



Post-doctoral (“Assegno di Ricerca”) and post-graduate research positions available at the Department of Biosciences at Università degli Studi di Milano in the infection microbiology of *Pseudomonas aeruginosa* in cystic fibrosis patients

The laboratory of Molecular Microbiology at the Department of Biosciences, Università degli Studi di Milano, Milan, Italy is seeking:

1. a highly motivated Ph.D. graduate for a 24-month research post-doctoral fellowship and/or
2. a Master’s degree graduate with some post-graduate research experience for a junior research fellowship (Borsa di studio)

in the context of the project “BacVir-CF: Identification of novel bacterial virulence factors and inflammation determinants associated with persistent lung infections in cystic fibrosis” funded by Fondazione Cariplo.

The project aims at the molecular characterization of novel virulence and inflammation determinants during *P. aeruginosa* infections in cystic fibrosis patients identified using high-resolution *in situ* metatranscriptomics in human expectorates. The project is in collaboration with Prof. Helle Krogh Johansen, Rigshospitalet, Denmark.

The candidate will generate a library of knockout and overexpression mutants in *P. aeruginosa* and perform high-throughput screening of infection-relevant phenotypes and evaluate the pathogenicity and host response.

For the post-doctoral position, the candidate must have a demonstrated expertise in bacteriology (preferably on *P. aeruginosa*), molecular biology, and biochemistry, and be familiar with molecular biology techniques such as PCR, RT-qPCR, cloning strategies, random mutagenesis and site-directed mutagenesis techniques, RNA extraction and sequencing library preparation. Previous experience with the analysis of RNA-seq data is required. Experience in host-pathogen interactions, cell biology, the use of infection models, and the analysis of raw sequencing data are not required but will be evaluated positively. Experience in the cystic fibrosis field is a strong bonus.

For the junior research fellowship, a Master’s thesis with honours in Microbiology with a focus on microbial genetics and/or host-pathogen interaction is required.

The candidate is also expected to work independently, to be an active team player proposing and developing her/his research ideas for grants/fellowship applications. Excellent oral and writing English skills are required.

Candidates interested in applying can send a CV/resume and a short presentation letter (with two contacts of previous mentors or supervisions) in English to Dr. Elio Rossi (elio.rossi@unimi.it) and Prof. Paolo Landini (paolo.landini@unimi.it) no later than March 1, 2021.

For more details, please contact Dr. Elio Rossi.