

Ensyeh Sarikhani, MSc.

Soil microbial communities in agroecosystems and natural habitats contributing to resistance and resilience of the soil environment.

Supervisor's review

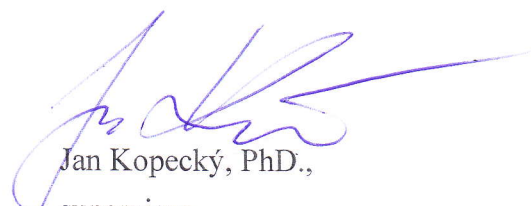
Ensyeh Sarikhani started her work in our laboratory in the fall of 2012. She came with good background in medical microbiology, with experience of the work in clinical laboratory, and after defending her MSc. thesis focusing on environmental mycobacteria at the University of Medical Science (Isfahan, Iran).

From the very beginning of her study, Ensyeh appeared as a motivated, hard-working student. She was able to work well with the literature and quickly gained an overview of the current state of knowledge in the field. At the same time, she easily mastered all the necessary methods used in our laboratory, including performing pot experiments, sampling, isolation of environmental DNA, quantification of microbial groups, cloning and sequencing, including analysis of obtained sequences and sample preparation for amplicon sequencing on Illumina platform. She also developed some new approaches including co-cultivation of the common scab pathogen with potentially antagonistic actinobacterial strains in solid vermiculite media mimicking conditions in soil, and subsequent DNA isolation and analysis of the strain proportions in the culture by qPCR. In her laboratory work, Ensyeh worked independently and with very good efficiency.

Already during approximately 18 months she did a considerable work, i.e. collected data sufficient for one entire paper, and significantly contributed to two other related studies. Unfortunately, after that time, she had to leave our laboratory and return back to her country. Since then, she had come for only two shorter stays to complete the most necessary laboratory work. The rest of the work, i.e. data analysis, writing of both now published articles, and the actual writing of the dissertation had to take place remotely, exchanging texts by emails only, in addition, already under her normal workload in the clinical laboratory. As a result, all the mentioned acts were significantly slowed down. Nevertheless, both the most important works were published, and the other two, a review article based on the literary introduction of the dissertation and the third original work are in different phases of preparation.

In conclusion, in my opinion Ensyeh Sarikhani, despite the time constraints of her stay in our laboratory, mastered all the skills necessary for scientific work. I fully recommend her work for defense.

Prague, June 21, 2020



Jan Kopecký, PhD.,
supervisor