

EAACI clinical fellowship final report

Name: Claudia Geraldine Rita

Duration of fellowship: 3 months (January to March of 2021)

Home institution: Hospital Universitario Ramón y Cajal. Madrid, España

Host institution: The Great North Children's Hospital. Newcastle upon Tyne, United Kingdom.

Host supervisor: Andrew R. Gennery. Paediatric and Hematopoietic Stem cell transplantation unit.

The Paediatric and Hematopoietic Stem cell transplantation (HSCT) unit at The Great North Children's Hospital is recognised as one of the leading clinical research units in Europe for paediatric Immunology and infectious diseases, and it is one of the only two centres in the UK dedicated to treating children with inborn errors of immunity.

I am fortunate to have the opportunity to join this team to enrich my knowledge in this field, which is coming to the forefront of several medical innovations. Unfortunately, due to COVID-19 restrictions and lockdown plans needed to be modified, however, I completed satisfactorily my clinical observership.

The unit includes patients admitted to the clinic during the pre- and post-transplant period. Around 20-25 patients are distributed between the paediatric critical care unit and the medical ward. I joined the daily review of patients admitted in the unit. I also assisted the weekly ward round where all patients admitted are discussed to make medical decisions for better treatment of each patient, in this meeting not only join Paediatrics immunologist but also Haematologist, Microbiologist, Clinical Pharmacists, Dieticians, Lab members, and also medical doctors from other specialities involved.

Every Wednesday the most important meeting of the week takes place; it is the grand round, where national and international complex cases of patients with immune-related pathologies are discussed. I have the opportunity to be present in 12 grand round meetings where we discussed:

- One case of congenital neutropenia from UMHAT "Sveti Georgi", Bulgaria.
- Three patients with gastrointestinal and Immunological diseases from Liverpool.
- Four cases of different immunocompromised patients from the Shaheed Beheshti University Mofid Children's Hospital in Tehran, Iran.
- Six cases of several immune-related diseases from North England and Scotland centres (Sheffield and Glasgow).
- Sixteen cases of patients from the host centre with a wide range of inborn errors of immunity including autoimmunity, allergy, autoinflammation, malignancies, and increased susceptibility of infections.

I joined academic and teaching sessions every week where members of the team with a deep knowledge of one topic share it with all of us. The most interesting meeting I have attended was about a pioneer technique namely extracorporeal photopheresis to treat graft vs. host disease with the rationale of enhancing peripheral tolerance without a higher risk of immunosuppression, this topic inspired me to prepare my session to be imparted at my home institution.

I have periodical meetings with my supervisor Prof. Gennery to clear doubts and discuss immunological topics.

I also joined the weekly laboratory meeting from Newcastle University Immunology department guided by Prof. Hambleton, where PhD and post-doctoral students share their advances on their research projects.

Finally, I participated in a research project collecting data of 157 paediatrics and young adults patients who received an HSCT over the last 20 years. I checked the medical record of these patients to find pre-transplant risk factors of a negative outcome as well as the infections occurred during the first 100 days after HSCT.

This experience taught me the value of multidisciplinary teamwork, as well as the role of the international collaboration that the whole team has shown.

I would like to thank all the members of the team that very kindly welcomed me.



Claudia Rita