



ESID End of Fellowship report

1. Fellowship details

- First name: Sohilla
- Last name: Lotfy
- Type of fellowship:

Short-term

Medium-term

Bridge grant

- Fellowship's start and end date: 1st of May 2023 - 31st of July 2023
- Hosting institution: Great Ormond Street Hospital, London, UK
- Supervisor: Dr. Winnie IP, Consultant and Clinical Lead in Pediatric Immunology
Dr. Kanchan Rao, Consultant and Clinical Lead in Bone marrow transplant

2. Summary of the work done during the fellowship (max.400 words).

It was a great pleasure to spend 3 months at Great Ormond street hospital, London, such an outstanding experience full of knowledge and growth in all aspects.

I spent the first 6 weeks of my training at the Immunology unit, I attended inpatient ward rounds, outpatient immunology/speciality/long term follow up clinics, seeing plenty of IEI patients, also I got the chance to participate in Immunology/BMT/Infectious diseases MDT meetings, in addition to radiology, microbiology, dietitians meetings as well as other specialities as pulmonology and gastroenterology involved in patients care, discussing difficult challenging cases to reach most suitable decision in their management.

I had the chance to spend time at Immunology laboratory; reviewing SOPs, observing techniques of flow cytometry, Immunophenotyping, TRECS, Spectratyping, lymphocyte proliferation assays, granulocyte release assay, etc. and discussing results and their interpretation.

The other part of my training included 6 weeks at BMT unit, I observed the entire process of planning and preparing patients for BMT, choosing appropriate donor, HLA typing, family counseling, as well as during admission, I followed up patients closely clinically, reviewed BMT protocols for different cases, I was lucky as well to learn about CAR T therapy. And fortunately I got to see and follow up patients who underwent ADA gene therapy and thymic transplant.

I attended the Pre BMT clinics; explaining and discussing with families their children diagnosis, BMT procedure, expected complications, the outcome and prognosis of different cases, as well as and Post BMT follow up clinics. I was happy as well to see the patients in the long term follow up clinics after years from successful transplants doing very well with great results.



I got the chance to attend in the Cell therapy laboratory that helped me much in understanding stem cells processing and cryopreservation, CD34 stem cell enumeration/checking viability for stem cell harvests and DLIs, RBCs depletion, TCR α/β depletion techniques, also quality monitoring, and got introduced to OP9 DL1 cells culture.

One of the highlights during my observership, getting to attend GOSH/Newcastle/UCL annual audit meeting, presenting centers' experience, BMT and gene therapy results, discussing optimal conditioning regimens, transplant complications and outcome in pediatrics and adults setting.

I took part in reviewing and collecting post transplant long term follow up data in CGD patients under the supervision of Dr. Reem Elfeky, Consultant of Pediatric Immunology as a part of research project to record and evaluate the outcome in this group of patients.

3. New skills acquired during the fellowship (max.200 words).

I strengthened my knowledge in handling IEI patients from the start of screening, till diagnosis, laboratory testing approach, following up undefined cases in the outpatient setting.

I acquired the understanding of adjusting the best management plan for each patient, especially complex cases. I learned how to follow up patients on long term basis and post transplant. I obtained information in the use of monoclonal drug therapies and CTLs.

I got the chance to see and follow up gene therapy patients, thymic transplant patients being in one of few centers in the world specialized in such procedures, I am happy to have observed the whole process for my understanding and expanding my expertise.

In the BMT setting; I gained competence in understanding the whole procedure starting from pre BMT counseling, donor selection, BMT planning, conditioning protocols, antimicrobial prophylaxis, patients handling till admission, following up patients closely during transplants (MRD, MURD, MMUD, UCB and Haplo transplants), managing BMT complications like refractory GVHD and TMA. And for the first time to see and learn about CAR T cell therapy in relapsed/refractory AML pediatric patients.

In the Laboratory setting; I observed different flow cytometry assays including TRECS, Spectratyping, lymphocyte proliferation, granulocyte release assays. I gained knowledge in stem cells processing and cryopreservation, TCR α/β depletion techniques for haploidentical transplants.



4. Your professional plan for the near future and how the fellowship impacted this plan (max 400 words).

I was very lucky to get this opportunity to broaden my knowledge and experience in all perspectives. My plan is to apply a more systematic approach handling IEI patients in BMT arrangement process from the time of diagnosis till admission to BMT. Despite the challenges faced in my country Egypt and the limited resources, I feel I have more confidence in increasing the chances and directing patients to BMT procedure in a timely manner, following them up and watching closely for possible transplant complications.

I Aim to highlight important aspects in Immunology/BMT practice in patients' care as nutrition, Hickman line, SCIg therapy, medications at home, nurses follow up, telephone follow up, social care and support, as well as palliative care.

Forthcoming plan designed to introduce further laboratory tests as lymphocyte proliferation assays, granulocyte release assay, complement assays, CD34 stem cell enumeration/viability, expanding virology screening including respiratory viral panel for immunology/BMT patients.

Additionally, to bring in and consolidate the use of new monoclonal therapies as anti IL-1, IL-6, IL-18, anti CD-20, CD-38, as well as anti-TNF and Jak inhibitors in combination with other immunosuppressive therapies in practice.

And mostly my future intension and goal to expand and increase the number of transplants for IEI patients in Egypt, focusing on haploidentical transplants considering it a pressing need in the setting of lacking stem cell banks or access to registries. I plan to formulate as well guidelines for long term follow up of Immunology and Post BMT patients, transition from pediatric to adult care.

I look forward to maintain my contact and link with GOSH team for future guidance in complex cases, difficult decisions, and helping me to advance in BMT practice.

5. Results obtained from your fellowship project. Please, mention any publications or meeting communications derived (if applicable, max 800 words).

Research work still ongoing.



6. Any other comments (max.200 words)

I would like to greatly thank ESID for giving me such a remarkable opportunity, by all means of encouragement and support. The fellowship was such an enriching experience to me, I finished with a lot of change in my mindset, and determination to excel in my profession, looking forward to pass the experience to my team and implement all what I have learnt to improve patients' care and services at my center.

I am grateful to all those I have worked with in GOSH for their time, motivation, knowledge and expertise sharing, their efforts to make the best out of my training.

Thank you ESID for helping me achieve this milestone.

Additional information:

1. The report should be completed within 3 months of completion of the fellowship / bridge grant.
2. Please, note that that once approved, the report will be published on the ESID website, under the Reports section. Bear this in mind and include only information which you would like to make publicly available.
3. Please, complete this report and send it to the ESID Administrative Office at: info@esid.org.