

Michael Hammond, Ph.D. – Institute of Parasitology

Branišovská 31, 37005 České Budějovice

Mentor's statement about the bachelor thesis of Kristýna Cimrhanzlová

Title of thesis: Characterisation of new diplomid species via electron microscopy, starvation experiments and immunofluorescence studies.

Kristýna became my student in the winter of 2018, after her previous supervisor departed our lab, and was in need of a central research topic for her thesis. With the valued assistance of Dr. Daria Tashyreva as Co-supervisor, we agreed that she would focus her efforts on the characterisation of several new diplomid cultures that our lab had received from Japan, which were deemed to be of high research interest.

Through her efforts Kristýna confirmed the presence of 4 new diplomid species, as well as endosymbiont presence within two of these organisms through PCR sequencing, and demonstrated the effectiveness of various visualisation techniques against both organelle features and endosymbionts within these cells. She additionally catalogued behavioural responses of these organisms in response to changing nutrient conditions, and generated preliminary data for the effect of endosymbiont presence and absence within diplomids. An exciting discovery came in the form of a putative novel membranous organelle observed in one species, which has not been reported in any other protists to date, raising many questions over its purpose within the cell.

Kristýna has proven to be a kind and friendly person to work with in the lab, capable of independent research. She has shown to be persistent in the face of unsuccessful results that were largely out of her control, such as damaged microscopic samples which delayed analysis of certain specimens. Combined with Coronavirus-related interruptions, I was at times concerned whether this study could be succinctly completed, but ultimately, Kristýna was able to generate a quality thesis on her work, and now possesses the skills and training to continue studying this expanding field of protistology, should she wish to do so. Thus, I can happily recommend Kristýna for her bachelor degree.

České Budějovice 15.07.2020

Michael Hammond Ph.D.