



3-year Postdoctoral position available

Institut Pasteur de Lille - Centre of Infection and Immunity of Lille - France

Team: Chemical Biology of Antibiotics

It is urgently pertinent that novel antibiotic molecules with novel mechanism of action are discovered and developed to fight the emergence of drug resistance for tuberculosis therapy as well as for nosocomial bacterial therapy. To this extent, collaborative research between the “Centre of Infection and immunity of Lille” (U1019) and the Center “Drug and molecules for living systems” (U1177) have identified potent and specific molecules that target novel bacterial systems. The molecules of interest are specific inhibitors of the respiratory chain of *M. tuberculosis* and innovative modulators of antibiotic activity in *Enterobacteriaceae*. In the contexts of these two chemical series, a consortium has been built to accelerate their development to preclinical candidates, characterise their mechanism of action, and evaluate their potential in drug combinations. To this extent, a 3-year postdoctoral position is available immediately in the team of *Dr. Ruben Hartkoorn* at Institut Pasteur de Lille.

The postdoc will participate to define at a genetic, biochemical and structural level the exact mechanism of action of the antibiotic molecules. This will include the use of molecular biology tools in *M. tuberculosis* and *E. coli*, antibiotic assays, in vitro profiling, microbiology, protein expression, and evaluation of target engagement by biophysical techniques (SPR, TSA or similar).

Applicants must possess a Ph.D. in biochemistry, molecular biology, pharmacology, biomedical engineering or related areas. Strongly motivated candidates with demonstrated expertise in molecular techniques, biochemistry, and bacteriology are encouraged to apply. Experience in the field of bacterial respiratory chain is a bonus. Willingness to work in a high containment security facility (BSL-3) is mandatory.

Applicants are invited to submit a Curriculum Vitae, including list of publications, a description of present research and contact information of three referees to: ruben.hartkoorn@inserm.fr