CALL FOR APPLICATION

INSERM CHAIR Recruitment

Using brain imaging to bridge between neuroscience and cognition

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.

Application on EVA: https://eva3-accueil.inserm.fr/sites/eva/chaires/2024/Pages/default.aspx

| Contact the host lab | Download and fill the scientific files and the application request on EVA | Create an account on Eva3: https://www.eva3.inserm.fr/create | Upload your application when your are ready (Before April 2, 2024) |

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:	Ile de France
Location/ Site concerned:	NeuroSpin, *Unité 992 de NeuroImagerie Cognitive*
Partner institutions:	Université Paris Saclay, CEA, CNRS
Research contact: **Administrative contact:**	Stanislas DEHAENE: stanislas.dehaene@cea.fr chaires-professeur-junior@inserm.fr
Research fields EURAXESS :	Neurosciences (Medical sciences)
Keywords:	functional MRI ; magneto-encephalography ; computational models

Job title to be filled:	Chaire - Using brain imaging to bridge between neuroscience and cognition –
Body after tenure:	Research Director
Anticipated duration of the contract:	4 years
Scientific domains/fields:	Cognitive neuroscience
Corresponding specialized scientific commissions (CSS):	CSS4 : Neurosciences

Project name:	Using brain imaging to bridge between neuroscience and cognition

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

Strategy of the host institution:

Located 25 kilometers south of Paris, in the heart of the Paris-Saclay University, NeuroSpin forms, with its neighbor NeuroPSI, a center for excellence in neuroscience research. NeuroSpin is entirely dedicated to the study of the brain using non-invasive methods. In a building of 11,000 m², NeuroSpin brings together 200 technicians, engineers and researchers who develop tools and models to better understand how the brain works. Since its opening in 2007, NeuroSpin has established itself as a reference center for ultra-high field magnetic resonance imaging of the human and animal brain. NeuroSpin hosts sophisticated instruments, some of which are unique in the world, including an 17.2 Tesla preclinical MRI and an 11.7 Tesla MRI for humans. A new magnetoencephalography machine (MEG) will be installed at the end of 2023.

To exploit this exceptional platform, NeuroSpin seeks to recruit **a cognitive neuroscientist of international stature, who has proven his or her ability to jointly exploit multiple behavioral and brain-imaging techniques to shed light on the high-level cognitive functions of the human brain, its developmental and evolutionary origins.**

Strategy of the host laboratory:

The goal of the Cognitive NeuroImaging Unit (Unicog) is to shed light on the brain mechanisms of higher cognitive functions in humans by developing and making use of the high-tech neuroimaging methods available at NeuroSpin, conjointly with experimental paradigms from cognitive psychology.

Affiliated to CEA, INSERM, Paris-Saclay University and CNRS, the unit comprises five distinct teams entitled Brain computations (number, probability, confidence, decision making); Languages of the brain (language, math, music); Neuroimaging of Development (impact of development and education on infants and children's brains); Cognition and Brain Dynamics (mental representation of time, brain dynamics); and Primate cognition and consciousness (conscious processing, anesthesia, disorders of consciousness). By comparing human adults, with or without education, with human children, infants, and non-human primates, the laboratory aims to shed light on which mechanisms are shared by all primates, and which might be specific to humans.

Summary of the scientific project:

The unit aims to recruit a new researcher capable of starting a new line of research that fits with those c goals. The's project should fit a number of criteria: (1) focus on resolving the cognitive and brain mechanisms of a well-defined high-level perceptual or cognitive computation; (2) feasibility given the existing methodologies available at NeuroSpin; (3) capacity to integrate multimodal data (e.g. fMRI+MEG+behavior; human + non-human primate data; etc); (4) explicit computational or mathematical modeling; (5) capacity to interact with other teams and researchers in the lab; (6) national and international funding and collaborations.

Summary of the teaching project:

The recruited researcher will teach an advanced course (~40 hours) at the graduate level within the BioSigne Doctoral School of Paris-Saclay University, possibly within one of these two Masters 2 courses:

M2 Computational Neurosciences and Neuroengineering | Université Paris-Saclay (universite-paris-saclay.fr)
M2 Imagerie Biomédicale | Université Paris-Saclay (universite-paris-saclay.fr)

The exact content will be dependent on the specific person being recruited, and will be co-constructed together with other professors in order to be complementary with those already taught by the existing faculty.

A non-exhaustive list of possible topics includes:
- **Advanced methodologies for cognitive brain imaging**
- **Educational cognitive neuroscience**

Comparative cognitive neuroscience of human and non-human primates

National Research Agency package:

200k€

Other package:

Co-funding*: 100k€

* Funding will be made available as free access to the 3T, 7T, and 11.7 T and MEG scanners.
Candidates will be encouraged to apply for complementary funding, e.g. Starting or Consolidator ERC, ATIP/Avenir, or ANR.

Scientific communication and dissemination, Science and society :

We expect the candidate to have a strong publication record, not only in specialized journals, but also in general publications, conferences, radio interviews, etc., that contribute to the dissemination of science in the general public. Candidates with a record of accomplishment of applications to education and the science of learning will be particularly appreciated.

All software tools and all data produced will be ultimately made available to the international community.

Indicators:

Research and publications
Funding
Teaching
Knowledge transfer

République Française   101, rue de Tolbiac
75654 Paris Cedex 13
Tél. +33 (0) 1 44 23 60 00   Page **3** sur **5**

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: **April 2, 2024**

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.