

Preparation for the treatment or profiling of infections with flaviviruses, esp. tick-like encephalitis virus

Development status

Phase 2

Feasibility study. There is a realistic design of the technology and the initial tests in the laboratory are leading to the specification of the technology requirements and its capabilities.

IP protection status

Utility patern nr. 31559,
Preparation for the treatment or profiling of infections with flaviviruses, after tick-like encephalitis virus

Partnering strategy

Co-development, Collaboration

Institution

University of South Bohemia in České Budějovice

Vlastník

Jihočeská univerzita v Českých Budějovicích

Challenge

There is currently no specific cure for tick-borne encephalitis (or other flaviviral infections). Our preparation affects the course of the disease as it lowers the pathophysiological effects of the disease and prolongs the survival so far in laboratory mouse model. Thanks to those results there is a great potential in affecting the course of the disease in humans.

Description

Our fully tested results represent novel possibilities for development of antiviral preparations against tick-borne encephalitis virus or other flaviviruses. Another benefit is the information on an increased effect of the interferon therapy (which is still not used widely for treatment of tick-borne encephalitis) in combination with the studied stilbenes. Stilbens are natural compounds, in other words chemicals found in the body of plants, and in this case they are a functional supplements to this preparation. Our effective combination of substances has the possibility to be effective with antiviral therapy in tick-borne encephalitis virus infections, with the potential for use in other flavivirus infections, such as Dengue virus or Zika virus.

Commercial opportunity

The number of people infected with tick-borne encephalitis continues to grow year-on-year. In 2019, there were almost 800. Treatment is currently limited only to relief of symptoms, that is, temperature relief, and absolute calm of the patient is ordered. Effective antiviral drugs for this disease do not yet exist. A complete preparation (also containing interferon) could be of interest to pharmaceutical companies that can produce drugs as a specific remedy for tick-borne encephalitis (or flaviviral infection in general). Preparations containing stilbenes that would be manufactured according to that product may be

manufactured as dietary supplements.