MSc Eng. Paulina Łysakowska

4th year of training at the Doctoral School

Discipline: Food Technology and Nutrition

Department of Food Sciences and Technology,

Institute of Food Technology,

University of Natural Resources and Life Science Vienna

Between November 4th, 2024, and November 29th, 2024, I completed a research internship at the University of Natural Resources and Life Sciences Vienna (BOKU) in Vienna, Austria. My supervisor was Assoc. Prof. Mag. Dr. Regine Schönlechner, and I was supported by Rafaela Scheibelberger, Dipl.-Ing., and Eleonora Charlotte Pichler, Dipl.-Ing.

The University of Natural Resources and Life Sciences Vienna (BOKU) is a prestigious institution specializing in research on natural resources, environmental protection, and food technology. The Department of Food Technology and Nutrition is one of the leading research centers in Europe, combining modern analytical methods with practical technological solutions.

Assoc. Prof. Mag. Dr. Regine Schönlechner is a renowned expert in the field of food technology, particularly in cereal processing. Her experience and knowledge were invaluable during my research on sorghum-based products. I also had the opportunity to observe the work of other doctoral students and university staff, which allowed me to better understand the research methods used in various projects.

The aim of the internship was to broaden my knowledge about the use of sorghum in bakery and pasta products. My primary task was to extract bound, conjugated, and free polyphenols and determine their content. Additional tasks, such as chemical and functional analysis and preliminary processing techniques, were primarily aimed at familiarizing myself with the technologies used in research on sorghum-based products.

During laboratory work, I became acquainted with methods for analyzing chemical composition, such as determining fiber, starch, and protein content. I also learned techniques for studying the functional properties of sorghum flour using devices such as farinograph, extensograph, and RVA viscosity analyzer. I had the opportunity to observe baking tests on wheat bread and pasta, as well as assess their quality.

In addition, I learned about preliminary processing methods such as sourdough fermentation, soaking, and grain germination, aimed at improving the functionality and nutritional value of

the tested raw materials. The internship allowed me to gain knowledge about food technology and the analysis of cereal products.







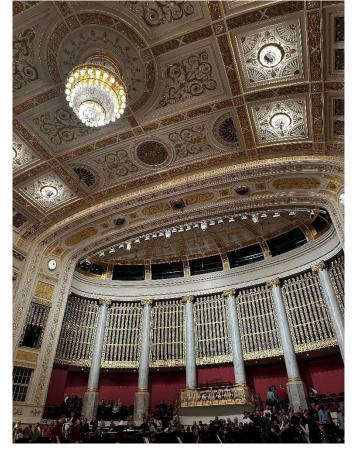


Apart from the scientific part of the internship, I had the opportunity to explore Vienna, its monuments, and participate in Christmas markets. Vienna impressed me with its architecture and atmosphere. I visited places such as St. Stephen's Cathedral, Schonbrunn Palace, and Hofburg. I walked through the historic city center, admiring its monumental buildings and elegant streets.

I also had the extraordinary opportunity to attend a concert by the Vienna Choir, held in the famous halls of the Vienna Konzerthaus. It was an unforgettable experience, during which I could admire not only the exceptional talent of the artists but also the acoustics and beauty of this historic venue.

The Christmas markets, especially those at Rathausplatz and Maria-Theresien-Platz, captivated me with their atmosphere full of lights, decorations, and traditional Austrian delicacies. It was a great opportunity to learn about local traditions and culture.











The internship enabled me to gain valuable scientific experience and enhance my laboratory and analytical skills. Working in an international environment allowed me to establish new contacts and improve my communication skills. Additionally, I had the chance to learn about Austrian culture, which made the entire stay extremely inspiring and enriching.