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Inserm
La science pour la santé
From science to health

HR EXCELLENCE IN RESEARCH

CALL FOR APPLICATION

INSERM CHAIR Recruitment

From heart to brain: toward biomarkers and targeted therapies for cardio–neurovascular dysfunctions

The Inserm chair recruitments opened to Inserm are intended for researchers with strong potential to manage and lead research teams and participate in national, European or international projects.

This recruitment, based on research and teaching projects, is aimed at researchers with a doctorate or equivalent and a first post-doctoral experience. The position is offered on a fixed-term contract (CDD) with a view to tenure in the Inserm Research Directors personnel at the end of the contract.

How apply: https://pro.inserm.fr

Supporting institution:	Inserm : Institut national de la Santé et de la recherche médicale
Name of the head of the institution:	Pr. Didier Samuel
Academic region:	NOUVELLE-AQUITAINE
Location/ Site concerned:	Inserm U1034 - Biologie des Maladies Cardio-Vasculaires
Partner institution:	Université de Bordeaux
Research contact:	Christelle BOULLE : christelle.boulle@inserm.fr Secretariat : secretariat.u1034@inserm.fr
Administrative contact:	chaires-professeur-junior@inserm.fr
Research fields EURAXESS:	Cardio-vascular (Medical Science)
Keywords:	Heart–brain axis, Small vessel disease, Pathophysiology, Biomarkers, Therapeutics

Job title to be filled:	Chaire - Heart-Brain Link
Body after tenure:	Research Director
Anticipated duration of the contract:	4 years

Scientific domains/fields:	Biology and Health
Corresponding specialized scientific commissions (CSS):	Cellular, molecular and structural biology - CSS1
Project name:	From heart to brain: toward biomarkers and targeted therapies for cardio–neurovascular dysfunctions

Remuneration package	3 500€ - 5 000€ according to research experience
Quota	Full Time

Strategy of the host institution:

The French National Institute for Health and Medical Research (INSERM) is the primary public institution dedicated to biomedical and health research. Inserm conducts research with a focus on translating research findings into clinical and therapeutic applications that address current public health challenges. Partners include universities, hospitals, and international research organizations.

This project aligns with Inserm strategic objective to promote systemic, mechanistic, and translational approaches to complex chronic diseases. It fits fully within the priorities of the Inserm Strategic Plan, particularly the axis dedicated to cardiovascular and brain health and integrative approaches to chronic pathologies.

In September 2024, Inserm and its Thematic Institutes “Neurosciences, Cognitive Sciences, Neurology & Psychiatry” and “Physiopathology, Metabolism and Nutrition” launched the thematic network “Heart–Brain Interfaces.” The creation of an Inserm Chair dedicated to the heart–brain interface will actively contribute to structuring this emerging field, in line with Inserm’s transversal priorities and national research dynamics.

This recruitment will strengthen Inserm positioning at the interface between cardiovascular biology and neuroscience and contribute to consolidating a nationally and internationally visible research axis.

Strategy of the host laboratory:

The proposed project is fully integrated into the scientific strategy of Inserm Unit U1034, which has a long-standing commitment to investigating the mechanisms underlying cardiac and vascular diseases. It extends ongoing work developed over several years on heart failure with preserved ejection fraction (HFpEF), as well as research conducted within the framework of the Transversal Thematic Action (ATT) on vascular ageing, initiated in 2016 by the University of Bordeaux and coordinated by the Unit.
This new research theme further strengthens the heart–brain axis already explored within the FHU SMART initiative.
The project is fully consistent with the strategic orientations of the IHU VBHI and the RHU SHiVA program, two initiatives in which Unit U1034 has played a leading role, particularly in the biological and mechanistic components. It thus reinforces the Unit’s position within excellent networks with strong translational potential.
The transversal nature of the proposed CPJ project will foster, in the short and medium term, a robust interdisciplinary dynamic involving several thematic departments of the University of Bordeaux

(Biological and Medical Sciences, Neurosciences, Public Health, Sciences and Technologies). This will contribute to structuring cardio–neurovascular interfaces at local and national levels and will likely enhance international talent attraction.
Finally, the Bordeaux scientific environment offers a particularly favorable ecosystem for the development of this project, due to the richness of its technological platforms (experimental MRI, functional imaging, behavioral phenotyping) and the presence of complementary teams in cardiovascular physiology, neurovascular physiology, and public health.

Summary of the scientific project:

Preserving, restoring, or improving human cardio–neurovascular health represents a major global public health challenge. Aging, chronic stress, metabolic disorders, and lifestyle factors contribute to a concomitant increase in cardiovascular diseases and neurological impairments.
It is now well established that the heart and the brain are bidirectionally connected through anatomical (autonomic nervous system), functional (neuroendocrine and neuroimmune axes), and molecular pathways. This interconnection plays a central role in regulating metabolism, cardiac function, stress responses, and cognitive and emotional behaviours.
Dysregulation of the heart–brain axis is increasingly recognized as a contributing factor in numerous conditions, including depression associated with heart failure, post-stroke cognitive decline, and psychiatric disorders associated with cardiac arrhythmias. The role of the sympathetic nervous system, the impact of peripherally derived cytokines on brain function, and the effects of chronic stress on cardiovascular function all illustrate this continuous inter-organ dialogue.
Despite its importance, these interactions remain insufficiently explored at the experimental and pathophysiological levels, particularly within integrative frameworks. Understanding these bidirectional interactions opens new perspectives, including:
– Development of heart–brain biomarkers (electrophysiological, inflammatory, behavioural)
– Integrative therapeutic approaches (neuromodulation, interventions targeting the hypothalamic–pituitary–adrenal axis, cross-prevention of cardiac and mental disorders)
– Experimental modelling and mechanistic exploration of heart–brain circuits.

Summary of the teaching project:

The teaching project aims to structure coherent educational activities centered around animal physiology, with a particular emphasis on the heart–brain interface and small vessel diseases. The candidate will contribute to undergraduate and graduate teaching programs (Life Sciences, Neurosciences, Health) at the University of Bordeaux, as well as to research-based teaching and tutorials linked to Inserm U1034 and IHU VBHI. These activities include the MD–PhD program of Bordeaux University Hospital, Inserm School programs, IHU student engagement initiatives, the Cajal Conference series, and the Neurepiomics Summer School.

National Research Agency package:	200k€
Other package:	590k€

Co-funding*
IHU VBHI, 240 000
FRM Amorçage Jeunes Équipe, 350 000

*source et montant

Scientific dissemination/ Open Science:

Scientific communication and dissemination: The project aims for regular publication in leading international journals in cardiovascular biology and neuroscience, prioritizing co-authored work within Inserm U1034 and with partners from IHU VBHI, RHU SHiVA, and European networks. The CPJ will contribute to the organization of thematic workshops, invited sessions at major conferences, and research-based training activities, including summer schools.
The project is fully embedded in an open science approach: systematic preprint deposition, open-access publication whenever possible (HAL-Inserm and Oskar), data sharing in certified repositories, and data management plans aligned with Inserm, university, and European standards. A specific effort will be dedicated to outreach toward the general public and patients through public lectures, participation in the Science Festival, and the development of accessible digital resources on cardio–neurovascular health and the heart–brain connection
Open Science: The CPJ will adhere to the open science policy promoted by Inserm and the French National Plan for Open Science. Scientific outputs will be disseminated in open access whenever possible, with systematic deposition in HAL-Inserm. Data, code, and protocols will be shared in recognized repositories according to FAIR principles. A data management plan compliant with Inserm and ANR requirements will ensure ethical and secure sharing of research resources.
Science and society: Public outreach and patient engagement will be conducted through public lectures organized by Inserm U1034 in collaboration with charitable organizations and research foundations, regular outreach events organized by IHU VBHI and the University of Bordeaux, participation in the Science Festival, and the development of accessible digital materials focusing on cardio–neurovascular health and the heart–brain interface.

Indicators:

A shared Inserm U1034 dashboard will be implemented and updated annually using the following indicators:
i) scientific activity (number and quality of publications, proportion of open-access articles, deposited datasets, invited and plenary lectures);
ii) structuring and funding (grants obtained, integration into networks and consortia, attractiveness for international PhD students and postdoctoral fellows);
iii) teaching activities (courses delivered, number of students trained, international co-supervisions);
iv) science–society interactions (number of outreach activities, online resources produced).
In addition to Inserm-specific monitoring, these indicators will be reviewed by a local steering committee involving the Unit leadership and VBHI, with annual milestone meetings to adjust strategy as needed (prioritization of research axes, reinforcement of collaborations, or adaptation of training offerings).

Selection of candidates:

It is expected the recruited researcher to become rapidly a group leader in the GAD team. So the candidate should demonstrate ability to supervise Ph.D students, post-doctoral fellow and technical support staff. She/he should have the capacity to obtain competitive funding to manage her/his group.

Successful candidates are chosen by a selection commission composed of six to ten members, the majority of whom are specialists in the fields of research concerned.

The commission carries out an initial examination of the applications, focused in particular on candidate experience and skills relative to the research and teaching project presented above. A shortlist of candidates is then selected for interview.
Only candidates selected by the selection committee on the basis of their applications will be invited to interview.

The interviews are followed by a deliberation during which selection commission will discuss the quality, originality and, where appropriate, the interdisciplinarity of the research and teaching projects presented by the candidates, their motivation and their scientific and teaching supervision capacity.

The candidates selected at the end of the selection process will be offered a researcher contract, following approval from the President and CEO of Inserm.

Required profile:

Education Level**: Phd**

Researcher Profile: R3/R4

R3 Established researcher A stage in a researcher's career describing those who have developed a level of independence and can described as an established researcher
R4 Leading Research A stage in a researcher's career where they can be termed a 'leading researcher'. This would include the team leader of a research group or head of an industry R&D laboratory.

Your application will be evaluated according to the following criteria :

- Relevance and originality of the project related to the research field
- International exposure in research projects
- Your ability to raise funds
- Participation in editorial and reviewing activities
- Your teaching experience
- Your ability to lead a team…

Application instruction:

Applications can be submitted online at EVA.
Deadline application: **September 2, 2026**

Please complete the scientific file in English.

It is imperative to contact the laboratory corresponding to the Chair you have applied for in order to build the project with them.

Position also open to 'Bénéficiaires de l'Obligation d'Emploi' (disabled persons), as defined in article 27 of law no. 84-16 of January 11, 1984 on statutory provisions for the civil service.

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