

Short-term position in SARS-CoV-2 infection and chromatin dynamics

Workplaces:

Institut NeuroMyoGène (INMG). UCBL - CNRS UMR 5310 - INSERM U1217, Faculté de Médecine et de Pharmacie, 8 avenue Rockefeller, 69008 LYON

AND

Centre International de Recherche en Infectiologie (CIRI), INSERM U1111, CNRS UMR5308, ENS Lyon, Université Claude Bernard Lyon 1, LYON

Supervision: Drs. Patrick Lomonte (INMG) and Olivier Terrier (CIRI)

Type of contract: Post-doc contract funded by ANR

Contract length: 12 months, full time.

Start date of the contract: January 2021

Project:

Cytokine storm is a hallmark of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, which causes coronavirus disease 2019 (COVID-19). As a consequence some patients can develop severe inflammatory diseases some of which leading to cardiac failure. Signaling pathways triggered by the pro-inflammatory cytokines end up in the nucleus modifying the transcriptome of the infected and non-infected cells through epigenetic regulation. The CHROMACoV project aims at analyzing the impact of pro-inflammatory cytokines secretion together with specific chromatin modulators in the onset of the molecular and biological events leading to inflammatory complications associated to the COVID-19.

Research methodology and approach:

- Cultures of human airway epithelial cells and human primary fibroblasts
- SARS-Cov-2 manipulation (production, titration, infections of cells)
- Lentivirus/retrovirus production and transductions
- Chromatin immunoprecipitation (ChIP)
- Fluorescent in situ hybridization (FISH), immunofluorescence.
- RNAseq, ChIPseq
- Bioinformatic analyses

Application: The candidate must hold a Ph.D. degree and have a strong interest for research in virology and cell biology. Candidates should have excellent communication skills, both for oral presentations as well as scientific writing skills. Background in molecular genetics, epigenetics, and bioinformatics will be a plus.

Salary : 28-31 k€ gross/year (1.8-2.1 k€ neat/month) depending on experience.

Please send the following documents to Dr. Patrick Lomonte

1. A detailed CV and a motivation letter.
2. A short summary of your Ph.D. thesis, and, if applicable, previous post-doc.
3. The name and contact information for two academic references.

Contact and further information: patrick.lomonte@univ-lyon1.fr