# Abstract

Zika and Dengue viruses have spread, due to globalisation, to all continents which lie at least in part in the subtropic and tropic climatic zones. This spread of these viruses is a reason of an increasing number of severe diseases caused by them. New drugs, which would be effective against these infections, could be an answer to this challenge. Various viral proteins, among them also viral helicase, which is the topic of this bachelor thesis, can be a suitable drug target. The task was to prepare expression constructs for production of recombinant helicases of Zika and Dengue viruses *via* the suitable bacterial strain *Escherichia coli*. Several constructs derived from plasmid pET-16b were prepared with inserted helicase of Zika and Dengue viruses. One of them was used for the preparation of recombinant purified helicase of Zika virus, that will be used for further research.

[IN CZECH]



Keywords: *Flavivirus*, Zika virus, Dengue virus, helicase, expression, purification, enzyme activity



[IN CZECH]