Oxeltis and academic partners receive grant funding worth nearly €800,000 to develop antiviral for *Bunyaviricetes*

France's National Research Agency (ANR) and Defense Innovation Agency (AID) will finance BUNYANTIVIR project to introduce novel therapeutic approach for *Bunyaviricetes* class of human pathogenic viruses found in tropical and subtropical regions

Montpellier, France, June 25, 2025 – Oxeltis, a CRO specialized in medicinal chemistry and fine organic chemistry for custom synthesis, today announces the selection of the BUNYANTIVIR project under the call for proposals for the 2024 ASTRID Maturation program. The program is designed to support the development of scientific work carried out under other research support schemes that have received financial support from France's Ministry of Armed Forces.

BUNYANTIVIR was set up with a number of academic partners: the Biological Macromolecule Architecture and Function Laboratory (AFMB) and the Emerging Viruses Unit (UVE) in Marseille, France, together with the Emerging Viral Infections Biology Unit (UBIVE) at Lyon's Institut Pasteur. ASTRID Maturation was launched by France's National Research Agency (ANR) in partnership with the Defense Innovation Agency (AID).

With a budget of nearly €800,000 ($918k) over three years, BUNYANTIVIR aims to progress the preclinical development of a novel antiviral. This involves selecting a series of 'hit' compounds whose inhibitory actions have been evaluated *in vitro* and in cell cultures infected with different viruses. Several high-affinity ligands have shown *in vitro* efficacy on the target enzyme and infected cells. The ultimate objective is to identify the most relevant drug candidates.

This project is possible thanks to the knowledge, multidisciplinary nature, collaboration and complementary skills of the four partners, who are experts in chemistry, biochemistry, crystallography and virology. Oxeltis is responsible for synthesizing the inhibitors, co-designed with the AFMB team, and for optimizing the initial hits. Once one or more leads have been selected, Oxeltis will scale up production to supply the quantities needed for *in vivo* testing in rodents, then in an animal infection model. This initial stage is expected to take place within 18 to 24 months.

"Thanks to its expertise in complex organic chemistry, Oxeltis is proud to be able to collaborate with internationally renowned academic teams in the field of emerging viruses and RNA virus replication mechanisms. This program aims to inhibit an origin recognition replication complex in *Bunyaviricetes*, and to develop a novel therapeutic approach for certain dangerous viruses in this class affecting humans, such as Crimean-Congo hemorrhagic fever (*Nairoviridae*) and Lassa fever (*Arenaviridae*)," said Jean-Marc Allaire, CEO of Oxeltis.

During the whole project, the partners, thanks to their experience in biochemical and biophysical evaluation, will benefit from hits and leads rational optimization, stability studies, structural biology data, *in vitro* evaluations in cell models and pharmacokinetics studies; lastly, the potential candidates will be evaluated *in vitro*.

"This project provides us with the opportunity to target an under-researched viral recognition complex. By leveraging our knowledge in structural biology, particularly X-ray crystallography, we aim to shed light on ligand interactions with viral enzymes, to provide a rational direction for inhibitor optimization. This interdisciplinary collaboration is essential for developing novel antiviral candidates for *Bunyaviricetes*," said Karine Alvarez, scientific coordinator for the project at AFMB.

About the Biological Macromolecule Architecture and Function Laboratory (AFMB)
Based on the Luminy campus in southern Marseille, France, the AFMB, led by Juan Reguera, is a center for structural biology. It is under the joint supervision of the French National Center for Scientific Research (CNRS) and Aix-Marseille University (UMR 7257), in partnership with France's National Research Institute for Agriculture, Food and the Environment (INRAE — USC AFMB 1408) and the French National Institute of Health and Medical Research (INSERM — U1324 ELR). Karine Alvarez is responsible for scientific coordination within the unit and for overall project coordination, working closely with the other partners.
www.afmb.univ-mrs.fr

About the Emerging Viruses Unit (UVE)
Monitoring emerging viral pathogens includes aspects of virology (medical and molecular virology, antivirals, evolution, etc.) and environmental factors (ecology, entomology, animal reservoirs, etc.), along with human sciences (sociology focusing on the perception of infection risk, health geography), epidemiology, modeling and public health. The unit's work focuses chiefly on arboviruses and respiratory viruses. The UVE is led by Xavier de Lamballerie and the project will call on the expertise of Franck Touret, who is responsible for the work of the unit, and Caroline Solas for pharmacokinetics studies.
www.mediterranee-infection.com

About the Biology of Emerging Viral Infections Unit (UBIVE)
Run by Sylvain Baize, UBIVE hosts a research team and the National Reference Center (NRC) for Viral Hemorrhagic Fevers (VHF). Research focuses on VHF, in particular Lassa fever, a severe hemorrhagic fever caused by the Lassa virus, and on the Ebola virus. Sylvain Baize will oversee the work of the unit for this project.
www.research.pasteur.fr

About Oxeltis
Oxeltis is a Contract Research Organization (CRO) specializing in medicinal and fine organic chemistry, with over 15 years of experience in highly functionalized organic compounds. The company's team of chemists focuses on several core technology platforms: heterocycles, nucleos(t)ides, phosphoramidites, peptides, oligosaccharides, linkers, PROTACs and route scouting, with synthesis capacities ranging from 1mg to 100g. Over the past decade, Oxeltis has been a trusted partner in drug discovery programs for international companies and institutes, including five of the top ten pharmaceutical groups, as well as innovative biotechs from Europe, Israel, North America and Japan. Oxeltis is committed to excellence and reliability (ISO 9001 accreditation) and has earned a reputation for delivering high-quality results that drive scientific progress.
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