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Supervisor's evaluation on Vlastimil Smykal

I have known Vlastimil Smykal (Vlastik) for many years since his bachelor, master, and finally doctoral studies in my lab. During the years, Vlastik has gone through several projects and has learned a great deal of insect biology. He first studied the developmental role of the ecdysone receptor using transgenic silkworms, then switched to *Tribolium* beetles to determine the role of bZIP proteins Jun and Fos in the survival of the ovarian follicle cells.

In his main project Vlastik employed systemic RNAi in the linden bug, *Pyrrhocoris*, to examine the developmental and reproductive roles of the newly characterized juvenile hormone (JH) receptor. Vlastik had made an important (equal to first author) contribution to a paper in *PLoS ONE* (now worth 32 citations), demonstrating that hemimetabolous and holometabolous insects regulate metamorphosis through a conserved JH signaling pathway. His current, first-author publications have established the role for JH receptor in the switch from reproductive diapause to vitellogenesis in the bugs (*Insect Biochem Mol Biol*, 2014) and used *Pyrrhocoris* and the silkworm as complementary models to delimit the JH-independent and JH-dependent phases of larval development (*Dev Biol*, 2014). Finally, Vlastik has devised a cell-based luciferase reporter system, enabling us to demonstrate that the *Drosophila* JH receptor requires its ligand-binding capacity in order to induce transcription in response to JH.

Obviously, Vlastik has acquired a strong arsenal of methods from cloning, gene expression analysis, RNAi and phenotype analysis, cell culture work, and confocal microscopy. Over time, I could clearly see his technical and intellectual improvement. Importantly, Vlastik has become increasingly more independent in his scientific thinking, designing experiments, and critically interpreting their results. With growing confidence he becomes more creative, but there is still potential for him in this direction.

Vlastik has a great friendly personality, he is patient, unassumingly helpful to others, and easy to work with. He always remained positive and kept good sense of humor, even when things were going the wrong direction. I value his strong personal and professional integrity. I want to thank Vlastik for his work, and for being a great student and a loyal member of my team.

Marek Jindra
supervisor