



BIOLOGY CENTRE CAS

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Supervisor's assessment of Carolina Hierro Yap PhD work

Carol joined the lab in 2016 and she immediately caught my eye with several traits. She had high expectations of herself, was never satisfied until the experiment was perfect, she paid attention to detail, she cared. In some ways, she reminded me of my husband Brian sitting here, and perhaps I am predestined to build a strong relationship with such people. Our relationship with Carol is based on mutual respect, we value each other's opinions. I have even adopted her Spanish rhythm of sleeping during the day and working at night, and in retrospect I would like to apologize for our lab meetings at 8:30 in the morning.

Carol's beginnings were not easy. She was working on a project that was doomed to fail. We know this now that we have finally determined the structure of the ATP synthase of *T. brucei*, the centerpiece of Carol's doctoral work. Unfortunately, it is now obvious that I led Carol to develop an incorrect genetic tool that could not lead us to the results that would support our original hypotheses. While Carol improved her technical skills to perfection, we were not getting the right answers. Carol had hit bottom, an abyss and there was an obvious need for rescue projects. We refocused her goals, and after that it was a steady uphill climb to the green highlands. This climb was spiced up by her stay in the lab of Christos Chinopoulos from the Semmelweis University who taught us some important and difficult assays. Thanks to Carol and her ability to write very good protocols, these assays are now routinely performed by our undergraduate students. When she reached the green highlands she obtained enough results for her major primary paper as well as for the paper in collaboration with Prof. Butikofer. Because she is technically extremely competent and produces very reproducible results, she has been involved in several other projects in the lab. During her presentation you can see for yourself the quality of her results.

Then the opportunity arose to collaborate on a review article on ATP synthase. I was pleasantly surprised by her excellent writing skills and her ability to read an article critically and extract the essentials from it.

Maybe that's why I gave Carol too much freedom when it came to writing her PhD thesis. After three months, when I was expecting the nearly finished version, I found that Carol was too deeply immersed in the literature and was overwhelmed with all the information. However, a little push was all Carol needed to get up to speed, and since then she has been able to deliver chapter after chapter to me by the specified deadlines (almost always ☺). The PhD thesis you have before you is an excellent source of information and will be a very valuable document in our lab, a must read, so to speak, for students coming to our lab. In her thesis, Carol refers to more than 300 papers, and I am sure that she has read them all from A to Z.

So today I see before me a mature early-career scientist ready to leave the nest. In front of her there are higher mountains to climb, maybe there are abysses again, but she will go on, because she knows that there is always a way. She has all the qualities a young postdoc should have: she is curious, creative,



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determined, persistent. She has a critical mind, she is technically competent and has excellent communication and presentation skills.

I wish her well in her future as a young scientist, wherever she may go. I am proud of her.

In České Budějovice, Oct 1st, 2021

Alena Zíková
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