

TRAINING BURSARY PROGRAMME REPORT (2021)

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Training bursary programme destination: **Clinical Immunology Unit (UIC), Hospital de Santo António, Porto – Portugal.**

1) What was the motivation to apply for training in this Centre?

I am an internal medicine physician interested in autoimmune diseases and immunodeficiency, especially in SLE. Unidade de Imunologia Clínica (UIC) is a peculiar European center made by internists, with expertise in immunology. My intention was to expand the knowledge about SLE, in clinical practice and research activities, in an immersion during these 8 weeks offered by the program. In collaboration with the Immunology Service of Hospital de Santo António and with the Immuno-Genetic department of ICBAS – Instituto Ciências Biomédicas Abel Salazar, Universidade do Porto, UIC offers regular and proficuous contact with the laboratory techniques, their indications, methods, limitations and pitfalls. In addition to the theoretical approach in basic and laboratory immunology, there are practical discussions associated with the use of the tests in real clinical cases.

Because my formation in internal medicine, I felt that I needed to improve my clinical and research skills in relation to SLE. UIC , Medical Unit made by internal medicine physicians, seemed to me the Unit with features closer to what I was looking for.

2) How the objectives were fulfilled by the training?

The training was carried out under the supervision of Professor Dr. Carlos Vasconcelos, who provided me with a warm welcome and quickly integrated me into the activities of the service and provided me Great views of Porto's city. UIC gave me the opportunity to join both clinical practice and research activities.

During my stay I was able to actively participate in outpatient consultations in a daily basis about autoimmune diseases, immunodeficiencies, autoinflammatory diseases, but with focus in SLE. I had the opportunity to work with doctors Antonio Marinho, João Correa, Raquel Faria, Fatima Farinha, Carlos Vasconcelos, Daniel Oliveira, Ana Campar and Mariana Brandão from UIC. On a weekly basis, I participated in the Multidisciplinary group consultation, a unique meeting of its kind in Portugal, where doctors discuss several clinical cases with problems regarding diagnosis or

therapy decision, such as those proposed for biological therapy. It was an extraordinary learning forum for the different levels of knowledge involved. Also, On a Twice a week basis, there was regularly scheduled seminars to discuss topics such as SLE, Behçet, Sjogren, RA, Scleroderma, Myositis, Uveitis, Spondyloarthropathies, Undifferentiated connectivites, Antiphospholipid syndrome, Imaging in rheumatic diseases, Infiltration techniques in simulators, Clinical trials, Physiotherapy, Basic immunology, Primary and secondary Immunodeficiencies and Autoinflammatory syndromes. We had Journal Club sessions with invited Professor Dr Constatin Fesel from Germany.

In addition, I participated weekly in laboratory activities with the aim of knowing the roles and limitations of diagnostic and monitoring methods in SLE and other autoimmune disease, such as ELISA, flow cytometry and immunofluorescence. In clinical and laboratory research, we studied the RELATIONSHIP BETWEEN VITAMIN D RECEPTOR POLYMORPHISMS AND GUT MICROBIOME IN SYSTEMIC LUPUS ERYTHEMATOSUS AND MULTIPLE SCLEROSIS: A PILOT CROSS-SECTIONAL STUDY. I learned how to perform a polymerase chain reaction in the genotyping of the vitamin D receptor and we correlated it with clinical and fecal microbiota data from lupus and multiple sclerosis patients already collected by UIC. Our study was accepted for oral presentation at the International Congress on Autoimmunity to be held in June 2022 in Greece. In addition, we collected clinical data to assess the quality of care indicators for SLE patients at the UIC. We are currently in the phase of analyzing the data and will soon write the results. So, I conclude that the objective of deepening knowledge in the study of SLE and learning about clinical and basic research in SLE has been successfully fulfilled.

3) What are the main opportunities / strengths this centre offers for future applicants?

UIC is a training center specialized in autoimmune diseases, immunodeficiencies and auto-inflammatory diseases, with a clinical staff dedicated to assistance, research and teaching. They provide a favorable environment for learning of local doctors, but also for the international guests. The whole team was kind and very open to collaboration, and prone to share their experience and expertise. UIC is performed mostly by internists with extensive experience in immune-mediated diseases and they have a comprehensive view of the patient, which makes patient-care more complete and integrated. UIC is also supported by a network of specialists (neurologists, dermatologists, hepatologists, gastroenterologists, nephrologists, obstetricians) open-minded to discussion and teaching. I would say to future applicants that if you are an internist inside or outside Europe, UIC is the service you should look for.

4) Practical advice for future applicants to the SLEuro training bursary

The SLEuro training bursary programme is an excellent opportunity to experience a world renowned lupus center. It's a great opportunity to meet new people with high medical expertise.



And, of course, get to know a new culture, new gastronomy and make new friends in a network of personal and professional relationships.

I am grateful for the opportunity given by SLEuro and by UIC, especially by Prof Carlos Vasconcelos, that allowed me to develop new perspectives on lupus care and research and improve my clinical knowledge and skills.