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Supervisor's assessment of the doctoral thesis of Mgr. Jiří Černý

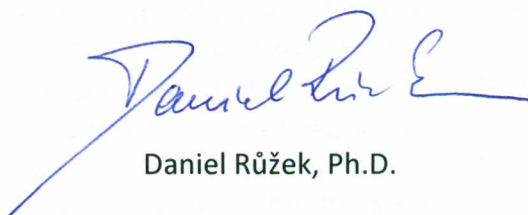
Mgr. Jiří Černý submitted a doctoral thesis titled: "Molecular Evolution of Flaviviral Genes" for a defense procedure at the Department of Molecular Biology at the Faculty of Science, University of South Bohemia. The work was partly done at the Institute of Parasitology of the Czech Academy of Science, and at the Department of Virology of the Veterinary Research Institute in Brno. First of all, I would like to say that according to my opinion, Jiří Černý submitted a doctoral thesis of excellent scientific quality. The thesis is based on five scientific publications, four of them are already published or accepted for publication in impacted scientific journals. Moreover, Jiří is a co-author of additional three papers not included in the thesis. An introduction of the thesis represents a nice overview of recent literature and could be submitted as a separate review article. During his doctoral studies, Jiří was involved in several projects, but we finally found that Jiří is mostly gifted for bioinformatics and other computational research work. Here, I would like to thank to Professor Paolo De M. Zannotto from the University in Sao Paolo, and Dr. David Karlin from the Oxford University, who helped Jiří a lot with some advanced computational techniques and approaches. Jiří was interested in various aspects of virus evolution such as evolution of tick-borne encephalitis virus, evolution of other members of the Flavivirus genus, and virus-cell evolutionary history. He analyzed evolutionary history of viral and cellular polymerases and found interesting data on the origin and early evolution of viruses, he described the evolution of flaviviral genes as a result of multiple recombination events, and last but not least, identified a second open reading frame in the genome of some tick-borne encephalitis virus strains, but found that its expression is not detectable in the infected cells.

Behind the main scope of his doctoral project, Jiří was also interested in the field virological work – he participated in three scientific expeditions, two of them to Spitsbergen organized by the Centre of Polar Ecology, and the third one by the Russian Academy of Medical Sciences to Central Siberia.

Jiří worked on this Ph.D. project highly independently, planned and organized the experiments by himself, analyzed the data and also prepared the manuscripts for publications. In most of the papers, he served as the corresponding author. He presented his results at several international conferences not only in the form of posters, but he gave also a number of lecture talks.

Jiří is a motivated and highly talented young man. He was highly respected by his peers in the lab for his knowledge, skills, broad research interests, but also for his friendly and fun-loving personality.

In conclusion, according to my opinion, Jiří Černý submitted a doctoral thesis of very high quality and fulfilled all requirements for the academic degree "philosophiae doctor", abbreviated as Ph.D.



Daniel Růžek, Ph.D.