

Final Report of Fellowship

EAACI-Ukraine Fellowship 2024

Fellow: Vladyslava Barzylovykh

Location: Porto, Portugal

Duration: 6 months

Host Institution and Supervisor: São João Hospital Center, Allergy and Clinical Immunology Department

Supervisor: *José Plácido, Leonor Carneiro Leão*

Primarily, I would like to express my heartfelt gratitude to the EAACI team for their invaluable support and for providing me with this incredible opportunity to advance my knowledge and skills through the fellowship. I am also deeply thankful to all the specialists at the Allergy and Clinical Immunology Department of São João Hospital Center for their generosity in sharing their expertise, their unwavering professionalism, and their guidance throughout my training.

The fellowship was designed to achieve two primary objectives:

1. To enhance my knowledge and practical skills in the field of drug allergy, contributing to the further development of this expertise in Ukraine.
2. To resume and advance the research project on food allergy in children, which was interrupted by the onset of russia's military invasion of Ukraine.

During the six-month period, I spent between 4 to 9 hours daily in the clinic, amounting to a total of 532 hours (attendance records are attached).

São João Hospital Center is one of the largest center in the region for diagnosing and treating drug allergies, including skin testing, provocation tests, and drug desensitization protocols. My key activities included:

- **Observing consultations** with specialists such as Dra. Leonor Carneiro Leão and Dra. Eunice Dias de Castro.
- **Participating in skin and provocation tests** for antibiotics, NSAIDs, chemotherapeutic agents, contrast media, and other medications. I spend over 100 hours observing 32 pediatrics and 112 adult patients undergoing tests and provocations in the drug allergy day-care unit. I gained hands-on experience with testing protocols and rapid diagnostic algorithms for acute allergic reactions, including two cases of anaphylaxis.
- **Monitoring the dynamic therapy** of six patients with Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) who were hospitalized at São João Hospital Center. Additionally, I observed the implementation of four desensitization protocols for chemotherapeutic agents.

Currently, in Ukraine, drug desensitization is limited to aspirin. However, plans are underway to expand these protocols to include other medications, particularly chemotherapeutic agents. The knowledge and experience gained during this fellowship will be crucial for implementing these advancements, despite the logistical challenges posed by russia's invasion.

During the fellowship, I conducted an online master class titled *"Drug Desensitization in Patients with Drug Allergies"*, based on a clinical case and insights from Dra. Leonor Carneiro Leão. This master class was presented at the International Interdisciplinary Online Congress *"Innovative Approaches to the Specific Diagnosis and Therapy of Allergic Diseases"* on 13–14 September 2024, attracting over 1,000 participants, including allergists and other healthcare professionals from across Ukraine.

Another significant aspect of this fellowship was the opportunity to resume and advance my research on food allergy in children, which had been interrupted by the russia's invasion.

While allergen avoidance remains the primary approach to managing food allergies, many children can tolerate heat-treated milk and egg products. Regular consumption of these products may induce tolerance, aligning with the principles of oral immunotherapy. The "*milk and egg ladders*" gradually reintroduce these allergens, starting with extensively heated forms and progressively reducing the heat treatment. Importantly, the recipes must be nutritionally balanced, convenient, and adapted to local cuisine.

My key activities in this area included:

- **Observing consultations** with Dra. Alice Coimbra and Dr. Luis Amaral.
- Spending approximately 100 hours under the guidance of Dra. Diana Silva and Dra. Alice Coimbra, observing 61 pediatrics and 24 adult patients undergoing food allergy testing and provocations for milk, eggs, nuts, peanuts, fish, and seafood ect. In food allergy day-care unit. I gained hands-on experience with testing protocols and rapid diagnostic algorithms for acute allergic reactions, including 1 case of anaphylaxis.

Additionally, we developed an adaptation of the *milk ladder* for Portuguese cuisine, which is currently being prepared for publication. Which will help children reintroduce milk into their diets more comfortably and effectively.

This fellowship has significantly enhanced my clinical and research expertise in both drug and food allergies. The knowledge gained will directly contribute to expanding allergy management protocols in Ukraine.

I am immensely grateful to my mentors and colleagues for their guidance and to EAACI for this transformative opportunity. I remain committed to applying and sharing this knowledge to improve allergy care in Ukraine. Finally, I extend my deepest gratitude to the European medical community for their support of Ukraine during these challenging times. Your support means a great deal to us and has been truly invaluable.