



## PhD candidate position in Biomedical sciences/Pharmaceutical sciences

## CANSEARCH research platform for pediatric oncology and hematology, Department of Pediatrics, gynecology and obstetrics, Faculty of medicine, University of Geneva, Switzerland.

We are seeking a highly motivated PhD candidate to join our dynamic cross-disciplinary team dedicated to personalizing the treatment of pediatric oncology and hematology patients. The project will be conducted in collaboration with Pharmacological and Toxicological Investigation Unit, Geneva University Hospitals, Faculty of Medicine.

The aim of the PhD project is

- 1. To establish the methods for the model informed therapeutic drug monitoring and personalized dosing of fludarabine in pediatric hematopoietic stem cell transplantation patients.
- 2. To evaluate the association of candidate gene variants in fludarabine pharmacokinetic and pharmacodynamics pathway with clinical outcomes of pediatric HSCT

The PhD candidate will

- 1. Develop and validate an analytical method using HPLC-MS/MS for the simultaneous quantification of Fludarabine, its active metabolite fludarabine-ATP and Busulfan. The candidate will also evaluate published Fludarabine Population Pharmacokinetic (PopPK) models for their application in model informed precision dosing of fludarabine in our patients and in retrospective cohorts. A pediatric Physiologically-based pharmacokinetic (PBPK) model will also be developed to understand and predict the exposure of the patients to Fludarabine and its active metabolite.
- 2. Prioritize the candidate gene variants that may affect fludarabine pharmacokinetics and pharmacodynamics based on literature, in vitro studies to perform the candidate gene association study using pediatric HSCT cohorts.

## **Qualifications:**

- MD pharmacologist or PharmD or Master's Degree in Pharmaceutical sciences, Pharmacology, Pharmacogenetics, Biomedical engineering, Biomedical sciences, or a related field.
- Good theoretical understanding of concepts in pharmacogenomics, HPLC-MS/MS and bioanalytical method development and validation.
- Basic working and theoretical knowledge in PopPK modelling using NONMEM, Phoenix NLME, Monolix, or other PK modelling software.
- Working knowledge/experience in PBPK modelling using SimCYP, PK-Sim or GastroPlus is desirable.
- Data management, basic statistical analysis and data visualization using R or other programming language is a plus.
- Very good writing and speaking skills in English. Knowledge of French is desirable.





## How to apply:

Your application should comprise a CV, academic transcripts of your Master's degree, and a cover letter including a description of your research interests and previous achievements.

Include in the CV contact details of at least one senior researcher for reference information.

Submit your cover letter, CV and transcripts in a single pdf file.

Send it to the following email address:

Chakradhara.Uppugunduri@unige.ch

Marc.ansari@hcuge.ch

The selected candidate will have to prepare a fifteen-minute oral presentation of previous research during an AD-HOC commission meeting for the enrollment to the Biomedical sciences PhD program.

Prof Marc Ansari

Head of the research platform in Oncology and Hematology Pediatric

Geneva University Medical School