



Supervisor' review of dissertation thesis by Tomáš Skalický

It was quite surprising when I realized recently that Tomáš is a member of our lab for incredible 9+ years. He started at about the same time as Jirka Týč, who was his closest buddy until he left for Oxford, so it is also time for Tomáš to move on – and it's now gonna happen fast, as far as I know. I hope he does not regret staying for so long, and at least to me it looks like he does not. Neither do I.

When he joined us, we were still a relatively small lab with quite limited resources, pipetting our fingers to the bone but besides doing some basic phylogenetics, we were not using bioinformatics, because we simply did not know how to do it. Hence, for this aspect we were fully dependent on collaborators. It made me nervous and annoyed, because at that time the potential for analyzing data (mostly generated by others) *in silico* was growing, but I also knew that I will not be able to learn it by myself.

In those years one member of the lab, Pasha Flegontov, finally convinced me that he can do it, the only problem being that he should have convinced me earlier than that, a clear *mea culpa* btw. Anyway, Pasha started analyzing genomes and transcriptomes and eventually we started sequencing whole genomes ourselves. Yet it was becoming a lot of work for Pasha alone, while at the same time we have seen further possibilities, so we were looking for someone else, who could join Pasha, learn from him and go beyond that.

And – once upon a time - there was this guy in the lab, Tomáš, who was obviously very good with computers, fixing bugs for everyone in the lab, and he did not seem to be enjoying benchwork that much. Moreover, his fingers seemed to be moving faster on the keyboard than on the bench. So when I started approaching him with bioinformatic tasks, he looked interested and although they never did fully struck a chord, Pasha started supervising Tomáš and it worked out quite alright. At the same time, we realized we have to buy a server for ourselves, as sharing the computer power with other labs worked sometimes, but not always, with queueing being pretty annoying. Tomáš and Pasha succeeded in building and running our own small computer center, and that's no small feat. It serves us well and I can only hope that we will be able to run it as efficiently in their absence as with them.

First test was the phylogenetic position of exciting *Paratrypanosoma*. We succeeded to publish it very nicely, but it was because both guys really



convinced the reviewers that their inferences are impeccable. Then came a review on the evolution of trypanosomatids, now highly cited, and Tomáš contributed to it nicely by projecting emergence of these flagellates on a time scale, inventing that part of the paper fully by himself. From there, he proceeded to teach Eva Dobakova how to put together her tricky mitochondrial genome of *Euglena*, something what many people before them tried to do, and did not succeed. Eva, an otherwise critical lady, liked the way Tomáš was educating her bioinformatics, so he clearly has some teaching skills. Tomáš worked also with another sharp and gifted Slovak lady, Inka Škodová, and with his nice trees strengthened an otherwise purely biochemical paper.

From there, it was not far for Tomáš to figure that he can actually do bioinformatics for other people and projects, so he did a nice phylogeny for a group at Pasteur Institute and later on another one with Zdeňka Čížová, our former master student who went for a PhD to Wurzburg. As a result of all of that, he is leaving the lab with 8 published papers, one in submission and there will be at least one more coming out. Actually, it is by now no secret that the one submission faired very well at PNAS and that we shall be in very good standing with the resubmission, so Tomáš may have a 1st authored PNAS paper after all, which would be great.

Tomáš presented his work at meetings in Czechia, and also gave a talk at a CIFAR meeting in Canada, which he did pretty well. And – he is not just a computer geek, but also a dedicated cactus breeder, and someone who is not useless in the field, as testified by his zoological expeditions into the Mediterranean.

With all that very positive praise being said, I have to add that Tomáš can also be lazy when he decides to, which leads to two behavioral patterns. One of them is that he convinces himself that he works very hard and the other pattern is that he agrees with whatever I told him but eventually did it the way he wanted anyway. That's a disarming strategy that worked pretty well on me, as I did not know how to deal with it. Moreover, Tomáš was in a good position for this approach, because I did not know whether certain task took him 10 or 100 hours, which I can still estimate for most of the benchwork protocols and tasks. Hence, out of all PhD's in the lab so far, his was the longest one, reaching 5+ years. It was definitely not because he could not defend earlier, but because he was pretty comfortable here and did not seem to have an intention to leave us unless it became unavoidable. Eventually we both agreed that the time has come and for several reasons, it looks like really good timing after all.

But that's just to say that not everything was perfect as in a standard family (and of course I have my share on that). It is without any doubt that

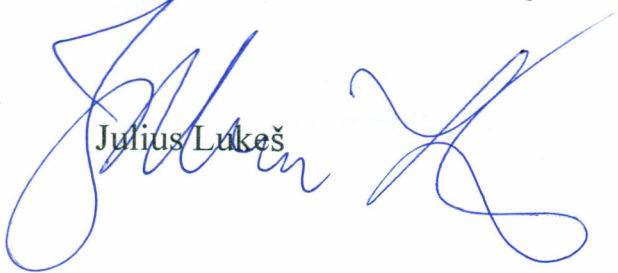


during all those years, Tomáš became an almost indispensable member of our lab. His computerized mind, not always set for biological questions, provided a unique viewpoint during our discussions. Tomáš's performance matured with him like an old wine, and as a senior PhD student in our lab, he has been invaluable in helping other students. Tomáš was also a great organizer of lab parties and I am afraid that after his departure there will be less of them, which would be a pity. In many ways he kept the Czech element in the lab alive, in a manner the senior Czech members may be unable to retain, but we have to try (that's a message to the Czech seniors of the lab including myself of course).

In my opinion Tomáš is a very nice person and a gifted and up-to-date bioinformatician, a combination that shall lead him safely thru the upcoming periods of his life. If he adds a bit more motivation and dedication to finalize things, he will do very well. Finally, 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~~ *Sciences* of the University of South Bohemia.

Thanks Tomáši for your friendship and good work.

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Julius Lukeš