fund: Limoges University International Mobility Grant (<u>link</u>)

<u>Project</u>: "Transfer of expertise on fall risk analysis using inertial sensors"

Amount: 1.500 € (~1.600 USD)
Period of research: 2022

[5] Name of the fund: Limoges University International Mobility Grant

Project: "Congress presentation" Amount: 350 € (~380 USD) Period of research: 2021

[6] Name of the fund: French Physical Medicine Society (SOFMER) Transatlantic Mobility Grant

Project: "Congress presentation"
Amount: 500 € (~540 USD)
Period of research: 2019

PRICES

• Total acquired: 2

[7] Name of the price: Prix de these finalist (link)

Project's title: "INCOME project"

Date: 2022

[8] Name of the price: Prix Territoria Argent (link)

Project's title: "INCOME project"

Date: 2022

[Teaching Activities]

[Lectures]

Lectures, workshops and evaluation provided at university level. Hourly volumes (212h in total): (link)

- 2024-2025: 8h
- 2023-2024: 4h
- 2022-2023: 110h
- 2021-2022: 22h
- 2020-2021: 39h
- 2019-2020: 29h

Field	Themes
Geriatric	 Cognitive aging: from physiopathology to treatment Link between cognition and motor skills – assessment & rehabilitation
	Adapted physical activity, training, rehabilitation and re-athletics
Research methodology	Establishment of a research protocol
	Integrity & ethics - Regulations & laws
	Scientific writing
	Bibliographic research
	Critical reading of articles
	Data analysis and processing, statistical analysis (Python)
Clinical practice	The muscle-tendon complex: from assessment to treatment
	Passive and specific joint mobilizations
	Falls in older adults: assessment and physical activity rehabilitation program

【Thesis supervision】

Master's thesis supervision (17 in total):

- 2022-2023: 5
- 2021-2022: 4
- 2020-2021: 6
- 2019-2020: 2

The complete list and details are available at this link.

[Scientific Implication]

EDITOR ACTIVITIES

- •Total number of roles: 1
- [1] Peer Community In (PCI), Health and Movement Science recommender (link)

PEER-REVIWEING ACTIVITIES

- •Total number of reviewing: 32 (link)
- [2] Frontiers in Rehabilitation Sciences (1) (link)
- [3] Alzheimer & Dementia (1)
- [4] Frontiers in Public Health (2) (link)
- [5] Frontiers in Psychology (1) (link)
- [6] Frontiers in Ageing Neuroscience (2) (link)
- [7] BioMed Central BMC Geriatric (2)
- [8] Journal of Healthcare Informatics Research (1)
- [9] Disability and Rehabilitation (3)
- [10] Journal of Medical Internet Research JMIR Serious Games (2)
- [11]British Medical Journal BMJ Open (3) (link)
- [12] European Rehabilitation Journal (2)
- [13]Science & Sport (1)
- [14] Kinésithérapie, la Revue (11)

EXPERTISE

- •Total number of expertise: 3
- [15] French Physiotherapy National Order Price (CNOMK), 2024
- [16] Expertise for the evaluation of a paramedical research hospital program for the Montpellier University Hospital, 2023
- [17] Expertise for the evaluation of a paramedical research hospital program for Paris hospitals, 2021 (link)

PROMOTION ACTIVITY

- •Total number of actions: 11
- [18]Creation of a laboratory newsletter (2021-2022) HAVAE laboratory, Limoges University, Limoges (link)
- [19] Workshop for the general public "Activité Physique et Santé Innovations pour le bien vieillir" (March 2022)
- [20]Conference and workshop for the general public "La Nuit Europeenne des Chercheurs" (2021 edition) (link)
- [21]Article in general press (1) (link)
- [22]Article in specialized press (1) (link)
- [23] Videos for the general public (5) (link / link / link / link)
- [24] Podcast for the general public (1) (link)

All these resources are available on demand

SCIENTIFIC SOCIETY COMMITTEES	
2023 - On-going	Member - Japan Society of Physical Education, Health and Sports Sciences
2022 – On-going	Board member – French Physiotherapy Society (<u>link</u>)
2021 – 2022	Life Sciences college member - French Physiotherapy Society
2018 – 2021	Lecturers' college member - French Physiotherapy Society

EVENTS ORGANISATION	
2022-2023	<u>Title</u> : 9 th French Physiotherapy Congress <u>Role</u> : Steering Committee member (<u>link</u>)
2020-2021	<u>Title</u> : 8 th French Physiotherapy Congress <u>Role</u> : Scientific Committee member (<u>link</u>)

ADMINISTRATIVE DUTIES & ACADEMIC COMMITTEES		
2022-2023	<u>Title</u> : Academic coordinator, EFOM - ENKRE, Paris, France <u>Role</u> : Academic management, coordination of exams, participation in regular administrative meetings, updating content on digital platforms, student support and follow-up.	
2020-2022	<u>Title</u> : Journal Club, ILFOMER, Limoges University, Limoges, France <u>Role</u> : Creation and animation of a writing club in the Limoges University, so student can learn the rules of scientific writing (<u>link</u>)	
2020-2022	<u>Title</u> : Communication commission, HAVAE laboratory, Limoges University, Limoges, France <u>Role</u> : Member of the commission	

Last update: January 2025 - Referees on request