

Media Release - AVITHRAPID Project

Combating viral diseases with innovative therapeutic approaches

- **AVITHRAPID is a recently launched consortium under the EU's Horizon research programme. The project is coordinated by the German Fraunhofer-Gesellschaft and comprises 18 leading research institutions from various European countries**
- **The aim of the project is to establish a pipeline of small molecule-based antiviral agents that can be widely used and rapidly developed into therapies against emerging infectious diseases**
- **As part of the project, the consortium intends to test a small molecule against Zika virus in a clinical trial.**

Basel, 22nd February 2024 - To combat and prevent pandemic infectious diseases more efficiently, the European Commission funds within the Horizon Europe Framework Programme a topic on "Pandemic preparedness and response: Broad spectrum anti-viral therapeutics for infectious diseases with epidemic potential" with a 50 million EUR budget. The AVITHRAPID (Antiviral Therapeutics for Rapid Response Against Pandemic Infectious Diseases) consortium with 18 research institutions and companies from eight European countries under the leadership of the German Fraunhofer-Gesellschaft will receive a contribution of 7.5 million EUR to develop new substances against infectious diseases. In addition, the Swiss partners in the AVITHRAPID consortium are funded by the Swiss State Secretariat for Education, Research and Innovation SERI.

Establishing a pipeline of preclinical drug candidates

The AVITHRAPID consortium is focusing on small molecules whose bioactivity against several viral drug targets has already been shown. Various innovative technologies such as molecular modelling, biochemical and cell-based assays, X-ray crystallography, medicinal chemistry, biophysical binding studies, ADMETox profiling and in vitro and in vivo pharmacokinetics are used and combined to develop preclinical drug candidates.

"Better preparation for future pandemics is extremely important. We want to support this by building up a pipeline of preclinical drug candidates that can be used to rapidly identify and develop antiviral agents against emerging infectious diseases," says the project coordinator Prof. Björn Windshügel from the Fraunhofer Institute for Translational Medicine and Pharmacology ITMP in Hamburg, explaining the aim of AVITHRAPID.

Clinical trial with a potential anti Zika virus drug candidate

The proof of concept for the research approach followed by the consortium is to test a small molecule against Zika virus in a clinical trial as part of AVITHRAPID. The research project will also identify other molecules that are potential drug candidates against SARS-CoV-2, hepatitis and other pathogens. "In the ambitious landscape of AVITHRAPID, harnessing advanced Artificial Intelligence and large-scale molecular simulation at Dompé farmaceutici is a game changer. AI not only accelerates our drug development processes but also aligns perfectly with the consortium's goal of rapidly identifying and developing antiviral agents. Our involvement in AVITHRAPID positions us at the vanguard of integrating AI to expedite breakthroughs against emerging infectious diseases. AVITHRAPID has further strengthened Exscalate's commitment to delivering affordable treatments against pandemics, a mission that began with the EXSCALATE4COV project." says Dr. Andrea Beccari, Vice president of Exscalate Platform from the Italian pharmaceutical company

Dompé farmaceutici, one of the 18 participant and partner institutions in the AVITHRAPID consortium.

The establishment of a pipeline of scientifically validated early-stage drug candidates is intended to motivate investors to get involved in the field of infectious diseases and to build partnerships with the pharmaceutical industry to develop new therapies. This will create a European "ecosystem" for combating infectious diseases that show pandemic potential. It will also increase knowledge about viral diseases in the European healthcare system, which is a crucial factor in the prevention of future pandemics.

Contact

Silvano Coletti, Head of Communication AVITHRAPID Project, Executive Director Chelonia, +41 79 288 01 35, silvano.coletti@chelonia.swiss

Mark Bächer, Media Relations, Life Science Communication, +41 78 601 56 08
mark.baecher@lsc.com.ch

The AVITHRAPID Project

The European consortium "Antiviral Therapeutics for Rapid Response Against Pandemic Infectious Diseases" AVITHRAPID is part of the EU Horizon Europe Framework Programme topic "Pandemic preparedness and response: Broad spectrum anti-viral therapeutics for infectious diseases with epidemic potential". The AVITHRAPID research consortium comprises 18 research institutions and companies from 8 countries, coordinated by the German Fraunhofer-Gesellschaft. AVITHRAPID started in January 2024 with a duration of 54 months and a budget of 7.5 million EUR. The Swiss Partners in the AVITHRAPID consortium are the Swiss Tropical and Public Health Institute and Chelonia SA. They are funded by the Swiss State Secretariat for Education, Research and Innovation SERI. The aim of AVITHRAPID is to establish a pipeline of early-stage drug candidates based on a set of small molecules whose bioactivity has been shown and which can be rapidly translated into novel antiviral agents against emerging diseases. In addition, the AVITHRAPID consortium aims to test a small molecule against Zika virus in a clinical trial.

AVITHRAPID is funded by the European Union under grant agreement No 101137192 and by the Swiss Confederation, State Secretariat for Education, Research and Innovation SERI.

www.avithrapid.eu

Members of the AVITHRAPID Consortia

Germany: Fraunhofer Gesellschaft zur Förderung der angewandten Forschung (Coordinator)
Italy: Elettra Sincrotrone Trieste SCOA, Università degli Studi di Napoli Federico II, Università degli Studi di Siena, Istituto Nazionale per le malattie infettive Lazzaro Spallanzani-Istituto di ricovero e cura a carattere scientifico, Università degli studi di Cagliari, Università degli studi di Roma Tor Vergata, Dompé farmaceutici SpA, Euresist Network GEIE
France: Université de Tours, Institut National de Recherche pour L'Agriculture
Czechia: VSB Technical University of Ostrava
Netherlands: First Health Pharmaceuticals B.V.
Portugal: Instituto de Medicina Molecular Joao Lobo Antunes
Latvia: Latvijas Organiskās Sintēzes Institūts
Switzerland: Swiss Tropical and Public Health Institute, Chelonia SA