

Matthieu Gallou-Guyot, PhD

Postdoctoral Researcher – *The University of Tokyo*

Contact

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ORCID: [0000-0002-2616-4850](https://orcid.org/0000-0002-2616-4850)
Citizenship: French
Age: 32 (1992/12/25)
French: mother tongue
English: full professional

Bio

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

- | | |
|-------------------|---|
| 2024/04 ~ Now | The University of Tokyo, Department of Applied Biological Chemistry, Tokyo, Japan
→ Postdoctoral researcher (link) <ul style="list-style-type: none">- Developing machine learning models applied to functional MRI to assess how multi-modal sensory stimuli influence prediction accuracy in both encoding and decoding tasks |
| 2023/03 ~ 2024/04 | Japan Society for the Promotion of Science – <i>affiliated to Physical Behavior Assessment Team, Ochanomizu University, Tokyo, Japan</i>
→ Postdoctoral researcher fellow (link) <ul style="list-style-type: none">- Built time series analysis and forecasting models to investigate the relationship between physical activity behavior and clinical adverse events in patients with sickle cell anemia |
| 2021/10 ~ 2023/02 | URPS-MK (Union Régionale des Professionnels de Santé, Masseurs-Kinésithérapeutes), Nouvelle Aquitaine, France
→ Scientific expert consultant (link) <ul style="list-style-type: none">- Provided expertise and guidance for the design and implementation of clinical research projects in physiotherapy |
| 2019/04 ~ 2022/06 | Municipality of Limoges, Limoges, France – <i>affiliated to HAVAE Laboratory, Limoges University, Limoges, France</i>
→ Research project manager (link) <ul style="list-style-type: none">- Led the design, development, and evaluation of an exergame used as a training tool for fall prevention among older adults |
| 2019/01 ~ 2019/04 | HAVAE laboratory, Limoges University, Limoges, France
→ Research engineer <ul style="list-style-type: none">- Conducted data processing, analysis, and dissemination for applied research projects |
| 2018/09 ~ 2023/02 | French physiotherapy institutes, Paris and Limoges, France
→ Lecturer and academic coordinator (link) <ul style="list-style-type: none">- Taught theoretical and practical courses, supervised student research, and coordinated academic programs and teaching units |
| 2016/06 ~ 2019/01 | Private practice, Sceaux, France
→ Physiotherapist (link / link) <ul style="list-style-type: none">- Provided physiotherapy services in private clinics and community housing environments |

Degrees & certifications

- 2023/03 *French National Council of Universities (Conseil National des Universités), France*
→ **State certified lecturer** in neuroscience (69), sports science (74), and rehabilitation (91) ([link](#))
- 2022/06 *Sports Science Graduate School, Limoges University, Limoges, France*
→ **PhD in sports science** ([link](#))
- 2020/12 *GIRCI-SOHO institute, France*
→ **Certificate of good clinical practices** ([link](#))
- 2018/06 *Sports Science Graduate School, Paris-Est University, France*
→ **Master's degree in sports science** ([link](#))
- 2017/06 *KPTEN institute, France*
→ **Certificate in spinal manual therapy** ([link](#))
- 2016/06 *Ministry of Sports, France*
→ **State certified sports instructor** ([link](#))
- 2016/06 *National French Physiotherapy Institute (ENKRE), Paris-Sud University, France*
→ **Bachelor's degree in physiotherapy** ([link](#))

Research achievements

Journal articles

Gallou-Guyot, M., Diaw, M., Aubert-Kato, N., Coly, M., Connes, P., Yoshida, T., Miyachi, M., & Tripette, J. (2025). Identifying days with valid wear for studies using consumer-level accelerometer-based activity trackers: ActiWearCheck, a Python library. *Journal for the Measurement of Physical Behaviour*. [Accepted](#).

Diaw, M., Coly, M., Charlot, K., **Gallou-Guyot, M.**, Miyachi, M., Yoshida, T., Gadj, M., Diop, S., Faye, B., Mbengue, A., Samb, A., Skinner, S., Nader, E., Ranque, B., Connes, P., & Tripette, J. (2025). Physical activity, vaso-occlusive crises and pain in patients with sickle cell anemia in Senegal. *British Journal of Haematology*. [Accepted](#).

Gallou-Guyot, M., Bruyneel, A.-V., Mandigout, S., & Perrochon, A. (2025). Using dual-task effect for cognitive-motor change profiling – the Dual-Task Progress model. *European Rehabilitation Journal*, 5(1), Article 1.
<https://doi.org/10.52057/erj.v5i1.58>

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>

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>.

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>

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/10.1016/S1283-0887\(23\)69392-2](https://doi.org/10.1016/S1283-0887(23)69392-2)

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>

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>

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>

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>

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>

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>

Gallou-Guyot M., Perrochon A., Thomas F., Mandigout S. (2021). Réentraîner les séniors à faire deux choses à la fois : le projet INCOME. *Revue TraHs n°11*. <https://doi.org/10.25965/TRAHS.3945>

Kronovsek, T. Hermand, E., Berthoz, A., Castilla, A., **Gallou-Guyot, M.**, Daviet, J.-C., & Perrochon, A. (2020). Age-related 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>

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>

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>

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>

Conference proceedings

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

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>

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>

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>

Gallou-Guyot M., Pallot A., Bissierier 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>

Books' chapters, thesis, editorials

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>

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>

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](https://doi.org/10.1016/j.kine.2022.12.176)

Preprints

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>

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>

Invited talks

Complex Systems approaches for Molecular Robotics (CSMR2023), Ashida Hakkano, Japan (December 2023) ([link](#))
49th congrès of the French Sport Physiotherapy Society (SFMKS), Limoges, France (November 2022)
Active Aging 2.0 Chaire, Marseilles University, France (Mars 2022)
Physical Activity and Sports Sciences Seminar, Poitiers University, France (October 2021)

Conference talks

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? *Journée Francophone de la Recherche* – Tokyo, Japon ([link](#))

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](#))

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](#))

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](#))

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](#))

Rousseau, C., Demont, A., Rulleau, T., Duclos, N., **Gallou-Guyot M.**, Kinésithérapie et doctorat (2020). *7^{ème} congrès international francophone pour les étudiants en physiothérapie et kinésithérapie CIFEPK* - Bordeaux, France ([link](#))

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](#))

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](#))

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. 34^{ème} congrès de la société française de médecine physique et de réhabilitation SOFMER - Bordeaux, France ([link](#))

Gallou-Guyot M., Pallot A., Bissierier A. (2017) Evaluation fonctionnelle du patient BPCO en postopératoire immédiat : intérêt du test assis-debout. 34^{ème} congrès des journées francophones en kinésithérapie JFK - Paris, France ([link](#))

Software, scripts, database

ActiWearCheck. (2025). <https://github.com/OchaUni-Physical-Activity-Measurement/ActiWearCheck>

Dual-Task Calculator. (2024). <https://dualtaskcalculator.streamlit.app/>

GPAQ-scoring. (2023). <https://github.com/MatthieuGG/GPAQ-scores>

SF36-scoring. (2023). <https://github.com/MatthieuGG/SF36-scores>

INCOME Research Project. (2022). <https://doi.org/10.17605/OSF.IO/KT54B>

Funds acquisition

Fellowship

Japan Society for the Promotion of Science- Postdoctoral Fellowship Standard Program ([link](#))

"Development of a new virtual/augmented reality training program supported by eye-tracking technology"

8.640.000¥ (~55.000 USD) *obtained but not used yet

2024/01 – 2026/01

Research collaborator – Postdoctoral researcher

Japan Society for the Promotion of Science - Postdoctoral Fellowship Short term program ([link](#))

"Physical activity in patients with sickle cell disease: Effect on the vascular function, frequency of painful episodes and clinical course of the disease"

4.600.000¥ (~35.000 USD)

2023/03 – 2024/03

Research collaborator – Postdoctoral researcher

Industrial Convention for training through Research (CIFRE) – French National Technology Research Association (ANRT) ([link](#))

"Interference Cognitivo-Motrice Exercise"

36.000 € (~39.000 USD)

2019/04 – 2022/06

Research collaborator – Doctoral candidate

Grants

Japan Society for the Promotion of Science Research grant - 2023

"Physical activity in patients with sickle cell disease: Effect on the vascular function, frequency of painful episodes and clinical course of the disease"

860.000¥ (~6.200 USD)

Limoges University International Mobility Grant - 2022 ([link](#))

1.500 € (~1.600 USD)

Limoges University International Mobility Grant - 2021

350 € (~380 USD)

French Physical Medicine Society (SOFMER) Transatlantic Mobility Grant - 2019

500 € (~540 USD)

Awards

Prix de thèse 2022 - finalist ([link](#))**Prix Territoria 2022 - Argent** ([link](#))

Teaching

Lectures

Lectures, workshops and evaluation provided at university level. Hourly volumes (**212h in total**): ([link](#))**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**): (complete list at this [link](#))

Scientific Implications

Editor & reviewing

Peer Community In (PCI), Health and Movement Science – **recommender** ([link](#))Frontiers in Rehabilitation Sciences (1) ([link](#))

Alzheimer & Dementia (1)

Frontiers in Public Health (2) ([link](#))Frontiers in Psychology (1) ([link](#))Frontiers in Ageing Neuroscience (2) ([link](#))

BioMed Central BMC Geriatric (2)

Journal of Healthcare Informatics Research (1)

Disability and Rehabilitation (3)

Journal of Medical Internet Research JMIR – Serious Games (2)

British Medical Journal BMJ Open (3) ([link](#))

European Rehabilitation Journal (2)

Science & Sport (1)

Kinésithérapie, la Revue (11)

Expertise

French Physiotherapy Society Prize (**SFP**), 2024-2025

French Physiotherapy National Order Prize (**CNOMK**), 2024

Expertise for a paramedical research hospital program for the Montpellier University Hospital (**APHM**), 2023

Expertise for a paramedical research hospital program for Paris hospitals (**APHP**), 2021 ([link](#))

Promotion of science

Creation of a laboratory newsletter (2021-2022) – HAVAE laboratory, Limoges University, Limoges ([link](#))

Workshop for the general public - “*Activité Physique et Santé – Innovations pour le bien vieillir*” (March 2022)

Conference and workshop for the general public – “*La Nuit Européenne des Chercheurs*” (2021 edition) ([link](#))

Article in general press (1) ([link](#))

Article in specialized press (1) ([link](#))

Videos for the general public (5) ([link](#) / [link](#) / [link](#) / [link](#))

Podcast for the general public (1) ([link](#))

All these resources are available on demand

Scientific societies

2023 – Now **Member** - Japan Society of Physical Education, Health and Sports Sciences

2022 – Now **Board member** – French Physiotherapy Society (SFP) ([link](#))

2021 – 2022 Life Sciences college member - French Physiotherapy Society (SFP)

2018 – 2021 Lecturers’ college member - French Physiotherapy Society (SFP)

Events

2022-2023 9th French Physiotherapy Congress (JFK)
→ **Steering committee member** ([link](#))

2020-2021 8th French Physiotherapy Congress (JFK)
→ **Scientific committee member** ([link](#))

Administrative duties & Academic committees

2022-2023 **Academic coordinator**, EFOM - ENKRE, Paris, France
→ Academic management, coordination of exams, participation in regular administrative meetings, updating content on digital platforms, student support and follow-up

2020-2022 **Journal Club**, ILFOMER, Limoges University, Limoges, France
→ Creation and animation of a writing club in the Limoges University ([link](#))

2020-2022 **Communication commission**, HAVAE laboratory, Limoges University, Limoges, France
→ Member of the commission