Supervisor´s evaluation of Mgr. JanaPlchová, a student in the doctoral program of Molecular and Cell Biology and Genetics

Mgr. Jana Plchová (Horáčková) submitted her Ph.D. thesis entitled ***´Differential Expression of Tick Ixodes ricinus Genes Induced by Blood Feeding or Infection: Genetic Analysis of ML Domain Containing Proteins´*** to defend it, and accomplish her doctoral studies at the Faculty of Science of the University of South Bohemia in Ceske Budejovice. Jana joined my laboratory at the Institute of Parasitology, BC AS CR in Ceske Budejovice quite long time ago in 2004 as a master student in the program of ´Clinical Biology´, and afterwards she was accepted for a Ph.D. study in the program of molecular biology. I that time we succeeded with the research centre proposal, and she could reinforce a faculty part of the Research Centre of Molecular Ecology of Vectors and Pathogens (LC 06009) as a doctoral student. Attending Ph.D. program Jana took over a part of work on subtraction cDNA libraries of tick female *Ixodes ricinus* that we had prepared to investigate tick genes differentially expressed in tick females upon their blood meal or infectious blood meal with presence of Lyme borreliosis spirochetes. Running this complex project Jana took over two genes coding for proteins falling into the ML protein family, (1) Tick ML-domain containg protein; (2) Der-p2 allergen-like protein. Both protein seem to be tick molecular factors that could be considered as candidate vaccines or a diagnostics tool for allergy disorders. Talking about Jana´s project I am pleased to thank very much Dr. Nataliia Rudenko (Jana´s co-supervisor) as well Mrs. Marina Golovchenko, MSc., they were following Jana´s doctoral project in days when the work went smoothly and project proceeded well as well as in days seemingly full of bad luck.

Jana has done nice piece of work, having published most of her results. She succeeded with cloning both genes into over-expression system, and achieved both recombinant proteins and their characteristics/features including tissue localization of the transcripts and proteins. (Besides that she had put a lot of effort in a project on the TROSPA tick gut receptor for LB spirochete OspA protein – higly glycosylated, that has not yet been completed due to some difficulties.). Nevertheless, Jana´s expertise with tick recombinant protein enabled her to spent a couple of months in the lab Dr. Isabel Santos (Department of Biochemistry and Immunology, University of Sao Paulo, Brazil) working there on another ML protein of *Rhipicephalus (Boophilus) microplus*, (Jana will be a co-author of another manuscript currently being prepared in Sao Paulo).

Mgr. Jana Plchová (Horáčková) was such a great member of our lab, being very quiet, and never giving too loudly any signs of nice and demanding results, I/we appreciated very much her work in/for the lab. Jana was first from our lab who decided to take an opportunity to get first experience in practical biotechnology within our co-operation with the Gen-Trend Ltd. company here on campus, and taking advantage of having achieved useful experience/know- - how in area of recombinant proteins.

In conclusion, I am very pleased and delighted that Mgr. Jana Plchová (Horáčková) has had fulfilled all obligations associated with her Ph.D. study including having submitted her doctoral thesis. I would like to recommend the dissertation to its defence to present Mgr. Jana Plchová a Doctor Philosophy degree (a Ph.D. title).

In Ceske Budejovice, February 18, 2012

prof. RNDr. Libor Grubhoffer, CSc.