



INTERCEPT-MDS



1 PhD position

HOST INSTITUTE:

- **Institut national de la sante et de la recherche medicale (INSERM). France > Paris**

RESEARCH PROFILE: First Stage Researcher (R1¹)

APPLICATION DEADLINE: 28 December 2022

EU RESEARCH FRAMEWORK PROGRAMME: HORIZON 2020

MARIE SKOLODOWSKA CURIE GRANT AGREEMENT NUMBER: 953407

Offer Description

The Marie Skłodowska-Curie Innovative Training Network (MSCA-ITN) “INTERCEPT-MDS - Exploring cell-to-cell heterogeneity and exploiting epigenetic regulation for the interception of myeloid disease cells” is recruiting 1 highly motivated PhD candidate at the Institut national de la sante et de la recherche medicale (INSERM) in Paris (France). INTERCEPT-MDS is funded by the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 953407 (official start date 1 January 2020 and end date 31 December 2024). See more info about H2020 MSCA ITNs at: <https://marie-skłodowska-curie-actions.ec.europa.eu/funding/marie-skłodowska-curie-innovative-training-networks-2020>.

PhD Project - “Single-cell multiomic assessment of precision medicine in myelodysplastic syndromes”

The stimulating PhD position is available at INSERM (Paris, France) in the Puissant lab (<https://thepuissantlab.jimdofree.com/>). Alexandre Puissant is Research Director at INSERM, ERC Starter, with expertise in leukemia, cancer metabolism and in vivo functional screens. The project will be conducted under the supervision of Pr. Raphael Itzykson, a physician-scientist from the team, with expertise in leukemia, myelodysplastic syndromes (a pre-leukemic condition), genetic heterogeneity of cancer and precision medicine. The PhD candidate will conduct cutting-edge single-cell multi-omic analyses on primary patient cells collected before and during treatment with targeted therapies (IDH1 and IDH2 inhibitors, alone or in combination with the hypomethylating agent azacitidine) in patients with myelodysplastic syndromes accrued to two concomitant multicentric trials from the Groupe Francophone des Myelodysplasies (GFM), the IDIOME (IDH1, NCT03503409) and IDEAL (IDH2, NCT03744390) trials. Accrual for the two trials is nearing completion and thus biobanked samples already available for research. Preliminary clinical data is available for both [IDIOME](#) and [IDEAL](#) studies.

The project will use recently developed single-cell multi-omic approaches [already available in the lab](#) which are now [amenable for the study of residual disease](#) to decipher the genetic identity and differentiation status of residual leukemic cells in responders. In parallel, the ESR will optimize the plate-based multi-omic strategy [TARGET-Seq](#) to study at single-cell level the genetic architecture

¹ First Stage Researcher (R1) PhD candidate or equivalent. Early stage researcher with less than 4 years FTE research experience.

and transcriptome of resistant leukemic cells in non-responders from the two studies, to determine the respective role of clonal selection and functional adaptation in drug resistance.

In addition, with the supervision of Pr R. Itzykson, the ESR will be co-supervised by Dr Matthieu Duchmann, an INSERM/Bettencourt Foundation Fellow with expertise in single-cell sequencing and computational biology, and will benefit from daily technical support from two research engineers with expertise in translational leukemia research and single-cell sequencing.

To further broaden the expertise of the PhD candidate and support the project, two secondments (stays in collaborating laboratories within the network) of 2 months will be an integral part of the PhD project, for instance to strengthen the training in computational biology, and to develop in vivo models of primary patient samples from the IDH studies).

About the INTERCEPT-MDS network

INTERCEPT-MDS brings together 10 European public and private institutions in a European network of experts in leukaemia, epigenetics and single-cell approaches. Through a multidisciplinary and multisectoral approach, the INTERCEPT-MDS network studies disease interception in the context of clonal myeloid diseases.

The PhD candidate to be based at INSERM on the [Hopital Saint-Louis campus](#) (Paris, France) will have eleven counterparts at other leading European research institutions. The successful candidate will be enrolled in a PhD programme from [Université Paris Cité](#) and will receive an outstanding and tailored training designed specifically for the INTERCEPT-MDS fellows, which is currently ongoing. The secondments in other European institutions within the network will provide the needed interactions to achieve research and training excellence and improve the future career perspectives of the fellow.

REQUIREMENTS:

Eligibility criteria and qualifications:

Applicants can be of any nationality and must fulfil the following criteria:

- Not have resided or carried out their main activity (work, studies, etc.) in France for more than 12 months in the 3 years immediately prior to their recruitment by INSERM (i.e. the starting date indicated in the employment contract/equivalent direct contract).
- Be in the first 4 years (full-time equivalent research experience) of their research careers at the date of recruitment (from the date when the applicant obtained the degree which would formally entitle them to embark on a doctorate).
- Not have been awarded a doctoral degree.
- Have a master's degree relevant for the chosen position or its equivalent that would entitle them to embark on a doctorate by the time they are recruited, or must hold an official university qualification from a country of the European Higher Education Area with a minimum of 300 ECTS of official university studies. Applications are welcome from candidates who are currently finishing their master studies (state the expected defense date in the application).

Successful candidates will have a strong interest in single-cell technologies or translational cancer research. Applicants with solid background in molecular biology and/or computational biology will be given priority. Having an interest on outreach activities and public engagement will be considered a plus. Candidates must have a high level of proficiency in written and spoken English, which will be assessed with the motivation letter and the interview, respectively.

ADDITIONAL INFORMATION:

What we offer

A highly stimulating and clinically relevant 36-month project in an inspiring international research team within an interdisciplinary network of scientists, clinicians and industrial partners. As part of the ITN, the PhD fellow participates in organized training courses, networking events and expands expertise through stays in the laboratories of other ITN members. The institute is located in Paris providing a very stimulating, friendly and international environment.

Full-time employment contract with a competitive salary. Upon completion of the funding from the INTERCEPT-MDS project (20 months) that follows the H2020 MSCA regulations for Early Stage Researchers and their family status at the time of the recruitment, the full-time employment contract will be set according to INSERM standards based on past working experience.

How to apply:

If you are interested in the position, please apply through the “Apply now” button in the INTERCEPT-MDS website (www.intercept-mds.eu/apply-now). Applications must be in English and should include:

- CV
- Contact details from 2 referees (Include name, title, current position, institution and e-mail address)
- A letter of motivation, including a statement of prior experience and research interests (1 page maximum).
- Bachelor and Master degree certificates (please include the transcripts to English of the academic records)

Selection process:

Eligible applications will be ranked on the basis of CVs and merits by a selection committee. The 3 top candidates for the position will be invited for a virtual interview where the final candidate will be selected.

Applicants with a positive evaluation but not selected will be included on a reserve list to cover eventual future positions and might be contacted at a later stage.

Timeline

- Application deadline: **28 December 2022 at 14:00** (CET)
- Virtual interviews: January 2023 (exact date to be determined)
- Tentative start of the fellowship: February 2023



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