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Research and Innovation SERI

AVITHRAPID PROJECT

AVITHRAPID | A European Consortium for the Development of Novel Broad-Spectrum Antivirals

OVERVIEW

The consortium "Antiviral Therapeutics for Rapid Response Against Pandemic Infectious Diseases" (AVITHRAPID), funded by the European Union and the Swiss State Secretariat for Education, Research and Innovation (SERI), aims to support the development of novel broad-spectrum antiviral small molecules by progression of a broad set of pre-existing bioactive compounds along the drug discovery value chain. AVITHRAPID combines the expertise of 18 partners from 8 countries for the development of several pre-clinical candidates. Moreover, the consortium aims to identify and validate further viral targets and thereby contribute to the search for novel antiviral targets. The AVITHRAPID activities will allow to establish am early-stage drug discovery pipeline that can be used to rapidly identify and develop novel antiviral compounds against emerging diseases.

NEWSLETTER

Grant Agreement
No 101137192

OBJECTIVES

Supporting pandemic preparedness by provision of novel approaches for the development of antivirals using sophisticated computational methods in combination with experimental validation.

Establish a complete pre-clinical drug discovery pipeline based on the research activities within AVITHRAPID, that allows to react rapidly in case of novel viral infections with pandemic potential.

Joint development and optimization of pre-clinical candidates based on an available set of small molecules addressing various viral targets with a focus on broad-spectrum applicability

THE CONSORTIUM

AVITHRAPID is composed of 18 research institutions and companies from Czech Republic, France, Germany, Italy, Latvia, Portugal, and Switzerland. Scientists of the consortium partners have extensive expertise in antiviral research that covers the entire drug discovery value chain. Research areas in the pre-clinical phase includes molecular modeling, biochemical and cell-based assays, high-throughput screening, macromolecular crystallography, medicinal chemistry, biophysical binding studies, Tox profiling, in vitro and in vivo PK, as well as various animal disease models.

VIDEO

AVITHRAPID is not a newly assembled team but instead is based on partners with pre-existing collaborations from various EU-funded projects and therefore established working procedures are in place, for example for information and material transfer. AVITHRAPID is organized in eight work packages that operate as an integrated drug discovery value chain.

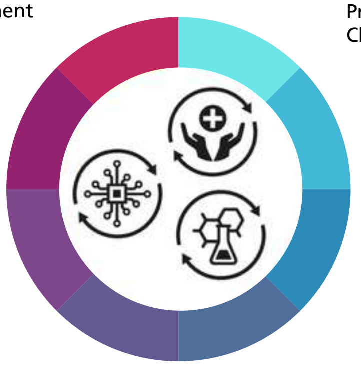
The AVITHRAPID work packages (WPs) are organized to optimally conduct the research as defined.

Work Package 8 Fraunhofer Gesellschaft zur Förderung der angewandten Forschung
Project Management

Work Package 1 Università degli Studi di Napoli Federico II, Italy
Preclinical Discovery & Medicinal Chemistry

Work Package 7 Fraunhofer Gesellschaft zur Förderung der angewandten Forschung
FAIR Data Management

Work Package 2 Institut national de recherche pour l'agriculture, l'alimentation et l'environnement, France
Preclinical Development



Work Package 6 Chelonia SA, Switzerland
Dissemination, Patient Outreach & Sustainability

Work Package 3 Istituto Nazionale per le Malattie Infettive Lazzaro Spallanzani-Istituto di ricovero e cura a carattere scientifico, Italy
Clinical Development

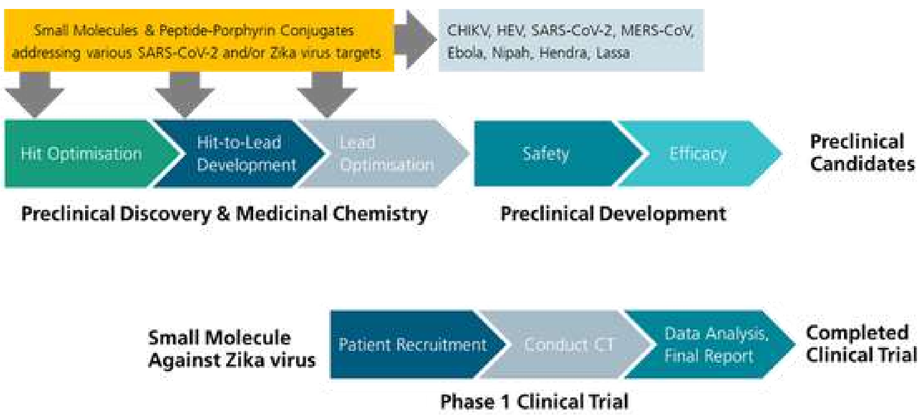
Work Package 5 University of Tuscia
Formulation and Delivery

Work Package 4 Dompé farmaceutici SpA, Italy
Silico Resources and ML Applications

CURRENT PIPELINE

The unique portfolio of substances progressed within AVITHRAPID ranges from validated hits to pre-clinical candidates with proven in vivo efficacy.

The small molecules progressed by AVITHRAPID enter the drug discovery value chain at various stages. All compounds in the preclinical phase will be assessed against a broad set of viruses.



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