

## **Biology Centre, Academy of Sciences**

Branišovská 31, 370 05 České Budějovice, Czech Republic



## Supervisor' review of dissertation thesis by Zdeněk

It was quite surprising when I realized recently that Zdeněk is a member of our lab for incredible 9+ years. Called smaller Zdeněk, he arrived to our lab with his fellow bigger Zdeněk right after their enrolment into the 1<sup>st</sup> grade and stayed until this winter. I hope he does not regret staying for so long. When he joined, we were a small lab with very limited resources and with quite hazy vision of what to do. This was especially true for the biochemical studies, yet Zdeněk stubbornly decided to stick to the biochemistry of the procyclic mitochondrion. Still, during his stay in the lab, Zdeněk participated in numerous projects in the lab, not necessarily associated with mitochondrial metabolism, such as the experimental verification of lateral gene transfer and functional analysis of selected iron-sulfur cluster assembly proteins. I am glad to say that both projects are bearing fruits, with the first one being in press in Mol. Biol. Evol. and the other being resubmitted these days to Mol. Microbiol. Zdeněk's input in both projects was substantial and earned him co-authorships, yet due to different topics, these papers were not included in his PhD.

After all, this is not the only case. Zdeněk liked the freelance life of a student scientist (progressively growing older and progressively less free given the circumstances), which was particularly obvious during our lab meetings and discussions, where he always had critical and helpful comments. He was also often to perform some experiment, just for the sake of his curiosity.

Another important activity of Zdeněk was his teaching. He took over the lecturing of parasite biochemistry right after the dean Libor Grubhoffer and was teaching for several semesters. He quite liked it (although it is difficult to get a strong statement from Zdeněk, such as that he likes something) and was a good teacher, so that is something he may consider following up on one day.

But let's go briefly back to the year of Zdeněk's graduation. Despite our (and other's) ignorance about complex I in trypanosomes, which was certainly consider one of the most controversial issues of its mitochondrion, he decided to do the best to crack this nut. Everybody can judge for him/herself after this defense how well he did in this respect. With a slow but steady pace he started to deal with the project, in close collaboration with Anton Horvath who, along with his band of Slovak ladies, proved extremely important in the whole undertaking. A pattern emerged, in which the molecular biology Zdeněk did in Budweis, while he often took off for Bratislava to perform the biochemical experiments. I was wondering why he was going there so often, a non-travelling fellow, until I found out that he has a girlfriend out there. In any case, his trips

Telephone No.: +420 38 7775051

Fax: +420 38 5310338

E-mail: <u>bc@bc.cas.cz</u> www.bc.cas.cz



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proved successful and were critical for the most important conclusions made in the published and unpublished papers in this thesis, so I would like to take this opportunity and thank Anton for pleasant and productive co-supervision, of which it seems there are going to be follow-ups. Zdeněk also spend several weeks in the excellent labs of Paul Michels in Brussels and Frederic Bringaud in Bordeaux, where he got additional expertise.

During all those years, Zdeněk became an almost indispensable member of our lab. His departure will leave us without a biochemically thinking and knowledgeable person. His mathematical mind, not always useful for biological systems, provided a unique viewpoint during our discussions. He was less keen to do the experiments at the bench, yet his performance matured with him like an old wine. Another important aspect was that, as a senior PhD student in our lab, Zdeněk has been invaluable in helping other students in planning and execution of their experiments, data presentations etc. On a daily basis he supervised Inka Skodova, while she was here, and was always willing to share his expertise with others. In fact once or twice I had hard time with him concerning his co-authorships. While so far I have occasionally met people who expected co-authorship on some joint study even with meager contributions, Zdeněk represented another, much rarer, extreme. I had to add him to the author lists without him knowing about it, to avoid arguments about his input worth only acknowledgements.

In my opinion, Zdeněk is a gifted scientist and promising teacher. He went into very promising and important medical applications, but already started to provoke his new lab by designing research and considering collaborations with Masaryk University in Brno.

Although I share with the reviewer's their reservations about some technical aspects of the thesis (formal issues do not belong to Zdeněk's strengths), I would like to state that the presented dissertation thesis fulfils, in my opinion, all postulations and I recommend it to be accepted as a partial fulfillment of the requirements for the degree of Doctor of Philosophy at the Faculty of Biology of the University of South Bohemia.

Thanks Zdeňku for your friendship and good work.

April 27, 2011 in České Budějovice

Julius Lukeš

Telephone No.: +420 38 7775051

Fax: +420 38 5310338

E-mail: <u>bc@bc.cas.cz</u> www.bc.cas.cz