



Faculty of Science

University of South Bohemia

Branisovska 31, 37005 České Budejovice, Czech Republic

Tomas Dolezal, Ph.D. – Department of Molecular Biology

Phone: 387772229, E-mail: tomas.dolezal@prf.jcu.cz

Mentor's statement to Ph.D. thesis of Monika Žuberová

Monika was supposed during her Ph.D. studies to continue in genetic screen to identify genes interacting with adenosine signaling in *Drosophila* and based on the results to uncover processes associated with extracellular adenosine effects *in vivo*. This turned out to be extremely challenging project. However based on one of the genes isolated in the screen the whole project got a very interesting and important direction which determined most of the Monika's ongoing work and produced many results. On her way, she had to design completely new approaches or at least extensively adapt them to her project. Very rarely she would just learn methodology previously well established in the lab. I have to emphasize that Monika can be very innovative, she is never satisfied with the traditional way of doing the experiments and if it is feasible she looks for more efficient and simpler way how to proceed with experiments. This character was especially helpful since she was mostly introducing the new approaches to the lab. Monika is also very critique person, she always looks for potential misinterpretations. She would never design the experiment just to support her hypothesis, no matter how appealing the hypothesis would be - this is one of the most important characters for a true scientist. Her work led to a publication in journal *Disease Models and Mechanisms*, which I am really proud of. But she obtained many more results which will be undoubtedly very useful in our future work.

I believe that Monika has quite big scientific potentials, she worked the whole time in very independent manner. But she needs to learn better how to organize her work and how to keep good records of her work – in guiding her to achieve this I failed as a mentor. I hope that she will learn the lesson (and I will learn mine) because she could become so much better scientist. This also had an impact on the final writing of her thesis. There are so many important results from her work and I was hoping that we could use her thesis as an excellent source in our future work. Undoubtedly, we will use it, she finally put it together but if she would not leave it till the last moment it could be certainly much better (at least better organized and with clearer interpretations). She obviously needed much more time to put together so complex data although I have to admit that often it was really difficult and sometimes impossible to make more sense out of it at this stage of results. I do not want this to sound too negative, she did huge amount of work. I just think that there was a potential too have an excellent thesis and this potential was not fully used.

In conclusion, I would like to stress that Monika's work firmly established an anti-insulin role of extracellular adenosine in *Drosophila* which is extremely important for our future work – we can now use this model to test the potential function of this molecule in regulation of energy metabolism during immune response which was never tested in any

other system before and which could be so important in biomedical research. We would not be at this stage without Monika's work. I am sure that Monika deserves to become Ph.D.

In České Budějovice, January 7th, 2012


Mgr. Tomáš Doležal, Ph.D