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**Supervisor evaluation of bachelor thesis of Miss Ibidolapo Adekoya:  
Role of adipokinetic hormone Pyrap-AKH in insect reproduction**

The topic of the thesis is a part of our project(s) dealing with study of determination and function characterization of insect adipokinetic hormones. Those hormones control a lot of functions in insect body – one of them is a control of insect reproduction via inhibition of vitellogenin (Vg) synthesis. Insect reproduction is a complicated matter controlled by several hormones, and even Vg synthesis is controlled by several of them. Thus, the main topic of Dola's thesis was to monitor the inhibitory effect of Pyrap-AKH and allatostatin on Vg synthesis within first several critical days of adult female life of the firebug, *Pyrrhocoris apterus*. This is an important prerequisite for following study of possible interactions of those hormones in future.

During the study Dola had to manage several basic methods of insect physiology and biochemistry. They involve insect maintaining and manipulation, taking of insect haemolymph, its processing and electrophoretic and immunological determination of Vg among other haemolymph proteins. Dola has mastered all those techniques quickly without substantial problems, and was able to work independently and reliably.

The main results of the thesis is one figure, but obtaining of the data for its construction was very time consuming and laborious. Dola has proven that both tested hormones significantly inhibited Vg synthesis in the bug fat body and that Pyrap-AKH was significantly more effective than that of allatostatin, which was supposed to be a main controlling factor of Vg synthesis (via juvenile hormone) so far. To prove the possible relationship between the tested hormones will require more work and effort, which is however, outside of the topic of this thesis.

**Conclusion:** the bachelor thesis of Miss Ibidolapo Adekoya meets all planned aims and therefore I recommend it for a defence as one of the requirements of the bachelor title.

České Budějovice, 12th June 2014

Dalibor Kodrík  
supervisor