

## Supervisor's assessment of a Ph.D. thesis of Ms. Miray Tonk, DVM

Ms. Miray Tonk, DVM submitted a Ph.D. thesis entitled 'Characterization and functional analysis of defensins from the ticks Ixodes ricinus and Ixodes scapularis' to defend it and accomplished her doctoral study at the University of South Bohemia and the Institute of Parasitology of the Biology Centre of the Academy of Sciences of the Czech Republic. Invery beginning of my statement, I am so pleased to state that Miray has done such nice piece of work for the mosaic of knowledge about antimicrobial peptides in ticks as blood sucking/parasitic arthropods rightfully considered vectors of causative agents of the severe infectious diseases (besides others TBE, LB, ehrlichiosis, babesiosis, etc.). Miray has successfully fulfilled all obligations that she was supposed to tackle, undertake, and going through even though a period of available time was just a half of the regular 4 year doctoral program. Indeed, Miray joined our POSTICK program and worked out her doctoral dissertation as an "Early Stage Researcher" of the POSTICK project (POSTICK - Training Network on Ticks and Tick-borne Diseases. FP7-PEOPLE-ITN Marie Curie project, 2010-2013, Co-ordinator PI: Prof. Kurt Pfister) in the Institute of Parasitology AS CR as well as a student of the Ph.D. study program of Parasitology (English curriculum) at the Faculty of Science of the University of South Bohemia in Ceske Budejovice. Although the POSTICK project launched in November 2010 Miray joined the project in April 2012 to replace the former ESR (Ms. Kinga Skop) who quitted the tick AMP project after 10 months. The steering committee of the POSTICK project allowed me to recruit a successor substituted the gap in the program. Afterwards I started to search for appropriate candidate with aid of the European advertisement. Ms. Miray Tonk, a veterinarian by her master education having a couple of years experience from the University of Glasgow, won the contest, and the POSTICK steering committee approved my decision to hire Miray as an ESR at the Biology Centre in Ceske Budejovice who will work out her Ph.D. thesis and defend it in the end of her appointment. However, we had faced a crucial problem right in next step of working on visa paperwork. Initially, everything looked promising and went smoothly until the Czech Embassy in Ankara /Terkey realized that Miray had spent more than a half of year in Scotland, and therefore the whole procedure started again as Miray did need a criminal record issued by Scotland Yard to get issued a visa for her stay in the Czech Republic. To make the story shorter, we lost another 6 month, and thus it had taken altogether 9 months to get Miray over to Ceske Budejovice. Regarding the POSTICK project Miray lost 9 months of time as ell as 9 salaries of her earnings. Of course, being aware of a lack of time we had to modify original goals of the POSTIC project. Miray did not have time to screen her own tick libraries, clone the promising genes and getting recombinant peptides (AMPs). She had faced demanding objectives that she had to successfully managed within such short time. The only way she had to take was that based on in silico/bioinformatics approach which Miray took. She was working on advancement of her project hard as well as learning from fellows from the Institute of Parasitology. I am grateful do much for altruistic effort of our fellows, among others



Vaclow-Cerovsky (10CB Prague)

Alejandro Cabezas-Cruz (currently in France), James Valdes, Ryan Rego, Petr Kopaček, Natalia Rudenko, Marina Golovchenko and others.

Ms. Miray Tonk succeeded within the last months of her stay in the Institute of Parasitology with the secondment to the laboratory of Prof. Andras Vilcinskas at the University of Giessen in Germany. Thanks to this chance which Miray took seriously she achieved quite demanding results with respect to biological function of a few tick AMPs. The antimicrobial activity of some of novel defensins against bacteria of Listeria species as well fungi of Fusarium species.

In conclusion, I am pleased to state that Ms. Miray Tonk has fulfilled all tasks she was supposed to tackle within obligatory/compulsory assignments (exams from selected subjects, final doctorate exam, secondments in abroad — Munich/Germany; Edinburgh/Scotland; Giessen/Germany; attending conferences/workshops (12x)including those organized by the POSTICK partners (5x); teaching in the Biochemistry laboratory course). Miray proved herself as a diligent and hardworking laboratory fellow as well as dedicated graduate student who was able to work efficiently and getting straight to the publishable results — having two first author articles published — the first already published in the GENE magazine, and the other one in PARASITES & VECTORS, currently under review, besides that a co-author's contribution for the paper by A. Cabezas-Cruz et al. published in *PLoS ONE*. Taking all aspects of Miray's work and contribution for the tick research program of our laboratory I may/can highly recommend the Miray Tonk's dissertation for defence.

Libor Grubhoffer

In České Budějovice, June 15, 2014