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Inserm
La science pour la santé
From science to health

HR EXCELLENCE IN RESEARCH

CALL FOR APPLICATION

INSERM CHAIR Recruitment

Leveraging autoimmune disease understanding toward biomarkers discovery through systems immunology approaches

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:	ILE-DE-FRANCE
Location/ Site concerned:	Inserm U959 - I3 : Immunorégulation - Immunopathologie - Immunothérapie - https://www.i3-immuno.fr/en/ Paris
Partner institution:	Sorbonne Université
Research contact:	Encarnita MARIOTTI-FERRANDIZ: Encarnita.Mariotti-Ferrandiz@admp6.jussieu.fr Caroline AHENG: caroline.aheng@sorbonne-universite.fr
Administrative contact:	chaires-professeur-junior@inserm.fr
Research fields EURAXESS:	Immunologie/Immunology (Medical sciences)
Keywords:	omics, immunology, autoimmunity, modelling, immunoregulation

Job title to be filled:	Chaire - Leveraging autoimmune disease understanding toward biomarkers discovery through systems immunology approaches
Body after tenure:	Research Director

Anticipated duration of the contract:	3 years
Scientific domains/fields:	Immunologie/Immunology
Corresponding specialized scientific commissions (CSS):	CSS 5 - Immunity, microbiology, Infection
Project name:	Leveraging autoimmune disease understanding toward biomarkers discovery through systems immunology approaches

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

Strategy of the host institution:

INSERM, one of the leading biomedical research institutions in Europe and worldwide, is driven by the international dynamics of research in biology and health to delve into increasingly complex questions. This exploration requires the utilization of multidisciplinary approaches that encompass various scientific disciplines and technological expertise. Consequently, INSERM has made the recruitment of innovative profiles a key objective in its strategic plan, aiming to foster groundbreaking advancements. In line with this objective, the proposed recruitment of a junior professorship position at the i3 Laboratory perfectly aligns with INSERM's vision. The institution seeks to recruit a candidate who can harness cutting-edge approaches to advance our understanding of autoimmune diseases and push the boundaries of knowledge in immunology. In addition to contributing to these objectives, the junior professor will play a role in training young scientists and medical doctors through the Systems Immunology training program at Sorbonne Université. This will facilitate the development of novel skills in the future generation of researchers and medical professionals.

Strategy of the host laboratory:

The i3 Laboratory has been developing a translational systems immunology approach in the field of autoimmune and inflammatory diseases (AID) for over 10 years. Established collaborations with various clinical services (internal medicine, rheumatology, diabetology and the Biotherapies clinical investigation center) affiliated to AP-HP and Sorbonne Université, the multidisciplinary composition of the team (biologists, immunologists, clinicians, informaticians, and bioinformaticians) and the numerous major national and european fundings (LabEx and RHU by Investissement d'Avenir, Agence Nationale pour la Recherche ; ERC Advanced and H2020) have been pivotal to this expertise development. As such, the laboratory has generated unique massive multiparametric datasets, representing an investment of over 10 million euros for their generation, that describe the immune systems of more than 700 patients with one AID, recruited under observational or interventional clinical trials.
I3's personel involved in systems immunology has grown from 5 members (with 2 permanent PIs) to now 15 members (including 5 permanent members (4 PIs and 1 assistant engineer). To maximize the exploitation and valorization of this investment, the i3 lab aims at recruiting a junior professor with expertise in systems immunology to introduce innovative ideas and propel the research forward.

Summary of the scientific project:

The proposed junior professorship position at the i3 Laboratory will be seamlessly integrated into the research and training endeavors of the laboratory and affiliated institutions. The primary objective for the candidate will be to propose innovative projects aimed at identifying biomarkers and novel therapeutic targets through either the development of advanced computational models and algorithms to uncover fundamental mechanisms underlying immune system dysregulation or the design of translational research projects aimed at testing and validating new therapeutic strategies. A central aspect of this role will involve building upon the extensive datasets already generated by the i3 Laboratory. These datasets include comprehensive immunophenotyping of blood cells, full transcriptome and T-cell receptor repertoires of regulatory T-cells, effector T-cells, and CD8 T-cells, as well as gut microbiome data from a cohort of 900 patients with autoimmune and inflammatory diseases and healthy volunteers. Additionally, meticulous metadata containing accurate clinical descriptions of the patients are available.
Candidate should possess a strong background in Immunology and substantial professional experience with state-of-the-art omics technologies together with experimental skills in cellular and molecular biology or in modeling and computational biology.

Summary of the teaching project:

The rise of integrated approaches and technological advancements necessitates interdisciplinary training for the next generation of researchers in biology, modeling, and bioinformatics. Within the i3 Laboratory, a team of members has spearheaded the establishment and coordination of the pioneering Systems Immunology training program at Sorbonne Université. This program is integrated into the third year of the Bachelor's degree (Unit of Teaching LU3SV648: Big data in biology - public health challenges) and the second year of the Master's degree in Molecular and Cellular Biology, specializing in Immunology through the Integrative and Systems Immunology master 2 track. The training program covers various essential aspects, including innovative omics' technologies, modeling, analysis of complex data, and bioinformatics. Annually, approximately 50 students from scientific, pharmaceutical, and medical backgrounds enroll in these programs. Innovative pedagogical approaches such as project-based learning and autonomous learning strategies are employed. The junior professor's expertise will contribute to the continued improvement and innovation of the training program, through lectures and workshops, ensuring that students receive cutting-edge knowledge and skills in Systems Immunology.

National Research Agency package: 200k€

Other package:

The i3 lab offers a well-established environment enabling the processing and analysis of the data belonging to the project. For the first period of 3 years, a post-doctoral fellow with computational

background will be recruited to support the recruited researcher's in the project. Master 2 students (1 per year) will also be recruited.

Co-funding: Newly obtained grants (> 1.5M€) will provide additional funding €

Scientific dissemination/ Open Science:

Scientific communication and dissemination: The candidate will be expected to present his/her results during major French and international immunology congresses, including the annual SFI and FOCIS meetings. The candidate will submit his/her results to peer-reviewed journals.

Open Science: The i3 lab is well-aligned with the open-science principle. As such, posters, abstract and research article will be submitted to the HAL platform from our national institutions. All the research articles are currently submitted to well-established journals with open-science policies. Finally, all the data and computational tools will be submitted to dedicated databases and platforms to support sharing to the scientific community, in agreement with the GDPR regulation policies regarding human data.

Science and society: The i3 lab is involved, through its clinical component, in various patient association. As such, the results of the project will benefit from opportunities to disseminate discoveries and novel methodology with interest for the patient through dedicated meetings.

Indicators:

- Teaching:

Number of teaching hours: the candidate will have to contribute to 64h per year of teaching at the Immunology department of the Sorbonne faculty of Science and Engineering. This will be organized with the immunology teaching team.

- Research:

Number of research article publications in peer-reviewed journals: One main research article with the candidate as last author should be planned by the term of the first 3 years. Given the expertise of the researcher to be recruited, contribution to other research articles from the i3 lab with co-authorship are also expected.
Number of patents: the project will benefit from the valorization environment to identify possible patents based on the results.

- Knowledge transfer:

Number of students supervised in Master, thesis or other postgraduate courses
Number of research communications during conferences
Involvement in the i3 lab scientific animation: the candidate will be have to present his/her work during regular meetings (general lab meetings, bioinformatics meetings or project based meetings) organized in the i3 lab. He/she will also have the freedom to propose novel scientific animation within the i3 lab to share his/her knowledge and expertise with young generation of students.

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.