Doctoral student opening in Molecular Parasitology Czech Academy of Sciences & University of South Bohemia České Budějovice, Czechia

The project: Evolutionary Cell Biology of Mitochondrial Cristae Biogenesis





MICOS complex well-studied here

Our team is engaged in the biogenesis of mitochondrial cristae, the folds within the organelle that give it its characteristic appearance, by evolutionary cell biology. This multidisciplinary approach utilizes reverse genetics, biochemistry, bioinformatics plus molecular and cell biology techniques. We are focused on the MICOS complex, a set of proteins needed for proper cristae morphology. While well-studied in classical models such as yeast and human cells, they represent only one clade in terms of eukaryotic diversity. To gain more insight into core functions and potential novelties of MICOS, we exploit an established model system in the highly diverged and fascinating Excavata clade called *Trypanosoma brucei*. As a result of being intensely researched due to its status as a human and veterinarian parasite, *T. brucei* has a well-developed genetic toolkit. Furthermore, its life cycle which involves profound reshaping of the mitochondrion makes it an excellent model for studying cristae biogenesis. This work is supported by funding from the Czech Science Foundation, allowing augmentation of a student stipend for a comfortable life in a low cost country.



• The MICOS team is a working group led by doc. Hassan Hashimi within the internationally-recognized Laboratory of Molecular Biology of Protists headed by Prof. Julius Lukeš.

• The lab is an international collective of all levels of students and post-doctoral researchers engaged in a stimulating and fun environment.

How to apply:

Requirements: Good English, independent thinking, strong interest in basic research and experimental work are required. Interested candidates with M.Sc. degree (or equivalent) in biochemistry or molecular/cellular biology should apply by submitting the following documents:

• Curriculum Vitae (CV)

• List of 1-2 references that can testify about the professional qualities of the candidate

• Letter of intent that explains the reasons for your interest in our laboratory and identifies your most relevant skills or experiences.

Contact: Hassan Hashimi hassan@paru.cas.cz

WWW:http://www.paru.cas.cz/en/sections/ molecular-parasitology/laboratory-of-molecularbiology-of-protists/