

## Final report

Please send this report as a PDF file to your funder organisation as well as to the BARI-administration (bari@daad.de) within four weeks after the end of your internship

Name of intern: Augustė Vipartaitė

Home University/Country: Vilnius University / Lithuania

Subject: Genetics

Guest University/Country: University of Agriculture in Krakow

Name of supervisor: M.Sc Patrycja Mrowiec

I have always known that laboratory practice in a foreign country would be the greatest opportunity to gain more communication and working experience, improve my skills and expand the knowledge in the field of sciences, especially in genetics. Once I got an announcement that my application was successful, I contacted my supervisor and we agreed for a 2-week internship (27 July - 11 August 2020). Immediately, I searched for accommodation near the University of Agriculture in Krakow and one day before starting the internship, I arrived to the city by car. Whereas I lived near the workplace and the city center, I did not use a public transport and always walked by foot to the University, what shows that the accommodation place was convenient and useful in the situation of Covid-19 pandemic. Talking about life in Krakow I really enjoyed being there, and meet so many nice and positive people.

The internship took a place at the University of Agriculture in Krakow, at the Department of Animal Reproduction, Anatomy and Genomics. I worked with my supervisor M.Sc Patrycja Mrowiec (PhD student). During the internship, I took a part in the doctoral dissertation research entitled „Age-related changes in nuclear chromatin integrity of dermal fibroblasts in selected Felids species“ which aims at analyzing age-related changes in nuclear chromatin integrity of dermal fibroblasts deriving from domestic and wild cats in a few aspects regarding distinct levels of chromatin organization: cell line stability, genome stability, and transcriptional activity using cytogenetic and molecular methods.

I worked with *in vitro* culture of cat dermal fibroblasts cells (thawing, seeding, passaging, changing of media, freezing). I learned how to prepare fibroblasts cells for cytogenetic and molecular analysis (*in vitro* cultivation, cells fixation, DNA/RNA isolation, slides preparation, cells staining). I performed cytogenetic tests (e.g. metaphase chromosomes preparation, AgNor staining, comet assay, cytokinesis-block micronucleus assay) and evaluated slides under the fluorescence and optical microscope. I discussed about flow cytometry analysis and real-time PCR. I was introduced how to use *CaspLab* and *ImageJ* program and how to interpretate the obtained results. I learned good laboratory practices. Also, I took part in

planning and performing other experiment related to current investigations in the Department of Animal Reproduction, Anatomy and Genomics.

Furthermore, Miss Mrowiec asked her colleagues to introduce me to their scientific work and tasks at the university. All the people were communicative and passionate about their jobs. Last but not least, this internship was my the first one, but it definitely has been the most significant learning experience of my life. I consider myself lucky to have had a wonderful supervisor - she has taught me a lot and always found time to answer my questions. Because of her, I have got so much knowledge and practice and I am sure that everything will be beneficial for me in the near future.

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