



PPR Autonomie  
Programme Prioritaire de Recherche



## PHD CONTRACT OFFER 2024-2027

M/F

**CARE-LED INNOVATION. THE CASE OF ELDERLY CARE IN FRANCE AND JAPAN**

**TASK 2 WORK PACKAGE 1: ANALYSIS OF THE PARTICULAR NEEDS OF THE OLDER ADULTS IN  
RELATION TO INCREASING LIFE EXPECTANCY AND LOSS OF AUTONOMY**

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### General information

#### **Job title:**

PhD student (M/F) – Aix Marseille University doctoral School - Center ADES UMR 7268 and Marseille University Hospital

**CARE-LED INNOVATION. THE CASE OF ELDERLY CARE IN FRANCE AND JAPAN.**

**Task 2 Work Package 1: Analysis of the particular needs of the older adults in relation to increasing life expectancy and loss of autonomy**

**Autonomy Priority Research Programme (n°ANR-23-PAVH-0005)**

### Context

The INNOVCARE project is one of the projects selected as part of the Autonomy Priority Research Programme (n°ANR-23-PAVH-0005). The aim of INNOVCARE is to define and implement a care-led innovation process to enhance the autonomy of elderly people, with the following objectives: to make the person's environment safer; to ensure their mobility; to slow down/compensate for the loss of their cognitive abilities; and to preserve and strengthen social links. Based on interdisciplinarity within the social and human sciences (central and driving forces in the project) and between social and human sciences, medicine and engineering, it also offers a comparative perspective between France and Japan.

The consortium, coordinated by Sébastien Lechevalier (EHESS, IRIS), includes some sixty researchers in France and Japan, all of whom subscribe to the 'care-driven innovation' approach. Organised into 5 Work Packages, the INNOVCARE project plans to recruit around 15 doctoral and post-doctoral students over the period 2024-2027.

**The Work Package 1 (INED, AP-HM, AMU, EHESS) is the first stage of INNOVCARE and will analyze the heterogenous and evolving needs of older adults in relation to the rising life expectancy and loss of autonomy, through quantitative and qualitative methods.**

**The Task 2 in Work Package 1 will study the particular needs of the older adults in relation to increasing life expectancy and loss of autonomy.**

**The localization of this study is in Marseille (Aix Marseille University) and participants will be recruited across Marseille University Hospital in the Ambulatory Geriatric Unit.**

Link to project: <https://innovcare.hypotheses.org>



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## Description of PhD contract offer

*Objective and subject of PhD, scientific field and themes*

The challenge of increasing human longevity and an ageing population is a major concern for our societies. One of the main problems is providing care for the elderly, who often face loss of autonomy and forms of vulnerability. To address this issue, the use of personal robotics has been recognized as a possible solution, particularly in Japan. However, this approach has its limitations, which have been identified by anthropologists (Wright, 2023) and innovation sociologists (Morey, 2022; Tamaki Welply & Lechevalier, 2024), among others.

The project's premise is that caring for the elderly is not a one-time problem, but rather a fundamental issue related to how social needs and technological responses are connected. Thus, it is urgent to reconnect social and technological dynamics by proposing concepts and innovative practices that prioritize well-being as the ultimate criterion of innovation (Lechevalier, 2019).

This project INNOVCARE will focus on studying the adoption of technology in the care sector by examining the positive and negative effects of specific technologies, such as robotics, artificial intelligence, information and communication technologies, and medical devices, on the job quality of care workers.

### **Focus on Task 2 of Work Package 1**

The goal of this task (first step of INNOVCARE) is to explore the perception of autonomy (Manfred Diehl, 2024) and measure of autonomy (Hopman, 2018) and to compare these results.

**Our hypothesis is that the uniform nature of psychometric measures of autonomy and of the decisions made on their basis fail to sufficiently account either for the potential vulnerability of older adults due to their social, cultural and physical situations, or for individual experiences of the effects of the evaluated loss of autonomy.**

**We wish to suggest potential solutions to improve existing tools to better account for the importance of socio-cultural environments in the preservation/loss of autonomy, and the respondents' experiences.**

In order to describe, measure and compare levels of autonomy in older adults and their perceptions of autonomy in different environments, we will more precisely: (1) Describe the individual older adults perceptions of autonomy; (2) Measure autonomy with the geriatric tools; (3) Describe individual older adults needs in home care (4) Use and acceptability of home services technologies (including robotics) (5) Measure the effect of the socio-cultural environment on acceptability of technologies (6) Integrate reflections on our results into training programs for healthcare professionals but also for the other members of INNOVCARE.

### **Presentation of the research project: Focus on the Task 2 of the Work Package 1**

Work Package 1 focuses on the analysis of the particular needs of the older adults in relation to increasing life expectancy and loss of autonomy. Demographic changes associated with developments



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in personal assistance technologies raise the question of how the notion of autonomy might be redefined.

It means that we have to update this notion as a new operational, consensual and cross-cultural concept. We have to consider dependence or autonomy notions regarding the social and cultural components, but also societal changes associated with the technological revolution.

We assume that individual perceptions of autonomy and specific needs depend on social representations. Especially, we think about intergenerational relations between relatives such as family or community members. But it also depends on the place and role accorded to elderly groups in societal frameworks.

So we think that social and cultural factors could influence the level of older adults' expectancy.

Those factors could be a key in measuring how it will be possible to set up adapted automated or robotized personal assistance services. And, we have to take into account the levels of acceptability of older adults' use of the technological innovations in their daily lives.

**Task 2 of Work Package 1 focuses both on knowledge, attitudes and behaviors towards loss of autonomy and the use of new technologies in homecare services, and on the specific needs of the elderly population. Particular attention will be paid to social and cultural components.**

To achieve these objectives, a mixed research method, "QAL TO QAN", which consecutively involves qualitative and quantitative data collection, will be carried out (Creswell, 2017).

Expected results:

1. Improve the assessment of personal autonomy in older people, taking into account social and cultural components.
2. Assess the impact of social and cultural representations on perceptions of autonomy (loss of autonomy), as well as on associated attitudes and needs in the face of new technologies such as AI and robotics.

#### Constraints and risks

All the identified data are available for PhD researchers.

The qualitative analyses are based on available material.

The PhD will be carried out within the ADES UMR 7268 (AMU), AP-HM in Marseille.

#### Supervision

-Anne-Laure Couderc MD PhD is Professor of geriatrics at Assistance Publique-Hôpitaux de Marseille (AP-HM) and member of ADES UMR 7268. She has also performed several studies of the predictive value of autonomy scales and the relation between muscle strength and autonomy.

-Marc-Karim Bendiane is a public health researcher associated with Assistance Publique-Hôpitaux de Marseille and teaches social science methodologies (qualitative studies and survey theory) applied to medical research at the University of Aix Marseille.

#### Profile required

- Student with a Master 2 in social sciences or public health. Profiles from other sciences will also be considered.



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- Ability to conduct surveys and semi-structured interviews
- Fluency in written and spoken scientific English
- An interest in multidisciplinary
- Ability to work as part of a research team
- Knowledge of work in the field of ageing and/or disability

#### **Additional informations:**

- Aix Marseille University Doctoral School
- Duration: 36 months
- Gross monthly salary: € 2100
- Contract start date: 01/10/2024
- Research-related mission expenses may be covered by the INNOVCARE project.

#### **To apply**

Send your application and any requests for further information to [innovcare@ehess.fr](mailto:innovcare@ehess.fr) and [anne-laure.couderc@univ-amu.fr](mailto:anne-laure.couderc@univ-amu.fr) and [edsvs-direction@univ-amu.fr](mailto:edsvs-direction@univ-amu.fr)

Detailed information and guidelines on the Doctoral School can be found at <https://ecole-doctorale-62.univ-amu.fr/en/futur-phd-student/registration>

The application file includes a CV, Master's transcripts, a letter of motivation and a PhD project that fits the above description.

Examples of work already completed (Master's thesis, scientific communication, etc.) are welcome.

Deadline for applications: **17 June 2024.**

An interview will be organised at the beginning of July.

#### **Références**

- Creswell JW, Creswell JD (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage publications.
- Hopman-Rock M, van Hirtum H, de Vreede P, Freiberger E (2019). *Activities of daily living in older community-dwelling persons: a systematic review of psychometric properties of instruments*. *Aging Clin Exp Res*, 31(7):917-925. doi: 10.1007/s40520-018-1034-6.
- Lechevalier, S. (Ed.). (2019). *Innovation Beyond Technology: Science for Society and Interdisciplinary Approaches*. Springer Singapore. <https://doi.org/10.1007/978-981-13-9053-1>
- Manfred Diehl, & Hans-Werner Wahl (2024). *Self-perceptions of aging: A conceptual and empirical overview*. *Current Opinion in Psychology*, 55,101741, <https://doi.org/10.1016/j.copsyc.2023.101741>.
- Morey, P. (2022). « La liberté en toute sécurité ». Analyse d'une tension morale et pratique du care via l'étude des dispositifs techniques de géolocalisation destinés aux résident-e-s dit-es « fugeur-euse-s » des Ehpad: De la séduisante promesse technologique aux difficiles appropriations. *Anthropologie & Santé. Revue internationale francophone d'anthropologie de la santé*, 25, Article 25. <https://doi.org/10.4000/anthropologiesante.12223>
- Tamaki Welply, Y., & Lechevalier, S. (2024). 'Social' robot and social relations in care settings: Undefined positionality and fixed temporality. *Technology in Society*, 77, 102559. <https://doi.org/10.1016/j.techsoc.2024.102559>