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**Mentor's statement to Ph.D. thesis of Michaela Fencková**

Miša's primary goal of her PhD study was to analyze tissue specific effects of adenosine receptor (called AdoR in flies) signaling. We knew that the AdoR played an important role in *Drosophila* physiology but we had only limited knowledge about the tissue specificity of this signaling – AdoR may have, similarly to mammalian systems, various roles depending on cells or tissues involved. However the most important tool – RNA interference – was repeatedly failing with different approaches. Miša was deeply engaged in finding the way but it seems to be a real stumper. There is no research without the appropriate tool and since there are still many white spots in the extracellular adenosine machinery in flies, we decided together that she could fill up these holes while trying to develop the tool. In the meantime she contributed significantly to our publication in *Disease Models and Mechanisms* where she touched the story of AdoR together with AKH signaling using different approaches. Then she became the first one functionally characterizing extracellular ATP to extracellular adenosine cascade in *Drosophila* resulting in her first-author publication in *Insect Biochemistry and Molecular Biology*. She also learnt a recently established method of protein tagging in vivo developed by Pavel Tomančák's group and successfully used it to tag several proteins in the adenosine machinery. These fly lines will become very important tools in our future studies. Miša thus contributed extensively in establishing *Drosophila* model for studying the extracellular adenosine effects in vivo and we will profit from her work for a long time.

I am not afraid to say that Miša was the most organized student I had so far in the lab. Her schedule was always prepared to the smallest details which caused her sometimes big troubles when things did not work the way she planned but overall it was beneficial for both of us. She tried to keep her records well organized as well. The big advantage for her was, especially when our lab was just set up when she started, that she was absolutely not afraid of any new methodology – she quickly found protocols and most information from colleagues around and jumped into it right way. She is now equipped with plethora of methods and she is really good at them. She helped many students, and not only from our lab, with methodologies.

I was also very pleased with her thesis writing - I did not have to ask for many changes, she wrote the thesis almost completely independently, it was very clear from the first draft she showed to me. From my point of view, Michaela clearly deserves to become Ph.D. I would like to thank her for all the work she has done. I am sure that she is the scientist who the good laboratories are looking for.

In České Budějovice, January 5<sup>th</sup>, 2012

Mgr. Tomáš Doležal, Ph.D.