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HR EXCELLENCE IN RESEARCH

CALL FOR APPLICATION

INSERM CHAIR Recruitment

Role of Human Immune System Heterogeneity in Metabolic-dysfunction Associated Steatohepatitis (MASH) for Personalized Medicine.

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:	Hauts-de-France
Location/ Site concerned:	Inserm U1011 - Nuclear receptors, Metabolic and Cardiovascular Diseases. Lille
Partner institution:	Université de Lille - Institut Pasteur de Lille
Research contact:	Bart STAELS: Bart.Staels@pasteur-lille.fr
Administrative contact:	chaires-professeur-junior@inserm.fr
Research fields EURAXESS:	Immunity, Immunotherapy – Medical sciences (Medical sciences)
Keywords:	Human immunology, Metabolic dysfunction-associated steatotic liver diseases, (MASLD), Systems biology, Bioinformatics, single cell/nucleiRNA-seq, mass and spectral cytometry.

Job title to be filled:	Chaire - Role of Human Immune System Heterogeneity in Metabolic-dysfunction Associated Steatohepatitis (MASH) for Personalized Medicine.

Body after tenure:	Research Director
Anticipated duration of the contract:	3 years
Scientific domains/fields:	Immunity, Infection, Immunotherapy (LS6), Physiology in Health, Disease and Ageing (LS4)
Corresponding specialized scientific commissions (CSS):	CSS 3 - Physiology and pathophysiology of major systems CSS 5 - Immunity, microbiology, Infection CSS 6 - Public Health, population health
Project name:	Role of Human Immune System Heterogeneity in Metabolic-dysfunction Associated Steatohepatitis (MASH) for Personalized Medicine.

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 central organization for research in human health in France. The research conducted by INSERM covers all fields of biomedical research, from basic to highly applied research at the heart of the healthcare system and public health expertise. The research and teaching themes of this junior professorship are in line with the priorities of the means and performance contract between INSERM and the French government, which are notably to promote excellence and groundbreaking research and to support a research program encompassing the continuum of health research, i.e., from basic research, through translational research, to patients. It also echoes the priority given to public health and prevention and reflects the objectives of the research axis of the national health strategy 2018-2022, in terms of human health knowledge and development support for medical innovations. Institut Pasteur de Lille (IPL) is a private not for profit foundation aiming to improve human health through developing research projects in biomedical research. IPL is seeking to reinforce its research potential in innovative bioinformatic approaches in the context of immunology of metabolic diseases through hiring a young leader to establish an independent team within U1011.

Strategy of the host laboratory:

U1011 Inserm, Institut Pasteur de Lille, Université de Lille, University Hospital Lille is a leading research structure in the field of Nuclear Receptors, Metabolic and Cardiovscular Diseases. The theme to be developed is the integrated study of variation in the human immune system in Metabolic-dysfunction Associated steatotic liver diseases (MASLD). It fully complements current research in the field of inter-organ dialogue in metabolic diseases undertaken at U1011. In particular, U1011 teams have identified, in humans and in preclinical models, alterations in the immune system associated with the development of Metabolic dysfunction-associated steatohepatitis (MASH). Sofar these pioneering studies were undertaken on a relatively limited number of patients. Team 3 (immunology) focuses mainly, but not exclusively, on preclinical models, while teams 1 (metabolism and inter-organ dialogue) and 4 (molecular mechanisms of liver pathologies) focus on translational approaches. Data acquisition

on a large number of patients will rely heavily on mass and spectral cytometry and scRNAseq and snRNAseq (single cell/nucleus) technologies, recently developed and managed at U1011 by teams 3 and 1. Integration of these teams and with local clinical teams will be crucial to the project's success in this highly competitive field.

Summary of the scientific project:

U1011 has identified alterations in the immune system associated with the development of metabolic liver diseases (MASLD/MASH) in patients and in preclinical models. So far, little attention has been devoted to immune system heterogeneity in MASLD/MASH, despite the immune response being a key driver of disease progression. The project will investigate the contribution of inter-individual immunological heterogeneity in MASLD/MASH patients through an integrative analysis of "multiomics" (sc/snRNAseq and mass cytometry) and clinico-biological (eg metabolic parameters) data to correlate immune status variation with pathology development and identify specific approaches for therapeutic targeting of immune system populations. To do so, we will collect a comprehensive number of individual samples, initially focusing on blood samples followed by liver biopsies, to create an integrated dataset. Data integration algorithms will be optimized and refined in a "semi-holistic" manner by integrating expert pathophysiological and immunological knowledge. Using the integrated dataset, we will use machine learning and a "semi-holistic" approach to identify immune cell function specialization in individual patients and relate this to the presence of MASH. Perturbation experiments of immune cells, followed by single-cell readouts, will validate the model, and explore therapeutic targets.

Summary of the teaching project:

The candidate will have the opportunity to transfer the results of his research directly to graduate students by participating in the teaching and training of Masters and PhD students in the Graduate Program (GP) Precision Health (PH) one of the four GPs at Lille University (https://graduate-programmes.univ-lille.fr/en/graduate-programmes/precision-health). PH is an innovative approach to research-driven training, integrating master and PhD students, within a stimulating and innovative international context, offering an interdisciplinary theme, international experience and preparation to the future career. Within PH, the candidate may take part in the teaching of the Master Biology-Health PH track (https://master-biologie-sante.univ-lille.fr/en/parcours-pph-en), by giving lectures in one of the course's seminars (e.g. Pathophysiology and molecular basis of diseases and treatments applied to precision health). In addition, he may give lectures at the Graduate program's annual events, bringing together Master and PhD students with the Lille scientific community, such as the 1 day "Welcome event" and 3 day "Summer School". Teaching will focus on the integrated analysis of immunological and metabolic data in human disease and systems biology.

National Research Agency package:

200k€

Other package:	600k€

Co-funding*
Institut Pasteur de Lille: 300k€
FEDER: 300k€

*source et montant

Scientific dissemination/ Open Science:

Scientific communication and dissemination: We expect our articles to be published in peer-reviewed journals that favour open access. All our publications will also be uploaded in the HAL open archives system (https://hal.archives-ouvertes.fr). The results of this research will be disseminated to the scientific community as well as to the general media. Dissemination is achieved through INSERM, Institut Pasteur de Lille and Université de Lille communication resources.

Open Science: All the manuscripts will be included in the national multidisciplinary scientific open archive database HAL (https://hal.archives-ouvertes.fr) and publication in "Green Track" or "Gold track" journals. The materials published will be available to the scientific community, when necessary through an MTA, and the U1011 frequently supplies mouse lines or other materials to groups outside the unit. The knowledge, data and tools coming from this project will be shared as early as possible in the Research and Innovation (R&I) process, in open collaboration with all relevant knowledge actors, including academia, industry, public authorities, end users, citizens and society at large.

Science and society: Thanks to the close links between U1011 members and the communication services at INSERM, Institut Pasteur de Lille and Université de Lille, the awardee's main scientific discoveries and medical advances will be regularly taken up by the local and national media. Dissemination to the general public will be continuous, through both actions of communication and participation in local or national events.

Indicators:

Teaching
Success rate of tutored Masters and Ph.D. students
Student assessment of teaching methods
Degree of involvement in the organization of cardio-vascular courses within Université de Lille

Research
Publications in high-impact first rank journals
Obtention of research grants
Adequacy between the research carried out by the chair holder and U1011 scientific policy

Knowledge transfer
Collaborative research with public findings
Participation in national and international scientific meetings

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.