

My STSM experience

STSM Applicant: Isabel García Izquierdo, Institute of Functional Biology and Genomics (IBFG) in Salamanca, Spain

Period: 1st February – 29th February 2020

STSM title: Endogenous enzymatic activity in different types of sourdough: Natural fermentation, backslopping and starter culture initiated sourdough

Host Institution: Puratos in Groot-Bijgaarden (Belgium)

My STSM took place at Puratos, Belgium. It lasted from 1st to 29th of February 2020, so I stayed in Belgium for one whole month, together with other Macedonian student, Mishela Temkov, who was working with me in the same lab. We worked under the supervision of Dra Fabienne Verté, our host, and we work too with Elien Verguldt.

The area of my research is the new yeast hybrids for the optimization and improvement in oenology and bakery processes. Also, I isolate microorganisms to the wild systems like sourdoughs, grapes, etc. For make the new hybrids I need to characterise firstly the parent yeast and I need to compare the new hybrids and their final characteristics in wine, sourdoughs... to compare the final product. For all of these reasons, I saw this open call as an excellent opportunity to broaden my knowledge in this research field.

The main goal of work done at sourdoughs and doughs was the study of the proteolytic activity with some new bacteria and without these. We needed to make new sourdoughs and doughs with a lot of new conditions (with agitation, different temperatures, etc.) to study the proteolytic activity, the TTA, the pH, the gluten proteins, etc. to compare all the variations.

The team included Ever Verguldt and Ena Surdiacourt between others who also helped us a lot by selflessly sharing their knowledge and experience with us. Undoubtedly I learned a lot of new things that we aren't carried out at my Institute and also some basic procedures and tricks that will surely help me in further work. Also, I could view the work at a factory that this can help me when I will need to choose my future job. A lot of the analyses were performed on HPLC, so I improved my abilities related to this instrument. Dra. Fabienne and her team have tremendous experience in proteolytic activity and sourdoughs and doughs, and there is no doubt that these experiences will be beneficial for my PhD thesis and also for my future scientific career. People at the Institute with whom we did not work directly were also friendly, and all of them made our stay truly pleasant. I am deeply grateful for this amazing opportunity and once in a lifetime experience.

Of course, during my stay in Belgium, I was free on weekends, so I managed to explore Belgium and its beautiful nature in the surrounding. I could visit the magic cities Bruges and Gent. Brussels is a little city that has a lot to offer to the tourists. I enjoyed wandering the city by foot and I could eat the waffles too! Also, during the week after

work, all the students went to Brussels for take a drink and we could made a lot of new friends.

In the end, I want to thank the COST Action for providing such opportunities to young scientists. I highly recommend STSM's to all young researches doubting whether to sign up, both personally and professionally. Of course, I am thankful to my director at home institution Mercedes Tamame; without her I wouldn't have a chance to go there. I would also like to thank Fabienne Verté and the whole team in Puratos who made our visit even better. If I get a chance again, I will apply for the STSM grant for sure!

