



Postdoctoral position

Transcriptional regulation in B cell acute lymphoblastic leukemia

Keywords: IKAROS transcription factor, trans-regulatory elements, transcriptional regulation, acute lymphoblastic leukemia

The project: The transcription factor IKAROS, encoded by the *IKZF1* gene, plays essential roles in the differentiation and function of B lymphocytes. Mutations and deletions of *IKZF1*-coding regions, which impair IKAROS expression are found in human leukemia, immunodeficiency and autoimmunity syndromes. An adequate IKAROS expression is therefore essential for its physiological function. However, how IKAROS is regulated in humans especially in the context of leukemia is not known. We aim to understand which regulatory elements (cis and trans) are important for *IKZF1* expression and whether mutations and deletion of these elements or of their regulating pathways are found in B lymphoblastic leukemia.

The team: The project will be conducted under the supervision of Beate Heizmann. She is a project leader in the team of Susan Chan and Philippe Kastner at the Institute of Genetics and Molecular and Cellular Biology (IGBMC), Strasbourg, France. Her scientific interests are to understand how B cell differentiation and function is regulated at the transcriptional level and how deregulation in these processes are involved in pathologies like leukemia.

The techniques: The project will incorporate high-throughput analysis for epigenetics and chromatin dynamics, in combination with multiple in vivo and in vitro approaches (ChIP, CRISPR, mass spectrometry, Western blot, flow cytometry, ...).

Candidate profile and requirements: Ideally, the candidate would have a background in gene regulation, cell biology, and/or hematopoiesis. Experience in high-throughput data analysis and/or any of the above-mentioned technique would be appreciated but it is not required. Though funding is available, the highly motivated candidate will be expected to apply for their own fellowship and funding during the postdoctoral period.

The position is available from March 1, 2021 for 2 years.

Application: The candidate should send a letter of motivation explaining their interests and suitability for this project, a curriculum vitae with a publication list, a short summary of research achievements and mastered techniques in English, and the names and email addresses of at least two references to heizmann@igbmc.fr.