PhD THESIS OFFER

A 3-year contract is offered to carry out a **doctoral thesis** under the joint co-supervision of **Sonia Longhi** (head of the **"Structural Disorder and Molecular Recognition"** team, **AFMB** lab, Marseille, France) and **Cyrille Mathieu** (head of the **NITROVIRE** team, **CIRI**, Lyon, France)

The thesis is framed within the project

"INTERFERING WITH VIRAL FACTORIES AS AN ANTIVIRAL STRATEGY AGAINST NIPAH VIRUS AND *PARAMYXOVIRINAE*" (Acronym: NIPAH-LISA)

Funding: ANRS PEPR MIE **Net salary: 64 135 € /36 months**

SUMMARY. The NIPAH-LISA project aims at developing effective broad-spectrum antiviral therapies against *Paramyxovirinae* by an innovative multi-faceted approach combining host- and virus-directed antivirals that interfere with the formation of viral factories. To achieve these goals, a multidisciplinary consortium of eight partners with complementary expertise in chemistry, pharmaceutical technology, biochemistry, virology, drug development, and social sciences will combine efforts in this project capitalizing on prior breakthroughs and established tools and protocols.

CALENDAR. The PhD student will be in charge of carrying out biochemical and cellular studies, as well as the experiments with transfected and infected cells. Biochemical studies will be carried out in S. Longhi's lab, while cellular studies will be carried out in C. Mathieu's lab. The student will spend months 1-18 in S. Longhi's lab and months 19-36 in C. Mathieu's lab, with short stays in the other lab as necessary.

KEY WORDS. Biochemistry, virology, recombinant protein expression and purification, protein-protein interactions, small molecule screening, protein complementation assays, minireplicon and FRAP studies, antivirals and antiviral assays.

RESEARCH ACTIVITIES. The PhD student will be in charge of analyzing the impact of candidate molecules on the formation, material properties and dynamics of viral factories of Nipah, measles and human parainfluenza type 3 viruses (NiV, MeV, and hPIV3) both *in vitro*, using purified proteins, or in the cellular context. He/she will also test the antiviral activity of drugs (either alone or in combination) in cells or in organotypic lung cultures infected with MeV.

REQUIREMENTS. Candidates should have a competitive academic record and a strong motivation to work in the field of antiviral research. They should have a sound theoretical and practical background in molecular biology (cloning of genes in expression vectors), biochemistry (expression and purification of recombinant proteins, protein-protein interaction studies) and cellular biology (transfection and infection studies, protein complementation assays *in cellula*).

HOW TO APPLY: Interested candidates should submit their academic transcripts, CV, and a motivation letter as soon as possible to the two following email addresses: **sonia.longhi@univ-amu.fr** and **cyrille.mathieu@inserm.fr**. Application period: Nov 2023 - Jan 2024. The contract is expected to start on April the 1st 2024.