

Post-Doctoral positions in Experimental Hematology

Two Post-Doctoral Research Fellowships Available at the School of Medicine and Surgery of the University of Milano-Bicocca in the research group led by **Emanuele Azzoni**, within the framework of two exciting and ambitious projects, respectively funded by **WORLDWIDE CANCER RESEARCH (WWCR)** and **FONDAZIONE CARIPLO/FONDAZIONE TELETHON**.

Both projects are aimed at understanding the role of inflammatory pathways in the context of juvenile myelomonocytic leukemia (JMML), a type of blood cancer affecting young children, for which new treatments are urgently needed. Our laboratory has recently implemented a new transgenic mouse model of JMML, that allowed us to investigate its cellular origins (Quattrini et al., in preparation).

Project #1 (WWCR) will focus on a) studying the role of inflammation and b) analyzing molecular pathways involved in the inflammatory process and cellular response to stress in the context of JMML pathogenesis. To achieve these goals, we will employ genetic and pharmacological approaches in a range of transgenic mouse models capable of recapitulating the genetic variability observed in JMML. Additionally, a humanized murine model of JMML based on xenotransplantation of patient-derived cells (PDX) will be utilized. This will be a two-year project, with the possibility of being renewed.

Project #2 (Fondazione Cariplo/Fondazione Telethon) will focus on studying the role of specific target genes involved in the inflammatory process and cellular response to stress in JMML. Here, we will initially conduct preliminary genetic tests using a range of *in vitro* models. Next, we will translate our studies *in vivo* to the murine transgenic and PDX models of JMML. This will be a one-year project, with the possibility of being renewed.

The results of our studies are expected to provide important insight on the biology underlying JMML, and hopefully provide patients with new therapeutic options. The techniques that will be employed include *in vitro* and *in vivo* assays, CRISPR/Cas9-based genetic editing, multi-parameter flow cytometry, single-cell transcriptomics, and more. These projects will be carried out in collaboration with national and international research groups.



DIPARTIMENTO DI
MEDICINA E CHIRURGIA
SCHOOL OF MEDICINE AND SURGERY

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We are looking for highly motivated researchers holding a Master Degree (Laurea Magistrale) in Biology, Biotechnology, Biomedical Sciences or any related fields. A Ph.D., although not formally required to apply to these positions, would be an important advantage. Previous experience in experimental hematology and technical skills in murine models, flow cytometry and any of the above-mentioned techniques would be a plus.

Starting date: 1st May 2024.

The Environment: The School of Medicine and Surgery of The University of Milano-Bicocca (<https://www.medicina.unimib.it/it>) is located within the BioMedical Campus of Monza. It consistently ranks among the top medical universities in Italy and received the “Department of Excellence” financial award in 2018 and 2023. The Department offers a diverse and stimulating environment with access to cutting-edge facilities.

How to Apply:

Interested candidates are invited to contact Dr. Emanuele Azzoni (emanuele.azzoni@unimib.it) at with a CV and a cover letter, and contact details of at least two referees.

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