

Thesis defense IVONE CRISTINA IGREJA E SÁ, M.SC.

Mentor's evaluation

Ivone Cristina Igreja E Sá, M.Sc., started her scientific work at the department of Biological and Medical Sciences in January 2018 as an ERASMUS student under the supervision of Dr. Doleželová. After nine months, she started her Ph.D. in the same department under Pharmacology and toxicology study program with the topic "*Modulation of cholesterol and bile acid metabolism via soluble endoglin and pharmacotherapy.*" During her work in the lab, she easily learned and later significantly improved workflow and procedures in Western blot analysis, RT-PCR, ELISA, and later immunohistochemistry. She was very precise, accurate, and resourceful in the work lab. She was very enthusiastic standalone when preparing her lab work and methodologic improvements. She also brought new ideas regarding the scientific topic and worked very closely with prof. Mičuda on topics strongly related to cholesterol and bile acid metabolism.

Thus, she was also successful in the grant applications where she was the principal investigator in the GAUK project "Soluble endoglin as a risk factor of estrogen-induced cholestasis?" which was evaluated as "successfully concluded – Exceptionally good." She was also part of the team working on one GACR project and one AZV project in the field of endoglin.

She was also successfully involved in teaching activities in the subject of Cell Biology, where she assisted and taught practical classes on Cell Biology for international students. She also helped students with their diploma thesis by assisting them with methods in the lab.

This year (2022), she was able to arrange her Internship at Mayo Clinic, in the USA at the Division of Gastroenterology and Hepatology at the Mayo Clinic (Rochester MN, USA) – Liver Disease Immunobiology Lab led by Dr. Petra Hirsova. As a result, she expanded her laboratory skills significantly. She worked with in vivo models of NASH, crossing, breeding, and genotyping of genetically modified mouse strains, isolation of intrahepatic leukocytes, selection of CD4 T cells and hepatic endothelial cells, histological analysis of mouse and human samples, CyTOF and CITEseq.

Ivone published two first-author publications in high-impact factor journals (*Int J Mol Sci* 21 [IF= 4.556], (Q1), AIS 0.947, (Q2), *Life Sci* 2019:116643. [IF= 3,448], AIS 0,661, (Q2). She is a co-author of another six papers. She participated in local and international conferences where she presented her results in both posters and lectures. She was awarded three prizes, including the **Best Poster (1st Place)** at 24th Congress on Atherosclerosis.

I appreciate her ability to present and discuss her results clearly and with discretion, not only in poster presentations but also in scientific lectures and meetings, as demonstrated by the prizes she has received. I also appreciate her significant contribution to the research in the field of endoglin, and I hope she will continue in our group as a Postdoc student from 2023. Ivone became an essential and inventive person in our team, and I consider her one of the best Ph.D. students I have ever worked with.

I thoroughly recommend the award of the Ph.D. degree in Pharmacology and Toxicology.

prof. PharmDr. Petr Nachtigal, Ph.D.

In Hradec Králové, 18th, September 2022