RÉPUBLIQUE FRANÇAISE
Liberté Égalité Fraternité

Inserm
La science pour la santé
From science to health

HR EXCELLENCE IN RESEARCH

CALL FOR APPLICATION

INSERM CHAIR Recruitment

Molecular maintenance of CD8 T cell effector functions during chronic antigen stimulation

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:	BOURGOGNE-FRANCHE-COMTÉ
Location/ Site concerned:	Inserm U1098 - U1098 RIGHT – Regulation of Immunity for therapeutic Innovations in Graft, Host Tumoral and inflammatory-associated diseases - Besançon
Partner institution:	Université de Franche-Comté – Etablissement français du sang
Research contact:	Olivier ADOTEVI: olivier.adotevi@univ-fcomte.fr Justine CLERC: justine.clerc@efs.sante.fr
Administrative contact:	chaires-professeur-junior@inserm.fr
Research fields EURAXESS:	Immunology, Oncology (Medical sciences)
Keywords:	T cell exhaustion, progenitor PD1+ CD8 T cells, CD4 T cell, cancer immunotherapy

Job title to be filled:	Chaire - Molecular maintenance of CD8 T cell effector functions during chronic antigen stimulation
Body after tenure:	Research Director

Anticipated duration of the contract:	4 years
Scientific domains/fields:	Immunology
Corresponding specialized scientific commissions (CSS):	CSS 5 - Immunity, microbiology, Infection CSS 2 - Oncology, genetic diseases CSS 7 - Health Technology
Project name:	Molecular maintenance of CD8 T cell effector functions during chronic antigen stimulation

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. The INSERM UMR1098 includes two teams: team TAI-IT for “Transplantation, Autoimmunity, Inflammation”; and team TICI for “Therapeutics Innovation in Cancer Immunology”. This unit aims to understand the dysregulation of the immune system in the field of inflammation, transplantation and cancers for developing innovative biotherapies. Both teams develop high-quality translational research and therapeutic innovation in the field of diseases involving immune disorders with a constant method from the bench to bedside and vice versa. Of note is that UMR1098 is a collaborative structure combining resources and expertise from academic (University of Franche Comté), healthcare (CHU de Besançon), blood facility sectors (Etablissement Français du sang), enhancing the scope and impact of its research.The proposed CPJ project is in line with Inserm's broader strategic objectives in immunology and translational research. Moreover, this would support Inserm’s mission of fostering high-level scientific expertise in priority areas.

Strategy of the host laboratory:

The recent success of antitumor immunotherapy in multiple cancers highlights the central role of immunity in the cancer fight. Although revolutionary, this therapeutic approach does not yet provide the expected results for all patients. In this context, the team TICI has been structured to address the scientific challenges raised by cancer immunotherapy. A better understanding of the interactions between immune cells and tumor microenvironment should allow us to select the appropriate therapy for the right patient, improve the efficacy of current immunotherapies, and develop innovative ones. To this end, we will develop a basic research focusing on T-cell biology in tumor context and the involvement of tumor-reactive CD4 T cell subsets in cancer immunity. We will develop a research topic focusing on the improvement of cancer vaccine efficacy and the persistence of CAR-T using different strategies such as introduction of a new companion module to limit exhaustion. We will also develop new optimized T cells thanks to gene editing (Crispr/Cas9, knocking…) technologies, as well as using “young” cord blood-derived T or tissue-resident memory T cells. These approaches could also allow to extend the effectiveness of adoptive cell transfer to solid tumors (please see more details in https://umr-right.com)

Summary of the scientific project:

In cancer as well as chronic infections, T cells are exposed to persistent antigens and acquire a dysfunctional gene expression program which includes high expression of the inhibitory receptor Programmed Cell Death-1 (PD-1). PD-1targeted therapies elicit clinical responses in different cancer types, but response rates are rarely above 20%. Positive outcomes have been associated with CD8 T cell responses and the heterogeneity of the tumor immune infiltrate might account for at least part of the variability in responses. Among PD-1$^+$ CD8 T cells, *progenitor exhausted T cells* (*Tpex*,TCF-1$^+$ PD-1$^+$ CD8 T cells) play a central role in the proliferation burst following PD-1 therapy. In cancer patients, the presence of *Tpex* in tumors has been associated with response to PD-1 therapy. *Tpex* need to differentiate into *effector-like* cells to reduce tumor burden. Recent findings highlight a central role for CD4 help in both supporting CD8 T cell cytotoxicity and success of PD-1 targeted therapy. However molecular and cellular mechanisms underlying CD4 and CD8 crosstalk during persistent antigen stimulation remain to be determined. The candidate will investigate how CD4 help (cytokines, chemokines, costimulation signaling, DC licensing) supports effective differentiation of CD8 T cells during antigen persistence. These findings will be critical for the design of new combination therapies with PD-1 blockade to achieve long-term benefit.

Summary of the teaching project:

The candidate will be involved in the training/research link by supervising doctoral students and setting up a tutoring program as part of the graduates school. The CPJ will organize and promote international scientific seminars open to I3C and SCM master degree students (Plaquette de présentation 24/25), (https://blog.u-bourgogne.fr/m2rscm/modules-denseignement-2024-2029)
CPJ will promote exchanges with foreign laboratories so that our students can go to international laboratories to further their training. As part of these exchanges, CPJ can offer training in areas of expertise to foreign partner institutions.

National Research Agency package:	200k€
Other package:	150k€

Co-funding*
PhD grant and operating coats by INSERM/REGION BFC and UFC.
CPJ will also have access to all the unit's technological platforms and facilities

*source et montant

Scientific dissemination/ Open Science:

Scientific communication and dissemination:

Open Science: Priority to scientific communications and publications in Open Access journals, participate in public multi-omics databases in onco-immunology.

Science and society: communication with the general public such as fête de la science, researchers' night, one class, one researcher...

Indicators:

- Research: number of high-impact scientific publications, number of international publications and publications with international collaborations; number of research grants (ANR JCJC, PLBio, ERC…); invited speaker for international congress
- Teaching: student supervision (PhD student, master's); training of young researchers (Post-doc); habilitation to supervise research.
- Open Science, Science and society : number of publications in high quality open acess journals; communications within national and european immunology and immuno-onoclogy networks (SFI, FITC, SITC…), communications for general public (press, social networks, media…), organization of local scientific meeting (oncontrans, JIIC; ITD..)

These indicators will be reviewed during an individual annual interview.

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, 2025**

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.